

National Electricity Law, National Energy Retail Law, National Electricity Rules and National Energy Retail Rules

These recommended revisions to the National Electricity Rules and National Energy Retail Rules, and drafting instructions for the National Electricity Law and National Energy Retail Law, have been prepared by the Australian Energy Market Commission and accompany its final report into *Updating the regulatory frameworks for embedded networks* (June 2019). These recommended changes to the rules and drafting instructions reflect the final recommendations made in that report.

This document is provided for information only.

The recommended changes are based on the versions of the Laws and Rules listed below. The Commission expects that all proposed drafting will need to be reviewed immediately prior to implementation to factor in any other changes to the Laws and Rules from the date of publication of the final report to the commencement day.

The proposed changes to the Laws, along with the proposed transitional provisions to Chapter 11 in the National Electricity Rules and Part 11 of Schedule 3 of the National Energy Retail Rules, are assumed to come into effect on the same commencement day. All other provisions in the two sets of Rules are assumed to come into effect on the first anniversary of that date.

The drafting instructions for the National Electricity Law are based on the version published on 13 December 2019.

The drafting instructions for the National Energy Retail Law are based on the version published on 20 September 2018.

The proposed revisions to Chapters 2, 6B, 7 and 10 of the National Electricity Rules are tracked on version 111 of the NER.

The proposed revisions to Chapter 3 of the National Electricity Rules are tracked on a modified version 115 of the NER. New rule 3.7E has been added. This rule has been made by the National Electricity Amendment (Register of distributed energy resources) Rule 2018 No. 9 and comes into effect on 1 December 2019.

The proposed revisions to Chapters 4 and 5 of the National Electricity Rules are tracked on version 121 of the NER.

The proposed revisions to Chapter 5A of the National Electricity Rules are tracked on a modified version 115 of the NER. Amendments to Chapter 5A made by the National Electricity Amendment (Register of distributed energy resources) Rule 2018 No. 9 have been added.

The proposed revisions to Chapters 6 and 6B of the National Electricity Rules are tracked on version 115 of the NER.

The proposed revisions to Chapter 8 of the National Electricity Rules are tracked on version 120 of the NER.

The proposed new Part ZZS to be added to Chapter 11 of the National Electricity Rules allows for the placeholder for Part ZZR in version 121 of the NER.

Chapters 3, 6, 8 and 11 of the NER have for convenience been reduced in length by removing parts of those Chapters for which no changes are recommended.

The proposed revisions to the National Energy Retail Rules are tracked on a modified version 14 of the NERR. Modifications have been made to the main body of the Rules and Schedules 1 and 2 by inserting changes that have been made but at the time of the draft report had not yet commenced.

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Recommended Amendments to National Electricity Law and National Energy Retail Law

20 June 2019

This paper describes the recommended changes to the National Electricity Law (NEL) and National Energy Retail Law (NERL) to achieve the objectives of the final report on the 2019 review for a new framework for embedded networks.¹ These recommended changes should be read in conjunction with the recommended changes to the National Electricity Rules (NER) and National Energy Retail Rules (NERR), also released with the final report.

For each high-level change outlined below, the details of the recommended law changes are set out in a table, organised by the section number of the NEL or NERL, as applicable.

This paper also lists the provisions in the NER and the NERR that the Commission recommends be classified as civil penalty provisions by making changes to the regulations under the NEL and the NERL.

1 NEL: Recommended amendments and corresponding policy/drafting objective

- a. Amend the NEL to recognise embedded network service providers (ENSPs) as a type of distribution system operator and extend relevant provisions that currently apply only to regulated distribution system operators so they apply to both regulated and non-regulated distribution system operators (i.e. to include distribution network service providers (DNSPs) subject to regulated revenue determinations, but also ENSPs whether they are registered under the NER or exempted from NER registration).
- b. Amend the NEL to extend certain provisions in the NEL to cover the customers of off-market retailers, including when provided with network services by an ENSP or exempt system operator for the embedded network they are connected to.
- c. Align the NEL framework for granting network exemptions with the NERL framework for retailer exemptions, and allow for the NER to streamline the network service provider exemption framework by narrowing the persons and classes of persons to which the AER may grant network exemptions.
- d. Enhance consumer protections by improving the AER's ability to monitor and enforce exemption conditions, making the NEL and NER work for embedded network customers, and improving the information provided to consumers connecting to embedded networks or involved in a conversion of a property to an embedded network.
- e. Provide for implementation of the recommended arrangements by including a power for the Minister to make initial rules to amend the NER and providing for network exemptions in effect when the new scheme commences to become legacy exemptions so as to allow for some of these to be grandfathered and others to be transitioned to the new scheme.

2 NERL: Recommended amendments and corresponding policy/drafting objective

- a. Elevate off-market retailers and embedded networks into the national regulatory framework by introducing definitions including embedded network service provider, embedded network, embedded network area, exempt system operator, exemption

¹ AEMC, Updating the regulatory framework for embedded networks, final report, 20 June 2019, available on the AEMC's website under project code EMO0036.

condition (with regard to a retailer authorisation), off-market retailer and off-market connection point.

- b. Amend the NERL to recognise customers of off-market retailers, including amendments to the definitions of customer retail service, designated retailer, financially responsible retailer and shared customer. Permit rules to be made in the NERR to specify classes of retailer authorisation and allow the NERR to modify how provisions in the NERL relating to standard offers apply to retailers of a specified class.
- c. Update the exemptions framework in the NERL to streamline the retail exemption framework by permitting rules to be made in the NERR to specify circumstances in which neither a retailer authorisation nor a retailer exemption is required, narrowing exemptions granted to circumstances where costs of registration outweigh benefits to consumers, permitting rules to be made in the NERR to specify classes of retailer authorisation and allowing the NERR to modify how provisions in the NERL relating to standard offers apply to retailers of a specified class.
- d. Enhance consumer protections through requiring all authorised retailers to provide an appropriate set of consumer protections for off-market customers, modifying the retailer of last resort (RoLR) scheme to apply to off-market customers, and requiring ENSPs to provide connection services to those customers.
- e. Improve the AER's ability to monitor and enforce exemption conditions, and expand information collection provisions to apply to embedded networks (excluding exempt system operators).
- f. Provide for implementation of the recommended arrangements by including a power for the Minister to make initial rules to amend the NERR and providing for retail exemptions in effect when the new scheme commences to become legacy exemptions so as to allow for some of these to be grandfathered and others to be transitioned to the new scheme.

Table 1a – NEL

Amend the NEL to recognise embedded network service providers as a type of distribution system operator, and extend relevant provisions that currently apply only to regulated distribution system operators so they apply to both regulated and non-regulated distribution system operators (i.e. to include DNSPs subject to regulated revenue determinations, but also ENSPs, whether they are registered under the NER or exempted from NER registration).

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Add a new definition of <i>exempt system operator</i> to cover a person who is exempt from the requirement to register under the Rules under a network exemption granted by the AER.	The new definition is used in the new provisions dealing with exemptions. It is also used in sections applicable to all distribution network service providers that are registered or exempt.
2(1)	<p>Add a new definition of <i>distribution system operator</i> to cover a person who owns, operates or controls a distribution system and is either:</p> <ul style="list-style-type: none"> • a Registered participant (which will extend to regulated distribution system operators and embedded network service providers registered under the NER); or • an exempt system operator. 	<p>The new definition covers all registered distribution system operators - AER regulated distribution network service providers (regulated DNSPs) and registered embedded network service providers (ENSPs) – as well as exempt system operators.</p> <p>The definition is used:</p> <ul style="list-style-type: none"> • to extend the definition of “distribution service standard”; • to allow distribution service standards to extend to ENSPs and exempt system operators; • in s6A, so a jurisdictionally nominated distributor can include an ENSP or an exempt system operator (so that Rules relating to retail support and credit support also apply to them); • in s. 120, to ensure immunity from partial or total failure to supply cannot be contracted out by exempt system operators; • in item 26L of Schedule 1 –to permit the rule making subject matter to extend to credit support arrangements involving ENSPs and exempt system operators. <p>The structure of the definition is consistent with the definition of “regulated distribution system operator” and “regulated transmission system operator”.</p> <p>The term “embedded network service provider” (ENSP) will be defined in the NER in Chapter 2, as a type of Network Service Provider. As such, an ENSP is not required to be defined in the NEL.</p>
2(1)	Extend the definition of <i>distribution service standard</i> by	This amendment extends the definition so as to allow a jurisdiction that applies distribution service

Section	Recommended amendment	Purpose of recommended amendment
	replacing “regulated distribution system operator” with “distribution system operator”.	<p>standards on regulated DNSPs to also impose them on ENSPs and exempt system operators, should they wish to do so.</p> <p>This suggested drafting does not extend provisions otherwise relevant only to regulated DNSPs i.e. section 2E, but does extend sections 2D and 28V(2) to apply to ENSPs and exempt system operators.</p>
6A(1)(b) (ii) and (iii)	Replace “regulated distribution system operator” with “distribution system operator”.	This amendment allows jurisdictional regulations, made under an application act of a participating jurisdiction, to nominate an entity as a non-regulated DNSP and apply Rules relating to retail support obligations and credit support obligations that also apply to distribution system operators.
120(2A) and (4)	Amend the immunity in relation to failure to supply provisions by replacing “regulated distribution system operator” in section 120(2A) with “distribution system operator” but excluding exempt system operators from the operation of section 120 (in section 120(4)).	Section 120 is recommended to be extended to include ENSPs but not exempt system operators. As exempt system operators are not subject to other regulatory provisions in the NEL, exempt system operators are not to receive the same immunity other registered participants may receive.

Table 1b – NEL

Amend the NEL to extend certain provisions in the NEL to cover the customers of off-market retailers, including when provided with network services by an ENSP or exempt system operator for the embedded network they are connected to.

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Amend the definition of retail customer to include a customer of an exempt seller.	<p>The definition of “retailer” will extend to authorised off-market retailers as a result of changes to the NERL (see below). As a consequence, this definition of “retail customer” will also cover customers of off-market retailers.</p> <p>The addition of exempt sellers extends the definition further to the customers of exempt sellers. This change will extend provisions referring to retail customers including:</p> <ul style="list-style-type: none"> the definition of end user (which is used in sections 2E, 28V92) and 71A); section 2A (definition of access dispute); section 6A (Nominated distributors); section 34 (AEMC rule making powers); section 49 (AEMO’s functions); section 54C(2) (disclosure of information where required by energy ombudsman to resolve a dispute); Schedule 1 item 26L (allowing the NER to include rules in relation to credit support arrangements).
2(1)	Amend the definition of interconnected national electricity system to refer to “loads settled <u>directly or indirectly</u> through the wholesale exchange”.	<p>This amendment is intended to remove any doubt that the definition extends to the loads of customers connected to embedded networks who buy from an off-market retailer or exempt seller.</p> <p>This term is used in the definition of national electricity system, in the definition of network service provider and in section 11(2) which establishes the obligation to register or obtain an exemption. It is also used in the NERL application instruments of NSW, SA and Tasmania, which limit “customers” for NERL and NERR purposes to those connected to the interconnected national electricity system within the meaning of the NEL.</p> <p>Note: In the new framework, embedded network customers (except in an exempt embedded network with no Embedded Network Manager) are to be registered in AEMO’s Market Settlement and</p>

Section	Recommended amendment	Purpose of recommended amendment
		Transfer Solutions (MSATS) system. This is achieved by recommended amendments to the NER.
2(1)	The definition of retailer will extend to off-market retailers due to NERL changes. (No changes to the NEL definition are required.)	<p>It is recommended that changes to the NERL and NERR will require an off-market retailer to hold a form of retailer authorisation. It follows that the definition of retailer in the NEL will encompass off-market retailers.</p> <p>Sellers of electricity will fall into two groups for NER purposes:</p> <ul style="list-style-type: none"> those who are registered under the NER and buy from the spot market (covered by NEL section 11(4), and cover authorised retailers); those who do not buy from the spot market, but must under the NER appoint a Metering Coordinator and who will be required by the NERR to comply with the obligations of off-market retailers in the NER. <p>It is recommended that the authorisations regime in the NERL will allow for different classes of authorisation and conditions to apply to authorisations. The NERR will provide for a retailer who only wishes to sell in an embedded network to be granted an off-market retailer authorisation. General retailers will also be able to sell in an off-market capacity in an embedded network.</p>
10A(2)(c)	Amend the section on Corporations Act displacement by replacing “regulated distribution system operator” with “distribution system operator” in the definition of “relevant provision”.	This section of the NEL permits regulations to be made stipulating that certain provisions in the NER are to displace Corporations Act provisions. Relevant provisions of the NER are recommended to extend to credit support related to ENSPs and exempt system operators, as well as regulated distribution system operators.
54C(2)(f)	Amend section 54C(2)(f) to allow information to be given to the ombudsman where the dispute relates to exempt sellers or exempt system operators.	<p>Given the extended meaning of ‘retail customer’, it is recommended the section should contemplate the possibility of the ombudsman having jurisdiction over disputes involving exempt entities.</p> <p>The operation of the section will also extend to ENSPs and off-market retailers without further amendment, as they are Registered participants.</p>
Schedule 1 item 26L	Amend the item by replacing “regulated distribution system operator” with “distribution system operator”, each time that term is used.	Item 26L in Schedule 1 (which covers the subject matter for the NER) should be amended to use the new definition since the retail support provisions will extend to ENSPs and exempt system operators, and it is appropriate for rules to be made to cover those extended categories.

Table 1c – NEL

Align the NEL framework for granting network exemptions with the NERL framework for retailer exemptions, and allow for the NER to streamline the network service provider exemption framework by narrowing the persons and classes of persons to which the AER may grant network exemptions under NER.

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Add a new definition of AER Exempt Network Guidelines – to direct the reader to the definition in recommended new section 13G.	This definition is needed given the recommended new obligation on the AER to make and publish these guidelines, to align with the NERL obligation to make equivalent guidelines for exempt selling.
2(1)	Add a new definition of exemption condition , meaning a condition of a network exemption or a class of network exemptions.	The new definition is used in the recommended new provisions dealing with exemptions (Division 1A – Network exemptions), and to extend the AER’s powers and the provisions dealing with monitoring, investigation and enforcement (see new Division 1A of Part 2 of the NEL) of exemption conditions.
2(1)	Add a new definition of network exemption , meaning an exemption from the requirement to register under the NER that is granted by the AER under recommended new Division 1A of Part 2.	The definition is needed so that an exemption granted by the AER under the NEL is readily identified (and to distinguish it from an exemption granted by the AER under the NERL or by AEMO under the NER).
2(1)	Add a new definition of Public Register of Exempt System Operators , to direct the reader to the definition in recommended new section 13F.	This reflects the new requirement in section 13F to maintain this register. This aligns with the NERL requirement to create a register of exempt sellers.
New heading after s.12	Insert new heading “Division 1A – Network exemptions” following section 12	Inserting a new heading to create a new Division 1A of Part 2 allows all the exemption provisions to be contained in one Division.
13(1)	Amend section 13(1) to indicate that the AER may decide to exempt a person or class of persons engaged or proposed to engage in the activity referred to in section 11(2) from registering as a Registered participant in relation to that activity for the purposes of the NEL and NER.	Amendments to sections 13 and the other new provisions recommended for Division 1A of Part 2 are intended to align the arrangements for the grant of exemptions in the NEL and the enforcement of exemption conditions with the corresponding arrangements in the NERL. In both cases (network and retail exemptions) deemed exemptions are to be discontinued. Individual exemptions will be retained and available for transmission systems and for distribution systems in limited circumstances but other exemptions will

Section	Recommended amendment	Purpose of recommended amendment
		<p>only be available on registration, and only in exemption classes determined by the AER in accordance with the NER.</p> <p>The policy intent is that the NEL should be clear that AER exemptions can be in relation to persons that fit within classes. The exemptions framework is dealt with in detail under the NER, with Chapter 2 covering the codified classes of exempt system operators (sub-classes of which the AER can determine). Changes to the Chapter 10 definition of 'distribution system' will make clear that certain networks for which deemed exemptions currently apply will no longer fall within the definition of distribution system, e.g.: networks forming metering installations, plug in and rack mounted equipment and a; network within a construction site. Other changes to the NER will classify as connection assets (and not networks) electrical installations within sites and buildings that function as connection assets for standard supply customers, or where there is no sale of electricity or network services to a customer by the installation operator.</p> <p>Please refer to recommended amendments to NER Chapter 2 and Chapter 10 for further detail.</p>
13(2) and (3)	Consolidate sections 13(2) and (3) to indicate that the AER may only decide to grant an exemption under section 13(1) in accordance with the NER.	The NEL should be clear that the granting of a network exemption must be in accordance with the NER (both the criteria for grant of the exemption and procedural requirements for the application for the exemption), including how the AER will exercise its discretion to grant an exemption.
New 13 (3)	Insert new provision in section 13(3) to make clear that an exemption of a class of persons under section 13(1) may be made by the AER so as to operate (subject to the terms of the exemption) in respect of all members of the class, or in respect of those members of the class who are, on application, registered in the Public Register of Exempt System Operators in relation to the exemption.	This is a consequential change to align the framework with the NERL.

Section	Recommended amendment	Purpose of recommended amendment
New 13(4)	Delete existing section 13(4) on conditions of exemptions, and replace it with a new provision specifying that a person who owns, operates or controls a transmission system or distribution system is an exempt system operator for the purposes of the NEL while a network exemption under Division 1A is in force in relation to that person.	<p>This is a consequential change to align the framework with the NERL. It clarifies that the network exemption of an owner, controller or operator of a distribution system must be in force for the person to be exempt.</p> <p>Current section 13(4) is recommended to be deleted as exemption conditions are to be covered in section 13A.</p>
New section 13A Exemption conditions	<p>Add a new section 13A with title “Exemption conditions”, to provide that:</p> <ul style="list-style-type: none"> the AER may impose conditions on a network exemption or class of network exemptions in accordance with the NER and the AER Exempt Network Guidelines; the NER may impose or may require the AER to impose conditions on a network exemption or class of network exemptions; without limiting the above two provisions, conditions imposed may be of general or limited application, or vary according to the persons, times, places or circumstances to which they are expressed to apply; a condition imposed under the section may provide that the exemption only commences in respect of a person or class on or after, or for so long as, the condition is satisfied; an exempt system operator must comply with the exemption conditions applicable to its exemption. 	<p>This provision allows conditions to be applied to exemptions in a manner consistent with the NERL exempt seller framework. It provides greater flexibility to the AER when determining conditions applicable to a network exemption or class. The recommended drafting is based on the corresponding provisions recommended for the NERL. Refer to NERL section 112.</p> <p>The provision covers transmission and distribution networks (and in turn, embedded networks).</p> <p>The NER already designates the obligation to comply with the conditions of an exemption for a “large dedicated connection asset” as a civil penalty provision (rule 2.5.1(d)(4)). For this reason, and to ensure greater enforceability of exemption conditions on exempt system operators, we recommend the obligation to comply with exemption conditions be a civil penalty provision.</p>
New section 13B	<p>Add a new section 13B providing for relief from exemption conditions.</p> <p>Drafting should provide that the NER may provide for the AER to:</p> <ul style="list-style-type: none"> modify the application of an exemption condition to an exempt system operator or a class of exempt system operators; or 	<p>The NEL should allow the AER to grant relief from deemed exemption conditions, to align with the recommended NERL exempt seller framework. Refer to NERL section 112A.</p> <p>It is recommended that amendments to the NER will permit the AER to vary or revoke exemption conditions in line with this provision, and as articulated in the AER Exempt Network Guidelines.</p>

Section	Recommended amendment	Purpose of recommended amendment
	<ul style="list-style-type: none"> determine that an exemption condition does not apply to an exempt system operator or class of exempt system operators generally or at specified times or in specified circumstances. <p>Drafting should also make clear the AER may only decide to grant relief under the above where criteria for the grant of relief in the NER are satisfied.</p>	
New section 13C	<p>Add a new section 13C dealing with revocation of network exemptions.</p> <p>Drafting should provide that the AER may decide to revoke a network exemption in relation to a particular exempt system operator under section 13D or with the consent of or at the request of an exempt system operator.</p> <p>Drafting should allow the NER to provide for the revocation of a network exemption in relation to a class of exempt system operators in the circumstances specified in the NER.</p>	<p>In addition to allowing for revocation by consent, the provision is intended to allow the NER to provide for an exemption to be revoked when the class is amended or removed (for example, when an entire exemption class will be required to register). The changes to the AER's determination required for this to occur will be subject to consultation. This provision mirrors the intent of recommended NERL section 110A.</p>
New section 13D	<p>Add a new section 13D dealing with the AER's power to revoke a network exemption.</p> <p>Drafting should provide that:</p> <ul style="list-style-type: none"> the AER may decide to revoke a network exemption in relation to a particular exempt system operator in accordance with this section; the grounds for revocation of an exempt system operator's network exemption are that the AER is satisfied that there has been a material failure by the exempt system operator to comply with the exemption conditions applicable to the network exemption; the AER may not revoke an exemption under this section unless the revocation process (see below) has been completed; the AER may commence the revocation process in relation to an 	<p>The NEL should allow the AER to revoke an exemption, to align with the NERL exempt seller framework. Refer to NERL section 111.</p> <p>These provisions deal with the revocation of a network exemption altogether, and provide the AER a greater ability to enforce the NEL obligations on exempt system operators.</p>

Section	Recommended amendment	Purpose of recommended amendment
	<p>exempt system operator's exemption if the AER reasonably considers that the grounds for revocation exist.</p> <p>It is recommended that a note be included to make clear that the revocation process is in new section 13E.</p>	
New section 13E	<p>Add a new section 13E covering the revocation process for exemptions granted to exempt system operators, replicating the process in section 120 of the NERL. Drafting should provide (similar to section 120 of the NERL) that:</p> <ul style="list-style-type: none"> • a 'holder' is an exempt system operator holding an exemption, who receives a notice from the AER • the AER must give the holder a notice (as referred above) that it intends to revoke the exemption, and that the notice must set out the reasons why the AER considers that the grounds for revocation exist. <p>The notice must request the holder to respond to the notice in writing (by a date and time specified in the notice, being a date not less than 10 business days after the date of service of the notice) by doing either or both of the following:</p> <ul style="list-style-type: none"> • showing cause why the AER should not revoke the exemption; • stating how the holder proposes to address the matters set out in the notice. <p>If, by the date and time referred to in the notice, the holder has not shown sufficient cause why the AER should not revoke the exemption, the AER may revoke the exemption if—</p> <ul style="list-style-type: none"> • the holder has, by that date and time, stated how the holder proposes to address the matters set out in the notice but the AER is not satisfied that the holder can rectify the matters set out in the notice; or • the holder has, by that date and time, failed to state how the holder proposes to address the matters set 	<p>The NEL should include a detailed process for revoking network exemptions consistent with the process in NERL section 120 – Revocation process – retailer authorisations and exemptions.</p> <p>This process covers a notice requirement on the AER, provides holders of exemption a fair opportunity to address the AER's grounds for revocation, transparency over decisions made by the AER, and communication between the AER and AEMO regarding exemptions that are revoked.</p> <p>It is also recommended that this subsection be a civil penalty provision for enforcement purposes.</p>

Section	Recommended amendment	Purpose of recommended amendment
	<p>out in the notice.</p> <p>Without limiting the above subsection, the AER may revoke the exemption if—</p> <ul style="list-style-type: none"> the holder has, by the date and time referred to in the notice, informed the AER how the holder proposes to address the matters set out in the notice (including the date by which those matters will have been addressed); and the holder fails to rectify those matters after being given a reasonable opportunity to do so or otherwise by the date nominated by the holder. <p>The AER must fix a time for the revocation to take effect.</p> <p>Drafting should provide that a condition may require the holder (or former holder) to comply with specified requirements of energy laws, with any modifications specified in the condition. Any such requirement may continue, to the extent necessary, to apply to the holder (or former holder) after the revocation of the exemption.</p> <p>The AER should be required to publish on its website a copy of its decision to revoke the exemption, including the reasons and any conditions that are imposed. The AER must also advise AEMO where an exemption is revoked.</p> <p>A holder (or former holder) must comply with any conditions imposed on the holder (or former holder) under this section.</p>	
New section 13F	<p>Add a new section 13F to require the AER to maintain, and publish on its website, a Public Register of Exempt System Operators. This register must include particulars of exempt system operators and other particulars as required by the NER; and may include other particulars or information as permitted by the NER.</p> <p>This section should provide that the AER may maintain and publish the Public Register of Exempt System Operators</p>	<p>The NEL should provide for the AER to create a register of exempt system operators, to align with the exempt seller register arrangements in the NERL for transparency purposes. Refer to NERL section 119.</p>

Section	Recommended amendment	Purpose of recommended amendment
	with the Public Register of Authorised Retailers and Exempt Sellers under the NERL.	
New section 13G	<p>Add a new section 13G for the AER Exempt Network Guidelines. Drafting should provide that the AER must (in accordance with the NER), develop and maintain guidelines (the AER Exempt Network Guidelines) in accordance with the Rules consultation procedure:</p> <ul style="list-style-type: none"> • providing information about network exemptions; and • concerning any other matters specified in the NER. <p>Drafting should provide that the NER may make provision for or with respect to the AER Exempt Network Guidelines.</p> <p>Drafting should provide that the AER may amend the AER Exempt Network Guidelines in accordance with the Rules consultation procedure, and make and publish this guideline along with the AER Exempt Selling Guidelines under the NERL.</p>	<p>This drafting is based on NERL section 118 to align the creation of the AER Exempt Network Guidelines with the provisions applicable to the AER Exempt Selling Guidelines under the NERL.</p> <p>The purpose of the AER Exempt Network Guidelines is to assist registered and exempt network service providers comply with the NEL and NER provisions on network exemptions.</p>
New heading before section 14	Add a new heading before section 14 "Division 1B – Other matters relating to registration or exemption"	<p>This amendment is recommended to separate Part 2 – Participation in the NEM, into Division 1 – Registration, Division 1A – Network Exemptions and Division 1B – Other matters relating to registration or exemption.</p> <p>The new division 1B covers section 14 of the NEL, which deals with evidence of registration or exemption.</p>
New 157(1A)	<p>Add a new section 157(1A) to prohibit:</p> <ul style="list-style-type: none"> • embedded network service providers, • persons party to an agreement with an embedded network service provider for the provision of an electricity network service, or • an associate to one of those persons <p>engaging in conduct for the purpose of preventing or hindering the access of another person to an electricity network service.</p>	<p>This is to extend the obligations otherwise applicable to regulated network service providers under section 157(1) to ENSPs. It is recommended that this is also a civil penalty provision similar to section 157(1).</p>

Section	Recommended amendment	Purpose of recommended amendment
157(2), (3) and (4)	Amend sections 157(2), (3) and (4) to refer to new subsection 157(1A) in addition to subsection 157(1).	These amendments are to extend the provisions in section 157 outlining the types of conduct the AER may consider to be preventing or hindering access to an electricity network service.
157(6)	Amend section 157(6) to provide for a new definition of <i>embedded network service provider</i> which is to have the meaning given in the NERL.	Though ENSPs are a subset of DNSPs and their registration and exemption process is addressed in Chapter 2 of the NER, the concept of an ENSP is defined in the NERL. This definition is cross-referenced in this provision for ease of use.
New 157(8)	Insert a new subsection 157(8) to provide that subsection (1A) does not apply to conduct engaged in in accordance with an agreement that was in force on a date to be specified.	This is a drafting place holder to be considered as part of transitional arrangements. This will permit conduct arising from agreements prior to a set date not to be subject to these provisions (as is the case in section 157(7)).
Schedule 1, Item 2	Amend item 2 to include “classes of persons” as well as “persons”.	This recommended amendment allows rules to be made regarding the exemption of classes of persons from the requirement to be Registered participants. This is intended to support the operation of recommended new Division 1A of Part 2 of the NEL by allowing initial rules, ² and future amending rules, to be made regarding exemptions of classes of persons.
Sch 1, new item 2A	Add new item 2A to provide for the subject matter of the NER to include the variation or revocation of exemptions.	This additional subject matter for the NER is intended to support the operation of recommended new Division 1A of Part 2 of the NEL, by allowing initial rules ³ , and future amending rules, to be made regarding the variation or revocation of exemptions.
Sch 1, new item 2B	Add new item 2B to provide for the subject matter of the NER to include conditions applicable to exemptions and the grant of relief from those conditions.	This additional subject matter for the NER is intended to support the operation of recommended new Division 1A of Part 2 of the NEL, by allowing initial rules ⁴ , and future amending rules, to be made regarding exemption conditions.

² Recommended Amendment to NER Chapter 2, new clause 2.14.2 Network exemption for distribution systems

³ Ibid, new clause 2.15.2 Class exemption conditions

⁴ Ibid, new clause 2.15.4 Relief from exemption conditions

Table 1d – NEL

Enhance consumer protections by improving the AER's ability to monitor and enforce exemption conditions, making the NEL and NER work for embedded network customers, and improving the information provided to consumers connecting to embedded networks or involved in a conversion of a property to an embedded network.

Section	Recommended amendment	Purpose of recommended amendment
2A	Amend section 2A(b) so that it refers to disputes between a retail customer (or other person specified by the Rules) and a distribution system operator, rather than a regulated distribution system operator.	The term "access dispute" should be amended as the access disputes framework in Chapter 5A of the NER is to be extended to apply to disputes between retail customers and ENSPs.
2AA	Amend the table in section 2AA to allow for the following additional civil penalty provisions: new sections 11(5), 13A(5) and 157(1A).	The NEL should ensure registration requirements, exemption conditions and obligations not to prevent or hinder access applicable to ENSPs and exempt NSPs are enforceable by means of civil penalties.
15	Amend AER's general powers to extend to monitoring and investigation in relation to compliance with and breaches of the exemption conditions. Specifically: <ul style="list-style-type: none"> Amend section 15(1)(a)(i) to refer to monitoring compliance by Registered participants and other persons with this Law, the Regulations, the Rules <u>and exemption conditions</u>. Amend section 15(1)(b) to provide for the AER to investigate breaches or possible breaches of provisions of the NEL, the Regulations, the NER <u>or exemption conditions</u>, including offences against this Law. 	The NEL should permit the AER's monitoring functions and powers of investigation to apply to exemption conditions.
59(1)	Amend section 59(1) to refer to breaches of exemption conditions, in addition to breaches of the NEL, NER and regulations.	The NEL should extend the AER's enforcement provisions including its ability to institute civil proceedings to include breaches of exemption conditions.
59(3)	Amend section 59(3) such that nothing in Part 6 of the NEL prevents the use of the NEL, NER, regulations <u>or exemption conditions</u> as evidence in any proceedings.	This change is recommended for consistency with the recommended change to section 59(1).
Heading before section 60	Amend the heading before section 60 to include reference to exemption conditions, as follows "Division 2—Proceedings by the AER in respect of this Law, the Regulations, the Rules <u>and exemption conditions</u> ".	The NEL should make clear that provisions relating to timing and procedures applicable to AER initiated proceedings under the NEL include those relating to breaches of exemption conditions.

Section	Recommended amendment	Purpose of recommended amendment
60(1)	Amend section 60(1) to refer to proceedings for breach of exemption conditions, in addition to proceedings for breaches of the NEL, NER or regulations.	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
61	Amend sections 61(1), (2), (2)(a), (2)(d) and (3) to refer to exemption conditions, in addition to the NEL, NER and regulations.	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
61A(2)(c)	Amend section 61A(2)(c) to refer to exemption conditions, in addition to the NEL, NER and regulations.	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
62	Amend the first paragraph of section 62 to refer to exemption conditions, in addition to the NEL, NER and regulations.	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
64(d)	Amend section 64(d) to refer to exemption conditions, in addition to the NEL, NER and regulations.	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
64(e)	Amend section 64(e) to refer to compliance programs required under the NER <u>or an exemption condition</u> .	The enforcement framework in the NEL should extend to enforcement of exemption conditions.
86	Amend section 86 to refer to exemption conditions, in addition to the NEL, NER and regulations.	For consistency with the other recommended changes to the enforcement framework, corporations should be deemed to be in breach of the NEL if their officers or employees are in breach of exemption conditions.

Table 1e – NEL

Provide for implementation of the recommended arrangements by including a power for the Minister to make initial rules to amend the NER and providing for network exemptions in effect when the new scheme commences to become legacy exemptions so as to allow for some of these to be grandfathered and others to be transitioned to the new scheme.

Section	Recommended amendment	Purpose of recommended amendment
90EA	<p>Include a new section to allow the South Australian Minister to make initial rules to implement the new arrangements.</p> <p>Provide for initial rules for or with respect to:</p> <ul style="list-style-type: none"> • embedded networks and persons who own, operate or control embedded networks; • network exemptions; • the provision of electricity services to customers connected to embedded networks; • any other subject contemplated by, or consequential on, the changes to either the NERL or the NEL for the new embedded networks arrangements, <p>and provide for rules that revoke or amend a Rule as a consequence of the enactment of the EN amendments.</p> <p>Include the usual provisions providing for the rules to be made only once and only on the recommendation of the MCE, to clarify the application of section 34(3) to the Minister-made rules, for specification of the commencement date, for notice of the rules to be published in the Gazette and for the new rules to be made publicly available.</p>	<p>The recommended process for implementation of the new regime under the NER and NERR is by means of Minister-made rules. The recommended new section provides the necessary statutory basis for making the recommended rule package.</p>
Schedule 3, Part 17	<p>Include a new Part in Schedule 3 to allow for the transition of current network exemptions. The new Part should provide for:</p>	<p>The recommended approach to existing network exemptions is to provide in the NEL for:</p> <ul style="list-style-type: none"> • exemptions in effect on the commencement day to be known as 'legacy exemptions' and

Section	Recommended amendment	Purpose of recommended amendment
	<ul style="list-style-type: none"> the commencement day to be the day the amendments to the NEL come into effect, network exemptions in effect immediately before the commencement day to be legacy network exemptions, the exemption classes in effect immediately before the commencement day to be legacy network exemption classes, the amended Law, Regulations and Rules to apply to legacy network exemptions and legacy network exemption classes as if they were made under the new scheme, and the AER to exercise its powers, including enforcement powers, in relation to legacy network exemptions and legacy network exemption classes as if they were made under the new scheme. <p>The new Part should also provide for rules to be made for or with respect to:</p> <ul style="list-style-type: none"> exemption conditions applicable to a legacy network exemption or class of legacy network exemptions, the revocation of a legacy network exemption at a time specified in the Rules or on the occurrence of an event or circumstance specified in the Rules, the transition by a legacy exempt system operator to the new network exemption scheme, and information to be published by the AER about legacy network exemptions. 	<ul style="list-style-type: none"> the classes to be known as 'legacy exemption classes', legacy exemptions to be subject to the new framework, including the AER's monitoring and enforcement powers (such that a breach after the commencement day will be enforceable under the new scheme), rules to be made in the NER to deal with more detailed transitional matters. <p>The recommended transition arrangements in the NER in turn provide for:</p> <ul style="list-style-type: none"> a 12-month transition period for the AER and AEMO to make the necessary guidelines and other instruments to implement the new network exemption scheme on and from the effective date, some legacy exemption classes, and legacy exemptions in those classes, to have a 2-year period from the effective date to transition to the new regime and for the classes and exemptions to be revoked at the end of that period, the AER to have power to grant exemptions during the 12-month transition period under the current scheme and for these exemptions also to be treated as legacy exemptions and where applicable, subject to the 2-year transition and revocation arrangements, and the AER to have power to continue to replace legacy exemptions by applying the old guidelines (to be renamed the Legacy Exempt Network Guidelines) so as to allow for changes in ownership and operation of legacy networks.

Table 2a – NERL

Elevate off-market retailers and embedded networks into the national regulatory framework by introducing definitions including embedded network service provider, embedded network, embedded network area, exempt system operator, exemption condition (with regard to a retailer authorisation), off-market retailer and off-market connection point.

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Add a new definition of embedded network that means a distribution system within the meaning of the NEL, that is classified under the NER as an embedded network.	<p>The introduction of the ENSP into the NERL (see below) has the effect that provisions in NERL Part 3, Relationship between distributors and customers, apply to ENSPs unless indicated otherwise.</p> <p>The recommended definition of embedded network is to permit application of provisions in the NERL in a modified manner, including new section 122A on the application of RoLR in embedded networks, and s66 on customer connection services.</p>
2(1)	Add a new definition of an embedded network area for an embedded network, which means the geographical area, site or premises registered under the NER as the embedded network area for the embedded network.	This definition is to recognise that individual embedded network areas are to be registered. This term is used to limit the obligation on ENSPs to provide customer connection services under s66 of the NERL to the embedded network area they are registered as serving.
2(1)	Add a new definition of embedded network service provider which is to mean a person who owns, operates or controls an embedded network and who is a Registered participant within the meaning of the NEL in respect of that embedded network.	This definition reflects the definition of a distribution network service provider but within an embedded network, noting that under the NEL an ENSP is to be registered for a particular embedded network area.
2(1)	Add a new definition of exempt system operator which means an exempt system operator within the meaning of the NEL, but does not include an exempt system operator in its capacity as the owner, operator or controller of a transmission system within the meaning of the NEL.	This definition is recommended so that exempt system operators, excluding exempt TNSPs, can be referred to in the NERL. In particular, this term is used with reference to shared customers between exempt system operators and a retailer.
2(1)	Add a new definition of exemption condition to mean a condition of an exemption from the requirement to hold a retailer authorisation granted by the AER (under Division 6 of Part 5 of the	The new definition is used in the recommended new provisions dealing with exemptions and conditional exemptions from being required to be registered as a retailer, including Part 5, Division 6 – Exemptions and Part 8 – Functions and powers of the AER.

Section	Recommended amendment	Purpose of recommended amendment
	NERL).	
2(1)	Add a new definition of off-market retailer to mean a retailer when it is selling electricity to a customer for premises connected at a child connection point that the retailer has not purchased directly through a wholesale exchange within the meaning of section 11(4) of the NEL.	The definition applies to a retailer when selling off-market and will apply to retailers who hold either an off-market retail authorisation or a general retailer authorisation.
2(1)	Add a new definition of off-market connection point , which is to mean a child connection point for premises where the retailer selling electricity to the customer for the premises is doing so as an off-market retailer.	This definition is required so that provisions relating to default RoLR (refer to recommended s122A) and the definition of financially responsible retailer, can be modified when applying to retail customers of off-market retailers.
New 89(4) and (5)	Insert new subsections 89(4) and (5) to allow the NERR to provide for the AER to grant one or more classes of retailer authorisation which would operate (subject to the terms of the authorisation) only in respect of particular times or in particular circumstances as specified in the authorisation. These classes could include an authorisation that operates only in respect of the sale of electricity or gas, and an authorisation that operates only in respect of sale to a class of persons or premises. The NERR may specify conditions applicable to a class of retailer authorisation.	<p>The amendment is to permit the NERR to include sub-classes of retailer with one sub-class to be introduced in the recommended changes to the NERR (off-market retailers selling to customers in embedded electricity networks).</p> <p>The provision allowing for the NERR to specify conditions applicable to a class of retailer authorisation is intended to work with section 93 under which the AER can impose terms and conditions on authorisations.</p> <p>Because an off-market retailer authorisation is a form of retailer authorisation, provisions in the NERL that apply to a 'retailer' will apply to off-market retailers unless expressly excluded (e.g. Part 2, Relationship between retailers and small customers, including an obligation to make a standing offer, subject to the NERR).</p> <p>The result will be that authorised sellers of electricity will fall into two groups for the NERL and NER purposes:</p> <ul style="list-style-type: none"> • general retailers who are on-market, registered as a Customer under the NER and buy from the spot market or may also sell off-market and are subject to the obligations of off-market retailers when doing so; • off-market retailers who hold retailer authorisations that only allow them to sell off-market are responsible under the NER for appointing metering coordinators for their child

Section	Recommended amendment	Purpose of recommended amendment
		connection points but do not buy from the spot market.
New 89(1A)	Insert a new subsection 89(1A) to allow an applicant for a retailer authorisation to specify that it is an application for a class of authorisation provided for in the NERR.	This is a consequential change arising from the recommended changes to section 89, namely that an application can be made for a class of retailer if that class is provided for in the NERR.
90(1)(a), (b) and (c)	In each subsection, allow for entry criteria to differ by class, such that the references to a retailer are references to a retailer with a retailer authorisation of the relevant class.	This change is recommended to give guidance to the AER that though the same broad entry criteria must apply, they can be applied differently to the various classes of retailer authorisation.
93(2)	Amend so that conditions applied to an authorisation may provide that the retailer authorisation only authorises the selling of energy to customers on or after, <i>or for so long as</i> , the condition is satisfied.	This is a consequential change intended to allow for more flexible use of authorisation conditions (including conditions that apply on an ongoing basis).
107(2) (a)(i) and (ii)	Extend the grounds for revocation of a retailer's authorisation, to include breach of a condition imposed under the NERR or s. 93.	This change is recommended to extend the grounds for revocation of a retailer authorisation (applicable to both authorised and off-market retailers) to include breaches of conditions imposed under the NERR on retailers of electricity and gas.

Table 2b – NERL

Amend the NERL to recognise customers of off-market retailers, including amendments to the definitions of customer retail service, designated retailer, financially responsible retailer and shared customer. Permit rules to be made in the NERR to specify classes of retailer authorisation and allow the NERR to modify how provisions in the NERL relating to standard offers apply to retailers of a specified class.

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Amend the definition of customer retail service to include a reference to the sale of energy by an exempt seller.	This is a consequential change recommended to align with the extended “shared customer” definition. This change, together with the change to the meaning of “retailer”, is intended to ensure the term “energy marketing activity” extends to exempt sellers.
2(1)	<p>Add a new definition of child connection point to refer to a connection point for a connection to an embedded network.</p> <p>It is recommended that this definition includes a note to acknowledge that a connection point for an embedded network within another embedded network can be both a child connection point and a parent connection point.</p>	This definition permits references to individual connection points within an embedded network, including modified provisions relating to Default RoLR per recommended s122A, and those connection points that are sold electricity by off-market retailers.
2(1)	<p>Add a new definition of parent connection point to refer to a connection point between an embedded network and:</p> <ul style="list-style-type: none"> the distribution system of a regulated distribution system operator within the meaning of the NEL, or another embedded network. 	This definition is required both to classify the two types of connection points prevalent within embedded networks, and to modify the application of NERL provisions specific to parent connection points, including the recommended prohibition of prepayment meters at parent connection points (s56A), to assign the default RoLR for an embedded network by reference to the parent connection point (s122A), and other provisions within recommended amendments to the NERR.
2(1)	<p>Split paragraph (a) of the definition of financially responsible retailer as follows:</p> <ul style="list-style-type: none"> in limb (i), subject to limb (ii), specify the financially responsible Market Participant responsible for the premises under the NER, and in limb (ii), provide that for supply to premises at an off-market connection point, 	<p>These amendments are intended to mirror the existing arrangements whereby the financially responsible retailer for each on-market connection point is the financially responsible Market Participant (FRMP) under the NER, and in addition place the off-market retailer in the role of FRMP at an off-market connection point.</p> <p>Where there is an off-market retailer at a child connection point the FRMP under the NEL (at the parent connection point and for market settlement) and the financially responsible retailer under the</p>

Section	Recommended amendment	Purpose of recommended amendment
	specify the off-market retailer for the connection point.	<p>NERL (with regard to RoLR functions) may be different entities:</p> <ul style="list-style-type: none"> the FRMP at the parent connection point is still the FRMP for the child connection point under the NEL and NER; but the off-market retailer should be the financially responsible retailer under the NERL, and so the designated retailer, for the child connection point under the NERR.
2(1)	<p>Split the definition of designated retailer) into two limbs as follows:</p> <ul style="list-style-type: none"> the first to be the current (a) such that the designated retailer is the local area retailer for the relevant geographical area, and the second limb to apply where a small customer is seeking a connection to an embedded network, in which case the designated retailer is the local embedded network retailer for that embedded network. 	<p>These consequential changes arise from the change to the definition of “financially responsible retailer”.</p> <p>Under the NER, it is recommended that at registration, an ENSP will nominate a local embedded network retailer (who can be a general retailer or the holder of an off-market retailer authorisation). This consequential amendment has the effect of identifying the designated retailer for an embedded network customer. This is required for the obligation in section 22 under which the designated retailer must make an offer to its small customers in its capacity as designated retailer.</p>
2(1)	<p>Amend the definition of distribution system to add two new limbs.</p> <p>New (d) adds, for an embedded network service provider, the embedded network service provider’s distribution system within the meaning of the NEL.</p> <p>New (e) adds, for an exempt system operator, the exempt system operator’s distribution system within the meaning of the NEL.</p>	<p>Extending the definition of “distribution system” to include ENSPs reflects the extended meaning of “distributor” (see below).</p> <p>Extending the definition of “distribution system” to include exempt system operators reflects the extended meaning of “shared customer” (see below). This is to permit the AEMC to make rules with regard to exempt system operators (section 237(2)), and extends the retailer mutual indemnity to include exempt system operators (section 317).</p>
2(1)	Add a new limb to the definition of distributor . New (d) should extend the meaning to include embedded network service providers.	<p>This extends the operation of the NERL to ENSPs including Part 3, which deals with the relationship between distributors and customers.</p> <p>A “distributor” does not include an exempt system operator.</p>
2(1)	Add a new limb to the definition of shared customer to provide that, for an exempt system operator	As a “distributor” will already extend to an ENSP based on amendments to definition of “distributor” (see above), the extended definition that

Section	Recommended amendment	Purpose of recommended amendment
	and a retailer, the shared customer is a person who is a customer of the retailer and whose premises are connected to the exempt system operator's distribution system.	encompasses customers of retailers who are connected to exempt system operators is required for the retail support arrangements. It does not extend to customers in an exempt transmission network, or a customer of an exempt seller within an exempt network.
2(1)	Insert a new definition of local embedded network retailer to refer to the retailer registered under the NER as the local embedded network retailer for the embedded network.	Under the NER, it is recommended that at registration, an ENSP will nominate a local embedded network retailer (who can be a general retailer or the holder of an off-market retailer authorisation). The local embedded network retailer is used in the designated retailer definition referred to above.
5(1)	Amend the definition of customer to remove references to retailers in paragraphs (a) and (b) so that the definition relates to a customer to whom energy is sold for premises, or who proposes to purchase energy for premises.	The effect of the recommended amendment is to include as a customer a person supplied by an exempt seller (or not yet supplied at all) within a distribution system (including an embedded network), rather than restricting it to authorised retailers only.
7B	Add a new section 7B to permit the NERR to make provision for or with respect to the application of the NERL and the NERR in circumstances where: <ul style="list-style-type: none"> premises are supplied by more than one connection point; or a connection point is supplying more than one premises. 	The intention of this clause is to accommodate a slight difference in approach between the NER and the NERL/NERR, such that the NERL defines the retailing relationship by reference to premises but the NER defines the FRMP by reference to a connection point. The change will allow the NER to accommodate different metering and FRMP configurations while preserving alignment with the NERR. For example, an issue potentially arises in the definition of "designated retailer", the definition of "financially responsible retailer" and the reference to "connection to energised premises" in section 54(1).
New 32(e)	Insert a new paragraph (e) to allow rules to be made to exempt specified classes of retailers from the obligations of retailers under Division 3 of Part 2 (dealing with standing offers for small customers) or the NERR.	While off-market retailers for customers in embedded networks will be required to publish standing offers, this recommended change allows flexibility to modify the application of Division 3 of Part 2 under the NERR if new classes of retailer are specified through the authorisation arrangements. For off-market retailers in embedded networks, the exemptions are principally expected to relate to the publication of price changes in a newspaper and frequency with which prices may be changed.
61(3)(b)	Amend this provision to allow the AER Retail Pricing Information Guidelines for presentation of standing and market offer prices to	This recommended change is intended to give the AER guidance that it can have different provisions for different retailer classes (including for off-market retailers), and in particular, those types of

Section	Recommended amendment	Purpose of recommended amendment
	have different provisions for different classes of retailer authorisation.	market offers to be provided for the purposes of the price comparator maintained by the AER under section 62 of the NERL.
117(1)	<p>In paragraph (a), insert wording to allow the required information to differ depending on the class of authorisation that is applied for.</p> <p>In paragraph (b), insert similar wording to allow the entry criteria for an applicant for a retailer authorisation to differ depending on the class of authorisation that is applied for.</p> <p>In paragraph (c), insert wording to allow the information on the surrender, transfer or revocation of retailer authorisations to vary by class of authorisation.</p>	These recommended amendments are intended to give guidance to the AER that the guidelines may permit different criteria for different types of retailer authorisation.
237(2) (a) and (a)(i)	Extend the subject matter of the NERR by replacing two references to “distributors and retailers” with shared customers to “persons” with shared customers.	This recommended change to the subject matter of the NERR is needed as shared customers under the recommended changes include the shared customer of an exempt ENSP and a retailer.
New 317(3)	Extend the distributor - retailer mutual indemnity to exempt system operators by inserting a definition of distributor in new subsection 3 which includes an exempt system operator in relation to a shared customer of the exempt system operator and a retailer.	This recommended change reflects the extended definition of “shared customer” in the NERL (see above), and extends the retailer mutual indemnity obligation to exempt system operators who have a shared customer with a retailer.

Table 2c – NERL

Update the exemptions framework in the NERL to streamline the retail exemption framework by permitting rules to be made in the NERR to specify circumstances in which neither a retailer authorisation nor a retailer exemption is required, narrowing exemptions granted to circumstances where costs of registration outweigh benefits to consumers, permitting rules to be made in the NERR to specify classes of retailer authorisation and allowing the NERR to modify how provisions in the NERL relating to standard offers apply to retailers of a specified class.

Section	Recommended amendment	Purpose of recommended amendment
2(1)	<p>In the definition of <i>AER exempt selling regulatory function or power</i>:</p> <ul style="list-style-type: none"> • amend limbs (a) and (b) by deleting the word “individual”; • amend limb (c) to remove the references to deemed exemptions and registrable exemptions, and refer instead to classes of exemptions, including any associated exemption conditions; and • include a new limb (e) making reference to a decision whether to grant, vary or revoke relief from an exemption condition. 	<p>These are consequential changes arising from the changes to the exempt selling provisions, and the recommended new framework which removes the concept of individual, deemed or registrable classes of exemptions.</p> <p>It is recommended that in the NERR, the AER can determine categories of registrable exemption falling within broad classes defined in the NERR. The recommended NERR classes are based on the AER's current deemed exempt seller regime (so excluding those exempt retailers that are now required to be registered as off-market retailers).</p> <p>The categories of exempt sellers in the NERR include those persons selling to occupants of holiday accommodation on a short term basis and selling energy as a supplementary supply through a power purchase agreement. The NERR can be amended in the future to allow for the addition of new broad classes not otherwise covered.</p>
38(a)	<p>Include a reference to exempt sellers in limb (a) of this provision, so that the requirement that a retailer obtains explicit informed consent for customer transfers includes those customers transferring to the retailer from an exempt seller (as well as those transferring from another retailer).</p>	<p>As it is possible that an exempt seller that is not an authorised retailer or an off-market retailer can sell electricity to customers with a registered NMI (as under recommended changes to Chapter 7 of the NER, all customers in registered embedded networks will require NMIs, with exempt ENSPs subject to this requirement if an embedded network manager is appointed), those customers can also change retailers from the exempt seller to another retailer. It follows that this provision should extend to the transfer of those customers among retailers.</p> <p>The effect of the NERL and NEL changes are that the financially responsible retailer for a child connection point at the creation of an embedded network is the retailer nominated by the ENSP at the point of registration. Following that, the financially responsible retailer for the child connection point will be whichever retailer was the last seller for that particular child connection point.</p>

Section	Recommended amendment	Purpose of recommended amendment
88(1) and (1A)	<p>In section 88, add a new subsection (1A) to allow the NERR to specify circumstances in which a person who engages in the activity of selling energy to a person for premises is exempt from the requirement to hold a current retailer authorisation or to be an exempt seller in relation to that activity.</p> <p>In section 88(1), add a new limb (c) to allow for a seller who is exempt from the requirement to hold a current retailer authorisation in relation to that activity or to be an exempt seller in relation to that activity under Rules made for the purposes of subsection (1A).</p>	<p>It is recommended to allow some selling to take place with neither a retailer authorisation nor a retail exemption. This avoids the cost of registration for an exemption where there is no corresponding regulatory benefit. This approach replaces some deemed exemption classes.</p> <p>It is recommended the activities be specified in the NERR so as to allow flexibility to amend the list over time. The recommended activities cover sale of electricity on construction sites, sale to a related body corporate and sale by government authorities as an incidental activity.</p>
110(1)	Amend to allow exemptions in accordance with Part 5, Division 6 of the NERL as well as in accordance with the NERR.	This is a consequential change to provide clarity to participants that the AER is to exercise its exemption powers in accordance with the new recommended provisions in the NERL as well as with the NERR.
110(2)	Amend section 110(2) by removing all reference to the 3 kinds of exemptions, and replace with a subsection providing that the AER may only decide to grant an exemption under subsection (1) where criteria for grant of the exemption in the NERR are satisfied.	This recommended change allows for the NERR to be more prescriptive about when exemptions may be granted. This also reflects the exemptions framework approach to remove the specification of different categories of exemptions as discussed in the definition of AER exempt selling regulatory function or power above.
New 110A	<p>Insert a new provision that:</p> <ul style="list-style-type: none"> allows the AER to decide, in relation to a particular exempt seller, to revoke an exemption under s. 111, or to revoke an exemption with the consent of or at the request of the exempt seller; and allows the NERR to provide for the revocation of an exemption in relation to a class of exempt sellers in the circumstances specified 	In addition to allowing for revocation by consent, this recommended provision is intended to allow for the NERR to revoke an exemption in relation to a class of exempt sellers when the class is amended or removed (for example, to remove a class of exemption listed in the NERR so that class of retailer requires registration under the NERL and NERR). The changes to the AER's exemption determination required for this to occur will be subject to consultation. Grandfathering or transitional issues will be considered as part of that process.

Section	Recommended amendment	Purpose of recommended amendment
	in the NERR.	
111(1)	Amend this section to remove references to the three kinds of exemptions, such that the AER may decide to revoke an exemption in relation to a particular exempt seller in accordance with this section 111.	This recommended amendment is a consequential change arising from changes to s110, and the removal of the three categories of exemption.
111(2)	Amend this section to refer to a material failure by the seller to comply with the exemption conditions applicable to its exemption.	This recommended amendment is a consequential change arising from the replacement of the previous broad category of 'conditions' with enforceable 'exemption conditions'.
112(1)	Amend this section to allow the AER to impose conditions on an exemption or class of exemptions in accordance with the NERR and the exempt selling guidelines.	This is a drafting change for clarity purposes. It has the same effect as the current drafting.
New 112(1A)	Insert a new subsection allowing the NERR to impose, or require the AER to impose, conditions on an exemption or class of exemptions.	This recommended change allows for the NERR to be more prescriptive about the conditions applicable to exemptions. In the recommended changes to the NERR, no prescribed conditions currently apply.
New 112(1B)	Insert a new subsection that, without limiting subsections (1) or (1A), allows for conditions imposed under s. 112 to: <ul style="list-style-type: none"> • be of general or limited application, or • vary according to the persons, times, places or circumstances to which they are expressed to apply. 	This recommended change is to provide the AER flexibility when determining the types of conditions that it can place on an individual exemption or class of exemption.
New 112(1C)	Insert a new subsection that allows a condition imposed under s. 112 to provide that the exemption only takes effect in respect of a person or class on or after a condition has been satisfied, or for so long as the condition is satisfied.	This recommended change permits conditions to have ongoing obligations, rather than act merely as a precondition for receiving an exemption under the NERL and NERR.
112(2)	Amend this subsection to provide that an exempt seller must comply with exemption conditions applicable to its	This recommended change is to ensure that exemption conditions are enforceable, and breaches of the conditions are treated as civil penalties.

Section	Recommended amendment	Purpose of recommended amendment
	exemption. (Note: This subsection is currently a civil penalty provision.)	
112(3)	Delete this provision.	Section 112(3) is recommended to be deleted as exemption conditions will be part of the NERR (i.e. an exemption condition will relieve a party from complying with certain rules, but require them to comply with others).
New 112A	<p>Insert a new provision on relief in relation to exemption conditions, which specifies that the NERR may provide for the AER to:</p> <ul style="list-style-type: none"> • modify the application of an exemption condition to an exempt seller or class or exempt sellers, or • determine that an exemption condition does not apply to an exempt seller or class of exempt sellers generally or at specified times or in specified circumstances. <p>The provision should also specify that the AER may only decide to grant relief where criteria for the grant of relief in the NERR are satisfied.</p>	This recommended new provision allows the AER to grant relief from mandatory exemption conditions, to provide flexibility where mandatory conditions are specified in the NERR and so subject to rule change processes under the NERL.
New 113(c)	Insert a new subsection that allows the NERR to provide for conditions applicable to exemptions and the grant of relief from those conditions.	This recommended amendment is a consequential change to reflect amendments in sections 111-112, and to make clear that the NERR can make provisions regarding conditions applicable to exemptions and the granting of relief.
114(2)	Revise this provision to delete paragraphs (2)(a) and (b), and provide instead for the AER to take into account factors specified in the NERR for the purposes of this section.	This recommended amendment provides for factors to be stipulated in the NERR which the AER is to take into account when performing its exempt selling regulatory functions, including how certain exemption classes are determined by the AER. The recommended amendments to the NERR include under rule 150(2) a number of activities for which a class of exemption can be determined. These cover the sale of metered energy to occupants of holiday accommodation selling energy as a supplementary supply through power purchase agreements, selling unmetered gas for limited purposes and selling electricity within data centres..

Section	Recommended amendment	Purpose of recommended amendment
		This list preserves some of the activities in the current deemed exemption framework under the AER's retailer exemption guideline but now requires registration for the exemption. The recommended changes to the framework provide for activities formerly subject to registrable exemptions to be registered as off-market retailers.
114(3)	Delete the references to the exempt seller related factors and the customer related factors.	The amendments to the NERR include replacing the factors otherwise found in s115 and s116 into broad classes under new provisions in NERR factors that can be included in the NERR.
115	Delete this provision.	See explanation above in relation to the recommended change to section 114(2).
116	Delete this provision.	See explanation above in relation to the recommended change to section 114(2).

Table 2d – NERL

Enhance consumer protections through requiring all authorised retailers to provide an appropriate set of consumer protections for off-market customers, modifying the RoLR scheme to apply to off-market customers, and requiring ENSPs to provide connection services to their customers.

Section	Recommended amendment	Purpose of recommended amendment
23(5) and (8)	<p>Add new subsection (8) providing that a variation of the standing offer prices applicable to an off-market connection point takes effect at the time provided for in the NERR, if that time is different to the time provided for in subsection (5).</p> <p>Make subsection (5) subject to subsection (8).</p>	<p>This recommended amendment is intended to allow the NERR to permit off-market retailers to change standing offer prices more frequently than every six months.</p> <p>Refer to the recommended NERR changes for the recommended rule.</p>
2(1)	Amend the definition of associate to include a reference to exempt sellers, next to each reference to “retailer”.	This is a consequential change to reflect the extension of the energy marketing rules to the associates of exempt sellers.
53(3)	Amend this provision to include a failure of an associate of an exempt seller to comply with the Energy Marketing Rules to be taken as a failure of the exempt seller to comply with those rules.	This recommended amendment makes it clear that where the Energy Marketing Rules extend to exempt sellers, the associate of the exempt seller is required to comply.
New 56A	Insert new section 56A “Use of prepayment meter at a parent connection point” to provide that despite section 56, a person must not sell energy using a prepayment meter system at a parent connection point.	This recommended provision has the effect of banning the use of prepayment meter systems at the parent connection point of an embedded network. This is to reduce the possibility of supply interruptions to child connection points within an embedded network.
66(1) and new 66(3)	<p>Insert new subsection (3) specifying that an embedded network service provider is only required to establish a new connection for premises or to provide a service relating to a connection alteration for premises located in its embedded network area.</p> <p>Amend subsection (1) to provide that the distributor’s obligations under that subsection are subject to subsection (3) (as well as subject to the energy laws).</p>	The definition of customer connection services includes a service relating to a new connection for premises and a service relating to a connection alteration for premises within an embedded network area. The recommended amendment is not to require embedded network service providers to extend their networks due to the operation of these provisions, but only to provide relevant customer connection services for premises located within their current embedded network area.

Section	Recommended amendment	Purpose of recommended amendment
122	Amend the definition of default RoLR to add a second limb such that, for an off-market connection point, default RoLR has the meaning set out in section 122A.	<p>The recommended additional limb of this definition is needed to make reference to section 122A, which provides that the default RoLR for an off-market connection point is the FRMP for the parent connection point, or where the FRMP for the parent connection point is a failed retailer or the AER has determined that the retailer should not act as a default RoLR, it is the default RoLR for the parent connection point determined under Division 2 of the NERL.</p> <p>The RoLR provisions applicable to on-market connection points within an embedded network are unchanged.</p>
122	Amend the definition of designated RoLR to include reference to a designated RoLR under section 122A(3).	This is a consequential amendment to reflect that the designated RoLR for the purposes of s132(1) (the designation of registered RoLR for a RoLR event) may be different for off-market connection points in accordance with s122A.
New 122A	<p>Insert new provision on default RoLR for an off-market connection point, which provides that:</p> <ul style="list-style-type: none"> Division 2 of Part 6 does not apply to an off-market connection point. For an off-market connection point, the default RoLR is either: (a) the financially responsible Market Participant under the NER for the parent connection point, or (b) at any time the person in (a) is a failed retailer or the AER has made a determination that the person should not be a default RoLR, the default RoLR for the parent connection point determined under Division 2 of the NERL. If a RoLR event occurs in relation to an off-market connection point where the financially responsible retailer is an off-market retailer, for the purposes of section 132(1), the default RoLR for the off-market connection point is taken to be appointed 	<p>This recommended new section is needed to reflect RoLR obligations as they apply to off-market connection points where electricity is sold by off-market retailers.</p> <p>The approach taken is to acknowledge that the most appropriate default RoLR for a failed off-market retailer will be the FRMP for the parent connection point that the off-market retailer on-sells electricity from. Where that FRMP is a failed retailer, the default RoLR for the off-market connection point is then to become the default RoLR for the parent connection point as determined under Division 2.</p> <p>Where an embedded network is connected to another embedded network (sometimes known as 'pancaked' embedded networks), the parent connection point is the parent connection point that connects the series of embedded networks to the Local Network Service Provider's network.</p> <p>Some retailers at parent connection points only supply large customers. Where that is the case and the off-market retailer is in turn selling to small customers in the embedded network, the parent connection point retailer would not be able to meet its obligations to those small customers under the NERR, if it were to be appointed RoLR. To allow for this, the AER will be able to determine that large customer-only retailers are not to be the default RoLR for any off-market connection points.</p>

Section	Recommended amendment	Purpose of recommended amendment
	<p>as the designated RoLR for the off-market connection point in respect of that event.</p> <ul style="list-style-type: none"> The AER may on the application of a retailer determine that the retailer is not to be the default RoLR for any off-market connection points, and providing for the Rules to specify the circumstances in which such a determination may be made, when it must be revoked and the information to be provided. 	<p>The recommended NERL amendments provide for the determination to be made and revoked in accordance with the NERR.</p> <p>It is recommended to amend the NERR to provide that the determination under this clause can only be made whether the AER is satisfied that neither the retailer nor any of its related bodies corporate sell to small customers. The retailer will need to demonstrate every quarter that has not changed. Refer to recommended new rule 11A.</p> <p>The NERR will also require the AER to include the application process and information requirements in the AER RoLR Guidelines.</p>
135 (2)c)	Amend subsection 135(2)(c) to require that the AER RoLR Guidelines provide for any other matter required under the Rules.	This consequential change supports the proposed new rule under which the AER must include in the AER RoLR Guidelines the process for a retailer to apply for a determination that it should not be a default RoLR for off-market connection points and requirements for the retailer to provide information each quarter to demonstrate ongoing compliance.
135(3)	Make a consequential change to subsection 135(3) to refer to different provisions for the failure of retailers for off-market connection points.	This consequential change supports the implementation of section 122A and subsection 135(2)(c).
136 (2)(c)	Amend subsection 136(2)(c) to provide that the RoLR notice provided by the AER must specify the registered RoLR or registered RoLR appointed by the notice (or taken to be appointed), subject to section 122A(3).	This is a consequential amendment due to the new provision relating to the operation of RoLR for off-market connection points.
140(2)	<p>Amend section 140(2) to provide:</p> <ul style="list-style-type: none"> at (a), for electricity—in the case of any metering installation where the failed retailer was as at the transfer date responsible for appointing a Metering Coordinator, the designated RoLR becomes, by force of this Law, the person responsible for appointing the Metering Coordinator at (b), for electricity—in the case of any metering 	<p>These are consequential changes to reflect that under the recommended changes to the NER, all retailers (on and off-market, but excluding exempt sellers) are required to appoint Metering Coordinators (which in turn, facilitates the registration of the NMI for the customers meter with AEMO). This clause is recommended to be amended to reflect that at the time of transfer of responsibility, the designated RoLR is responsible for appointing the Metering Coordinator and where a Metering Coordinator is already appointed, the designated RoLR becomes party to that agreement. As a consequence of deleting clause (c), clauses 7.2.3 and 7.2.5 of the NER are no longer required.</p>

Section	Recommended amendment	Purpose of recommended amendment
	<p>installation in respect of which there is as at the transfer date a metering coordination agreement in force between the failed retailer and a Metering Coordinator, the designated RoLR becomes, by force of this Law, party to that agreement in place of the failed retailer</p> <p>and to delete (c).</p>	
140(8)	<p>Amend subsection 140(8) to delete the definitions of <i>Local Network Service Provider</i>, <i>metering installation</i>, <i>Metering Provider</i> and <i>responsible person</i> and insert new definitions of <i>Metering Coordinator</i> (defined by reference to the NER) and <i>metering coordination agreement</i> (being an agreement under which a retailer appoints a Metering Coordinator to perform the functions of a Metering Coordinator under the NER).</p>	<p>This reflects amendments to the NER relating to the appointment of Metering Coordinators by all registered retailers.</p>
New 286(6)	<p>Insert a new subsection 286(6) providing that the AER Performance Reporting Procedures and Guidelines may vary according to the persons or circumstances to which they are expressed to apply.</p>	<p>This recommended amendment is to allow the AER to limit what it requires from off-market retailers or ENSPs in order to enable the procedures and guidelines to be proportionate to the nature of the activities undertaken by more groups of regulated entities.</p>

Table 2e – NERL

Improve the AER's ability to monitor and enforce exemption conditions, and expand information collection provisions to apply to embedded networks (excluding exempt system operators).

Section	Recommended amendment	Purpose of recommended amendment
2(1)	Add exempt sellers to the definition of " regulated entity ".	This is a consequential change to extend the monitoring and enforcement regime to exempt sellers.
204(1)	Amend this provision to extend the AER's functions and powers to cover exemption conditions in paragraphs (a), (b), (c) and (d).	The recommended changes are needed to extend the AER's monitoring, compliance and enforcement regimes to exempt sellers and in particular, compliance with exemption conditions.
217(1)	Amend this provision to extend the AER's obligations when it decides not to investigate a reported breach to a reported breach of exemption conditions.	This is a consequential change to extend obligations to inform persons of decisions not to investigate breaches, institute proceedings or serve infringement notices arising from being given information regarding a breach or possible breach of an exemption condition.
272, 273(1), 274(1), 275(1), 276(1) and (2), 280(b), 281(2)(a), 289(1) and (2) as a new provision, 291(1), (2) and (3), 292(2)(c), 294, 305, 309	In each of these provisions, include reference to exemption conditions (as an addition to the existing references to the NERL and NERR, etc).	The monitoring, compliance and enforcement regimes in Parts 12 and 13 are recommended to extend to compliance with exemption conditions. Information provision requirements from exempt retailers will be determined by the AER in accordance with its guidelines (subject to the recommended amendment to s282 – see below).
276(2)	Add a reference to an exempt seller after the first reference to a retailer, and change subsequent references to "retailer" to "person".	The purpose of these recommended changes is to allow the AER to require an exempt seller (as well as a retailer) to carry out a compliance audit in relation to its obligations under the NERR or exemption conditions relating to marketing.
282(1)	Amend this provision to exclude exempt sellers from the obligation to provide to the AER information and data about their performance.	In general a regulated entity is to include an exempt seller. However this provision requiring a regulated entity to submit information to the AER is not intended to apply to exempt sellers because such a requirement is not proportionate given the narrow classes of exempt seller intended to

Section	Recommended amendment	Purpose of recommended amendment
		be available under the new arrangements. The AER otherwise has discretionary powers to require an exempt seller to undertake a compliance audit under section 276(1).
Heading before section 291	Amend the heading to include a reference to exemption conditions (as an addition to the existing reference to the NERL and NERR, etc).	This is a consequential amendment to reflect that Division 3 also applies with regard to exemption conditions.

Table 2f – NERL

Provide for implementation of the recommended arrangements by including a power for the Minister to make initial rules to amend the NERR and providing for retail exemptions in effect when the new scheme commences to become legacy exemptions so as to allow for some of these to be grandfathered and others to be transitioned to the new scheme.

Section	Recommended amendment	Purpose of recommended amendment
238AB	<p>Include a new section to allow the South Australian Minister to make initial rules to implement the new arrangements.</p> <p>Provide for initial rules for or with respect to:</p> <ul style="list-style-type: none"> • embedded networks and persons who own, operate or control embedded networks, • the provision of energy services, including customer retail services and customer connection services, to customers connected to embedded networks, • off-market retailers, and • any other subject contemplated by, or consequential on, the EN amendments, <p>and provide for rules that revoke or amend a Rule as a consequence of the enactment of the EN amendments.</p> <p>Include the usual provisions providing for the rules to be made only once and only on the recommendation of the MCE, to clarify the application of section 237(3) to the Minister-made rules, for specification of the commencement date, for notice of the rules to be published in the Gazette and for the new rules to be made publicly available.</p>	<p>The recommended process for implementation of the new regime under the NER and NERR is by means of Minister-made rules. The recommended new section provides the necessary statutory basis for making the recommended rule package.</p>
Schedule 1, Part 2	<p>Include a new Part in Schedule 1 to allow for the transition of current retail exemptions. The new Part should provide for:</p>	<p>The recommended approach to existing retail exemptions is to provide in the NERL for:</p> <ul style="list-style-type: none"> • exemptions in effect on the commencement

Section	Recommended amendment	Purpose of recommended amendment
	<ul style="list-style-type: none"> the commencement day to be the day the amendments to the NERL come into effect, retail exemptions in effect immediately before the commencement day to be legacy retail exemptions, the exemption classes in effect immediately before the commencement day to be legacy retail exemptions, the amended Law, Regulations and Rules to apply to legacy retail exemptions and legacy retail exemption classes as if they were made under the new scheme, the AER to exercise its powers, including enforcement powers, in relation to legacy retail exemptions and legacy retail exemption classes as if they were made under the new scheme. <p>The new Part should also provide for rules to be made for or with respect to:</p> <ul style="list-style-type: none"> exemption conditions applicable to a legacy retail exemption or class of legacy retail exemptions, the revocation of a legacy retail exemption at a time specified in the Rules or on the occurrence of an event or circumstance specified in the Rules, the transition by a legacy exempt system operator to the new retail exemption scheme, and information to be published by the AER about legacy retail exemptions. 	<p>day to be known as 'legacy retail exemptions' and the classes to be known as 'legacy retail exemption classes',</p> <ul style="list-style-type: none"> legacy retail exemptions to be subject to the new framework, including the AER's monitoring and enforcement powers (such that a breach after the commencement day will be enforceable under the new scheme), and rules to be made in the NERR to deal with more detailed transitional matters. <p>The recommended transition arrangements in the NERR in turn provide for:</p> <ul style="list-style-type: none"> a 12-month transition period for the AER and AEMO to make new guidelines and other instruments to implement the new exempt selling scheme on and from the effective date, some legacy retail exemption classes, and legacy retail exemptions in those classes, to have a 2-year period from the effective date to transition to the new regime and for those classes and exemptions to be revoked at the end of that 2-year period, the AER to have power to grant retail exemptions during the 12-month transition period under the current scheme and for these exemptions also to be treated as legacy retail exemptions and where applicable, subject to the 2-year transition and revocation arrangements, and the AER to have power to continue to replace legacy retail exemptions by applying the old guidelines (to be renamed the Legacy Exempt Selling Guidelines) so as to allow for changes in ownership and operation of legacy networks and exempt sellers.

3 Recommended civil penalty provisions

Table 3a – NER provisions recommended to be classified as civil penalty provisions

Provide for the following provisions to be classified as civil penalty provisions by amending the regulations made under the NEL.

Clause	Summary of clause
Clause 4.3.4A(a)	An Embedded Network Service Provider must use reasonable endeavours to exercise its rights and obligations in relation to its embedded network so as to co-operate with and assist AEMO in the proper discharge of the AEMO power system security responsibilities.
Clause 4.3.4A(b)	An Embedded Network Service Provider must, if requested by AEMO in relation to its embedded network, to use reasonable endeavours to ensure that interruptible loads are provided as specified in clause 4.3.5 and clause S5.1.10 of schedule 5.1.
Clause 4.3.4A(c)	An Embedded Network Service Provider must cooperate with AEMO in relation to, design, procure, commission, maintain, monitor, test, modify and report to AEMO in respect of, each emergency frequency control scheme which is applicable in respect of the Embedded Network Service Provider's embedded network.
5.2.3B(b)	An Embedded Network Service Provider must plan and design its facilities and ensure that they are operated to comply with the performance standards applicable to those facilities, its connection agreement applicable to those facilities and the system standards.
5.2.3B(c)(8)	An Embedded Network Service Provider must use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate and order tests in accordance with rule 5.7 where there are reasonable grounds to question the validity of data.
5.2.3B(c)(10)	An Embedded Network Service Provider must forward to AEMO and other Network Service Providers subsequent updates of data available to it and reasonably required for modelling the static and dynamic performance of the power system.
5.2.3B(c)(11)	An Embedded Network Service Provider must provide to AEMO the information required from Generators under schedule 5.2 and from Customers under schedule 5.3 and from Market Network Service Providers under schedule 5.3a in relation to a connection agreement and details of any connection points with other Network Service Providers.
5.2.3B(d)	Where an embedded generating system of a Registered Participant is connected to its embedded network, an Embedded Network Service Provider must arrange for operation of its embedded network in accordance with instructions given by AEMO.
5.2.3B(e)	An Embedded Network Service Provider must comply with applicable regulatory instruments.
5.2.3B(f)	An Embedded Network Service Provider must in respect of a new or altered connection to the distribution network of a Network Service Provider submit an application to connect and enter into a connection agreement with the Network Service Provider in accordance with rule 5.3 prior to that equipment being connected or altered.

5.2.3B(g)	An Embedded Network Service Provider must comply with any terms and conditions of a connection agreement that provide for the implementation, operation, maintenance or performance of a system strength remediation scheme.
5.2.3B(h)	An Embedded Network Service Provider must, if requested, provide information of the type described in clause 4.3.4(o) to AEMO and any other relevant Network Service Provider(s) or Embedded Network Service Provider(s) in accordance with the requirements and circumstances specified in the Power System Model Guidelines, the Power System Design Data Sheet and the Power System Setting Data Sheet. Applicable where, in AEMO's reasonable opinion, there is a risk an Embedded Network Service Provider's plant or equipment will adversely affect network capability, power system security, quality or reliability of supply, inter-regional power transfer capability, adversely affect the use of a network by a Network User or have an adverse system strength impact.
5.2.3B(i)	If in AEMO's reasonable opinion, information of the type described in clause 4.3.4(o) is required to enable a Network Service Provider or Embedded Network Service Provider to conduct the assessment required by clause 5.3.4B, AEMO may request any other relevant Network Service Provider or Embedded Network Service Provider to provide the information, and following such a request, that provider must provide the information to AEMO and the other relevant provider.
5.3C.1(c)	Where an Embedded Network Service Provider is also, or will also be, the Registered Participant or Network User in respect of a generating system or load connected or to be connected to its embedded network, it must prepare and maintain a statement of technical terms and conditions of connection of the generating system or load including the information specified in Part C of Schedule 5.6.
5.3C.2(e)	Within 20 business days of execution of a connection agreement, the Embedded Network Service Provider responsible for the connection point and the Registered Participant must jointly notify AEMO that a connection agreement has been entered into between them and forward to AEMO relevant technical details of the proposed plant and connection, including the information specified in the clause.
5.3C.2(f)	If the application of clause 5.3.9 leads to a variation to an existing connection agreement for a connection to an embedded network, the Embedded Network Service Provider and the Generator must immediately jointly advise AEMO, including the details of any performance standards amended pursuant to clause 5.3.9.
5A.E.3B(i)	An Embedded Network Service Provider must comply with the embedded network connection policy in relation to connection charges for a connection service for its embedded network.
6B.A1.4(b)	A Distribution Network Service Provider required by the shadow network charges procedure to provide information to AEMO for inclusion in the shadow network charges database must provide the information to AEMO at the time and in the manner specified in the shadow network charges procedure and must update the information where required to do so by the shadow network charges procedure.
7.2.1(e)	For an off-market connection point, the off-market retailer who is selling electricity to the retail customer at the connection point must, before starting to sell electricity in respect of the connection point and for so long as the off-market retailer continues to sell electricity to a retail customer at the connection point, ensure that a Metering

	Coordinator is appointed in respect of the connection point in accordance with clause 7.6.2, the connection point has a metering installation and that the metering installation is registered with AEMO and prior to registration, a NMI has been obtained with respect to the connection point.
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Table 3b – NERR provisions recommended to be classified as civil penalty provisions

Provide for the following provisions to be classified as civil penalty provisions by amending the regulations made under the NERL.

Rule	Effect of rule
90A(1)	An embedded network service provider must, by any appropriate means, notify each affected customer on its embedded network of an embedded network planned interruption as soon as practicable after receipt of a notice of the interruption under rule 99B and in any event within 1 business day.
90A(2)	The notification under subrule 90A(1) must specify the expected date, time and duration of the embedded network planned interruption and include a statement that any enquiries regarding the embedded network planned interruption are to be directed to the retailer or distributor responsible for the embedded network planned interruption.
99B(1)	Where a distributor planned interruption will interrupt the supply of electricity at a parent connection point, the distributor must notify the distributor for the embedded network of the distributor planned interruption and include in the notice the expected date, time and duration of the distributor planned interruption. It must provide the notification (as applicable) on the same day the customer provides consent to the distributor under subrule 90(1) or within the same time period as the distributor is required to notify the customer under subrule 90(1B).
99B(2)	An embedded network service provider must, by any appropriate means, notify each retailer who is the financially responsible retailer for a connection point on the embedded network of an embedded network planned interruption and include in the notice the expected date, time and duration of the distributor planned interruption and provide the notification as soon as practicable after receipt of a notice of the interruption under rule 99B(1) and in any event within 1 business day.
99B(3)	The notification under subrule 99B(2) must specify the expected date, time and duration of the embedded network planned interruption.
99B(4)	Where a retailer planned interruption will interrupt the supply of electricity at a parent connection point, the retailer must also give notice of the interruption in accordance with rule 99A to the distributor for each embedded network connected at or through the parent connection point and each retailer who is the financially responsible retailer for a connection point on each such embedded network.

CHAPTER**2. Registered Participants, ~~and~~ Registration and Exemptions****Part A Registered Participants and Registration****2.1 Registered Participants****2.1.1 Purpose**

This ~~Chapter-Part~~ sets out and describes the various categories of *Registered Participants* and the registration procedures. It also sets out the fees payable by *Registered Participants*.

2.1.2 General

- (a) **[Deleted]**
- (b) **[Deleted]**
- (c) The different categories of *Registered Participants* have different obligations under the *Rules*.
- (d) Rules 2.2 to 2.7 set out the *Registered Participant* categories and requirements which a person must satisfy in order to be registered by AEMO in relation to each of those *Registered Participant* categories.
- (e) Each prospective *Registered Participant* must apply to AEMO for registration in accordance with rule 2.9.
- (e1) Rule 2.9A sets out the process to be followed in order to transfer a *Registered Participant's* registration to another person.
- (f) Each *Registered Participant* must pay to AEMO the prescribed fees determined in accordance with the provisions of rule 2.11.

2.2 Generator**2.2.1 Registration as a Generator**

- (a) Subject to clause 2.2.1(c), a person must not engage in the activity of owning, controlling or operating a *generating system* that is *connected* to a *transmission or distribution system* unless that person is registered by AEMO as a *Generator*.
- (b) **[Deleted]**

- (c) *AEMO* may, in accordance with guidelines issued from time to time by *AEMO*, exempt a person or class of persons from the requirement to register as a *Generator*, subject to such conditions as *AEMO* deems appropriate, where (in *AEMO*'s opinion) an exemption is not inconsistent with the *national electricity objective*.

Note:

A person who is exempt from registration as a *Generator*, may register with *AEMO* as a *Small Generation Aggregator* under rule 2.3A.

- (d) Without limitation, an exemption may be given which only relieves a person or class of persons from the requirement to register as a *Generator* in relation to certain specified *generating systems* or classes of *generating systems*.
- (e) To be eligible for registration as a *Generator*, a person must:
 - (1) obtain the approval of *AEMO* to classify each of the *generating units* that form part of the *generating system* that the person owns, operates or controls, or from which it otherwise sources electricity, as:
 - (i) a *scheduled generating unit*;
 - (ii) a *semi-scheduled generating unit*; or
 - (iii) a *non-scheduled generating unit*;
 - (2) classify the *generating units* in accordance with *AEMO*'s approval as referred to in subparagraph (1); and
 - (3) satisfy *AEMO* that each *generating system* will be capable of meeting or exceeding its *performance standards*.
- (f) Except in relation to a proposed *generating unit*, a person must also classify each of those *generating units* as either a *market generating unit* or a *non-market generating unit*.
- (f1) A *Generator* may also classify one or more of its *generating units* as an *ancillary service generating unit* where it has obtained the approval of *AEMO* to do so.
- (g) Nothing in clause 2.2.1(e) or (f) requires the classification of any *generating unit* which forms part of a *generating system* in respect of which an exemption under clause 2.2.1(c) applies.

2.2.2 Scheduled Generator

- (a) A *generating unit* which has a *nameplate rating* of 30 MW or greater or is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of 30 MW or greater must be classified as a *scheduled generating unit* unless *AEMO* approves its classification as:
 - (1) a *semi-scheduled generating unit* under clause 2.2.7(b); or
 - (2) a *non-scheduled generating unit* in accordance with clause 2.2.3(b).
- (b) A person must not classify a *generating unit* as a *scheduled generating unit* unless it has obtained the approval of *AEMO* to do so. *AEMO* must approve the classification if it is satisfied that the person:
 - (1) has submitted data in accordance with schedule 3.1; and

- (2) has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses.
- (b1) In relation to an application under clause 2.2.2(b) to classify as a *scheduled generating unit* a *generating unit* with a *nameplate rating* of less than 30 MW, or a *generating unit* that is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of less than 30 MW, *AEMO* may approve the classification on such terms and conditions as *AEMO* considers appropriate.
- (c) A person must comply with any terms and conditions imposed by *AEMO* as part of an approval under clause 2.2.2(b1).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) **[Deleted]**
- (e) A *Generator* is taken to be a *Scheduled Generator* only in so far as its activities relate to any *scheduled generating unit*.
- (f) A *Scheduled Generator* must operate any *scheduled generating unit* in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3.
- (g) As described in Chapter 3, a *Scheduled Generator* must notify *AEMO* of the availability of each *scheduled generating unit* in respect of each *trading interval*.
- (h) A *Scheduled Generator* may submit to *AEMO* a schedule of *dispatch offers* for each *scheduled generating unit* in respect of each *trading interval* for *dispatch* by *AEMO*.

2.2.3 Non-Scheduled Generator

- (a) A *generating unit* with a *nameplate rating* of less than 30 MW (not being part of a group of *generating units* described in clause 2.2.2(a)) must be classified as a *non-scheduled generating unit* unless *AEMO* approves its classification as:
 - (1) a *scheduled generating unit* under clause 2.2.2(b); or
 - (2) a *semi-scheduled generating unit* under clause 2.2.7(b).
- (b) A person must not classify a *generating unit* as a *non-scheduled generating unit* unless the person has obtained the approval of *AEMO* to do so. *AEMO* must approve the classification if it is satisfied that:
 - (1) the primary purpose for which the relevant *generating unit* operates is local use and the aggregate *sent out generation* at its *connection point* rarely, if ever, exceeds 30 MW; or
 - (2) the physical and technical attributes of the relevant *generating unit* are such that it is not practicable for it to participate in *central dispatch*.
- (c) If, in relation to an application under paragraph (b), in *AEMO's* opinion it is necessary for any reason (including *power system security*) for the relevant

Generator to comply with some of the obligations of a *Scheduled Generator* or *Semi-Scheduled Generator* for that *generating unit*, AEMO may approve the classification on such terms and conditions as AEMO considers reasonably necessary.

- (d) A person must comply with any terms and conditions imposed by AEMO under paragraph (c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A *Generator* is taken to be a *Non-Scheduled Generator* only in so far as its activities relate to a *non-scheduled generating unit*.
- (f) Subject to clause 3.8.2(e), the *non-scheduled generating units* of a *Generator* do not participate in the co-ordinated *central dispatch* process operated by AEMO.

2.2.4 Market Generator

- (a) A *generating unit* whose *sent out generation* is not purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* must be classified as a *market generating unit*.
- (b) A *Generator* is taken to be a *Market Generator* only in so far as its activities relate to any *market generating units*.
- (c) A *Market Generator* must sell all *sent out generation* through the *spot market* and accept payments from AEMO for *sent out generation* at the *spot price* applicable at the *connection point* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *Market Generator* must purchase all electricity *supplied* through the *national grid* to the *Market Generator* at that *connection point* from the *spot market* and make payments to AEMO for such electricity supplied at the *connection point* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

2.2.5 Non-Market Generator

- (a) A *generating unit* whose *sent out generation* is purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* must be classified as a *non-market generating unit*.
- (b) A *Generator* is taken to be a *Non-Market Generator* only in so far as its activities relate to any *non-market generating unit*.

- (c) A *Non-Market Generator* is not entitled to receive payment from *AEMO* for *sent out generation* except for any compensation that may be payable to it as a *Directed Participant* or *Affected Participant*.

2.2.6 Ancillary services generating unit

- (a) If the *Market Generator* in respect of a *generating unit* wishes to use that *generating unit* to provide *market ancillary services* in accordance with Chapter 3, then the *Market Generator* must apply to *AEMO* for approval to classify the *generating unit* as an *ancillary service generating unit*.
- (b) An application under clause 2.2.6(a) must be in the form prescribed by *AEMO* and specify the *market ancillary services* which the *Market Generator* wishes to provide using the relevant *generating unit*.
- (c) *AEMO* must, within 5 *business days* of receiving an application under clause 2.2.6(a), advise the applicant of any further information or clarification which is required in support of its application if, in *AEMO*'s reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires clarification.
- (d) If the further information or clarification required pursuant to clause 2.2.6(c) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, then the *Market Generator* will be deemed to have withdrawn the application.
- (e) If *AEMO* is reasonably satisfied that:
 - (1) the *generating unit* is able to be used to provide the *market ancillary services* referred to in the application in accordance with the *market ancillary service specification*; and
 - (2) the *Market Generator* has adequate communication and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses,
 then *AEMO* must approve the classification in respect of the particular *market ancillary services*.
- (f) If *AEMO* approves the classification of a *generating unit* as an *ancillary service generating unit*, then *AEMO* may impose on the relevant *Market Generator* such terms and conditions as *AEMO* considers necessary to ensure that the provisions of the *Rules* applying to *market ancillary services* can be met.
- (g) A *Market Generator*:
 - (1) must comply with any terms and conditions imposed by *AEMO* under clause 2.2.6(f);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) must ensure that the *market ancillary services* provided using the relevant *ancillary services generating unit* are provided in accordance with the co-ordinated *central dispatch* process operated by *AEMO*

under the provisions of Chapter 3 and in accordance with the *market ancillary service specification*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) may submit to *AEMO market ancillary service offers* in respect of the *ancillary service generating unit* in accordance with the provisions of Chapter 3; and
- (4) if the *Market Generator* submits a *market ancillary service offer* in respect of the relevant *ancillary service generating unit*, must comply with the *dispatch instructions* from *AEMO* in accordance with the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) A *Market Generator* with an *ancillary service generating unit* must only sell the *market ancillary services* produced using that *ancillary service generating unit* through the *spot market* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) A *Market Generator* is not entitled to receive payment from *AEMO* for *market ancillary services* except where those *market ancillary services* are produced using an *ancillary service generating unit* in accordance with Chapter 3 or pursuant to a *direction* or *clause 4.8.9 instruction*.

2.2.7 Semi-Scheduled Generator

- (a) A *generating unit* which has a *nameplate rating* of 30 MW or greater or is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of 30 MW or greater, must be classified as a *semi-scheduled generating unit* where the output of the *generating unit* is *intermittent* unless *AEMO* approves its classification as:
 - (1) a *scheduled generating unit* under clause 2.2.2(b); or
 - (2) a *non-scheduled generating unit* under clause 2.2.3(b).
- (b) A person must not classify a *generating unit* as a *semi-scheduled generating unit* unless the person has obtained the approval of *AEMO* to do so.
- (c) *AEMO* must approve a request for classification as a *semi-scheduled generating unit* if it is satisfied that the output of the *generating unit* is *intermittent* and that the person:
 - (1) has submitted data in accordance with schedule 3.1;

- (2) has submitted an *energy conversion model* which contains the information described in the guidelines referred to in paragraph (d); and
- (3) has adequate communications and telemetry to support the issuing of *dispatch instructions* and the audit of responses.
- (d) *AEMO* must develop and *publish* guidelines in consultation with *Semi-Scheduled Generators* and such other person that *AEMO*, acting reasonably, considers appropriate setting out the information to be contained in *energy conversion models*. Any amendments to the guidelines are also to be made in consultation with *Semi-Scheduled Generators* and such other person that *AEMO*, acting reasonably, considers appropriate.
- (e) In relation to an application under paragraph (b) to classify a *generating unit* with a *nameplate rating* of less than 30 MW, or a *generating unit* that is part of a group of *generating units connected* at a common *connection point* with a combined *nameplate rating* of less than 30 MW, as a *semi-scheduled generating unit*, *AEMO* may approve the classification on such terms and conditions as *AEMO* considers appropriate.
- (f) A person must comply with any terms and conditions imposed by *AEMO* as part of an approval under paragraph (e).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) A *Generator* is taken to be a *Semi-Scheduled Generator* only in so far as its activities relate to a *semi-scheduled generating unit*.
- (h) A *Semi-Scheduled Generator* must operate a *semi-scheduled generating unit* in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3.
- (i) At the time that a person makes a request for *AEMO* to classify a *semi-scheduled generating unit* under paragraph (c), that person may request to register two or more *generating units* as one *semi-scheduled generating unit* when the *generating units*:
 - (1) are connected at a single site with:
 - (i) the same *intra-regional loss factor*; or
 - (ii) if two *intra-regional loss factors* are determined for the site under clause 3.6.2(b)(2), the same two *intra-regional loss factors*;
 - (2) each have a capacity of not more than 6MW; and
 - (3) have similar *energy conversion models*,

and *AEMO* must approve the request unless, in *AEMO's* opinion, registering the relevant *generating units* as one *semi-scheduled generating unit* could adversely impact on *power system security*.

- (j) Notwithstanding that one or more of the conditions set out in paragraph (i) may not have been fulfilled by the *Semi-Scheduled Generator*, *AEMO* may approve a request received under paragraph (i) if registration as a single

semi-scheduled generating unit would not materially distort *central dispatch* or adversely affect *power system security*.

- (k) Where *AEMO* approves a request to register two or more *generating units* as one *semi-scheduled generating unit* in accordance with paragraph (i) or (j), the *generating units* will be taken to be one *semi-scheduled generating unit* for the purposes of the *Rules*.
- (l) For the avoidance of doubt, a *Semi-Scheduled Generator* which operates two or more *semi-scheduled generating units* that could have been registered as a single *semi-scheduled generating unit* under paragraph (i) but were not so registered, may subsequently aggregate those *generating units* in accordance with clause 3.8.3.

2.3 Customer

2.3.1 Registration as a Customer

- (a) A *Customer* is a person so registered by *AEMO* and who engages in the activity of purchasing electricity *supplied* through a *transmission or distribution system* to a *connection point*.
- (b) To be eligible for registration as a *Customer*, a person must satisfy *AEMO* (acting reasonably) that:
 - (1) the person intends to classify within a reasonable period of time its electricity purchased at one or more *connection points* as a *first-tier load*, a *second-tier load* or a *market load* or an *intending load*; or
 - (2) registration is for the purpose of acting as a *RoLR*.
- (c) A person must not engage in the activity of purchasing electricity directly from the *market* at any *connection point*, unless that person is registered by *AEMO* as a *Market Participant* and that *connection point* is classified as one of that person's *market connection points*.
- (d) A person who engages in the activity of purchasing electricity at any *connection point* otherwise than directly from the *market* may, but is not required to, apply for registration by *AEMO* as a *First-Tier Customer*, a *Second-Tier Customer* or an *Intending Participant* provided that person is entitled to classify its electricity purchased at that *connection point* based on the threshold criteria set out in clause 2.3.1(e).
- (e) A person may not classify its electricity purchased at any *connection point* unless the person satisfies the requirements of the *participating jurisdiction* in which the *connection point* is situated so that (subject to compliance with the *Rules*) the person is permitted to purchase electricity in the *spot market* in relation to that *connection point*.
- (f) A *Market Customer* may classify one or more of its *market loads* as an *ancillary service load* in accordance with clause 2.3.5.

2.3.2 First-Tier Customer

- (a) If any electricity *supplied* through the *national grid* is purchased by a person at a *connection point* directly and in its entirety from the *Local Retailer*, the

load at that *connection point* may be classified by that person as a *first-tier load*.

- (b) A *Customer* is taken to be a *First-Tier Customer* only in so far as its activities relate to any *first-tier load*.
- (c) A *First-Tier Customer* must not participate in the *spot market* for any *first-tier load*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

2.3.3 Second-Tier Customer

- (a) Subject to clause 2.3.3(d), if any electricity *supplied* through the *national grid* is purchased by a person at a *connection point* other than directly from the *Local Retailer* or the *spot market* all electricity purchased by that person at that *connection point* may be classified by that person as a *second-tier load*.
- (b) A *Customer* is taken to be a *Second-Tier Customer* only in so far as its activities relate to any *second-tier load*.
- (c) A *Second-Tier Customer* must not participate in the *spot market* for any of its *second-tier loads*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A person's purchase of electricity at a *connection point* may only be classified as a *second-tier load* while a *Market Customer*, from whom the person directly or indirectly purchases the electricity, classifies the *connection point* as one of its *market loads*.

2.3.4 Market Customer

- (a) If electricity, *supplied* through the *national grid* to any person *connected* at a *connection point*, is purchased other than from the *Local Retailer* that *load* at the *connection point* may be classified by that person or, with the consent of that person, by some other person as a *market load*.
- (b) A *Customer* is taken to be a *Market Customer* only in so far as its activities relate to any *market load* and only while it is also registered with *AEMO* as a *Market Customer*.
- (c) A *Market Customer* must purchase all electricity *supplied* at that *connection point* from the *spot market* and make payments to *AEMO* for electricity supplied at the *connection point* as determined for each *trading interval* in accordance with provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *Market Customer* may request *AEMO* to classify any of its *market loads* as a *scheduled load*.
- (e) *AEMO* must classify a *market load* as a *scheduled load* if it is satisfied that the *Market Customer*:
 - (1) has submitted data in accordance with schedule 3.1;
 - (2) has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses; and
 - (3) has requested that the *load* be so classified and has not withdrawn that request.
- (f) A *Market Customer* may submit *dispatch bids* in respect of *scheduled loads* in accordance with the provisions of Chapter 3.
- (g) A *Market Customer* who submits *dispatch bids* for *scheduled loads* and makes its *scheduled loads* available for *central dispatch* must comply with the *dispatch instructions* from *AEMO* in accordance with the *Rules*.
- (h) A *Customer* who is also a *Local Retailer* must classify any *connection point* which *connects* its *local area* to another part of the *power system* as a *market load*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

2.3.5 Ancillary services load

- (a) If a *Market Ancillary Service Provider* in respect of a *load*, or the *Market Customer* in respect of a *market load*, wishes to use that *load* or *market load* to provide *market ancillary services* in accordance with Chapter 3, then the *Market Ancillary Service Provider* or *Market Customer* (as the case may be) must apply to *AEMO* for approval to classify the *load* or *market load* as an *ancillary service load*.
- (b) An application under paragraph (a) must be in the form prescribed by *AEMO* and:
 - (1) specify the *market ancillary services* which the *Market Ancillary Service Provider* in respect of a *load* or *Market Customer* in respect of a *market load* (as the case may be) wishes to provide using the relevant *load* or *market load*; and
 - (2) in the case of an application made by a *Market Ancillary Service Provider*, not be in respect of a *market load* that is a *scheduled load*.
- (c) *AEMO* must, within 5 *business days* of receiving an application under paragraph (a), advise the applicant of any further information or clarification which is required in support of its application if, in *AEMO's* reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires classification.

- (d) If the further information or clarification required pursuant to paragraph (c) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, then the *Market Ancillary Service Provider* or *Market Customer* (as applicable) will be deemed to have withdrawn the application.
- (e) If *AEMO* is reasonably satisfied that:
 - (1) the *load* is able to be used to provide the *market ancillary services* referred to in the application in accordance with the *market ancillary service specification*;
 - (1A) the *Market Ancillary Service Provider* or the *Market Customer* (as the case may be) has an arrangement with the *retail customer* at the relevant *connection point* for the supply of *market ancillary services*; and
 - (2) the *Market Ancillary Service Provider* or the *Market Customer* (as the case may be) has adequate communications and/or telemetry to support the issuing of *dispatch instructions* and the audit of responses,
 then *AEMO* must approve the classification in respect of the particular *market ancillary services*.
- (f) If *AEMO* approves the classification of a *load* as an *ancillary service load*, then *AEMO* may impose on the relevant *Market Ancillary Service Provider* or *Market Customer* (as the case may be) such terms and conditions as *AEMO* considers necessary to ensure that the provisions of the *Rules* applying to *market ancillary services* can be met.
- (g) A *Market Ancillary Service Provider* and *Market Customer* (as applicable):
 - (1) must comply with any terms and conditions imposed by *AEMO* under paragraph (f);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) must ensure that the *market ancillary services* provided using the relevant *ancillary services load* are provided in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3 and in accordance with the *market ancillary service specification*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) may submit to *AEMO* *market ancillary service offers* in respect of the *ancillary service load* in accordance with the provision of Chapter 3; and
- (4) if the *Market Ancillary Service Provider* or *Market Customer* (as applicable) submits a *market ancillary service offer* in respect of the relevant *ancillary service load*, must comply with the *dispatch instructions* from *AEMO* in accordance with the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) A *Market Ancillary Service Provider* or *Market Customer* (as applicable) with an *ancillary service load* must only sell the *market ancillary services* produced using that *ancillary service load* through the *spot market* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) A *Market Ancillary Service Provider* or *Market Customer* (as applicable) is not entitled to receive payment from AEMO for *market ancillary services* except where those *market ancillary services* are produced using an *ancillary service load* in accordance with Chapter 3 or pursuant to a *direction* or *clause 4.8.9 instruction*.
- (j) A *Market Ancillary Service Provider* and *Market Customer* (as applicable) must immediately notify AEMO if a *load* it has classified as an *ancillary service load* ceases to meet the requirements for classification under this clause 2.3.5.

2.3A Small Generation Aggregator

2.3A.1 Registration

- (a) A person who intends to supply electricity from one or more *small generating units* to a *transmission or distribution system* may, upon application for registration by that person in accordance with rule 2.9, be registered by AEMO as a *Small Generation Aggregator*.
- (b) To be eligible for registration as a *Small Generation Aggregator*, a person must satisfy AEMO that the person intends to classify, within a reasonable amount of time, one or more *small generating units* each as a *market generating unit*, with each *market generating unit* having a separate *connection point*.
- (c) A person must not engage in the activity of selling electricity directly to the *market* at any *connection point*, unless that person is registered by AEMO as a *Market Participant* and that *connection point* is classified as one of that person's *market connection points*.
- (d) A person must not classify a *small generating unit* as a *market generating unit* for electricity supplied from any *connection point* unless the person satisfies the requirements of the *participating jurisdiction* in which the *connection point* is situated so that (subject to compliance with the *Rules*) the person is permitted to supply electricity in the *spot market* in relation to that *connection point*.
- (e) A *Market Small Generation Aggregator* must classify each *small generating unit* from which it proposes to supply electricity as a *market generating unit*, with each *market generating unit* having a separate *connection point*.

- (f) A *Market Small Generation Aggregator's* activities only relate to *small generating units* it has classified as *market generating units*, and only while it is also registered with AEMO as a *Small Generation Aggregator*.
- (g) A *Market Small Generation Aggregator* must sell all *sent out generation* through the *spot market* and accept payments from AEMO for all *sent out generation* at the *spot price* applicable at the *connection point* for which it is *financially responsible* as determined for each *trading interval* in accordance with the provisions of Chapter 3.
- (h) A *Market Small Generation Aggregator* must purchase all electricity supplied through the *national grid* to the *Market Small Generation Aggregator* at that *connection point* from the *spot market* and make payments to AEMO for such electricity supplied at the *connection point* for which it is *financially responsible* as determined for each *trading interval* in accordance with the provisions of Chapter 3.

2.3AA Market Ancillary Service Provider

2.3AA.1 Registration

- (a) A person must not engage in the activity of offering and providing *market ancillary services* in accordance with Chapter 3 as a *Market Ancillary Service Provider* unless that person is registered by AEMO as a *Market Ancillary Service Provider*.
- (b) To be eligible for registration as a *Market Ancillary Service Provider*, a person must:
 - (1) obtain the approval of AEMO to classify *load connected* to a *transmission or distribution system* that it wishes to use to provide *market ancillary service* by:
 - (i) identifying units of *load* under its ownership, operation or control;
 - (ii) demonstrating how *load* identified in (i) are under its ownership, operation or control; and
 - (iii) demonstrating that the *load* identified in (i) has the required equipment to be used to provide *market ancillary service*;
 - (2) satisfy AEMO that each *load* referred to in subparagraph (1) will be capable of meeting or exceeding the relevant *performance standards* and specifications to AEMO's satisfaction.
- (c) A *Market Ancillary Service Provider* may classify the *load* referred to in subparagraph (b)(1) as an *ancillary service load* in accordance with clause 2.3.5 where it has obtained the approval of AEMO to do so.
- (d) A *Market Ancillary Service Provider's* activities only relate to *loads* it has classified (in its capacity as a *Market Ancillary Service Provider*) as *ancillary service loads*, and only while it is also registered with AEMO as a *Market Ancillary Service Provider*.

2.4 Market Participant**2.4.1 Registration as a category of Market Participant**

- (a) A *Market Participant* is a person registered by *AEMO* as any one or more of the following categories:
 - (1) *Market Customer*;
 - (1A) *Market Small Generation Aggregator*;
 - (1B) *Market Ancillary Service Provider*;
 - (2) *Market Generator*;
 - (3) *Market Network Service Provider*.
- (b) A *Market Participant* may only participate in the *market* in the category in which it has been registered.
- (c) A *Market Participant* may only participate in any of the *markets* or trading activities conducted by *AEMO* if that *Market Participant* satisfies the relevant *prudential requirements* set out in Chapter 3 applicable to the relevant trading activity.

2.4.2 Eligibility

To be eligible to be registered as any category of *Market Participant*, a person must:

- (a) satisfy *AEMO* that it is and will be able to satisfy the *prudential requirements* as set out in rule 3.3 applicable to all *Market Participants* and those applicable to the relevant category of *Market Participant* in which that person wishes to participate in the *market*;
- (b) satisfy *AEMO* that it meets any relevant requirements imposed under relevant *jurisdictional electricity legislation*;
- (c) satisfy *AEMO* that it is also registered:
 - (1) as a *Generator*, for registration as a *Market Generator*;
 - (2) as a *Customer*, for registration as a *Market Customer*;
 - (2A) as a *Small Generation Aggregator*, for registration as a *Market Small Generation Aggregator*; or
 - (3) as a *Network Service Provider*, for registration as a *Market Network Service Provider*;
- (d) satisfy *AEMO* that it is complying and will comply with other relevant obligations set out in the *Rules*; and
- (e) pay the prescribed fees determined in accordance with rule 2.11.

2.4A Metering Coordinator**2.4A.1 Registration as a Metering Coordinator**

- (a) A *Metering Coordinator* is a person so registered by *AEMO* who engages in the coordination and provision of *metering* services at a *connection point*.

- (b) *AEMO* may exempt a *Transmission Network Service Provider* from satisfying one or more registration requirements when registering as a *Metering Coordinator* for *transmission network connection points* on its *transmission network*, subject to such conditions as *AEMO* deems appropriate, where (in *AEMO*'s reasonable opinion) the exemption is not inconsistent with the *national electricity objective*.
- (c) Subject to clause 2.4A.2(b), *AEMO* must not register a *Market Customer* as a *Metering Coordinator*.
- (d) A person who is registered with *AEMO* as a *Metering Coordinator* is:
 - (1) except as specified in subparagraph (2), a *Registered Participant* for the purposes of the *Rules*; and
 - (2) not a *Registered Participant* for the purposes of Part A of Chapter 5 of the *Rules*, unless the person is also registered in another category of *Registered Participant*.

2.4A.2 Eligibility

- (a) To be eligible for registration as a *Metering Coordinator*, a person must:
 - (1) subject to paragraph (b), not be a *Market Customer* or an off-market retailer;
 - (2) satisfy *AEMO* that it is complying with and will comply with the *Rules* and the procedures authorised under the *Rules*;
 - (3) in respect of a *Metering Coordinator* who is appointed, or is proposed to be appointed, as *Metering Coordinator* at a *small customer metering installation*, have appropriate processes in place to determine that a person seeking access to a service listed in the *minimum services specification* is an *access party* in respect of that service;
 - (4) subject to paragraph (c), ensure that there is an appropriate security control management strategy and associated infrastructure and communications systems for the purposes of preventing unauthorised local access or remote access to *metering installations*, services provided by *metering installations* and *energy data* held in *metering installations*;
 - (5) have insurance as considered appropriate by *AEMO*; and
 - (6) pay the prescribed fees determined in accordance with rule 2.11.
- (b) Clause 2.4A.1(c) and subparagraph (a)(1) do not apply to:
 - (1) a person who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one or more *connection points* or proposed *connection points* on a *transmission network*; or
 - (2) a *Generator* who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one or more *connection points* or proposed *connection points* that *connect a Generator's generating unit* to a *distribution network*.
- (c) Subparagraph (a)(4) does not apply to a *Generator* who is only appointed, or is proposed to be only appointed, as *Metering Coordinator* in respect of one

or more *connection points* or proposed *connection points* that *connect* a *Generator's generating unit* to a *distribution network*.

2.5 Network Service Provider

2.5.1 Registration as a Network Service Provider

- (a) Subject to clause 2.5.1(d) ~~and Part B~~, a person must not engage in the activity of owning, controlling or operating a *transmission or distribution system* unless that person is registered by AEMO as a *Network Service Provider*.

Note

A *Network Service Provider* who classifies its *distribution system* as an *embedded network* under clause 2.5.4 will be an *Embedded Network Service Provider*. A person who is exempt from registration will be an *Exempt System Operator*.

- (b) ~~[Deleted]~~

- (c) ~~[Deleted]~~

- ~~(d) The AER may, subject to and in accordance with Part B, exempt any person or class of persons who engages or engage in the activity of owning, controlling or operating a *transmission or distribution system* from the requirement to register as a *Network Service Provider*.~~

- ~~(d) The AER may, in accordance with the *guidelines* issued from time to time by the AER, exempt any person or class of persons who is or are required to register as a *Network Service Provider* from:~~

~~(1) the requirement to register as a *Network Service Provider*; or~~

~~(2) the operation of Chapter 5;~~

~~where (in the AER's opinion) an exemption is not inconsistent with the *national electricity objective*.~~

- ~~(d1) An exemption granted by the AER under paragraph (d):~~

~~(1) is, if the exemption relates to a person who owns, controls or operates an *embedded network*, deemed to be subject to the *ENM conditions* unless:~~

~~(i) the *embedded network* the subject of the exemption is located in a *participating jurisdiction* in which persons *connected*, or proposed to be *connected*, to the *embedded network* are not afforded the right to a choice of *retailer*; or~~

~~(ii) the AER has made a determination under paragraph (d2); and~~

~~(2) may be subject to such other conditions as the AER deems appropriate.~~

- ~~(d2) If the AER considers that the likely costs of complying with *ENM conditions* outweigh the likely benefits to persons *connected*, or proposed to be *connected*, to the *embedded network*, the AER may, when granting an exemption under paragraph (d), determine to exempt that person or class of persons from the requirement to comply with the *ENM conditions* until such time as an *ENM conditions trigger* occurs.~~

- ~~(d3) An exemption granted by the AER under paragraph (d) is, if the exemption relates to a person who owns, controls or operates a *large dedicated*~~

~~connection asset, deemed to be subject to the condition that the person must comply with clause 5.2A.6(c), clause 5.2A.8 and rule 5.5, as if that person were a *Dedicated Connection Asset Service Provider*.~~

- ~~(d4) A person granted an exemption under paragraph (d3) must comply with the deemed conditions and any other conditions imposed by the AER for that exemption.~~

Note

~~This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)~~

- ~~(e) The AER must develop and issue guidelines for the exemptions described in clause 2.5.1(d) pursuant to the *Rules consultation procedures* and in accordance with those procedures consult with *Registered Participants* and authorities responsible for administering the *jurisdictional electricity legislation*.~~
- ~~(e1) Without limitation, an exemption may be given which only relates to certain specified *transmission or distribution systems* or classes of *transmission or distribution systems*.~~
- ~~(f) Prior to granting any exemption under clause 2.5.1(d), the AER must consult with the authorities responsible for administering the *jurisdictional electricity legislation* in the *participating jurisdictions* in which any *transmission systems or distribution systems* owned, operated or controlled by persons or class of persons under exemption consideration are located.~~
- ~~(g) Without limitation, an exemption may be given which only relieves a person or class of persons from either or both of the matters described in clause 2.5.1(d)(1) or (2) in relation to certain specified *transmission or distribution systems* or classes of *transmission or distribution systems*.~~

2.5.1A Dedicated Connection Asset Service Provider

- (a) This clause 2.5.1A has no application to the *declared transmission system* of an *adoptive jurisdiction*.
- (b) A *Transmission Network Service Provider* must classify any parts of its *transmission system* that are *dedicated connection assets* into *large dedicated connection assets* and *small dedicated connection assets*.

Note

A *third party DCA* is defined for the purposes of Chapter 2 to be a *transmission system*.

- (c) A *Transmission Network Service Provider* wishing to classify a *dedicated connection asset* must apply to do so in its application under rule 2.9 or separately by submitting a notice to AEMO in the form prescribed for this purpose by AEMO. The *Transmission Network Service Provider* must provide sufficient evidence to satisfy AEMO that the *dedicated connection asset* is appropriately classified as a *large dedicated connection asset* or *small dedicated connection asset* (as applicable).
- (d) If AEMO receives an application for classification under paragraph (d), it may approve or reject the application. AEMO must approve the classification of a *dedicated connection asset* if it is satisfied, based on the evidence that it

is provided by the *Transmission Network Service Provider*, that the part of the *transmission system* is a *large dedicated connection asset* or *small dedicated connection asset* (as applicable).

- (e) Nothing in paragraph (b) requires the classification of any *dedicated connection asset* which forms part of a *transmission system* in respect of which an exemption under paragraph 2.5.1(d) applies.
- (f) A *Dedicated Connection Asset Service Provider* is:
 - (1) only required to comply with a rule that is expressed to apply to a *Network Service Provider* or a *Transmission Network Service Provider* in those capacities where the rule expressly provides that it applies to a *Dedicated Connection Asset Service Provider*; and
 - (2) required to comply with all rules which are expressed to apply to a *Registered Participant*.
- (g) A *Transmission Network Service Provider* is taken to be a *Dedicated Connection Asset Service Provider* only in so far as its activities relate to any of its *dedicated connection assets*.

2.5.2 Market Network Service

- (a) A *Network Service Provider* may classify a *network service* as a *market network service* if and only if the following conditions are satisfied and continue to be satisfied:
 - (1) the relevant *network service* is to be provided by *network elements* which comprise a *two-terminal link* and do not provide any *transmission service* which is subject to a *revenue determination* or any *direct control service*;
 - (2) the *Network Service Provider* is registered under clause 2.5.1 in respect of the *network elements* which provide the relevant *market network service*;
 - (3) the relevant *network service*:
 - (A) has not ever been a *transmission service* to which a *transmission determination* has applied or a *direct control service*; or
 - (B) is ineligible to be such a service;
 - (4) the *connection points* of the relevant *two-terminal link* are assigned to different *regional reference nodes*; and
 - (5) the relevant *two-terminal link* through which the *network service* is provided:
 - (A) does not form part of a *network loop*; or
 - (B) is an *independently controllable two-terminal link*,
 and has a registered *power transfer capability* of at least 30 MW.
- (b) A *market network service* is not a prescribed transmission service or a *direct control service* and a *Network Service Provider* is not entitled to impose charges for a *market network service* under Chapter 6 or Chapter 6A.

- (c) If an existing *network service* ceases to be classified as a *market network service*, the *AER* may at its discretion determine the service to be a *prescribed transmission service* or a *direct control service*. In that case, the *AER* may make consequential changes to the relevant transmission determination or distribution determination (as the case requires) to accommodate the service.
- (d) A *Network Service Provider* is taken to be a *Market Network Service Provider* only in so far as its activities relate to the provision of *market network services*.
- (e) For the avoidance of doubt, a *Registered Participant* may apply to the *AEMC* for a *participant derogation* from the conditions specified in clause 2.5.2(a).

2.5.3 Scheduled Network Service

- (a) All *market network services* must be classified as *scheduled network services*.
- (b) A *network service* must not be classified as a *scheduled network service* unless it is also a *market network service*.
- (c) A *Network Service Provider* is taken to be a *Scheduled Network Service Provider* only in so far as its activities relate to the provision of *scheduled network services*.
- (d) *AEMO* may impose on a *Scheduled Network Service Provider* such terms and conditions as *AEMO* considers necessary to ensure that the provisions of the *Rules* applying to *scheduled network services* can be met.
- (e) A *Scheduled Network Service Provider*:
 - (1) must comply with any terms and conditions imposed by *AEMO* under clause 2.5.3(d);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) must ensure that the *scheduled network services* are provided in accordance with the co-ordinated *central dispatch* process operated by *AEMO* under the provisions of Chapter 3;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) must ensure that *AEMO* is notified of the availability of the *scheduled network services* in accordance with the provisions of Chapter 3; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) must submit to *AEMO* a schedule of *dispatch offers* for the *scheduled network services* in accordance with the provisions of Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

2.5.4 Embedded Network Service Provider

- (a) A Network Service Provider whose classification of its distribution system as an embedded network has been approved by AEMO must be registered as an Embedded Network Service Provider.
- (b) A Network Service Provider wishing to classify a distribution system as an embedded network must apply to do so in its application under rule 2.9 or separately by submitting a notice to AEMO in the form prescribed for this purpose by AEMO.
- (c) If AEMO receives an application for classification under paragraph (b), it may approve or reject the classification. AEMO must approve the classification if it is satisfied, based on the evidence that it is provided by the Network Service Provider, that the conditions in paragraph (d) are satisfied.
- (d) A Network Service Provider may classify its distribution system as an embedded network only if the following conditions are satisfied:
 - (1) the relevant distribution system is connected to either a distribution system (including an embedded network) or a transmission system that forms part of the national grid;
 - (2) the Network Service Provider does not own, operate or control a distribution system to which a distribution determination applies or has applied;
 - (3) the Network Service Provider is not a Local Network Service Provider;
 - (4) the Network Service Provider has specified the embedded network area for the embedded network;
 - (5) the Network Service Provider has nominated a retailer to be the local embedded network retailer for the embedded network for the purposes of the NERL and the retailer has accepted that nomination;
 - (6) if the local embedded network retailer is an off-market retailer, the retailer has access to the information and systems required to comply with Chapter 7 in relation to the embedded network; and
 - (7) if the embedded network is a brownfields conversion, the AER has approved to the classification of the distribution system as an embedded network.
- (e) A Network Service Provider is taken to be an Embedded Network Service Provider only insofar as its activities relate to the provision of distribution service by means of an embedded network.
- (f) An Embedded Network Service Provider is:
 - (1) a Registered Participant for the purposes of the National Electricity Law;
 - (2) a Registered Participant for the purposes of the Rules; and

- (3) despite subparagraph (2), only required to comply with a rule that is expressed to apply to a *Network Service Provider* or a *Distribution Network Service Provider* in those capacities where:
 - (i) the rule expressly provides that it applies to an *Embedded Network Service Provider*; or
 - (ii) the Chapter or Part of a Chapter in which the rule occurs is expressed to apply to an *Embedded Network Service Provider*.
- (g) AEMO must publish a register that includes for each *embedded network*:
 - (1) the identity of the *Embedded Network Service Provider*; and
 - (2) a general description of the *embedded network area*.
- (h) An *Embedded Network Service Provider* may from time to time by application to AEMO amend the registration details referred to in paragraph (g), with effect from the time the application is accepted by AEMO or a later time agreed with AEMO.
- (i) The AER may, in accordance with the *guidelines* issued from time to time by the AER, approve the classification of a *brownfields conversion* as an *embedded network* where (in the AER's opinion) the approval is not inconsistent with the *national electricity objective*.
- (j) The AER must develop and issue *guidelines* for the approvals described in clause 2.5.4(i) pursuant to the *Rules consultation procedures*. The *guidelines* may be published as part of the *AER Exempt Network Guidelines*.

2.5A Trader

- (a) A *Trader* is a person so registered by AEMO in order to participate in *auctions* under rule 3.18.
- (b) A person who is registered by AEMO as a *Trader* is:
 - (1) a *Registered Participant* for the purposes of the *National Electricity Law* and rules 2.9, 2.10, 2.11, 3.18, 8.2, 8.9 and subparagraph (3), and clause 3.13.5A;
 - (2) is to be treated as a *Market Participant* for the purposes of clause 3.3.1 and rule 3.15 (as applied and modified by clause 3.18.4) provided that a person who is registered by AEMO as a *Trader* is not to be regarded as a *Market Participant* for the purposes of clauses 3.3.1(a) and 3.15.1(b); and
 - (3) entitled to receive any information which AEMO is required to *publish* or otherwise make available to *Registered Participants* (other than *confidential information* in respect of one or more other *Registered Participants*),

but is not otherwise a *Registered Participant* for the purposes of the *Rules* unless they are also registered in another category of *Registered Participant*.
- (c) To be eligible for registration as a *Trader*, a person must:

- (1) have an office in Australia to which all communications and notices may be addressed and at which a representative of the person is present at all times during business hours;
- (2) where the person is not resident in, or does not have a permanent establishment in, Australia, appoint a person (an **agent**) who is:
 - (i) a natural person or company;
 - (ii) resident in Australia; and
 - (iii) authorised to accept service of process and notices on behalf of that person,
 and provide *AEMO* with a certified copy of the instrument, executed by the agent, under which the agent is so appointed and which specifies the agent's address;
- (3) be a “wholesale client”, as that term is defined in section 761G(4) of the *Corporations Act 2001* of the Commonwealth; and
- (4) enter into an *auction participation agreement* and, where the person is required to appoint an agent for the purposes of rule 2.5A(c)(2), the person must ensure that the agent is a party to the *auction participation agreement*.

2.5B Reallocator

- (a) A *Reallocator* is a person so registered by *AEMO* in order to participate in *reallocation transactions* under clause 3.15.11.
- (b) A person who is registered with *AEMO* as a *Reallocator* is:
 - (1) a *Registered Participant* for the purposes of rules 2.5B(b)(3), 2.9, 2.10, 2.11, 8.2 and 8.9;
 - (2) taken to be a *Market Participant* for the purposes of rules 3.3 and 3.15 but is not regarded as a *Market Participant* for the purposes of clauses 3.3.2(a) and 3.15.1(b); and
 - (3) entitled to receive any information *AEMO* is required to *publish* or otherwise make available to *Registered Participants* (other than *confidential information* in respect of other *Registered Participants*), but is not otherwise a *Registered Participant* or a *Market Participant* for the purposes of the *Rules* unless the person is also registered in another category of *Registered Participant* or *Market Participant*.
- (c) To be eligible for registration as a *Reallocator*, a person must be a “wholesale client”, as that term is defined in section 761G(4) of the *Corporations Act 2001* of the Commonwealth.

2.6 Special Participant

- (a) A *Special Participant* is a person who is either of the following:
 - (1) *System Operator*: - an agent engaged, or a delegate appointed, by *AEMO* under clause 4.3.3 to carry out some or all of *AEMO*'s rights, functions and obligations under Chapter 4.

- (2) *Distribution System Operator*: - a person who is responsible, under the *Rules* or otherwise, for controlling or operating any portion of a *distribution system* (including being responsible for directing its operations during *power system* emergencies).
- (b) A person must be registered by *AEMO* in this category to perform these functions.

2.7 Intention to Commence Activities or Functions

- (a) Any person intending to act in any *Registered Participant* category may, on application for registration by that person in accordance with rule 2.9, be registered by *AEMO* as an *Intending Participant* if that person can reasonably satisfy *AEMO* that it intends to carry out an activity in respect of which it must or may be registered as a *Registered Participant*.
- (b) *AEMO* may from time to time require a person registered by *AEMO* as an *Intending Participant* to satisfy *AEMO* that it continues to meet the criteria for registration in rule 2.7(a). If the *Intending Participant* is unable to satisfy *AEMO* that it continues to meet those criteria then it will cease to be registered as an *Intending Participant* on the date specified by *AEMO* by written notice to the *Intending Participant* concerned.
- (c) An *Intending Participant* is taken to be an *Intending Participant* only in so far as its activities relate to its intention to commence an activity in respect of which it must or may be registered as a *Registered Participant*.
- (d) As a *Registered Participant*, an *Intending Participant* may exercise such rights and is bound by such obligations under the *Rules* as are specified by *AEMO* (on the basis of whether the *Intending Participant* intends to become a *Customer*, *Generator*, *Network Service Provider* or *Special Participant*) and approved by the *AEMC*.

2.8 Registered Participant Rights and Obligations

2.8.1 Rights and obligations

- (a) A *Registered Participant* must not act in any one of the categories listed in rules 2.2 to 2.7 unless the *Registered Participant* is registered by *AEMO* in that category in accordance with the requirements of the *Rules*.
- (a1) A *Registered Participant* must comply with the provisions of the *Rules* applicable to that *Registered Participant*.
- (b) A *Registered Participant* may act in more than one of the categories described in rules 2.2 to 2.7 provided that the *Registered Participant* is registered by *AEMO* in relation to each of the relevant *Registered Participant* categories.

2.9 Application to be Registered as a Registered Participant

2.9.1 Applications for Registration

- (a) Applications to be registered in any category of *Registered Participant* must be submitted to *AEMO* in the form prescribed by *AEMO*.

- (b) *AEMO* must, within 5 *business days* of receiving an application, advise the applicant of any further information or clarification which is required in support of its application if, in *AEMO*'s reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires clarification.
- (c) If the further information or clarification required pursuant to clause 2.9.1(b) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, the person will be deemed to have withdrawn the application.

2.9.2 Registration as a Registered Participant

- (a) In this clause 2.9.2:
receiving date means the later date of *AEMO* receiving:
 - (1) an application for registration referred to in clause 2.9.1;
 - (2) further information or clarification referred to in clause 2.9.1(b); or
 - (3) in relation to an application for registration as a *Generator*, the information requested under clause S5.2.4(b).
- (b) *AEMO* must, within 15 *business days* of the receiving date, determine that an applicant is to be registered in the category of *Registered Participant* applied for if *AEMO* is reasonably satisfied that:
 - (1) the applicant meets the eligibility requirements specified for the category of *Registered Participant* to which the application relates;
 - (2) if the application relates to registration in one of the categories of *Market Participant*, the applicant is and will be able to fulfil the applicable financial obligations under Chapter 3 of the *Rules*; and
 - (3) the applicant has demonstrated an ability to comply with the *Rules*.
- (c) If *AEMO* determines that an applicant does not satisfy the requirements referred to in paragraph (b), *AEMO* must determine that the applicant is not qualified to be registered as a *Registered Participant* in the relevant category and provide reasons for that determination.

2.9.3 Registration as an Intermediary

- (a) A person (the "*applicant*"—) who is required to be registered under the *National Electricity Law* or under the *Rules* as a *Generator* or a *Network Service Provider* (including as an *Embedded Network Service Provider*) may apply to *AEMO* or the *AER* respectively for an exemption from that requirement to register.
- (b) *AEMO* or the *AER* (as the case may be) must allow that exemption if:
 - (1) the applicant notifies *AEMO* or the *AER* (as the case may be) of the identity of a person (an "*intermediary*") to be registered instead of the applicant;
 - (2) the applicant provides *AEMO* or the *AER* (as the case may be) with the written consent of the *intermediary* to act as *intermediary* in a form reasonably acceptable to *AEMO* or the *AER*; and

- (3) **[Deleted]**
- (4) *AEMO* or the *AER* (as the case may be) notifies the applicant that it approves of the *intermediary*.
- (c) *AEMO* or the *AER* (as the case may be) must approve an *intermediary* if the applicant establishes to *AEMO*'s reasonable satisfaction that, from a technical perspective, the *intermediary* can be treated for the purpose of the *Rules* as the applicant with respect to the relevant *generating system*, *distribution system* or *transmission system* with which the applicant is associated.
- (d) If the exemption is granted by *AEMO* or the *AER* (as the case may be) then:
 - (1) provided the *intermediary* satisfies all relevant registration requirements that the applicant would have been required to satisfy, *AEMO* must register the *intermediary* as a *Registered Participant* as if it were the applicant;
 - (2) the *intermediary* will be considered for the purposes of the *Rules* to be the applicant;
 - (3) all references in the *Rules* to the applicant will be deemed to be references to the *intermediary* (unless the context requires otherwise);
 - (4) all acts, omissions, statements, representations and notices of the *intermediary* in its capacity as a *Registered Participant* under the *Rules* will be deemed to be the acts, omissions, statements, representations and notices of the applicant;
 - (5) the *intermediary* and the applicant will be jointly and severally liable for the acts, omissions, statements, representations and notices of the *intermediary* in its capacity as a *Registered Participant* under the *Rules*; and
 - (6) *AEMO* or any other *Registered Participant* may fulfil any obligations to the applicant under the *Rules* by performing them in favour of the *intermediary*.
- (e) The applicant may revoke the appointment of the *intermediary* by giving notice of such revocation to *AEMO*, whereupon *AEMO* must advise the *AER* that such notice has been given.
- (f) At 4.30 am, 2 *business days* after *AEMO* receives notice of such revocation, the *intermediary* will cease to be considered the applicant's *intermediary* for the purposes of the *Rules* and the applicant will not be liable under clause 2.9.3(d)(5) for any acts, omissions, statements, representations or notices of the *intermediary* occurring after that time.
- (g) If the applicant revokes the appointment of an *intermediary*, the exemption granted by *AEMO* or the *AER* (as the case may be) to the applicant as contemplated by clause 2.9.3(b) ceases at the time the *intermediary* ceases to be the applicant's *intermediary* in accordance with clause 2.9.3(f).
- (h) The applicant may notify *AEMO* or the *AER* (as the case may be) that the *intermediary* is the applicant's *intermediary* for part only of the applicant's business (provided that that part represents one or more discrete *generating systems*, *distribution systems* or *transmission systems*).

- (i) Nothing in the *Rules* requires the *intermediary* to be the agent of the applicant.

2.9A Transfer of Registration

2.9A.1 Definitions

In this rule 2.9A:

Transferor means a *Registered Participant* wishing to transfer its registration to another person in accordance with rule 2.9A.

Transferee means the person to whom a *Registered Participant* wishes to transfer its registration in accordance with rule 2.9A.

2.9A.2 Applications for Transfer of Registration

- (a) If a Transferor wishes to transfer its registration to the Transferee, then the Transferor and Transferee must apply to *AEMO* for approval to do so.
- (b) An application under clause 2.9A.2(a) must be submitted to *AEMO* by the Transferor and Transferee in the form prescribed by *AEMO*.
- (c) *AEMO* must, within 5 *business days* of receiving an application under clause 2.9A.2(a), advise the Transferor and Transferee of any further information or clarification which is required in support of its application if, in *AEMO*'s reasonable opinion, the application:
 - (1) is incomplete; or
 - (2) contains information upon which *AEMO* requires clarification.
- (d) If the further information or clarification required pursuant to clause 2.9A.2(c) is not provided to *AEMO*'s satisfaction within 15 *business days* of the request, then the Transferor and Transferee will be deemed to have withdrawn the application.

2.9A.3 Approval for Transfer of Registration

- (a) *AEMO* must, within 15 *business days* of receiving an application under clause 2.9A.2(a), determine to transfer the registration if *AEMO* is reasonably satisfied that:
 - (1) the Transferor is not in breach of any of its obligations under the *Rules*;
 - (2) with the exception of any requirements that apply to the classification of *facilities* to which the application relates, the Transferee meets the eligibility requirements specified in the *Rules* for the category of *Registered Participant* to which the application relates;
 - (3) the classification of the *facilities* to which the application relates has previously been approved by *AEMO* in accordance with the *Rules*;
 - (4) the *performance standards* applicable to the *facilities* to which the application relates have previously been registered by *AEMO* in accordance with the *Rules*;
 - (5) if the application relates to the transfer of a registration in one of the categories of *Market Participant*, the Transferee is and will be able to

fulfil the applicable financial obligations under Chapter 3 of the *Rules*; and

- (6) the Transferee has demonstrated an ability to comply with the *Rules*.
- (b) If *AEMO* approves the application, then *AEMO* may impose such terms and conditions as *AEMO* considers appropriate, or vary the terms and conditions of the registration on its transfer.
- (c) If *AEMO* determines that the application does not satisfy any of the requirements referred to in clause 2.9A.3(a), *AEMO* must reject the application and provide reasons in writing to the Transferor and Transferee for that rejection.
- (d) If an application is made for transfer of the registration of a *Market Customer* that is a *retailer*:
 - (1) *AEMO* must, before deciding the application, consult with the *AER* about the application; and
 - (2) the period of 15 *business days* allowed for deciding the application under paragraph (a) is extended by the period reasonably required for the consultation; and
 - (3) *AEMO* must notify the *AER* of its decision on the application.

2.10 Ceasing to be a Registered Participant

2.10.1 Notification of intention

- (a) A person may notify *AEMO* in writing that it wishes to cease to be registered in any category of *Registered Participant* or that it wishes to terminate any of its classifications of *loads*, *generating units* or *network services* or classification of its distribution system as an embedded network under clause 2.5.4.
- (b) A person is not entitled to notify *AEMO* that it wishes to cease to be registered in relation to any category for which that person is required to be registered under the *National Electricity Law* or under the *Rules*.
- (c) In any notice given under clause 2.10.1(a), the *Registered Participant* must specify a date upon which it wishes to cease to be so registered or for an existing classification to be terminated and, in the case of a *Market Participant*, the date upon which it will cease to *supply* or acquire electricity or trade directly in the *market* and whether entirely or in relation to one or more *connection points* or *market network services*.
- (d) *AEMO* may reject a notice from a *Market Customer* that it wishes to terminate its classification of a *connection point* as one of its *market loads* or otherwise cease to be a *Market Customer* in relation to any of its *market loads* unless *AEMO* is satisfied that:
 - (1) another person has classified the *connection point* as one of its *market loads* and is registered as a *Market Customer*;
 - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments to *AEMO* for electricity *supplied* to that *connection point*; or

- (3) the *load* at that *connection point* will be *disconnected* on and from the date specified and, taking into consideration any relevant guidelines and procedures specified by the relevant *participating jurisdiction* to *AEMO*, that *disconnection* is not inappropriate.
- (d1) *AEMO* may reject a notice from a *Market Small Generation Aggregator* which states that it wishes to terminate its classification of a *small generating unit* as a *market generating unit*, or otherwise cease to be a *Market Small Generation Aggregator* in relation to any of its *market generating units*, unless *AEMO* is satisfied that:
 - (1) another person has classified the *small generating unit* as one of its *market generating units* and that person is registered as a *Small Generation Aggregator* and a *Market Small Generation Aggregator*;
 - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments with *AEMO* for electricity *supplied* to the *connection points* of the *market generating units*; or
 - (3) the *small generating unit* at that *connection point* will be *disconnected* on and from the date specified in the notice, and, after having regard to any relevant guidelines and procedures specified by the relevant *participating jurisdictions* to *AEMO*, *disconnection* is appropriate.
- (e) Upon receiving a notice which complies with clause 2.10.1 from a person who wishes to cease to be registered in any category of *Market Participant*, or to terminate the classification of any of its *market loads*, *market generating units*, or *market network services*, *AEMO* must deliver a notice to the *AER* and the *AEMC* and notify all *Registered Participants* stating that:
 - (1) *AEMO* has received a notice under clause 2.10.1(a); and
 - (2) the person who gave the notice has stated that, from the date specified in the notice, the person intends to cease *supplying* or acquiring electricity or trading directly in the *market* and whether entirely or in relation to certain *connection points* or *market network services*.
- (f) If a *Market Customer* that is a *retailer* gives a notice under this clause, *AEMO* must, before deciding whether to reject the notice under paragraph (d), consult with the *AER*.

2.10.2 Ceasing Participation

- (a) A *Market Participant* must cease all trading in the *market* as specified in a notice that is properly given under clause 2.10.1(a) and is not rejected under clause 2.10.1(d).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A person ceases to be a *Registered Participant* for the purposes of the *Rules* when all payments due to be paid to or by it under the *Rules* have been made.

- (c) The fact that a person has ceased to be registered in any category of *Registered Participant* or has terminated any classifications contemplated under this Chapter does not affect any obligation or liability of that person under the *Rules* which arose prior to the cessation of its registration or the termination of the classification.

2.10.3 Liability after cessation

A *Registered Participant* which is subject to a liability under the *Rules* remains subject to that liability after and despite ceasing to be a *Registered Participant* regardless of when the claim is made.

2.11 Participant Fees

2.11.1A Application

For the purposes of rule 2.11 only, *Third Party B2B Participants* (other than *Third Party B2B Participants* who are also *Embedded Network Managers*) who are not otherwise *Registered Participants* are deemed to be *Registered Participants*.

2.11.1 Development of Participant fee structure

- (a) *AEMO* must develop, review and publish, in consultation with *Registered Participants* and *interested parties* and such other persons as *AEMO* thinks appropriate, in accordance with the *Rules consultation procedures*, the structure (including the introduction and determination) of *Participant fees* for such periods as *AEMO* considers appropriate.
- (ab) In determining *Participant fees*, *AEMO* must have regard to the *national electricity objective*.
- (b) The structure of *Participant fees* must, to the extent practicable, be consistent with the following principles:
 - (1) the structure of *Participant fees* should be simple;
 - (2) *Participant fees* should recover the budgeted revenue requirements for *AEMO* determined under clause 2.11.3 on a basis where:
 - (i) the following principles are relevant to the recovery of recurrent expenditure:
 - (A) if *AEMO* recovers an excess of revenue over expenditure from the provision of a particular service in a financial year, it may roll over the excess to a later financial year (or later financial years) so as to reduce revenue requirements in the later financial year (or years);
 - (B) *AEMO* may recover a shortfall of revenue as against expenditure for the provision of a particular service in a later financial year or later financial years;
 - (C) *AEMO* may take any other action it considers desirable to smooth the impact of actual or anticipated cost variations on the users of a service provided by *AEMO*;

- (ii) capital expenditures (incurred after *market commencement*) are recovered through the depreciation or amortisation of the assets acquired by the capital expenditure in a manner that is consistent with generally accepted accounting principles;
 - (iii) costs of transition are recovered over a period of 4 years from the *changeover date*.
 - (iv) notwithstanding clauses 2.11.1(b)(2)(i), (ii) and (iii), expenditure incurred by, and depreciation and amortisation charged to, *AEMO* associated with a *declared NEM project* are recovered from the start date and over the period determined for that *declared NEM project* under clauses 2.11.1(bb) or 2.11.1(bd). Amounts associated with a *declared NEM project* determined in accordance with this clause are to be recovered through an additional *Participant fee* determined in accordance with clauses 2.11.1(bb) or 2.11.1(bd) until the next general determination of all *Participant fees* is made under clause 2.11.1(a);
- (3) the components of *Participant fees* charged to each *Registered Participant* should be reflective of the extent to which the budgeted revenue requirements for *AEMO* involve that *Registered Participant*;
- (4) *Participant fees* should not unreasonably discriminate against a category or categories of *Registered Participants*; and
- (5) the fixed component of *Participant fees* for a *Market Ancillary Services Provider* who is registered with *AEMO* solely for the purpose of providing *market ancillary services*, may be zero.
- (ba) *AEMO* may determine any of the following projects to be a *declared NEM project*:
 - (1) a major reform or development (including an anticipated reform or development) of the *market*; or
 - (2) a major change (including an anticipated change) to a function, responsibility, obligation or power of *AEMO* under the *Rules*; or
 - (3) a major change (including an anticipated change) to any of the computer software or systems that *AEMO* uses in the performance of any of its functions, responsibilities, obligations or powers under the *Rules*.
- (bb) When *AEMO* determines a project to be a *declared NEM project* under clause 2.11.1(ba), it must also determine the start date for recovery and the period or periods over which recovery will occur for the *declared NEM project*. *AEMO* must also determine the structure of an additional *Participant fee* to be used in the recovery of costs associated with a *declared NEM project* until the next general determination of all *Participant fees* is made under clause 2.11.1(a).
- (bc) In making determinations under clauses 2.11.1(ba) and (bb), *AEMO* must comply with the *Rules consultation procedures*.
- (bd) The introduction and facilitation of full retail competition is taken to have been determined to be a *declared NEM project* under clause 2.11.1(ba) and *AEMO* will be entitled to recover through *Participant fees* expenditure

incurred by, and depreciation and amortisation charged to, *AEMO* in respect of full retail competition. The period or periods over which recovery will occur for this *declared NEM project* will be determined by *AEMO* using the *Rules consultation procedures*. If any amounts associated with the introduction and facilitation of full retail competition are to be recovered prior to the next general determination of all *Participant fees* under clause 2.11.1(a), such recovery must be through an additional *Participant fee* determined using the *Rules consultation procedures*.

- (c) The components of the *Participant fees* may include, but are not limited to:
 - (1) registration fees, comprising an annual fee payable by each person for each *Registered Participant* category in which they are registered;
 - (2) *ancillary service fees*, to recover *AEMO's* budgeted revenue requirements in relation to its procurement of *non-market ancillary services*;
 - (3) *power system operations fees*, to recover *AEMO's* budgeted revenue requirements in relation to its *power system* operation activities described in clause 2.11.3(b)(2);
 - (4) *metering fees* to recover *AEMO's* budgeted revenue requirements for the collection, storage and processing of *metering data*;
 - (5) billing and *settlements fees*, to recover *AEMO's* budgeted revenue requirements as described in clause 2.11.3(b)(4); and
 - (5A) *NTP function fees* to recover *AEMO's* budgeted revenue requirement as described in clause 2.11.3(b)(4A);
 - (5B) *additional advisory function fees* to recover *AEMO's* budgeted revenue requirement as described in clause 2.11.3(b)(4B);
 - (6) administration fees, to recover the remainder of *AEMO's* budgeted revenue requirements;

and each component of the *Participant fees* may take into account adjustments which may be appropriate in light of the matters described in clauses 2.11.3(b)(7) or (8).
- (d) In undertaking the process described in clause 2.11.1(a) *AEMO* must consider other fee structures in existence which it thinks appropriate for comparison purposes.
- (e) *AEMO* must publish to *Registered Participants* and to such other persons as *AEMO* thinks appropriate, the structure of *Participant fees* determined, the methods used in determining the structure and an assessment of the extent to which the structure complies with the principles set out in clause 2.11.1(b) at least 3 months prior to the implementation of the structure.

2.11.2 Payment of Participant fees

- (a) *AEMO* may charge a *Registered Participant* the relevant components of *Participant fees* in accordance with the structure of *Participant fees* by giving the *Registered Participant* a statement setting out the amount payable by that *Registered Participant* and the date for payment.

- (b) In the case of a *Market Participant*, *AEMO* may, alternatively, include the relevant amount in the statements described in clause 3.15.15.
- (c) A *Registered Participant* must pay to *AEMO* the net amount stated to be payable by that *Registered Participant* in a statement issued under clause 2.11.2(a) or in accordance with clause 2.11.2(b) to meet *AEMO*'s budgeted revenue requirements by the date specified for payment, whether or not the *Registered Participant* disputes the net amount payable.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

2.11.3 Budgeted revenue requirements

- (a) *AEMO* must prepare and *publish* before the beginning of each *financial year* a budget of the revenue requirements for *AEMO* for that *financial year*.
- (b) The budget prepared by *AEMO* under clause 2.11.3(a) must take into account and separately identify projected revenue requirements in respect of:
 - (1) *AEMO*'s procurement of *non-market ancillary services*;
 - (2) *AEMO*'s expenditures in relation to its *power system* operation activities, including meeting its obligations in terms of *power system security* and the facilitation and operation of the central bidding and dispatch processes in accordance with the *Rules*;
 - (2A) *AEMO*'s expenditures in relation to *inter-network tests*;
 - (3) *AEMO*'s expenditures in the collection, storage and processing of *metering data*;
 - (4) *AEMO*'s expenditures in the facilitation of the billing and *settlement* of *market transactions*;
 - (4A) *AEMO*'s expenditures in carrying out *NTP functions*;
 - (4B) *AEMO*'s expenditures in carrying out additional advisory functions;
 - (5) *AEMO*'s other expenditure requirements, operating costs and margin so far as they relate to the electricity industry;
 - (5A) the proportion of *AEMO*'s residual expenditures allocated to the electricity industry under paragraph (c).
 - (6) *AEMO*'s consumer advocacy funding obligation under rule 8.10;
 - (7) any revenue shortfall or excess from each of the requirements specified under clause 2.11.3(b)(1)-(5) from the previous *financial year*; ~~and~~
 - ~~(7A)~~ *AEMO*'s expenditure in relation to *B2B costs*; ~~and~~
 - (8) the funding requirements of the *Participant compensation fund* in accordance with rule 3.16 (which requirements must only be recovered from *Scheduled Generators*, *Semi-Scheduled Generators* and *Scheduled Network Service Providers*).

- (c) *AEMO* must allocate expenditures that cannot be specifically related to electricity activities or gas activities (**residual expenditures**) between the electricity and gas industries in a manner that:
 - (1) ensures that the total amount of the residual expenditures is allocated appropriately between the electricity and the gas industries; and
 - (2) ensures that each industry bears an allocation at least equal to the amount by which residual expenditures would be reduced if services were no longer provided to that industry; and
 - (3) promotes the efficient use of electricity and gas services.
- (d) *AEMO's* expenditures in carrying out *declared network functions* are to be recovered through fees charged as a *Transmission Network Service Provider* and not through *participant fees*.

2.12 Interpretation of References to Various Registered Participants

- (a) A person may register in more than one of the categories of *Registered Participant*.
- (b) Notwithstanding anything else in the *Rules*, a reference to:
 - (1) a "*Generator*" applies to a person registered as a *Generator* only in so far as it is applicable to matters connected with the person's *scheduled generating units, semi-scheduled generating units, non-scheduled generating units, market generating units* or *non-market generating units*;
 - (1A) a "*Small Generation Aggregator*" applies to a person registered as a "*Small Generation Aggregator*" only in so far as it is applicable to matters connected with the person's *small generating units* or *market generating units*;
 - (1B) a "*Market Ancillary Service Provider*" applies to a person registered as a "*Market Ancillary Service Provider*" only in so far as it is applicable to matters connected with the person's *ancillary service load*;
 - (2) a "*Scheduled Generator*", "*Semi-Scheduled Generator*", "*Non-Scheduled Generator*", "*Market Generator*" or "*Non-Market Generator*" applies to a person only in so far as it is applicable to matters connected with the person's *scheduled generating units, semi-scheduled generating units, non-scheduled generating units, market generating units* or *non-market generating units* respectively;
 - (3) a "*Customer*" applies to a person registered as a *Customer* only in so far as it is applicable to matters connected with the person's *first-tier loads, second-tier loads* or *market loads*;
 - (4) a "*First Tier Customer*", "*Second Tier Customer*" or "*Market Customer*" applies to a person only in so far as it is applicable to matters connected with the person's *first-tier loads, second-tier loads* or *market loads* respectively;
 - (4A) a "*Trader*" applies to a person only in so far as it is applicable to matters connected with the person's activities as a *Trader*;

- (4B) a "*Reallocator*" applies to a person only in so far as it is applicable to matters connected with the person's activities as a *Reallocator*;
- (5) subject to clause 2.5.1A(f) and clause 2.5.4(e), a "*Network Service Provider*" applies to a person registered as a *Network Service Provider* only in so far as it is applicable to matters connected with the person's *network services*, including *market network services* and *scheduled network services*;
- (5A) a "*Dedicated Connection Asset Service Provider*" applies to a person only in so far as it is applicable to matters connected with the person's *dedicated connection assets*;
- (6) a "*Market Network Service Provider*" or "*Scheduled Network Service Provider*" applies to a person only in so far as it is applicable to matters connected with the person's *market network services* or *scheduled network services* respectively;
- (7) a "*Market Participant*" applies to a person who is a *Market Participant* and:
 - (i) where that person is registered as a *Market Generator*, in so far as it is applicable to matters connected with the person's *market generating units* or *ancillary services generating units*; and
 - (i1) where that person is registered as a *Market Small Generation Aggregator*, in so far as it is applicable to matters connected with the person's *market generating units*; and
 - (i2) where that person is registered as a *Market Ancillary Service Provider*, in so far as it is applicable to matters connected with the person's *ancillary service load*; and
 - (ii) where that person is registered as a *Market Customer*, in so far as it is applicable to matters connected with the person's *market loads* or *market ancillary service loads*; and
 - (iii) where that person is registered as a *Market Network Service Provider*, in so far as it is applicable to matters connected with the person's *market network services*; and
 - (iv) where that person is registered in any category of *Market Participant* additional to a *Market Generator* and/or a *Market Customer* and/or a *Market Network Service Provider*, to the extent to which the reference would otherwise apply to the person if it were not taken to be a *Market Generator*, *Market Customer* or *Market Network Service Provider*; and
- (8) a "*Registered Participant*" applies to a person who is registered under Chapter 2 and:
 - (i) where that person is registered as a *Generator*, in so far as it is applicable to matters connected with any of the *Generator's scheduled generating units*, *semi-scheduled generating units*, *non-scheduled generating units*, *market generating units* and *non-market generating units*;

- (ii) where that person is registered as a *Customer*, in so far as it is applicable to matters connected with any of the *Customer's first-tier loads, second-tier loads or market loads*; and
 - (iii) where that person is registered in any other *Registered Participant* category, to the extent to which the reference would apply to the person if it were not registered in another *Registered Participant* category.
- (c) In rule 2.12, "matter" includes any assets, liabilities, acts, omissions or operations (whether past, present or future).

Part B Network exemptions

2.13 General

2.13.1 Application of this Part

This Part applies in respect of the grant by the AER of a *network exemption* to a person (*Exempt System Operator*) who owns, operates or controls a *transmission system* or a *distribution system*.

2.13.2 AER Exempt Network Guidelines

- (a) This rule applies to the *AER Exempt Network Guidelines* referred to in section 13G of the *National Electricity Law*.
- (b) The *AER Exempt Network Guidelines* must, in addition to providing information about *network exemptions*, include provisions concerning:
 - (1) procedures for applying for the grant, variation or revocation of a *network exemption* or a derogation under clause 2.15.4;
 - (2) guidance on the available classes of *network exemption*, and any associated *exemption conditions* that are to apply;
 - (3) guidance on the assessment of applications for a derogation under clause 2.15.4; and
 - (4) any other matters that the AER considers relevant.

2.13.3 Public Register of Exempt System Operators

- (a) For the purposes of section 13F of the *National Electricity Law*, the *Public Register of Exempt System Operators* must include the following particulars:
 - (1) the names and business addresses of *Exempt System Operators* granted a *network exemption* under clause 2.14.1 or clause 2.14.4;
 - (2) a list of the classes of persons in respect of whom a *network exemption* is available on registration under clause 2.14.2; and
 - (3) the names and business addresses of *Exempt System Operators* who have registered with the AER as belonging to a class of persons subject to a *network exemption* under clause 2.14.2.

- (b) The *Public Register of Exempt System Operators* may include other particulars and information relating to *Exempt System Operators* and associated matters that the *AER* considers relevant.

2.14 Network exemptions

2.14.1 Network exemptions for transmission systems

- (a) The *AER* may:
- (1) grant a *network exemption* to any person who owns, operates or controls a *transmission system*; or
 - (2) determine a class of persons who own, operate or control a *transmission system* and in respect of whom a *network exemption* applies on registration on the *Public Register of Exempt System Operators*.
- (b) The *AER* may only grant a *network exemption* or determine a class under paragraph (a) where (in the *AER*'s opinion) the *network exemption* is not inconsistent with the *national electricity objective*.
- (c) A *network exemption* granted under subparagraph (a)(1):
- (1) comes into force from the date on which the instrument of exemption is issued by the *AER* or (if later) conditions of the exemption coming into force are satisfied; and
 - (2) may be revoked in accordance with the *National Electricity Law*.
- (d) A *network exemption* comes into force in relation to a member of a class of persons specified in a determination made under subparagraph (a)(2) as a *network exemption* from the date the person registers for the *network exemption* on the *Public Register of Exempt System Operators*.
- (e) Prior to granting a *network exemption* under paragraph (a), the *AER* must consult with *AEMO* and the authorities responsible for administering the *jurisdictional electricity legislation* in the *participating jurisdictions* in which any *transmission or distribution systems* owned, operated or controlled by the person are located.
- (f) Without limitation, a *network exemption* under paragraph (a) may be given that only relates to certain specified *transmission systems* or classes of *transmission systems*.

2.14.2 Network exemption determination for distribution systems

- (a) Subject to paragraphs (b) and (c), the *AER* may determine a class of persons who own, operate or control a *distribution system* and in respect of whom a *network exemption* applies on registration on the *Public Register of Exempt System Operators*.
- (b) The *AER* must only determine a class for the purposes of paragraph (a) where the *distribution system*:
- (1) is used solely for the *supply* of electricity by a person in the class to a related body corporate of the person or to an entity controlled by, or under common control with, the person (where “related body

- corporate” and “control” have the meaning in the Corporations Act 2001 of the Commonwealth);
- (2) is used solely for the *supply* of electricity to holiday-makers in holiday accommodation (including cabins, recreational vehicles such as motorhomes, campervans, caravans, camper trailers, tent trailers, fifth wheelers and slide-ons, tents and like accommodation);
 - (3) is part of, or for the *connection* to the *national grid* of, or for outgoing *supply* from, a *generating system* or inverter-connected installation owned, controlled or operated by a person in the class;
 - (4) is for the *connection* to the *national grid* of, or for outgoing *supply* from, a *metering installation* owned, controlled or operated by a person in the class;
 - (5) provides a *supply* only to non-residential customers by a federal, state or local government agency or body (including a department, statutory authority or government-owned corporation) where the *supply* is for a purpose ancillary to the principal functions of the agency or body;
 - (6) is located within, and *supplies* electricity within, premises used primarily to house equipment used for the supply of television, radio, telecommunications or data centre services (including internet, telephone, mobile phone, fibre optic, hybrid fibre cable or wi-fi services) and where:
 - (i) the *supply* is in conjunction with, or ancillary to, the supply of the relevant services; and
 - (ii) the *distribution system* is owned, operated or controlled by the provider of the relevant services.
 - (c) In defining a class in a determination under paragraph (a), the AER must exclude any *distribution system* to which a *generating system* or *load* is *connected*, or becomes *connected*, where a person who owns, operates or controls the *facility* is or will be a *Registered Participant* in respect of the *generating system* or *load* or where under Schedule 5.3 the *generating system* or *load* has or will be required to have *performance standards* determined.
 - (d) In defining a class in a determination under paragraph (a), the AER may exclude a person or *distribution system* that would otherwise fall within paragraph (b), including by omitting the class from the determination or by specifying:
 - (1) the circumstances in which a person qualifies for the class or is excluded from it;
 - (2) criteria that must be satisfied to be a member of the class;
 - (3) restrictions as to the time from which the class is, or ceases to be, available; or
 - (4) any other matter the AER considers appropriate.
 - (e) The AER may amend a determination under this clause.
 - (f) In making or amending a determination under this clause, the AER must comply with the *Rules consultation procedures*.

- (g) Prior to making or amending a determination under this clause, the AER must consult with AEMO and the authorities responsible for administering the jurisdictional electricity legislation in the participating jurisdictions in which any transmission or distribution systems owned, operated or controlled by the class of persons under exemption consideration are located.

2.14.3 Registration for a network exemption

- (a) A particular person is subject to a *network exemption* available to a class of persons specified in a determination made under clause 2.14.1(f) or clause 2.14.2 only if:
- (1) the person is a member of the class; and
 - (2) the person registers in accordance with the determination on the *Public Register of Exempt System Operators*.
- (b) A *network exemption* comes into force in relation to a member of a class of persons specified in a determination made under clause 2.14.1(f) or clause 2.14.2 as a *network exemption* from the date the person registers for the *network exemption* on the *Public Register of Exempt System Operators*.
- (c) If a person ceases to be a member of a class of persons for whom a *network exemption* is available under a determination made under clause 2.14.1(f) or clause 2.14.2, the *network exemption* is taken to be revoked in respect of that person with effect from the time the person ceases to be a member of the class.
- (d) If a person ceases to be a member of a class of persons for whom a *network exemption* is available by reason of an amendment to a determination made under clause 2.14.1(f) or clause 2.14.2, the *network exemption* is taken to be revoked in respect of that person with effect from the time the amendment takes effect or a later time specified in the determination.

2.14.4 Individual network exemptions for distribution systems

- (a) Subject to paragraphs (b) and (d), the AER may grant a *network exemption* to a particular person who owns, operates or controls a *distribution system* specified in the *network exemption*.
- (b) The AER must not make a decision to grant a *network exemption* under paragraph (a) unless:
- (1) (in the opinion of the AER) the grant of the *network exemption* is not inconsistent with the *national electricity objective*; and
 - (2) if any *small customers* are or may be connected to the *distribution system*, the applicant has demonstrated to the reasonable satisfaction of the AER that the exemption criteria in paragraph (d) are satisfied in relation to the *distribution system*; and
 - (3) the AER is satisfied in all the circumstances that:
 - (i) the grant of the *network exemption* would result, or be likely to result, in a benefit to the customers supplied by means of the *distribution system* that is not available unless the *network exemption* is granted;

- (ii) the benefit would outweigh the detriments that would result, or be likely to result, from the grant of the *network exemption*; and
 - (iii) the grant of a *network exemption* is warranted by special circumstances.
- (c) In assessing the detriments that would result, or be likely to result, from the grant of a *network exemption* under paragraph (a), the AER may take into account:
 - (1) the costs to customers supplied by means of the *exempt network*; and
 - (2) the public costs of individual *network exemptions* including the costs of determining, monitoring and enforcing conditions of individual *network exemptions*.
- (d) The exemption criteria referred to in paragraph (b)(3) are:
 - (1) *small customers supplied by means of the exempt network* will, as far as practicable, be afforded the right to a choice of retailer in the same way as comparable *retail customers* in the same jurisdiction have that right;
 - (2) without limiting paragraph (d)(1), a *metering installation* will be installed for *small customers supplied by means of the exempt network* in accordance with clause 7.13.2 and a *NMI* will be issued for each such *metering installation*; and
 - (3) *small customers supplied by means of the exempt network* will, as far as practicable not be denied customer protections afforded to *small customers* in respect of *supply* under the *NERL* and the *NERR*.
- (e) The AER must not grant a *network exemption* under paragraph (a), and must provide for revocation of any such *network exemption*, in respect of a *distribution system* to which a *generating system* or *load* is *connected*, or becomes *connected*, where a person who owns, operates or controls the *generating system* or *load* is or will be a *Registered Participant* in respect of the *generating system* or *load* or where under Schedule 5.3 the *generating system* or *load* has or will be required to have *performance standards* determined.
- (f) A *network exemption* under paragraph (a):
 - (1) comes into force from the date on which the instrument of exemption is issued by the AER or (if later) conditions of the exemption coming into force are satisfied; and
 - (2) may be revoked in accordance with the *National Electricity Law*.
- (g) Prior to granting a *network exemption* under paragraph (a), the AER must consult with AEMO and the authorities responsible for administering the *jurisdictional electricity legislation* in the *participating jurisdictions* in which any *transmission or distribution systems* owned, operated or controlled by the person are located.

2.15 Exemption conditions

2.15.1 Exemption conditions for individual exemptions

- (a) The AER may impose *exemption conditions* on a *network exemption* granted under clause 2.14.1 or clause 2.14.4.
- (b) *Exemption conditions* may be imposed when the *network exemption* is granted or during the currency of the *network exemption*.
- (c) In determining the *exemption conditions* imposed under paragraph (a), the *AER* must consult with *AEMO*.
- (d) The *AER* may vary or revoke an *exemption condition* referred to in paragraph (a).
- (e) Subject to paragraph (f), a variation or revocation of an *exemption condition* imposed on a *network exemption* is a variation of the exemption for the purposes of clause 2.16.1(d) and is to be dealt with accordingly.
- (f) The *AER* is not required to comply with clause 2.16.1(d) in relation to the variation or revocation of an *exemption condition* deemed to be imposed on a *network exemption* under these Rules.

2.15.2 Class exemption conditions

- (a) The *AER* may impose *exemption conditions* on a class determined by the *AER* in a determination made under clause 2.14.1(f) or clause 2.14.2 by specifying the *exemption conditions* as part of the determination.
- (b) The *AER* may impose *exemption conditions* when the determination under clause 2.14.1(f) or clause 2.14.2 is first made or during the currency of the determination.
- (c) Without limitation, an *exemption condition* may require an *Exempt System Operator* or class of *Exempt System Operators* to abide by specified obligations derived from *energy laws* and applicable to a person who owns, operates or controls a *transmission or distribution system*, with any modifications specified in the *exemption condition*.
- (d) The *AER* may, by way of amendment of a determination made under clause 2.14.1(f) or clause 2.14.2, vary or revoke an *exemption condition* applicable under the determination.
- (e) Subject to the terms of the determination imposing or varying an *exemption condition*:
 - (1) an *exemption condition* imposed during the currency of the determination applies to persons who already are *Exempt System Operators* under the determination (as well as to persons who afterwards become *Exempt System Operators* under the determination); and
 - (2) an *exemption condition* varied during the currency of the determination applies as varied to persons who already are *Exempt System Operators* under the determination (as well as to persons who afterwards become *Exempt System Operators* under the determination).

- (f) Subject to the terms of the amending determination that revokes an *exemption condition*, a revoked *exemption condition* ceases to apply to persons who are already *Exempt System Operators* under the determination (as well as to persons who afterwards become *Exempt System Operators* under the determination).

2.15.3 Deemed exemption conditions

- (a) A *network exemption*:
- (1) is, if the *network exemption* relates to a person who owns, controls or operates an *embedded network*, deemed to be subject to the *ENM conditions* unless:
 - (i) the *embedded network* the subject of the exemption is located in a *participating jurisdiction* in which persons *connected*, or proposed to be *connected*, to the *embedded network* are not afforded the right to a choice of *retailer*; or
 - (ii) the *AER* has made a determination under paragraph (b); and
 - (2) may be subject to such other conditions as the *AER* deems appropriate.
- (b) If the *AER* considers that the likely costs of complying with *ENM conditions* outweigh the likely benefits to persons *connected*, or proposed to be *connected*, to the *embedded network*, the *AER* may, on application by a person under clause 2.15.4 or in relation to a class of persons in a determination made under clause 2.14.2, determine to exempt that person or class of persons from the requirement to comply with the *ENM conditions* until such time as an *ENM conditions trigger* occurs.
- (c) A *network exemption* that relates to a person who owns, controls or operates an *embedded network* is deemed to be subject to a condition that the *Exempt System Operator* must comply with Part 5 of the *NERR* as if the *Exempt System Operator* were a distributor within the meaning of that Part.
- (d) A *network exemption* that relates to a person who owns, controls or operates an *embedded network* is deemed to be subject to the condition that the *Exempt System Operator* must comply with the provisions in Chapter 6B applicable to *Exempt System Operators*.
- (e) A *network exemption* that relates to a person who owns, controls or operates a *large dedicated connection asset* is deemed to be subject to the condition that the person must comply with clause 5.2A.6(c), clause 5.2A.8 and rule 5.5, as if that person were a *Dedicated Connection Asset Service Provider*.

2.15.4 Relief from exemption conditions

- (a) A person may apply to the *AER* for a derogation from an *exemption condition* specified in a determination made under clause 2.14.2 or applicable under clause 2.15.3.
- (b) An application must be made in accordance with the *AER Exempt Network Guidelines*.

- (c) The AER may grant a derogation referred to in paragraph (a) where (in the AER's opinion) the grant of the derogation is not inconsistent with the national electricity objective.

2.16 Application for individual exemption or variation of individual exemption

2.16.1 Application

- (a) This rule applies where a person applies to the AER for a *network exemption* to be granted under clause 2.14.1(a) or clause 2.14.4 or the variation of a *network exemption* granted to the person under the relevant clause.
- (b) The information required by the *AER Exempt Network Guidelines* must be provided in the application or, at the request of or with the concurrence of the AER, by way of supplementary advice.
- (c) The AER must publish an application on the AER's website.
- (d) Before deciding an application for a *network exemption* or variation of a *network exemption*, the AER must:
- (1) publish on the AER's website a notice:
 - (i) setting out a copy of or the details in the application; and
 - (ii) stating that written submissions about the application may be made to the AER within a period of at least 20 business days that is specified in the notice; and
 - (iii) containing such other information as the AER considers appropriate; and
 - (2) consider all written submissions received by it within that period before deciding whether to grant or refuse the application.

2.16.2 Decision

- (a) If the AER decides to grant an application for a *network exemption* or variation of a *network exemption*, the AER must, as soon as practicable, give the applicant a notice:
- (1) stating the decision; and
 - (2) specifying the *exemption conditions* (if any) that the AER has decided to impose on the exemption or variation; and
 - (3) stating any other matter relevant to the grant of the exemption or variation.
- (b) The AER is taken to have decided to refuse an application for a *network exemption* or variation of a *network exemption* if the applicant has not given the AER a notice of acceptance of the *exemption conditions* specified by the AER or those conditions with changes to which the AER has agreed within:
- (1) the period of 20 business days after the day the notice under paragraph (a) is given by the AER; or
 - (2) that period as extended by the AER.

- (c) As soon as practicable after:
- (1) the AER decides to grant an application for a *network exemption* or variation of a *network exemption* without *exemption conditions*; or
 - (2) the AER decides to grant the application with *exemption conditions* and the applicant gives the AER a notice of acceptance of the *exemption conditions* in accordance with paragraph (b):
- the AER must issue to the applicant an instrument of exemption or (in the case of a variation) an instrument of variation or an instrument containing the exemption as varied and publish the terms of the exemption or variation on the AER's website.
- (d) If the AER decides or is taken to have decided to refuse an application for a network exemption or variation of a network exemption, the AER must, as soon as practicable, give the applicant a notice stating the decision and the reasons for the decision.

CHAPTER 3

3. Market Rules

3.1 Introduction to Market Rules

3.1.1 Purpose

This Chapter sets out the procedures which govern the operation of the *market* relating to the wholesale trading of electricity and the provision of *ancillary services* and includes provisions relating to:

- (a) *prudential requirements* to be met for participation in the *market*;
- (b) the operation of the *spot market*;
- (c) bidding and *dispatch*;
- (d) *spot price* determination;
- (d1) the determination of *ancillary service prices*;
- (e) *AEMO* clearing house and trading functions;
- (f) *market* information requirements and obligations;
- (g) the conditions and procedures for *market suspension*; and
- (h) *settlements*.

3.1.1A Definitions

In this Chapter:

credit limit procedures means the procedures developed, *published* and maintained by *AEMO* under clause 3.3.8.

credit period means the sum of the payment period and the reaction period as determined by *AEMO*.

maximum credit limit means the minimum amount of *credit support* a *Market Participant* must provide to *AEMO* for the relevant credit period, as determined by *AEMO* in accordance with clause 3.3.8.

outstandings limit means *AEMO's* estimate of the maximum value that a *Market Participant's outstandings* can reach over the payment period if the *Market Participant* has lodged *credit support* equal to the maximum credit limit.

payment period means the number of days in a *billing period* plus the number of days until payment is due with respect to transactions for that *billing period*.

prudential margin means the allowance made by *AEMO* in determining a *Market Participant's* maximum credit limit for the accrual of the *Market Participant's outstandings* during the reaction period.

prudential probability of exceedance means the probability of the *Market Participant's* maximum credit limit being exceeded by its *outstandings* at the end of the reaction period following the *Market Participant* exceeding its outstandings limit on any day, and failing to rectify this breach.

prudential settings means the maximum credit limit, outstandings limit and prudential margin as determined by *AEMO* in accordance with clause 3.3.8.

prudential standard means the value of the prudential probability of exceedance, expressed as a percentage, and as specified under clause 3.3.4A, to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*.

reaction period means a period of 7 days. It represents, for the purpose of calculating the prudential settings, the time from the day that a *Market Participant's outstandings* exceeds its *trading limit* to when the *Market Participant* is suspended from trading under clause 3.15.21(c) if the exceedance is not rectified.

3.1.2 [Deleted]

3.1.3 [Deleted]

3.1.4 Market design principles

(a) This Chapter is intended to give effect to the following market design principles:

- (1) minimisation of *AEMO* decision-making to allow *Market Participants* the greatest amount of commercial freedom to decide how they will operate in the *market*;
- (2) maximum level of *market* transparency in the interests of achieving a very high degree of *market* efficiency, including by providing accurate, reliable and timely forecast information to *Market Participants*, in order to allow for responses that reflect underlying conditions of supply and demand;
- (3) avoidance of any special treatment in respect of different technologies used by *Market Participants*;
- (4) consistency between *central dispatch* and pricing;
- (5) equal access to the market for existing and prospective *Market Participants*;
- (6) *market ancillary services* should, to the extent that it is efficient, be acquired through competitive market arrangements and as far as

practicable determined on a dynamic basis. Where dynamic determination is not practicable, competitive commercial contracts between *AEMO* and service providers should be used in preference to bilaterally negotiated arrangements;

- (7) the relevant action under section 116 of the *National Electricity Law* or direction under clause 4.8.9 must not be affected by competitive market arrangements;
 - (8) where arrangements require participants to pay a proportion of *AEMO* costs for *ancillary services*, charges should where possible be allocated to provide incentives to lower overall costs of the *NEM*. Costs unable to be reasonably allocated this way should be apportioned as broadly as possible whilst minimising distortions to production, consumption and investment decisions; and
 - (9) where arrangements provide for *AEMO* to acquire an *ancillary service*, *AEMO* should be responsible for settlement of the service.
- (a1) **[Deleted]**
 - (a2) **[Deleted]**
 - (b) This Chapter is not intended to regulate anti-competitive behaviour by *Market Participants* which, as in all other markets, is subject to the relevant provisions of the *Competition and Consumer Act 2010* (Cth) and the Competition Codes of *participating jurisdictions*.

3.1.5 Time for undertaking action

The provisions of clause 1.7.1(l) do not apply to this Chapter and, under the provisions of this Chapter, an event which is required to occur on or by a stipulated *day* must occur on or by that *day* whether or not a *business day*.

3.2 AEMO's Market Responsibilities

3.2.1 Market functions of AEMO

- (a) *AEMO* must operate and administer the *market* in accordance with this Chapter.
- (b) *AEMO* must establish, maintain and *publish* a register of all current *Market Participants*.
- (c) *AEMO* must:
 - (1) establish procedures for consultation with *Registered Participants* in respect of the manner in which *AEMO* fulfils its functions and obligations under the *Rules*; and

- (2) *publish* annually performance indicators to monitor *AEMO's* performance in respect of its *market* management functions.

3.2.2 Spot market

AEMO must do all things necessary to operate and administer a *spot market* for the sale and purchase of electricity and *market ancillary services* in accordance with this Chapter including:

- (a) the provision of facilities for the receipt and processing of *dispatch bids*, *dispatch offers* and *market ancillary service offers* for the *spot market*;
- (b) the management of a centralised national *dispatch* process, including the publication of *pre-dispatch schedules* and *spot price forecasts*;
- (c) the determination and publication of *spot prices* at each *regional reference node* for each *trading interval*;
- (c1) the determination and publication of *ancillary service prices* at each *regional reference node* for each *dispatch interval*;
- (d) the compilation and publication of *spot market* trading statistics;
- (e) the identification of *regions* and *regional reference nodes* for *spot price* and *ancillary service price* determination;
- (f) the determination and publication of *inter-regional loss factors* and *intra-regional loss factors*;
- (g) the suspension of the *spot market* under conditions prescribed in rule 3.14; and
- (h) the collection and dissemination of information necessary to enable the *market* to operate efficiently.

3.2.3 Power system operations

- (a) Subject to Chapter 4, *AEMO* must manage the day to day operation of the *power system*, using its reasonable endeavours to maintain *power system security* in accordance with this Chapter.
- (b) *AEMO* must perform *projected assessment of system adequacy processes (PASA)* in accordance with rule 3.7, *publish* the details of these assessments in accordance with rule 3.13 and implement an escalating series of *market interventions* in accordance with this Chapter to maintain *power system security*.

3.2.4 Non-market ancillary services function

- (a) *AEMO* must determine the *market's* requirements for *non-market ancillary services* in accordance with rule 3.11.

- (b) *AEMO* must use reasonable endeavours to acquire *non-market ancillary services* in accordance with rule 3.11.

3.2.5 [Deleted]

3.2.6 Settlements

AEMO must provide a financial *settlements* service in accordance with rule 3.15, including billing and clearance for all *market* trading.

3.3 Prudential Requirements

3.3.1 Market Participant criteria

Each *Market Participant* must whilst participating in the *market*:

- (a) be resident in, or have a permanent establishment in, Australia;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) [Deleted].
- (c) not be immune from suit in respect of the obligations of the *Market Participant* under the *Rules*; and
- (d) be capable of being sued in its own name in a court of Australia.

3.3.2 Credit support

Where at any time a *Market Participant* does not meet the *acceptable credit criteria*, the *Market Participant* must procure that *AEMO* holds the benefit of *credit support* in respect of that *Market Participant*. A *credit support* is an obligation in writing which:

- (a) is from an entity (the *Credit Support Provider*) which meets the *acceptable credit criteria* and which is not itself a *Market Participant*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) is a guarantee or bank letter of credit in a form prescribed by *AEMO*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) is duly executed by the *Credit Support Provider* and delivered unconditionally to *AEMO*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) constitutes valid and binding unsubordinated obligations of the *Credit Support Provider* to pay to *AEMO* amounts in accordance with its terms which relate to obligations of the relevant *Market Participant* under the *Rules*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) permits drawings or claims by *AEMO* to a stated certain amount.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.3 Acceptable credit criteria

Where the *Rules* require that an entity meet the *acceptable credit criteria*, this means that the entity must:

- (a) be either:
 - (1) any entity under the prudential supervision of the Australian Prudential Regulation Authority; or
 - (2) a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of that State or Territory;
- (b) be resident in, or have a permanent establishment in, Australia;
- (c) not be an externally administered body corporate (as defined in the Corporations Act) or under a similar form of administration under any laws applicable to it in any jurisdiction;
- (d) not be immune from suit;
- (e) be capable of being sued in its own name in a court of Australia; and
- (f) have an *acceptable credit rating*.

3.3.4 Acceptable credit rating

- (a) *AEMO* may from time to time, after complying with the *Rules consultation procedures*, determine what constitutes an *acceptable credit rating* for the purposes of the *Rules*, including (without limitation) determining which organisations publishing ratings will be used for this purpose, which of the type of ratings issued will be used for this purpose, and which level of rating is to be acceptable.
- (b) Until varied by determination of *AEMO*, an *acceptable credit rating* is either:
 - (1) a rating of A-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Standard and Poor's (Australia) Pty. Limited; or
 - (2) a rating of P-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Moodys Investor Service Pty. Limited.
- (c) Any determination of *AEMO* which varies what constitutes an *acceptable credit rating* will take effect from such date (not being earlier than 30 *business days* after the date of notification of the determination to *Market Participants*) as *AEMO* specifies by notice to the *Market Participants*.

3.3.4A Prudential standard

The prudential standard is 2%.

3.3.5 Amount of credit support

A *Market Participant* which does not meet the *acceptable credit criteria* must procure that at all times the aggregate undrawn or unclaimed amounts of then current and valid *credit support* held by *AEMO* in respect of the *Market Participant* is not less than the current maximum credit limit for that *Market Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.6 Changes to credit support

- (a) If:
 - (1) a *credit support* provided to *AEMO* by a *Market Participant* under this rule 3.3 (called the **existing credit support**), is due to expire or terminate; and

- (2) after that *credit support* expires or terminates the total *credit support* held by AEMO in respect of that *Market Participant* will be less than the *Market Participant's* maximum credit limit,

then at least 10 *business days* prior to the time at which the existing *credit support* is due to expire or terminate the *Market Participant* must procure a replacement *credit support* which will become effective upon expiry of the existing *credit support* such that it complies with the requirements of this rule 3.3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) Where a *credit support* otherwise ceases to be current or valid, whether by reason of the *Credit Support Provider* ceasing to meet the *acceptable credit criteria* or any other reason, the *Market Participant* must procure the replacement of that *credit support* so as to comply with its obligation to maintain aggregate undrawn current and valid *credit support* of not less than the current maximum credit limit for that *Market Participant*. The *Market Participant* must procure that the replacement *credit support* is issued to AEMO within 24 hours after the *Market Participant* first becomes aware that the *credit support* has ceased to be current or valid (whether by reason of the *Market Participant's* own knowledge or a notification by AEMO).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.7 Drawings on credit support

- (a) If AEMO exercises its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), then AEMO must notify the *Market Participant*.
- (b) If, as a result of AEMO exercising its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), the remaining *credit support* held by AEMO in respect of that *Market Participant* is less than the *Market Participant's* maximum credit limit then, within 24 hours of receiving a notice under clause 3.3.7(a), the *Market Participant* must procure for AEMO additional *credit support* complying with the requirements of this rule 3.3, such that the aggregate undrawn and valid *credit support* held by AEMO in respect of the *Market Participant* is not less than the amount of *credit support* which that *Market Participant* is required to provide under this rule 3.3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.8 Credit limit procedures and prudential settings**Credit limit procedures**

- (a) This clause sets out the framework for the establishment and determination of the prudential settings for *Market Participants* in the *NEM*.
- (b) The objective of the credit limit procedures is to establish the process by which *AEMO* will determine the prudential settings for each *Market Participant* so that the prudential standard is met for the *NEM*.
- (c) *AEMO* must develop, and, at all times, *publish* and maintain the credit limit procedures that details the methodology to be used by it to determine the prudential settings to apply to *Market Participants*.
- (d) In developing the methodology to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*, *AEMO* must take into consideration the following factors:
 - (1) the *regional reference price* for the *region* for which the prudential settings are being calculated;
 - (2) the time of year;
 - (3) the volatility of *load* and *regional reference price* for the *regions*;
 - (4) *AEMO's* estimate of the *generation* and *load* for each *Market Participant*;
 - (5) the relationship between average *load* and *peak load* for each *Market Participant*;
 - (6) any *prospective reallocations* for the period being assessed;
 - (7) the correlation between *energy*, *reallocations* and the *regional reference price*;
 - (8) the statistical distribution of any accrued amounts that may be owed to *AEMO*;
 - (9) the relevant time period for which the prudential settings are being calculated; and
 - (10) any other factors *AEMO* considers relevant having regard to the objective of the credit limit procedures under paragraph (b).
- (e) **[Deleted]**

- (f) At least once a year, *AEMO* must review, prepare and *publish* a report on the effectiveness of the methodology developed under this clause in achieving the objective of the credit limit procedures under paragraph (b), with any recommendations for the enhancement of the methodology.
- (g) Subject to paragraph (h), *AEMO* must comply with the *Rules consultation procedures* when making or amending the credit limit procedures.
- (h) *AEMO* may make minor or administrative amendments to the credit limit procedures without complying with the *Rules consultation procedures*.

Prudential settings

- (i) *AEMO* must determine the prudential settings to apply to *Market Participants* in accordance with:
 - (1) the objective of the credit limit procedures under paragraph (b); and
 - (2) the credit limit procedures.
- (j) The outstandings limit and prudential margin are interdependent, and *AEMO* must determine these simultaneously to meet the prudential standard for the *NEM*.
- (k) The maximum credit limit for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula:

$$\text{MCL} = \text{OSL} + \text{PM}$$

where:

MCL is the maximum credit limit;

OSL is the outstandings limit; and

PM is the prudential margin.

- (k1) The prudential margin for a *Market Participant* must not be a negative amount.
- (l) *AEMO* must review the prudential settings that apply to each *Market Participant* no later than a year after the last determination or review of the *Market Participant's* prudential settings.
- (m) At any time, and for any reason that is consistent with objective of the credit limit procedures under paragraph (b), *AEMO* may change the prudential settings that apply to a *Market Participant*, provided that any change to the *Market Participant's* prudential settings applies no earlier than one *business day* after the date *AEMO* notifies the *Market Participant* of changes to its prudential settings.

- (n) *AEMO* must notify, in writing, the *Market Participant* of any determination or change of a *Market Participant's* prudential settings, and provide reasons for that determination or change.

3.3.8A Security Deposits

At any time, a *Market Participant* may provide a security deposit to *AEMO* to secure payment of any amount which may become payable in respect of a *billing period*.

3.3.9 Outstandings

At any time the *outstandings* of a *Market Participant* is the dollar amount determined by the formula:

$$OS = - (A + B + SDA)$$

where:

OS is the amount of the *outstandings* of the *Market Participant*;

A is the aggregate of the net *settlement amounts* payable in respect of *billing periods* prior to the current *billing period* which remain unpaid by, or to, the *Market Participant* whether or not the *payment date* has yet been reached;

B is the net *settlement amount* payable by, or to, the *Market Participant* in respect of *transactions* for *trading intervals* that have already occurred in the current *billing period*; and

SDA is the balance (if any) of the *Market Participant* in the security deposit fund, in which case a credit balance will be a positive amount and a debit balance will be a negative amount.

The amounts to be used in this calculation will be the actual *settlement amounts* for *billing periods* where *final statements* have been issued by *AEMO* or *AEMO's* reasonable estimate of the *settlement amounts* for *billing periods* (where *final statements* have not been issued by *AEMO*).

Note:

Where the value of *outstandings* of a *Market Participant* is a negative amount the absolute value of the *outstandings* amount will, for the purposes of rule 3.3, be treated as if it were an amount payable by *AEMO* to the *Market Participant*.

3.3.10 Trading limit

The *trading limit* for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula

$$TL = CS - PM$$

where:

TL is the *trading limit*;

CS is the *credit support* provided by the *Market Participant*; and

PM is the prudential margin determined by *AEMO* in accordance with clause 3.3.8

Note:

If the prudential margin exceeds the *credit support*, the *trading limit* will have a negative value.

3.3.11 Call notices

(a) If at any time the *outstandings* of a *Market Participant* is greater than the *trading limit* for that *Market Participant*, *AEMO* may do either or both of the following:

- (1) give the *Market Participant* an “*interim statement*” covering any *transactions* for *trading intervals* not already the subject of issued *preliminary statements* or *final statements* or another *interim statement*, notwithstanding that the usual time for the issue of a *preliminary statement* or *final statement* for those *trading intervals* has not been reached; and
- (2) give the *Market Participant* a notice (a *call notice*) that specifies an *invoiced amount*, the current maximum credit limit for the *Market Participant*, the current *trading limit* for the *Market Participant*, and the *call amount*, where:

Call Amount = the higher of:

(OS – TypA); and

(OS – TL)

except where the formula produces a negative result, in which case the *call amount* is zero,

where:

OS is the *outstandings* for the *Market Participant* as at the date of the issue of the *call notice*; and

TypA is the *typical accrual* for the *Market Participant* as at the date of the issue of the *call notice*; and

TL is the *trading limit* for the *Market Participant* as at the date of the issue of the *call notice*.

Note:

If the value of *outstandings* of a *Market Participant* has a negative value and the *trading limit* also has a negative value, the *outstandings* will be greater than the *trading limit* if the absolute value of the *trading limit* is greater than the absolute value of the *outstandings*, in

which case *AEMO* may exercise its powers under either or both of clauses 3.3.11(a)(1) or 3.3.11(a)(2).

- (b) *AEMO* may, in its absolute discretion, cancel a *call notice* or *interim statement* issued under this clause at any time. The cancellation of a *call notice* or *interim statement* does not affect *AEMO*'s rights to issue a further *call notice* or *interim statement* on the same grounds that gave rise to *AEMO* issuing the cancelled *call notice* or *interim statement*.

3.3.12 Typical accrual

- (a) The *typical accrual* for a *Market Participant* at any time is the amount which *AEMO* determines would have been the *outstandings* of the *Market Participant* at that time had the *spot prices* and *ancillary service prices* and the *trading amounts* of the *Market Participant* been at the level of the average *spot price* and *ancillary service prices* and average *trading amounts* of the *Market Participant* used by *AEMO* for the purposes of the most recent determination of the maximum credit limit of the *Market Participant*.

Note:

The value of the *typical accrual* of a *Market Participant* will be a negative amount if the average *settlement amount* of the *Market Participant* is a positive amount.

- (b) *AEMO* must, on request from a *Market Participant*, provide that *Market Participant* with details of any *typical accrual* for that *Market Participant*.

3.3.13 Response to Call Notices

- (a) Subject to clause 3.3.13(b), where *AEMO* has given a *call notice* to a *Market Participant*, the *Market Participant* must before 11.00 am (Sydney time) on the next *business day* following the issue of the *call notice* either:
 - (1) agree with *AEMO* to an increase in the *Market Participant's* maximum credit limit by an amount not less than the *call amount*, and provide to *AEMO* additional *credit support* where, by virtue of the increase in the maximum credit limit, the *Market Participant* no longer complies with its obligations under clause 3.3.5;
 - (2) (where clause 3.3.13(a)(1) is not satisfied) pay to *AEMO* in cleared funds a security deposit of an amount not less than the *call amount*;
 - (3) lodge a *reallocation request* of an amount which is not less than the *call amount* and which is accepted by *AEMO*; or
 - (4) provide to *AEMO* any combination of clauses 3.3.13(a)(1), (2) and (3) such that the aggregate of the amount which can be drawn under the additional *credit support* provided and the amount of the security deposit paid and the amount of the *reallocation request* accepted by *AEMO* is not less than the *call amount*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) If *AEMO* gives a *call notice* to a *Market Participant* after 1:00 pm (*Sydney time*), then *AEMO* is deemed to have given that *call notice* on the next *business day* for the purposes of this clause.

3.3.13A Application of monies in the security deposit fund

- (a) Subject to clauses 3.3.13A(b) and (e), *AEMO* may apply money from the security deposit fund recorded as a credit balance in the name of a *Market Participant* in payment of monies owing by that *Market Participant* to *AEMO*:

- (1) in respect of any *final statement* previously given to that *Market Participant* which has not been fully paid by the appointed time on the due date and remains unpaid; or
- (2) at the time of issuing any *final statement*,

in which case *AEMO* may set off all, or part of, any amount by which a *Market Participant* is in credit in the security deposit fund at that time against any amounts owing to *AEMO* under the *final statement*.

- (b) Subject to clause 3.3.13A(c):
 - (1) a *Market Participant* may, by giving notice at least one *business day* prior to the due time for the issue of a *final statement*, seek agreement with *AEMO* on the arrangements to apply to the application of security deposits paid by that *Market Participant* under clause 3.3.8A against amounts owing to *AEMO* under a particular *final statement* or *final statements*; and
 - (2) *AEMO* must apply the security deposits in accordance with an agreement reached under clause 3.3.13A(b)(1).

If agreement is not reached between *AEMO* and the *Market Participant* under this clause, then *AEMO* has a discretion to apply the security deposit funds of that *Market Participant* in payment of moneys that the *Market Participant* owes *AEMO* as set out in clauses 3.3.13A(a)(1) and (2).

- (c) Despite any agreement under clause 3.3.13A(b), if a *default event* occurs in relation to a *Market Participant*, then *AEMO* has a discretion as to which amounts owing to *AEMO* under *final statements* it applies or partially applies security deposits paid by that *Market Participant* under clause 3.3.8A.
- (d) In the case of security deposits paid by a *Market Participant* in the security deposit fund under clause 3.3.13, *AEMO* has a discretion as to which *final statements* it applies or partially applies those monies against.

- (e) However, in exercising its discretion in clauses 3.3.13A(b), (c) or (d), if a *Market Participant* pays *AEMO* a security deposit, then *AEMO* must apply any remaining portion of the security deposit (taking into account deductions for any liabilities or expenses of the security deposit fund) against the longest outstanding amounts owing to *AEMO* under *final statements* issued not later than the *final statement* for the *billing period* in which the security deposit was paid to *AEMO*. If, for any reason, *AEMO* has not fully applied such security deposit within this time, then *AEMO* must apply the remainder to amounts owing to *AEMO* under the next *final statement* or *statements* until it has been fully applied.
- (f) If:
 - (1) a *Market Participant* has a credit balance in the security deposit fund and ceases, or intends to cease, being a *Market Participant*; and
 - (2) that *Market Participant* has paid all money owing to *AEMO* and *AEMO* reasonably considers that the *Market Participant* will not owe any money to *AEMO* in the future arising from that person's activities as a *Market Participant*,

then *AEMO* must return any credit balance for that *Market Participant* in the security deposit fund to that *Market Participant* (subject to deduction for any liabilities and expenses of the security deposit fund).
- (g) If, for any reason, there is a debit balance in the security deposit fund for a *Market Participant*, then the *Market Participant* must pay that amount to *AEMO*. For this purpose, *AEMO* may:
 - (1) include that amount in the next *final statement*; or
 - (2) issue an account to that *Market Participant* for payment of that debit balance and the *Market Participant* must pay that amount within 2 *business days*.

3.3.14 Potential value of a transaction

At any time, the *potential value* of a *transaction*, or of any bid or offer by a *Market Participant* to effect a *transaction*, under which the *trading amount* payable to *AEMO* is determined by reference to one or more specified *regional reference prices* or *ancillary service prices*, is the dollar amount determined by this procedure:

- (a) the *transaction* is first tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary service price* applicable to the *transaction* was equal to the *scheduled high price*;
- (b) the *transaction* is then tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary*

service price applicable to the *transaction* was equal to the *scheduled low price*;

- (c) if the *trading amount* resulting for both tests is a positive amount or zero, then the *potential value* of the *transaction* is zero;
- (d) if the *trading amount* resulting for either test is a negative amount, then the *potential value* of the *transaction* is the absolute value of the negative amount (or, where both tests produce a negative amount, the *potential value* of the *transaction* is the absolute value of the most negative amount).

3.3.15 Trading margin

At any time, the *trading margin* for a *Market Participant* is a dollar amount equal to the amount by which its *trading limit* exceeds its current *outstandings* due to *AEMO* and if the *outstandings* are equal to or exceed the *trading limit*, the *trading margin* is zero.

3.3.16 Limitation on entry of transactions

- (a) A *Market Participant* must not submit any bid or offer to effect any *transaction* with *AEMO* where the *potential value* of that *transaction*, plus the *potential value* of all other *uncompleted transactions*, exceeds the *trading margin* for the *Market Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *transaction* is an *uncompleted transaction* if some or all of the *trading intervals* to which that *transaction* relates have not yet occurred.

3.3.17 Scheduled prices

- (a) The *scheduled high price* and the *scheduled low price* are amounts determined by *AEMO* in its absolute discretion from time to time as a basis upon which to determine the *potential value* of a *transaction* in accordance with clause 3.3.14.
- (b) *AEMO* may determine different *scheduled high prices* and *scheduled low prices* for each *region*.
- (c) The *scheduled high price* for energy and market ancillary services cannot be greater than the *market price cap* and the *scheduled low price* for:
 - (i) *energy*, cannot be less than the *market floor price*; and
 - (ii) *market ancillary services*, cannot be less than zero.
- (d) *AEMO* must notify all *Market Participants* without delay of any determination of *scheduled high prices* and *scheduled low prices*.

- (e) For *Market Participants* who do not trade in the *spot market*, the *scheduled high price* shall be the *market price cap* and the *scheduled low price* shall be zero.

3.3.18 Additional credit support

- (a) Where at any time the aggregate *potential value* of a *Market Participant's uncompleted transactions* exceeds the *trading margin* for the *Market Participant* (including without limitation where this is a result of a redetermination of *scheduled high prices* or *scheduled low prices*) the *Market Participant* must provide to AEMO additional *credit support* satisfying the criteria in clause 3.3.2 for an amount not less than the amount by which the *trading margin* is exceeded. The *Market Participant* must procure that the additional *credit support* is provided to AEMO within 24 hours after AEMO has notified the *Market Participant* that additional *credit support* is required.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *Credit support* required pursuant to this clause 3.3.18 is in addition to and not inclusive of the *credit support* which a *Market Participant* is required to procure pursuant to other provisions of the *Rules*.

3.3.19 Consideration of other Market Participant transactions

- (a) For the purposes of determining the *prudential requirements* to be satisfied by *Market Participants* in accordance with this rule 3.3, AEMO must consult with *Market Participants* and any other person AEMO considers appropriate.
- (b) AEMO is not required to meet its obligations under clause 3.3.19(a) in any way which increases AEMO's risks in the collection of moneys owed to it in accordance with any of the provisions of the *Rules*.

3.4 Spot Market

3.4.1 Establishment of spot market

- (a) AEMO must establish and operate a *spot market* as a mechanism for:
 - (1) balancing electricity *supply* and demand;
 - (2) acquiring *market ancillary services*; and
 - (3) setting a *spot price* for electricity at each *regional reference node* and *market connection point* for each *trading interval* and *ancillary service prices* at each *regional reference node* for each *dispatch interval*.

- (b) *AEMO* must determine and *publish* in accordance with rule 3.9:
 - (1) a *spot price* for *energy* to apply at each *regional reference node* in each *trading interval*; and
 - (2) *ancillary service prices* to apply at each *regional reference node* for each *dispatch interval*.

3.4.2 Trading day and trading interval

- (a) A *trading interval* is a 30 minute period ending on the hour or on the half hour.
- (b) A *trading interval* is identified by the *time* at which it ends.
- (c) The *trading day* in the *spot market* will be the 24 hour period commencing at 4.00 am *Eastern Standard Time*.

3.4.3 Spot market operations timetable

- (a) *AEMO* must operate the *spot market* according to the *timetable* which must be approved by the *AEMC* and *published* by *AEMO* following compliance with the *Rules consultation procedures*.
- (b) If *AEMO* wishes to change the *timetable* at any time, it may do so following compliance with the *Rules consultation procedures*.
- (c) If *AEMO* amends the *timetable* in accordance with paragraph (b), *AEMO* must:
 - (1) *publish* the amended *timetable*; and
 - (2) operate the *spot market* according to the *timetable* as amended.

3.5 Regions

3.5.1 [Deleted]

3.5.2 [Deleted]

3.5.3 [Deleted]

3.5.4 [Deleted]

3.5.5 [Deleted]

3.5.6 [Deleted]

3.6 Network Losses and Constraints

3.6.1 Inter-regional losses

- (a) *Inter-regional losses* are *electrical energy losses* due to a notional transfer of electricity through *regulated interconnectors* from the *regional reference node* in one *region* to the *regional reference node* in an adjacent *region*.
- (b) *Inter-regional loss factors*:
 - (1) describe the *marginal electrical energy losses* for electricity transmitted through *regulated interconnectors* from a *regional reference node* in one *region* to the *regional reference node* in an adjacent *region* for a particular time period and a defined range of operating conditions;
 - (2) to apply between each pair of adjacent *regional reference nodes* are to be determined as part of the *central dispatch* process using *inter-regional loss factor* equations derived in accordance with the methodology determined by AEMO pursuant to clause 3.6.1(c); and
 - (3) are to be used in the *central dispatch* process as a notional adjustment to relate the prices of electricity at *regional reference nodes* in adjacent *regions* so as to reflect the cost of *inter-regional losses*.
- (c) AEMO must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for the determination of *inter-regional loss factor* equations for a *financial year*, describing *inter-regional loss factors* between each pair of adjacent *regional reference nodes* in terms of significant variables.
- (d) In preparing the methodology for the determination of *inter-regional loss factor* equations referred to in clause 3.6.1(c), AEMO must implement the following principles:
 - (1) *Inter-regional loss factor* equations are to apply for a *financial year*.

- (2) *Inter-regional loss factor* equations must be suitable for use in *central dispatch*.
- (3) *Inter-regional loss factors* are determined as part of the *central dispatch* process using *inter-regional loss factor* equations. The *inter-regional loss factors* must:
 - (i) as closely as is reasonably practicable, describe the *marginal electrical energy losses* for electricity transmitted through the relevant *regulated interconnector* between the 2 relevant *regional reference nodes* in adjacent *regions* for each *trading interval* of the *financial year* in respect of which the relevant *inter-regional loss factor* equations apply; and
 - (ii) aim to minimise the impact on the *central dispatch* process of *generation* and *scheduled load* as compared to the *dispatch* of *generation* and *scheduled load* which would result from a fully optimised dispatch process taking into account the effect of losses.
- (4) *Inter-regional loss factor* equations are determined using forecast *load* and *generation* data and, if required, modelled *load* and *generation* data for the *financial year* in which the *inter-regional loss factor* equations are to apply. The forecast *load* and *generation* data and modelled *load* and *generation* data, if any, used must be that *load* and *generation* data prepared by AEMO pursuant to clause 3.6.2A.
- (5) *Inter-regional loss factor* equations are determined by applying regression analysis to the *load* and *generation* data referred to in clause 3.6.1(d)(4) to determine:
 - (i) the variables which have a significant effect on the *marginal electrical energy losses* for electricity transmitted through each *regulated interconnector* for both directions of flow on those *regulated interconnectors*; and
 - (ii) the parameters that represent the relationship between each of those variables and the *marginal electrical energy losses*.
- (e) AEMO must determine the *inter-regional loss factor* equations used to calculate *inter-regional loss factors* in each *financial year* in accordance with the methodology prepared and *published* by AEMO under clause 3.6.1(c).
- (f) AEMO must *publish* the *inter-regional loss factor* equations determined under clause 3.6.1(e) by 1 April prior to the *financial year* in which they are to apply.

3.6.2 Intra-regional losses

- (a) *Intra-regional losses* are *electrical energy losses* that occur due to the transfer of electricity between a *regional reference node* and *transmission network connection points* in the same *region*.
- (b) *Intra-regional loss factors*:
 - (1) notionally describe the *marginal electrical energy losses* for electricity transmitted between a *regional reference node* and a *transmission network connection point* in the same *region* for a defined time period and associated set of operating conditions;
 - (2) will be either:
 - (i) two *intra-regional loss factors* where *AEMO* determines, in accordance with the methodology determined under clause 3.6.2(d), that one *intra-regional loss factor* does not, as closely as is reasonably practicable, describe the average of the *marginal electrical energy losses* for electricity transmitted between a *transmission network connection point* and the *regional reference node* for the *active energy* generation and consumption at that *transmission network connection point*; or
 - (ii) one static *intra-regional loss factor* in all other circumstances;
 - (2A) must be determined in accordance with the methodology determined by *AEMO* under clause 3.6.2(d) for each *transmission network connection point*;
 - (2B) apply for a *financial year*; and
 - (3) may, with the agreement of the *AER*, be averaged over an adjacent group of *transmission network connection points* within a single *region*. If averaging is used, the relevant *transmission network connection points* will be collectively defined as a *virtual transmission node* with a *loss factor* calculated as the volume weighted average of the *transmission loss factors* of the constituent *transmission network connection points*.
- (b1) If *AEMO* determines two *intra-regional loss factors* for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* must apply the *intra-regional loss factors* in *central dispatch* and *spot market transactions* in accordance with the procedure determined by *AEMO* under clause 3.6.2(d1).
- (c) An *intra-regional loss factor* is to be used as a price multiplier that can be applied to the *regional reference price* to determine the *local spot price* at each *transmission network connection point* and *virtual transmission node*.
- (d) *AEMO* must determine, *publish* and maintain, in accordance with *Rules consultation procedures*, a methodology for the determination of

intra-regional loss factors to apply for a *financial year* for each *transmission network connection point*.

- (d1) *AEMO* must determine, *publish* and maintain, in consultation with *Registered Participants*, a procedure that includes a description of the manner in which *AEMO* will, if two *intra-regional loss factors* apply to a *transmission network connection point*, apply two *intra-regional loss factors* in *central dispatch* and *spot market transactions*. The procedure determined under this paragraph (d1) must describe how *AEMO* will identify and measure the *generation* and *load* at each *transmission network connection point* and apply the relevant *intra-regional loss factor* against that *generation* or *load*.
- (e) In preparing the methodology referred to in clause 3.6.2(d), *AEMO* must implement the following principles:
 - (1) *Intra-regional loss factors* are to apply for a *financial year*.
 - (2) An *intra-regional loss factor* must, as closely as is reasonably practicable, describe the average of the *marginal electrical energy losses* for electricity transmitted between a *transmission network connection point* and the *regional reference node* in the same *region* for each *trading interval* of the *financial year* in which the *intra-regional loss factor* applies.
 - (2A) *Intra-regional loss factors* must aim to minimise the impact on the *central dispatch* process of *generation* and *scheduled load* compared to that which would result from a fully optimised dispatch process taking into account the effect of losses.
 - (3) Forecast *load* and *generation* data for the *financial year* for which the *intra-regional loss factor* is to apply must be used. The forecast *load* and *generation* data used must be that *load* and *generation* data prepared by *AEMO* pursuant to clause 3.6.2A.
 - (4) The *load* and *generation* data referred to in clause 3.6.2(e)(3) must be used to determine *marginal loss factors* for each *transmission network connection point* for each *trading interval* in the *financial year* to which the *load* and *generation* data relates.
 - (5) An *intra-regional loss factor* for a *transmission network connection point* is determined using a volume weighted average of the *marginal loss factors* for the *transmission network connection point*.
 - (6) In determining an *intra-regional loss factor* for a *transmission network connection point*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the marginal losses within such *network elements*.

- (f) *AEMO must calculate intra-regional loss factors for each transmission network connection point for each financial year in accordance with the methodology prepared and published by AEMO under clause 3.6.2(d).*
- (f1) *By 1 April in each year, AEMO must publish the intra-regional loss factors revised under clause 3.6.2(f) and to apply for the next financial year.*
- (g) *AEMO must, in accordance with the Rules consultation procedures, determine, publish and maintain the methodology which is to apply to the calculation of average transmission loss factors, determined in accordance with clause 3.6.2(b)(3), for each virtual transmission node proposed by a Distribution Network Service Provider.*
- (h) *As soon as practicable after the publication of the methodology referred to in clause 3.6.2(g), and thereafter by 1 April in each year, AEMO must calculate and publish the transmission loss factors for each virtual transmission node, determined in accordance with clause 3.6.2(b)(3), that are to apply for the next financial year.*
- (i) *Notwithstanding clauses 3.6.2(a) to (f1), AEMO must:*
 - (1) *determine an intra-regional loss factor in the financial year in which an intra-regional loss factor is to apply for a transmission network connection point which is established in that financial year in accordance with the procedure for establishing connection set out in rule 5.3, provided that AEMO did not determine an intra-regional loss factor for the transmission network connection point pursuant to clause 3.6.2(f1) in the financial year preceding that in which the connection point is established; or*
 - (2) *revise an intra-regional loss factor in the financial year in which an intra-regional loss factor is to apply for a transmission network connection point which is modified in that financial year in accordance with the procedure for modifying connection set out in rule 5.3, provided that, in AEMO's reasonable opinion, the modification to that connection point results in a material change in the capacity of the connection point.*
- (j) *AEMO must, where required to determine an intra-regional loss factor for an established or modified transmission network connection point under clause 3.6.2(i), do so as far as practicable in accordance with the methodology published by AEMO pursuant to clause 3.6.2(d).*
- (k) *For the purposes of clause 3.6.2(j), the forecast load and generation data used to calculate an intra-regional loss factor for the transmission network connection point must be determined using the forecast load and generation data determined by AEMO under clause 3.6.2A for other transmission network connection points in the same region for that financial year adjusted to take into account the effect of the established or modified connection point. Notwithstanding this clause 3.6.2(k), Registered Participants must comply with their obligations with respect to the*

provision of information to *AEMO*, for the purpose of determining new or revised *intra-regional loss factors* for *connection points* that are established or modified during the *financial year* in which the *intra-regional loss factors* are to apply, specified by the methodology developed and *published* by *AEMO* under clause 3.6.2A.

- (l) In the case of a *connection point* that is established in the *financial year* in which an *intra-regional loss factor* is to apply:
 - (1) an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the time an *intra-regional loss factor* is determined and *published* by *AEMO*; and
 - (2) *AEMO* must use reasonable endeavours to determine and *publish* an *intra-regional loss factor* at least 45 *business days* prior to the commencement of operation of the established *connection point*, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.
- (m) In the case of a *connection point* that is modified in the *financial year* in which an *intra-regional loss factor* is to apply:
 - (1) an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the date when the modification to the *connection point* takes effect; and
 - (2) *AEMO* must use reasonable endeavours to *publish* an *intra-regional loss factor* at least 45 *business days* prior to the date when the modification to the *connection point* takes effect, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.
- (n) For the avoidance of doubt, where *AEMO* determines an *intra-regional loss factor* for a *transmission network connection point* under clause 3.6.2(i), which is to apply in the *financial year* in which the *transmission network connection point* is established or modified, the *intra-regional loss factors* for all other *transmission network connection points* for that *financial year*, determined in accordance with clauses 3.6.2(a) to (g), must remain unchanged.

3.6.2A Load and generation data used to determine inter-regional loss factor equations and intra-regional loss factors

- (a) *AEMO* must prepare *load* and *generation* data for each *financial year* to be used in both the determination of *inter-regional loss factor* equations under clause 3.6.1 and *intra-regional loss factors* under clause 3.6.2 in accordance with the methodology determined, *published* and maintained by *AEMO* for this purpose, under clause 3.6.2A(b).

- (b) *AEMO* must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for:
 - (1) forecasting the *load* and *generation* data to be used in both the determination of *inter-regional loss factor* equations and *intra-regional loss factors*, including new or revised *intra-regional loss factors* for *connection points* that are established or modified, respectively, during the *financial year* in which the *intra-regional loss factors* are to apply;
 - (2) modelling additional *load* and *generation* data, where required, to be used in determining *inter-regional loss factor* equations; and
 - (3) the collection of relevant data from *Registered Participants*, including without limitation deadlines for the provision of that data by *Registered Participants*.
- (c) The methodology developed and *published* by *AEMO* under clause 3.6.2A(b) must specify information reasonably required by *AEMO* to fulfil its obligations under clause 3.6.2A, including without limitation historic *load* and *generation* data, forecast *energy* and *maximum demand* data for a *connection point* and forecast data for any new *loads*. In particular, the methodology must specify information to be provided by *Registered Participants* that is in addition to the information provided by those *Registered Participants* under other provisions of the *Rules*.
- (d) In preparing the methodology for forecasting and modelling *load* and *generation* data under clause 3.6.2A(b), *AEMO* must implement the following principles:
 - (1) The forecast *load* and *generation* data must be representative of expected *load* and *generation* in the *financial year* in which the *inter-regional loss factor* equations or *intra-regional loss factors* are to apply having regard to:
 - (i) actual *load* and *generation* data available for a 12 month period defined by the methodology with the objective to use the most recent *load* and *generation* data practicable;
 - (ii) projected *load* growth between each calendar month to which the actual *load* and *generation* data referred to in clause 3.6.2A(d)(1)(i) relates and the same calendar month in the *financial year* for which the forecast *load* and *generation* data is determined; and
 - (iii) the projected *network* configuration and projected *network* performance for the *financial year* in which the *inter-regional loss factor* equation or *intra-regional loss factor*, as the case may be, is to apply.
 - (2) Additional modelled *load* and *generation* data sets must only be used:

- (i) in the determination of *inter-regional loss factor* equations under clause 3.6.1; and
 - (ii) where the range of forecast *load* and *generation* data is not sufficient to derive *inter-regional loss factor* equations to apply over the full range of transfer capability of the *regulated interconnector*.
- (e) *Registered Participants* must comply with the obligations to provide information set out in the methodology developed and *published* by AEMO under this clause 3.6.2A, including the deadlines for the provision of that information and any other obligations with respect to the provision of that information set out in the methodology.

3.6.2B Distribution losses on embedded networks

- (1) In clause 3.6.3, except where expressly excluded, a reference to a *Distribution Network Service Provider* includes a reference to an *Embedded Network Service Provider*.
- (2) The AER may in accordance with the *Rules consultation procedures* develop, publish and maintain a guideline to provide information and guidance to *Embedded Network Service Providers* about the application of clause 3.6.3 to *Embedded Network Service Providers* and *embedded networks*.

3.6.3 Distribution losses

- (a) *Distribution losses* are *electrical energy losses* incurred in the conveyance of electricity over a *distribution network*.
- (b) *Distribution loss factors*:
 - (1) notionally describe the *average electrical energy losses* for electricity transmitted on a *distribution network* between a *distribution network connection point* and a *transmission network connection point* or *virtual transmission node* for the financial year in which they apply;
 - (2) will be either:
 - (i) a site specific *distribution loss factor* derived in accordance with the methodology determined by the AER or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), for each *distribution network connection point* of the following types:
 - (A) a *connection point* for an *embedded generating unit* with actual *generation* of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly

established or has been modified, a *Network Service Provider* may determine whether an *embedded generating unit* has *generation* of more than 10MW, based on its best projection of *generation* in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;

- (B) a *connection point* for an end-user with actual or forecast *load* of more than 40GWh or an electrical demand of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly established or has been modified, a *Network Service Provider* may determine whether an end-user has *load* of more than 40GWh or forecast *peak load* of more than 10MW, based on its best projection of *load* in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;
 - (C) a *connection point* for a *Market Network Service Provider*; and
 - (D) a *connection point* between two or more *distribution networks*; or
- (ii) derived, in accordance with the methodology determined by the AER or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), using the volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant *voltage* class (determined in accordance with clause 3.6.3(d)(2)) assigned to that *transmission network connection point* or *virtual transmission node*, for all *connection points* on a *distribution network* not of a type described in clause 3.6.3(b)(2)(i);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) are to be used in the settlement process as a notional adjustment to the electrical *energy*, expressed in MWh, flowing at a *distribution network connection point* in a *trading interval* to determine the *adjusted gross energy* amount for that *connection point* in that *trading interval*, in accordance with clause 3.15.4.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b1) Where a *Generator*, or a *Small Generation Aggregator*, meets the reasonable cost of the *Distribution Network Service Provider* in performing the necessary calculation in respect of a *generating unit* of up to 10MW or 40GWh per annum capacity, the *Distribution Network Service Provider* must calculate a site specific *distribution loss factor* that, notwithstanding any other provision of the *Rules* to the contrary, for the purposes of the *Rules* is to apply in respect of that *generating unit* on the same basis as applies for a *generating unit* of more than 10MW or 40GWh per annum capacity as though the *generating unit* were a unit of more than 10MW or 40GWh per annum capacity.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, of a type described in clause 3.6.3(b)(2)(i), to a single *transmission network connection point* taking into account normal *network* configurations and predominant *load* flows.
- (d) Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, not of a type described in clause 3.6.3(b)(2)(i):
- (1) where practicable, to a single *transmission network connection point* or otherwise, to a *virtual transmission node*, taking into account normal *network* configurations and predominant *load* flows; and
 - (2) to a class of *distribution network connection points* based on the location of, *voltage* of and pattern of electrical *energy* flows at the *distribution network connection point*.
- (e) So far as practicable, the assignment of *connection points* on the *distribution network* to:
- (1) *transmission network connection points* under clause 3.6.3(c); or
 - (2) *transmission network connection points* or *virtual transmission nodes* and a class of *distribution network connection points* under clause 3.6.3(d),

must be consistent with the geographic boundaries of the *pricing zones* for use in *distribution service* pricing, and the *voltage* levels incorporated within those *pricing zones*.

- (f) The assignment of *connection points* on a *distribution network*:

- (1) to a single *transmission network connection point* under clause 3.6.3(c); or

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) to a *transmission network connection point* or *virtual transmission node* and a class of *distribution network connection points* under clause 3.6.3(d),

is subject to the approval of the *AER* and the *Distribution Network Service Provider* must inform *AEMO* of such approved assignments.

- (g) *Distribution loss factors* must be determined by a *Distribution Network Service Provider* for all *connection points* on its *distribution network* either individually, for all ~~*connection points*~~ assigned to a single *transmission network connection point* under clause 3.6.3(c), or collectively, for all *connection points* assigned to a *transmission network connection point* or a *virtual transmission node* and a particular *distribution network connection point* class under clause 3.6.3(d), in accordance with:

- (1) the methodology developed, *published* and maintained by the *AER* for the determination of *distribution loss factors*; or
- (2) where the *AER* has not *published* a methodology under clause 3.6.3(g)(1);

(i) unless paragraph (ii) applies, the methodology developed, *published* and maintained by the *Distribution Network Service Provider* for the determination of *distribution loss factors*; and

(ii) in the case of an *Embedded Network Service Provider* in relation to a *child connection point* on its *embedded network*, paragraph (g1).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g1) For the purposes of subparagraph (g)(2)(ii):

- (1) for a *child connection point* on an *embedded network* assigned to a single *transmission network connection point* under clause 3.6.3(c), the *distribution loss factor* must be determined by applying:

(i) the methodology for the determination of *distribution loss factors* referred to in paragraph (g) *published* by the *Local Network Service Provider* for the area in which the *embedded network* is located and as applicable to the *parent connection*

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- point at or through which the *embedded network* is connected to the *Local Network Service Provider's* distribution system; or
- (ii) a methodology agreed between the *Embedded Network Service Provider* and the *Distribution Customer* at the *child connection point* and approved by the *AER*; and
- (2) a *child connection point* on an *embedded network* assigned to a *transmission network connection point* or a *virtual transmission node* and a *particular distribution network connection point class* under clause 3.6.3(d), the *distribution loss factor* must be:
- (i) the *distribution loss factor* that would be applied to the *child connection point* if it were connected to the *distribution network* of the *Local Network Service Provider*; or
- (ii) if the *distribution loss factor* cannot readily be ascertained under subparagraph (i), the *distribution loss factor* applicable to the *parent connection point* for the *embedded network*.
- (h) The methodology for the determination of *distribution loss factors* referred to in clause 3.6.3(g) must be developed having regard to the following principles:
- (1) The aggregate of the *adjusted gross energy* amounts for a *distribution network*, determined in accordance with clause 3.15.4 using the *distribution loss factors* for the *financial year* in which the *distribution loss factors* are to apply should equal, as closely as is reasonably practicable, the sum of:
- (i) the amount of electrical *energy*, expressed in MWh, flowing at all *connection points* in the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply; and
- (ii) the total *electrical energy losses* incurred on the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply.
- (2) The methodology used to determine *distribution loss factors* for a *financial year* should incorporate provisions requiring a *Distribution Network Service Provider* to undertake a reconciliation between the aggregate of the *adjusted gross energy* amounts for its *distribution network* for the previous *financial year* determined in accordance with clause 3.15.4 using the *distribution loss factors* that applied for *connection points* in that *distribution network* in the previous *financial year* and the sum of:
- (i) the amount of electrical *energy*, expressed in MWh flowing, at all *connection points* in its *distribution network* in the previous *financial year*; and

- (ii) the total *electrical energy losses* incurred on its *distribution network* in the previous *financial year*.
- (3) The *distribution loss factor* for a *distribution network connection point*, other than those described in clause 3.6.3(b)(2)(i), is determined using a volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant class of *distribution network connection points* assigned to that *transmission network connection point* or *virtual transmission node* for the *financial year* in which the *distribution loss factor* is to apply.
- (4) The *distribution loss factor* for a *distribution network connection point* described in clause 3.6.3(b)(2)(i) is determined using the *average electrical energy loss* between the *distribution network connection point* and the *transmission network connection point* to which it is assigned in the *financial year* in which the *distribution loss factor* is to apply.
- (5) In determining the *average electrical energy losses* referred to in clauses 3.6.3(h)(3) and (4), the *Distribution Network Service Provider* must use the most recent actual *load* and *generation* data available for a consecutive 12 month period but may adjust this *load* and *generation* data to take into account projected *load* and / or *generation* growth in the *financial year* in which the *distribution loss factors* are to apply.
- (6) In determining *distribution loss factors*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the *marginal losses* within such *network elements*.
- (i) Each year the *Distribution Network Service Provider* must determine the *distribution loss factors* to apply in the next *financial year* in accordance with clause 3.6.3(g) and provide these to AEMO for *publication* by 1 April. Before providing the *distribution loss factors* to AEMO for *publication*, the *Distribution Network Service Provider* must obtain the approval of the AER for the *distribution loss factors* it has determined for the next *financial year*.

3.6.4 Network constraints

- (a) Conveyance of electricity between *regions* through a *regulated interconnector* is *constrained* when for operational reasons it is not acceptable for the *regulated interconnector* to transfer the level of electricity between *regions* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of other *regulated interconnectors*, *generation*, *scheduled network services* or *loads*.
- (a1) Conveyance of electricity between *regions* by means of a *scheduled network service* is *constrained* when the *dispatch* of the relevant *scheduled network*

service is limited by the notified available capacity or *ramp rate* and the limitation impacts on the *dispatch* of *generation*, *regulated interconnectors*, other *scheduled network services* or *loads*.

- (b) Conveyance of electricity within a *region* is *constrained* when for operational reasons it is not acceptable for a *network* to transfer the level of electricity between different parts of the *region* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of *generation*, *scheduled network services* or *loads*.
- (c) For every *trading interval* AEMO must record any *constraints* including a description and the duration of the *constraint*.
- (d) Any *constraints* which occur within a *region* or between *regions* must be taken into account in the *dispatch* process under clause 3.8.10.

3.6.5 Settlements residue due to network losses and constraints

- (a) *Settlements residue* will be allocated, and distributed or recovered by AEMO in accordance with the following principles:
 - (1) full effect is to be given to the *jurisdictional derogations* contained in Chapter 9 relating to *settlements residue*;
 - (2) the portion of the *settlements residue* attributable to *regulated interconnectors* (as adjusted to take into account the effect of any applicable *jurisdictional derogations* referred to in subparagraph (1)) will be distributed or recovered in accordance with rule 3.18;
 - (3) the remaining *settlements residue*, including the portion of *settlements residue* due to *intra-regional loss factors*, will be distributed to or recovered from the appropriate *Transmission Network Service Providers* (which will not include *Market Network Service Providers*);
- (3A) **[Deleted]**
- (4) if the *settlements residue* arising in respect of a *trading interval*, after taking into account any relevant adjustment in accordance with clauses 5.7.7(aa)(3) or (ab), is a negative amount then, in respect of the *billing period* in which the negative *settlements residue* arises then:
 - (i) AEMO must recover the amount from the appropriate *Transmission Network Service Provider* at a payment time, interval, and by a method, determined by AEMO following consultation with *Transmission Network Service Providers*. AEMO may determine that the appropriate *Transmission Network Service Provider* is to pay the negative *settlements residue* amount by a date prior to the date for payment of *final statements* under clause 3.15.16;

- (ii) the appropriate *Transmission Network Service Provider* must pay the negative *settlements residue* amount in accordance with *AEMO's* determination under subparagraph (4)(i);
- (4A) if interest costs are incurred by *AEMO* in relation to any unrecovered negative *settlements residue* amount referred to in subparagraph (4), then, in respect of the *billing period* in which the negative *settlements residue* arises then:
 - (i) *AEMO* must recover the interest costs from the appropriate *Transmission Network Service Provider* at a payment time, interval, and by a method, determined by *AEMO* following consultation with *Transmission Network Service Providers*. *AEMO* may determine that the appropriate *Transmission Network Service Provider* is to pay the interest cost amount by a date prior to the date for payment of *final statements* under clause 3.15.16; and
 - (ii) the appropriate *Transmission Network Service Provider* must pay the interest cost amount in accordance with *AEMO's* determination under subparagraph (4A)(i);
- (4B) for the purposes of subparagraphs (3), (4) and (4A), the appropriate *Transmission Network Service Provider* is:
 - (i) in the case of *inter-regional settlements residue*:
 - (A) if there is more than one *Transmission Network Service Provider* in the importing region, the *Co-ordinating Network Service Provider*; or
 - (B) if there is no *Co-ordinating Network Service Provider* in the importing region, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;
 - (ii) in the case of *intra-regional settlements residue*:
 - (A) if there is more than one *Transmission Network Service Provider* in the *region*, the *Co-ordinating Network Service Provider*; or
 - (B) if there is no *Co-ordinating Network Service Provider* in the *region*, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;
- (4C) **[Deleted]**
- (4D) for the purposes of paragraph (4B), **importing region** means the *region* to which electricity is transferred during the relevant *trading interval* from another *region* through *regulated interconnectors*; and

(5) **[Deleted]**

(6) any portion of *settlements residue* distributed to a *Network Service Provider* or amount paid on that portion under clause 3.15.10A (if any), or rule 3.18 to a *Network Service Provider*, including any such payments as adjusted by a *routine revised statement* or *special revised statement* issued under rule 3.15, net of any portion of *settlements residue* recovered from the *Network Service Provider* in accordance with clause 3.6.5(a)(4), will be used to offset *network service* charges.

(b) A *Transmission Network Service Provider* or its jurisdictional delegate is a *Market Participant* for the purposes of clause 3.3.1 and rule 3.15 (excluding clause 3.15.1(b)) but not otherwise.

(c) **[Deleted]**

3.7 Projected Assessment of System Adequacy

3.7.1 Administration of PASA

(a) *AEMO* must administer medium term and short term *projected assessment of system adequacy processes* to be known as *PASA*.

(b) The *PASA* is a comprehensive program of information collection, analysis, and disclosure of medium term and short term *power system security* and reliability of *supply* prospects so that *Registered Participants* are properly informed to enable them to make decisions about *supply*, demand and *outages of transmission networks* in respect of periods up to 2 years in advance.

(c) On a weekly basis *AEMO* must:

(1) collect and analyse information from all *Scheduled Generators*, *Market Customers*, *Transmission Network Service Providers* and *Market Network Service Providers* about their intentions for:

(i) *generation*, *transmission* and *market network service* maintenance scheduling;

(ii) intended *plant* availabilities;

(iii) *energy constraints*;

(iv) other *plant* conditions which could materially impact upon *power system security* and reliability of *supply*; and

(v) significant changes to *load* forecasts previously notified to *AEMO*,

for the following 24 months;

- (2) prepare the *unconstrained intermittent generation forecasts* for the following 24 months; and
- (3) following analysis and assessment of the information referred to in subparagraphs (1) and (2), *publish* information that will inform the *market* regarding forecasts of *supply* and demand.
- (d) *AEMO* must use its reasonable endeavours to ensure that it publishes sufficient information to allow the *market* to operate effectively with a minimal amount of intervention by *AEMO*.

3.7.2 Medium term PASA

- (a) The *medium term PASA* covers the 24 month period commencing from the Sunday after the *day* of publication with a daily resolution. Every week, *AEMO* must review and *publish* the outputs of the *medium term PASA* in accordance with the *timetable*.
- (b) *AEMO* may publish additional updated versions of the *medium term PASA* in the event of *changes* which, in the judgment of *AEMO*, are materially significant.
- (c) The following *medium term PASA inputs* are to be prepared by *AEMO*:
 - (1) forecast *load* information for each *region* which is:
 - (i) the 10% probability of exceedence daily *peak load*, most probable daily *peak load* and time of the peak on the basis of past trends, day type and special events including all forecast *scheduled load* and other *load* except for pumped storage *loads*;
 - (ii) subsequently to be adjusted by an amount anticipated in the forecast as *scheduled load* by *load* bidders; and
 - (iii) an indicative half hourly *load* profile for each day type for each *region* for each month of the year;
 - (2) **[Deleted]**
 - (3) forecast *network constraints* known to *AEMO* at the time;
 - (4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *day*.
- (d) The following *medium term PASA inputs* must be submitted by each relevant *Scheduled Generator* or *Market Participant* in accordance with the *timetable*:
 - (1) *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *day* taking into account the ambient weather conditions forecast at the time of the 10% probability

of exceedence *peak load* (in the manner described in the procedure prepared under paragraph (g)); and

- (2) weekly *energy constraints* applying to each *scheduled generating unit* or *scheduled load*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under paragraph (f)(6).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) *AEMO* must prepare and *publish* the following information in respect of each *day* (unless otherwise specified in subparagraphs (1) to (6)) covered by the *medium term PASA* in accordance with clause 3.13.4(a):

- (1) forecasts of the 10% probability of exceedence *peak load*, and most probable *peak load*, excluding the relevant aggregated MW allowance referred to in subparagraph (2), and adjusted to make allowance for *scheduled load*;

(1A) **[Deleted]**

- (2) the aggregated MW allowance (if any) to be made by *AEMO* for *generation* from *non-scheduled generating systems* in each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in subparagraph (1);

- (3) in respect of each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in subparagraph (1), a value that is the sum of that forecast and the relevant aggregated MW allowance referred to in subparagraph (2);

- (4) forecasts of the most probable weekly *energy* for each *region*;

- (5) aggregate *generating unit PASA availability* for each *region*;

- (5A) aggregate capacity for each *region* that can be *generated* continuously, calculated by adding the following categories:

- (i) the capacity of *scheduled generating units* in the *region* that are able to operate at the *PASA availability*; and

- (ii) the forecast *generation* of *semi-scheduled generating units* in the *region* as provided by the *unconstrained intermittent generation forecasts*;
- (5B) aggregate capacity for each *region* that cannot be *generated* continuously at the *PASA availability* of the *scheduled generating units* in the *region* due to specified weekly *energy constraints*; and
- (6) identification and quantification of:
 - (i) any projected *violations* of *power system security*;
 - (ii) any projected failure to meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*;
 - (iii) **[Deleted]**
 - (iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only; and
 - (v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.
- (g) *AEMO* must publish the procedure it uses for preparation of the *medium term PASA*.

3.7.3 Short term PASA

- (a) The *short term PASA* must be *published* at least daily by *AEMO* in accordance with the *timetable*.
- (b) The *short term PASA* covers the period of six *trading days* starting from the end of the *trading day* covered by the most recently *published pre-dispatch schedule* with a *trading interval* resolution.
- (c) *AEMO* may *publish* additional updated versions of the *short term PASA* in the event of *changes* which, in the judgement of *AEMO*, are materially significant.
- (d) The following *short term PASA inputs* are to be prepared by *AEMO*:
 - (1) forecast *load* information for each *region* which is to include:
 - (i) the 10% probability of exceedence half-hourly *load* and most probable half hourly *load* on the basis of past trends, day type, and special events; and
 - (ii) all *scheduled load* and other *load* except for pumped storage *loads*,

which must subsequently be adjusted in accordance with *dispatch bids* for *scheduled load*;

- (2) **[Deleted]**
 - (3) forecast *network constraints* known to *AEMO* at the time; and
 - (4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *trading interval*.
- (e) The following *short term PASA inputs* must be submitted by each relevant *Scheduled Generator* and *Market Participant* in accordance with the *timetable* and must represent the *Scheduled Generator's* or *Market Participant's* current intentions and best estimates:
- (1) *available capacity* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval* under expected *market conditions*;
 - (2) *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval*; and
 - (3) **[Deleted]**
 - (4) projected daily *energy availability* for *energy constrained scheduled generating units* and *energy constrained scheduled loads*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) If *AEMO* considers it reasonably necessary for adequate *power system* operation and the maintenance of *power system security* and reliability of *supply*, *Registered Participants* who may otherwise be exempted from providing inputs for the *PASA* process must do so to the extent specified by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under clause 3.7.3(h)(5).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) *AEMO* must prepare and *publish* the following information for each *trading interval* (unless otherwise specified in subparagraphs (1) to (5)) in the period covered by the *short term PASA* in accordance with clause 3.13.4(c):
- (1) forecasts of the most probable *load* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) plus *reserve* requirement (as determined under clause 3.7.3(d)(2)), adjusted to make allowance for *scheduled load*, for each *region*;
 - (2) forecasts of *load* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* with 10% and 90% probability of exceedence;
 - (3) forecasts of the most probable *energy* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* and *trading day*;
 - (4) aggregate *generating unit* availability (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;
 - (4AA) aggregate capacity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after allowing for the impact of *network constraints*, that can be *generated* continuously, calculated by adding the following categories:
 - (i) the *available capacity* of *scheduled generating units* that are able to operate at the availability as notified to *AEMO* under paragraph (e)(1); and
 - (ii) the forecast *generation* of *semi-scheduled generating units* as provided by the *unconstrained intermittent generation forecasts*;
 - (4AB) aggregate capacity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after allowing for the impact of *network constraints*, that cannot be *generated* continuously at the *available capacity* referred to in subparagraph (4AA)(i) due to specified daily *energy constraints*; and
 - (4A) aggregate *generating unit PASA availability* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;
 - (4B) the aggregated MW allowance (if any) to be made by *AEMO* for generation from *non-scheduled generating systems* in each forecast:
 - (i) of the most probable *load* referred to in clause 3.7.3(h)(1); and
 - (ii) referred to in clauses 3.7.3(h)(2), (3), (4), (4A), (4AA) and (4AB);
 - (4C) in respect of each forecast:

- (i) of the most probable *load* referred to in clause 3.7.3(h)(1);
 - (ii) referred to in clauses 3.7.3(h)(2), (3), (4) , (4A), (4AA) and (4AB),

a value that is the sum of that forecast and the relevant aggregated MW allowance (if any) referred to in clause 3.7.3(4B); and
- (5) identification and quantification of:
 - (i) any projected *violations* of *power system security*;
 - (ii) any projected failure to meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*;
 - (iii) **[Deleted]**
 - (iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of outages on the relevant *interconnector* only; and
 - (v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.
- (i) If in performing the *short term PASA AEMO* identifies any projected failure to meet the *reliability standard* in respect of a *region* as assessed in accordance with the *reliability standard implementation guidelines*, then *AEMO* must use its reasonable endeavours to advise the *Jurisdictional System Security Coordinator* who represents a *participating jurisdiction* in that *region* of any potential requirements during such conditions to shed *sensitive loads*.
- (j) *AEMO* must publish the procedure it uses for preparation of the *short term PASA*.

3.7A Congestion information resource

- (a) The objective of the *congestion information resource* is to provide information in a cost effective manner to *Registered Participants* to enable them to understand patterns of *network* congestion and make projections of *market* outcomes in the presence of *network* congestion (the *congestion information resource objective*).

Development of congestion information resource

- (b) To implement the *congestion information resource objective*, *AEMO* must develop and *publish*, in accordance with this rule 3.7A, an information resource comprising:

- (1) information on *planned network events* that are likely to materially affect *network constraints* in relation to a *transmission system*;
 - (2) historical data on *mis-pricing* at *transmission network* nodes in the *national electricity market*; and
 - (3) any other information that *AEMO*, in its reasonable opinion, considers relevant to implement the *congestion information resource objective*,

which is to be known as the *congestion information resource*.
- (c) The *congestion information resource* must contain at least the same level of detail as is required to be included in the interim congestion information resource *published* under clause 11.30.2
- (d) *AEMO* must develop, and amend from time to time, the *congestion information resource*:
 - (1) consistently with the *congestion information resource objective*;
 - (2) in accordance with the *congestion information resource guidelines*; and
 - (3) to incorporate any new, or amend any existing, aspect of the *congestion information resource* where *AEMO* forms the view that such an amendment will improve the implementation of the *congestion information resource objective*
- (e) Subject to paragraph (f), *AEMO* must update and *publish* the information contained in the *congestion information resource* (whether in whole or in part) at intervals to be determined by *AEMO* in accordance with the *congestion information resource guidelines*.
- (f) The intervals determined by *AEMO* for updating and *publishing* the *congestion information resource* must be included in the *timetable*.
- (g) If there has been a material change to the information contained in the *congestion information resource* and *AEMO* considers *Registered Participants* require the new information prior to the next periodic update of the *congestion information resource* in accordance with paragraph (e), *AEMO* may provide *Market Participants* with the new information in accordance with the *congestion information resource guidelines*.
- (h) *AEMO* must *publish* the first *congestion information resource* by 1 September 2011 and there must be a *congestion information resource* available at all times after that date.
- (i) For the purpose of *publishing* the first *congestion information resource* under paragraph (b), *AEMO* may, subject to paragraph (d), *publish* the interim *congestion information resource* referred to in clause 11.30.2, as the first *congestion information resource*, in whole or in part.

- (j) *AEMO must not publish confidential information as part of, or in connection with, the congestion information resource*

Congestion information resource guidelines

- (k) *AEMO must develop and publish guidelines (the congestion information resource guidelines) in relation to:*
 - (1) *the categories of information to be contained in the congestion information resource including the source of that information;*
 - (2) *the scope and type of information to be provided by Transmission Network Service Providers in accordance with paragraphs (n) and (o);*
 - (3) *the processes to be implemented by AEMO to obtain the information from Transmission Network Service Providers in accordance with paragraphs (n) and (o);*
 - (4) *the determination of the intervals for updating and publishing the congestion information resource under paragraph (e); and*
 - (5) *the processes to be implemented by AEMO for providing Registered Participants with information under paragraph (g).*
- (l) *AEMO must develop and publish the first congestion information resource guidelines in accordance with the Rules consultation procedures by 1 September 2010 and there must be a set of congestion information resource guidelines available and up to date at all times after that date.*
- (m) *AEMO must amend the congestion information resource guidelines in accordance with the Rules consultation procedures.*

Information of Transmission Network Service Providers

- (n) *In addition to the obligations imposed on Transmission Network Service Providers by rule 3.7, Transmission Network Service Providers must provide AEMO with the information specified in the congestion information resource guidelines as information that is to be provided by them:*
 - (1) *in a form which clearly identifies confidential information; and*
 - (2) *in accordance with the congestion information resource guidelines.*

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (o) *If there has been a material change to the information provided by a Transmission Network Service Provider under paragraph (n), the Transmission Network Service Provider must provide AEMO with the revised information as soon as practicable.*

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (p) Information contained in the *congestion information resource* which has been provided by, or has been derived from information provided by, a *Transmission Network Service Provider* under this rule 3.7A:
 - (1) must represent the *Transmission Network Service Provider's* current intentions and best estimates regarding *planned network events* at the time the information is made available;
 - (2) does not bind the *Transmission Network Service Provider* to comply with an advised *outage* program; and
 - (3) may be subject to change due to unforeseen circumstances outside the control of the *Transmission Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.7B Unconstrained intermittent generation forecast

- (a) *AEMO* must prepare a forecast of the *available capacity* of each *semi-scheduled generating unit* (to be known as an *unconstrained intermittent generation forecast*) in accordance with this rule 3.7B for the purposes of:
 - (1) the *projected assessment of system adequacy process*;
 - (2) *dispatch*; and
 - (3) *pre-dispatch*.
- (b) A *Semi-Scheduled Generator* must:
 - (1) submit to *AEMO*, in accordance with the *timetable*, the *plant availability* for each *semi-scheduled generating unit* for the purpose of paragraph (a) as soon as the *Semi-Scheduled Generator* becomes aware that the *plant availability* of the unit is at least 6MW below or above the *nameplate rating* of the unit; and
 - (2) where the *Semi-Scheduled Generator* has submitted *plant availability* in accordance with subparagraph (1), notify *AEMO* in accordance with the *timetable* as soon as the *Semi-Scheduled Generator* becomes aware of any changes to the *plant availability* of that *semi-scheduled generating unit* until such time as the *plant availability* of that *semi-scheduled generating unit* is no longer at least 6MW below or above the *nameplate rating* of the unit.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

- (c) When preparing an *unconstrained intermittent generation forecast* for the purposes referred to in paragraph (a), *AEMO* must take into account:
 - (1) the maximum *generation* of the *semi-scheduled generating unit* provided by the *Semi-Scheduled Generator* as part of its *bid and offer validation data*;
 - (2) the *plant availability* of the *semi-scheduled generating unit* submitted by the *Semi-Scheduled Generator* under paragraph (b);
 - (3) the information obtained for the *semi-scheduled generating unit* from the *remote monitoring equipment* specified in clause S5.2.6.1;
 - (4) the forecasts of the energy available for input into the electrical power conversion process for each *semi-scheduled generating unit*;
 - (5) the *energy conversion model* for each *semi-scheduled generating unit*;
 - (6) the assumption that there are no *network constraints* otherwise affecting the *generation* from that *semi-scheduled generating unit*; and
 - (7) the timeframes of:
 - (i) *pre-dispatch*;
 - (ii) *dispatch*,
 - (iii) *medium term PASA*; and
 - (iv) *short term PASA*.
- (d) *NEMMCO* must prepare the first *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* by 31 March 2009 and there must be an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* available at all times after that date.

3.7C Energy Adequacy Assessment Projection

Purpose of EAAP

- (a) The purpose of the *energy adequacy assessment projection* (or *EAAP*) is to make available to *Market Participants* and other interested persons an analysis that quantifies the impact of *energy constraints* on *energy availability* over a 24 month period under a range of scenarios.

EAAP principles

- (b) The *EAAP* must:

- (1) cover a 24 month period; ;
 - (2) be *published* at least once in every 12 month period and more frequently if required under paragraph (d);
 - (3) provide a probabilistic assessment of projected *energy* availability for each *region*;
 - (4) provide projected *unserved energy* levels for each *region* with a monthly resolution;
 - (5) provide aggregated information on the adequacy of *energy* availability for each scenario that *AEMO* defines for the purposes of the *EAAP*, based on information received from *Registered Participants* and on anticipated *power system* constraints;
 - (6) take into account:
 - (A) where relevant, the information and *medium term PASA* inputs referred to in clauses 3.7.1 and 3.7.2;
 - (B) where relevant, the matters *AEMO* considers in, and for the purposes of, preparing the *NTNDP*;
 - (C) *Generator Energy Limitation Frameworks* provided in accordance with paragraph (g), including *GELFs* that apply to more than one *scheduled generating unit* under clause 3.7C(k)(6) where those *GELFs* adequately represent the relevant *generating units*; and
 - (D) *GELF parameters* for each *GELF* which are provided in accordance with the *EAAP guidelines* and are updated in accordance with the *timetable*.
- (c) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP*.

Administration of EAAP

- (d) *AEMO* must *publish* the *EAAP*:
- (1) at least once in every 12 month period in accordance with the *timetable*; and
 - (2) as soon as practicable after becoming aware of any new information that may materially alter the most recently published *EAAP*.
- (e) For the purposes of preparing the *EAAP*, a *Scheduled Generator* must provide *AEMO* with the following information in accordance with the *timetable*:
- (1) updated *GELF parameters* for each *GELF* provided by it in accordance with paragraph (g); and

- (2) other information that supplements the data provided under subparagraph (1) that is reasonably required by *AEMO* to study the scenarios defined in the *EAAP guidelines*.
- (f) In considering whether information referred to in subparagraph (e)(2) is reasonably required, *AEMO* must have regard to the likely costs that may be incurred by the *Scheduled Generator* in preparing and providing that information compared to the likely benefits from the use of that information for the purposes of the *EAAP*.

Generator Energy Limitation Framework

- (g) A *Scheduled Generator* must prepare and submit to *AEMO*, in accordance with the *EAAP guidelines* and for the purposes of the *EAAP*, a description of the *energy constraints* that affect the ability of each of its *scheduled generating units* to generate electricity (*GELF* or *Generator Energy Limitation Framework*). The *GELF* must be in a form that adequately represents that *generating unit* sufficient for *AEMO* to include the *GELF* in the *EAAP*.
- (h) A *GELF* submitted under paragraph (g) must be supplemented by *GELF parameters* for that *GELF* as defined in the *EAAP guidelines*, and those parameters must be updated:
 - (1) at least every 12 months in accordance with the *timetable*; and
 - (2) in accordance with the *EAAP guidelines*, if *AEMO* is required to publish an *EAAP* under paragraph (d)(2).
- (i) Without limiting paragraph (h), if a *Scheduled Generator* has submitted a *GELF* under paragraph (g) and there has been a material *change* to any of its *scheduled generating units* which has an impact on the *energy constraints* associated with that *GELF*, the *Scheduled Generator* must revise and re-submit the *GELF* in accordance with that paragraph.
- (j) Subject to paragraph (r), a *GELF* or information provided in relation to a *GELF* to *AEMO* must be treated by *AEMO* as *confidential information*.

EAAP guidelines

- (k) *AEMO* must develop and publish guidelines (the *EAAP guidelines*) that:
 - (1) define scenarios that *AEMO* must study in preparing the *EAAP*, including any scenarios that the *Reliability Panel* has identified for study for the purposes of preparing the *EAAP*;
 - (2) define modelling assumptions for the *EAAP*;
 - (3) define the components of a *GELF* that a *Scheduled Generator* must include in a *GELF* submitted under paragraph (g);

- (4) provide detail on the forms of the *GELF* sufficient for a *Scheduled Generator* to meet the requirements of paragraph (g);
- (5) define variable parameters specific to a *GELF* (*GELF parameters*) that are likely to have a material impact on the *GELF* and therefore the *EAAP*, and which may include, but are not limited to, parameters in relation to:
 - (i) hydro storage including pump storage;
 - (ii) thermal generation fuel;
 - (iii) cooling water availability; and
 - (iv) gas supply limitations;
- (6) define circumstances where a *GELF* submitted under paragraph (g) can apply to a collection of *scheduled generating units* that face common *energy constraints* due to their geographic location, access to fuel source or another similar reason;
- (7) define the form of information to be submitted by each *Scheduled Generator* in accordance with paragraph (e);
- (8) define arrangements for managing the confidentiality of information submitted to *AEMO* under this rule 3.7C; and
- (9) specify when a *Scheduled Generator* is required to update a *GELF* under paragraph (h)(2).
- (l) The scenarios that are defined for the purposes of subparagraph (k)(1) may include, but are not limited to:
 - (1) water conditions such as normal rainfall and drought;
 - (2) material restrictions on the supply of a significant fuel source;
 - (3) other limits on a fuel source for a major form of generation; and
 - (4) any other scenario that *AEMO* reasonably considers will have a material impact on the *EAAP*.
- (m) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP guidelines*.
- (n) *AEMO* must comply with the *EAAP guidelines* in preparing the *EAAP*.
- (o) *AEMO* must develop and *publish* the *EAAP guidelines* in accordance with the *Rules consultation procedures*.
- (p) **[Deleted]**

- (q) *AEMO* may from time to time in accordance with the *Rules consultation procedures* amend or replace the *EAAP guidelines*.

Provision of information to Scheduled Generators

- (r) *AEMO* must provide to each *Scheduled Generator*, based on the relevant *GELF*, an estimate of the total *energy* production of the *scheduled generating units* of that *Scheduled Generator* for the period of the *EAAP*.

Review

- (s) **[Deleted]**.

3.7D Demand side participation information

Definitions

- (a) In this rule:

contracted demand side participation means, in relation to a *Registered Participant*, a contractual arrangement under which a person and the *Registered Participant* agree to the curtailment of *non-scheduled load* or the provision of unscheduled generation in certain specified circumstances.

demand side participation information means the information referred to in subparagraph (e)(1).

demand side participation information guidelines means the guidelines as made and amended by *AEMO* in accordance with paragraphs (e) to (i).

unscheduled generation means *generation* from a *generating system* connected to a *transmission system* or *distribution system* which is not a *scheduled generating system* or *semi-scheduled generating system*.

Registered Participants to provide demand side participation information to AEMO

- (b) *Registered Participants* must provide demand side participation information to *AEMO* in accordance with the demand side participation information guidelines.

AEMO to take into account demand side participation information

- (c) *AEMO* must take into account the demand side participation information it receives under this rule 3.7D when developing or using *load* forecasts for the purposes of the exercise of its functions under the *Rules*.
- (d) *AEMO* must *publish* details, no less than annually, on the extent to which, in general terms, demand side participation information received under this rule 3.7D has informed *AEMO's* development or use of *load* forecasts for the purposes of the exercise of its functions under the *Rules*.

Demand side participation information guidelines

- (e) *AEMO* must develop, maintain and *publish* guidelines that specify:
- (1) the information *Registered Participants* must provide to *AEMO* in relation to:
 - (i) contracted demand side participation; and
 - (ii) to the extent not covered by subparagraph (1)(i), the curtailment of *non-scheduled load* or the provision of unscheduled generation in response to the demand for, or price of, electricity, which may include, but is not limited to:
 - (iii) the circumstances under which *non-scheduled load* may be curtailed or unscheduled generation may be provided;
 - (iv) the location at which *non-scheduled load* may be curtailed or unscheduled generation may be provided;
 - (v) the quantity of *non-scheduled load* that may be curtailed or unscheduled generation that may be provided; and
 - (vi) historic or current information;
 - (2) when *Registered Participants* must provide and update demand side participation information;
 - (3) how demand side participation information is to be provided, including, for example:
 - (i) the format in which the information must be provided; and
 - (ii) any information *AEMO* requires to assess the accuracy of the information;
 - (4) *AEMO's* methodology for assessing the accuracy of demand side participation information provided to it under this rule 3.7D; and
 - (5) the manner and form in which *AEMO* will *publish* details, in accordance with paragraph (d), on the extent to which demand side participation information has informed its *load* forecasts.
- (f) In developing and amending the demand side participation information guidelines, *AEMO* must:
- (1) have regard to the reasonable costs of efficient compliance by *Registered Participants* with the guidelines compared to the likely benefits from the use of demand side participation information provided under this rule 3.7D in forecasting *load* for the purposes of the exercise of its functions under the *Rules*; and

(2) subject to paragraph (g), consult with:

- (i) *Registered Participants*; and
- (ii) such other persons who, in *AEMO's* reasonable opinion, have, or have identified themselves to *AEMO* as having, an interest in the demand side participation information guidelines,

in accordance with the *Rules consultation procedures*.

- (g) *AEMO* is not required to comply with the *Rules consultation procedures* when making minor or administrative amendments to the demand side participation information guidelines.
- (h) The demand side participation information guidelines must include a minimum period of 3 months between the date of *publication* and the date when the guidelines commence other than when the guidelines are amended under paragraph (g), in which case the guidelines may commence on the date of *publication*.
- (i) There must be demand side participation information guidelines in place at all times after the first demand side participation information guidelines are published by *AEMO* under these *Rules*.

3.7E Register of DER information

Definitions

- (a) In this rule:

emergency means an emergency due to the actual or imminent occurrence of an event (such as fire, flood, storm, earthquake, explosion, accident, act of terrorism or cyber attack) that in any way endangers or threatens to endanger the safety or health of any person or animal, or that destroys or damages, or threatens to destroy or damage, any property.

emergency services agency means an agency or person prescribed, approved or accredited under jurisdictional emergency management legislation as an emergency services agency or equivalent (and includes without limitation the ambulance service, state emergency service, police force, fire and rescue service, community and rural fire agencies, and first responder agencies).

jurisdictional emergency management legislation means legislation of a participating jurisdiction that relates to the management of emergencies.

AEMO must establish a DER register

- (b) *AEMO* must establish, maintain and update a *DER register*. The *DER register*:

- (1) must include *DER generation information* reported to *AEMO* by *Network Service Providers* or *Embedded Network Service Providers* in accordance with paragraph (d);
 - (2) must include any *demand side participation information* provided to *AEMO* by *Registered Participants* in accordance with rule 3.7D(b) which in *AEMO's* reasonable opinion will assist *Network Service Providers* or *Embedded Network Service Providers* to meet their *regulatory obligations or requirements* and/or assist *AEMO* in the exercise of its statutory functions under the *Rules*; and
 - (3) may include information of a type similar to the information referred to in subparagraphs (1) and (2) provided to *AEMO* by any person in connection with the performance of *AEMO's* statutory functions and which in *AEMO's* reasonable opinion will assist *Network Service Providers* or *Embedded Network Service Providers* to meet their *regulatory obligations or requirements*.
- (c) *AEMO* will be taken to satisfy the requirement to establish and maintain a *DER register* in paragraph (b) if it stores *DER register information* in one or more databases, including without limitation the databases it maintains under the *Market Settlement and Transfer Solution Procedures*.

Obligation on NSPs to provide DER generation information to AEMO

- (d) *Network Service Providers* and *Embedded Network Service Providers* must provide to *AEMO* in accordance with the *DER register information guidelines*, *DER generation information* in relation to *connection points* on their *network* which they are entitled to collect under the *Rules*, including but not limited to *DER generation information* they are entitled to collect under clauses 5.3.3(c)(4a), 5A.B.2, or 5A.C.3.

AEMO may use DER register information in performing its functions

- (e) For the avoidance of doubt, *AEMO* may use *DER register information* for the purpose of the exercise of its statutory functions under the *National Electricity Law* or *Rules*, including performing its *power system security* responsibilities.

Note

Under section 53D of the National Electricity Law, *AEMO* may use information it collects under the *Rules* for any purpose connected with its statutory functions unless otherwise specified in the National Electricity Law, these *Rules* or the Regulations made under the National Electricity Law.

- (f) *AEMO* must *publish* details, no less than annually, on the extent to which, in general terms, *DER register information* has informed *AEMO's* development or use of *load* forecasts, or the performance of its *power system security* responsibilities under the *Rules*.

Note

AEMO is required under clause 4.9.1(c) to take into account *DER register information* received under this clause 3.7E when developing load forecasts.

DER register information guidelines

- (g) AEMO must develop, maintain and *publish* guidelines that specify:
- (1) details of the *DER generation information* that *Network Service Providers* [and Embedded Network Service Providers](#) must provide to AEMO under paragraph (d), including any minimum size of *small generating units* for which a *Network Service Provider* [or Embedded Network Service Providers](#) is required to provide *DER generation information*;
 - (2) the type of *demand side participation information* provided to AEMO by *Registered Participants* under rule 3.7D(b) that AEMO will include in the *DER register*;
 - (3) when *Network Service Providers* [and Embedded Network Service Providers](#) must provide and update *DER generation information*;
 - (4) how *DER generation information* should be provided to AEMO by *Network Service Providers* [and Embedded Network Service Providers](#), including, for example:
 - (1) the format in which the information must be provided; and
 - (2) any additional information AEMO requires to assess the accuracy of the information;
 - (5) how the information in the *DER register* is stored by AEMO;
 - (6) the manner and form in which AEMO will publish details, in accordance with paragraph (f), on the extent to which *DER register information* has informed its *load* forecasts or the performance of its *power system security* responsibilities;
 - (7) details of how AEMO will provide *Network Service Providers* [and Embedded Network Service Providers](#) with access to *DER register information* under paragraph (n);
 - (8) the contents, form and timing of the *DER register* report to be published by AEMO in accordance with paragraph (l) and how the *DER register information* to be included in that report will be aggregated; and
 - (9) AEMO's approach to the protection of any *confidential information* and personal information contained in the *DER register*.
- (h) In developing and amending the *DER register information guidelines*, AEMO must:
- (1) have regard to the reasonable costs of efficient compliance by *Network Service Providers* [and Embedded Network Service Providers](#) with the guidelines compared to the likely benefits from the use of *DER generation information* as contemplated under this rule 3.7E;

- (2) consider any risk of unauthorised use or disclosure of *confidential information* or personal information that may arise from including information in the *DER register* compared to the likely benefits of including that information in the register; and
- (3) subject to paragraph (i), comply with the *Rules consultation procedures*.
- (i) *AEMO* is not required to comply with the *Rules consultation procedures* when making minor or administrative amendments to the *DER register information guidelines*.
- (j) The *DER register information guidelines* must include a minimum period of 3 months between the date of *publication* and the date when the guidelines commence other than when the guidelines are amended under paragraph (i), in which case the guidelines may commence on the date of *publication*.
- (k) There must be *DER register information guidelines* in place at all times after the first *DER register information guidelines* are published by *AEMO* under these *Rules*.

Reporting by AEMO

- (l) *AEMO* must prepare and publish on its website a report of aggregated *DER register information (DER register report)* in accordance with the *DER register information guidelines*.
- (m) The information in the *DER register report* must be aggregated such that it does not:
 - (1) directly or indirectly disclose *confidential information*; or
 - (2) result in a breach of applicable privacy legislation.

Enabling access to DER register information

- (n) *AEMO* must provide or give access to *DER register information* to each *Network Service Provider* in relation to that *Network Service Provider's network* in accordance with the *DER register information guidelines*.
- (o) A *Network Service Provider* must only use the *DER register information* it receives or accesses under paragraph (n) for the purposes of meeting a *regulatory obligation or requirement*.
- (p) Any information received or accessed by a *Network Service Provider* under paragraph (n) must be treated as *confidential information* by the *Network Service Provider*.

AEMO may provide DER register information to emergency services

- (q) If requested by an emergency services agency, *AEMO* may provide relevant *DER register information* to that emergency services agency for the purpose of the agency's response to an emergency or for planning in relation to emergency responses.

Protection of DER register information

- (r) Nothing in this rule 3.7E:
- (1) requires *AEMO* to make available *DER register information* where the collection, use or disclosure of that information by *AEMO* would breach applicable privacy laws; or
 - (2) precludes *AEMO* from disclosing *confidential information* in the circumstances in which disclosure of *confidential information* is permitted under the *National Electricity Law* or these *Rules*.

[Drafting note: The remainder of Chapter 3 has been removed from this draft for convenience.]

CHAPTER 4

4. Power System Security

4.1 Introduction

4.1.1 Purpose

- (a) This Chapter:
- (1) provides the framework for achieving and maintaining a secure *power system*;
 - (2) provides the conditions under which *AEMO* can intervene in the processes of the *spot market* and issue *directions* to *Registered Participants* so as to maintain or re-establish a secure and reliable *power system*;
 - (3) has the following aims:
 - (i) to detail the principles and guidelines for achieving and maintaining *power system security*;
 - (ii) to establish the processes for the assessment of the adequacy of *power system* reserves;
 - (iii) to establish processes to enable *AEMO* to plan and conduct operations within the *power system* to achieve and maintain *power system security*; and
 - (iv) to establish processes for the actual *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *ancillary services* by *AEMO* and for *AEMO* to *enable inertia network services* or *system strength services*.
- (b) By virtue of this Chapter and the *National Electricity Law*, *AEMO* has responsibility to maintain and improve *power system security*. This Chapter also requires the *Jurisdictional System Security Coordinator* for each *participating jurisdiction* to advise *AEMO* of the requirements of the *participating jurisdiction* regarding *sensitive loads* and priority of *load shedding* and requires *AEMO* to provide copies of the relevant *load shedding procedures* and *EFCS settings schedules* to the *Jurisdictional System Security Coordinator*.

4.2 Definitions and Principles

This rule sets out certain definitions and concepts that are relevant to this Chapter.

4.2.1 [Deleted]**4.2.2 Satisfactory Operating State**

The *power system* is defined as being in a *satisfactory operating state* when:

- (a) the *frequency* at all energised *busbars* of the *power system* is within the *normal operating frequency band*, except for brief excursions outside the *normal operating frequency band* but within the *normal operating frequency excursion band*;
- (b) the *voltage* magnitudes at all energised *busbars* at any *switchyard* or *substation* of the *power system* are within the relevant limits set by the relevant *Network Service Providers* in accordance with clause S5.1.4 of schedule 5.1;
- (c) the current flows on all *transmission lines* of the *power system* are within the ratings (accounting for time dependency in the case of emergency ratings) as defined by the relevant *Network Service Providers* in accordance with schedule 5.1;
- (d) all other *plant* forming part of or impacting on the *power system* is being operated within the relevant operating ratings (accounting for time dependency in the case of emergency ratings) as defined by the relevant *Network Service Providers* in accordance with schedule 5.1;
- (e) the configuration of the *power system* is such that the severity of any potential fault is within the capability of circuit breakers to *disconnect* the faulted circuit or equipment; and
- (f) the conditions of the *power system* are stable in accordance with requirements designated in or under clause S5.1.8 of schedule 5.1.

4.2.3 Credible and non-credible contingency events and protected events

- (a) A ***contingency event*** means an event affecting the *power system* which *AEMO* expects would be likely to involve the failure or removal from operational service of one or more *generating units* and/or *transmission elements*.
- (b) A ***credible contingency event*** means a *contingency event* the occurrence of which *AEMO* considers to be reasonably possible in the surrounding circumstances including the *technical envelope*. Without limitation, examples of *credible contingency events* are likely to include:
 - (1) the unexpected automatic or manual *disconnection* of, or the unplanned reduction in capacity of, one operating *generating unit*; or
 - (2) the unexpected *disconnection* of one major item of *transmission plant* (e.g. *transmission line*, *transformer* or *reactive plant*) other than as a result of a three phase electrical fault anywhere on the *power system*.

- (c) **[Deleted]**
- (d) **[Deleted]**
- (e) A ***non-credible contingency event*** is a *contingency event* other than a *credible contingency event*. Without limitation, examples of *non-credible contingency events* are likely to include:
 - (1) three phase electrical faults on the *power system*; or
 - (2) simultaneous disruptive events such as:
 - (i) multiple *generating unit* failures; or
 - (ii) double circuit *transmission line* failure (such as may be caused by tower collapse).
- (f) A ***protected event*** means a *non-credible contingency event* that the *Reliability Panel* has declared to be a *protected event* under clause 8.8.4, where that declaration has come into effect and has not been revoked. *Protected events* are a category of *non-credible contingency event*.

4.2.3A Re-classifying contingency events

- (a) *Abnormal conditions* are conditions posing added risks to the *power system* including, without limitation, severe weather conditions, lightning, storms and bush fires.
- (b) AEMO must take all reasonable steps to ensure that it is promptly informed of *abnormal conditions*, and when *abnormal conditions* are known to exist AEMO must:
 - (1) on a regular basis, make reasonable attempts to obtain all information relating to how the *abnormal conditions* may affect a *contingency event*; and
 - (2) identify any *non-credible contingency event* which is more likely to occur because of the existence of the *abnormal conditions*.
- (c) As soon as practicable after AEMO identifies a *non-credible contingency event* which is more likely to occur because of the existence of *abnormal conditions*, AEMO must provide *Market Participants* with a notification specifying:
 - (1) the *abnormal conditions*;
 - (2) the relevant *non-credible contingency event*;
 - (3) whether AEMO has reclassified this *non-credible contingency event* as a *credible contingency event* under clause 4.2.3A(g);

- (4) information (other than *confidential information*) in its possession that is relevant to its consideration under clause 4.2.3A(e), the source of that information and the time that information was received or confirmed by *AEMO*;
 - (5) the time at which the notification has been issued; and
 - (6) the time at which an updated notification is expected to be issued, where this might be necessary.
- (d) *AEMO* must update a notification issued in accordance with clause 4.2.3A(c) as it becomes aware of new information that is material to its consideration under clause 4.2.3A(e), and in any event no later than the time indicated in the original notification under clause 4.2.3A(c)(6), until such time as it issues a notification specifying that the *abnormal conditions* have ceased to have a material effect on the likely occurrence of the *non-credible contingency event*.
- (e) If *AEMO* identifies a *non-credible contingency event* which is more likely to occur because of the existence of *abnormal conditions* it must, on a regular basis, consider whether the occurrence of that *non-credible contingency event* is reasonably possible, having regard to all the facts and circumstances identified in accordance with clause 4.2.3A(b).
- (f) In undertaking its consideration in accordance with clause 4.2.3A(e), *AEMO* must have regard to the criteria referred to in clause 4.2.3B.

Note:

Clause 4.2.3A(f) will not come into effect until *NEMMCO* has established the criteria referred to in clause 4.2.3B.

- (g) If, after undertaking a consideration in accordance with clause 4.2.3A(e), *AEMO* decides that the existence of the *abnormal conditions* make the occurrence of a *non-credible contingency event* reasonably possible, it must reclassify that event to be a *credible contingency event* and must notify *Market Participants* as soon as practicable.
- (h) If, after reclassifying a *non-credible contingency event* to be a *credible contingency event* in accordance with clause 4.2.3A(g), *AEMO* considers that the relevant facts and circumstances have changed so that the occurrence of that *credible contingency event* is no longer reasonably possible, *AEMO* may reclassify that *credible contingency event* to be a *non-credible contingency event*. If *AEMO* does so, it must notify *Market Participants* as soon as practicable.
- (i) Every six months, *AEMO* must issue a report setting out its reasons for all decisions to re-classify *non-credible contingency events* to be *credible contingency events* under clause 4.2.3A(g) during the relevant period. The report:

- (1) must include an explanation of how *AEMO* applied the criteria established in accordance with clause 4.2.3B for each of those decisions; and
- (2) may also include *AEMO's* analysis of re-classification trends during the relevant period and its appraisal of the appropriateness and effectiveness of the relevant criteria that were applied in the case of each reclassification decision.

4.2.3B Criteria for re-classifying contingency events

- (a) Within six months of the commencement of this clause, *NEMMCO* must establish criteria that it must use when considering whether the existence of *abnormal conditions* make the occurrence of a *non-credible contingency event* reasonably possible under clause 4.2.3A(e).
- (b) *AEMO* must review the criteria established under clause 4.2.3B(a) every two years after the date of establishment.
- (c) *AEMO* may amend the criteria established under clause 4.2.3B(a).
- (d) In establishing, reviewing or amending the criteria under this clause, *AEMO* must:
 - (1) first consult with relevant stakeholders including *Market Participants*, *Transmission Network Service Providers*, *Jurisdictional System Security Coordinators* and relevant emergency services agencies;
 - (2) ensure that the criteria include a requirement to have regard to the particulars of any risk(s) to the *power system* associated with the various types of *abnormal conditions* that might arise; and
 - (3) *publish* the criteria on its website as soon as practicable after the criteria have been established or amended.

4.2.4 Secure operating state and power system security

- (a) The *power system* is defined to be in a *secure operating state* if, in *AEMO's* reasonable opinion, taking into consideration the appropriate *power system security* principles described in clause 4.2.6:
 - (1) the *power system* is in a *satisfactory operating state*; and
 - (2) the *power system* will return to a *satisfactory operating state* following the occurrence of any *credible contingency event* or *protected event* in accordance with the *power system security standards*.
- (b) Without limitation, in forming the opinions described in clause 4.2.4(a), *AEMO* must:

- (1) consider the impact of each of the potentially *constrained interconnectors*; and
- (2) use the *technical envelope* as the basis of determining events considered to be *credible contingency events* at that time.

4.2.5 Technical envelope

- (a) The *technical envelope* means the technical boundary limits of the *power system* for achieving and maintaining the *secure operating state* of the *power system* for a given demand and *power system* scenario.
- (b) AEMO must determine and revise the *technical envelope* (as may be necessary from time to time) by taking into account the prevailing *power system* and *plant* conditions as described in clause 4.2.5(c).
- (c) In determining and revising the *technical envelope* AEMO must take into account matters such as:
 - (1) AEMO's forecast of total *power system load*;
 - (2) the provision of the applicable *contingency capacity reserves*;
 - (3) operation within all *plant* capabilities of *plant* on the *power system*;
 - (4) *contingency capacity reserves* available to handle any *credible contingency event*;
 - (5) advised *generation* minimum *load constraints*;
 - (6) *constraints* on *transmission networks*, including short term limitations;
 - (7) *ancillary service* requirements and *inertia network service* and *system strength service* availability;
 - (8) **[Deleted]**
 - (9) the existence of proposals for any major equipment or *plant* testing, including the checking of, or possible changes in, *transmission plant* availability; and
 - (10) applicable *performance standards*.
- (d) AEMO must, when determining the secure operating limits of the *power system*, assume that the applicable *performance standards* are being met, subject to:
 - (1) a *Registered Participant* notifying AEMO, in accordance with rule 4.15(f), that a *performance standard* is not being met; or
 - (2) AEMO otherwise becoming aware that a *performance standard* is not being met.

4.2.6 General principles for maintaining power system security

The *power system security* principles are as follows:

- (a) To the extent practicable, the *power system* should be operated such that it is and will remain in a *secure operating state*.
- (b) Following a *contingency event* (whether or not a *credible contingency event*) or a significant change in *power system* conditions, *AEMO* should take all reasonable actions:
 - (1) to adjust, wherever possible, the operating conditions with a view to returning the *power system* to a *secure operating state* as soon as it is practical to do so, and, in any event, within thirty minutes; or
 - (2) if any principles and guidelines have been *published* under clause 8.8.1(a)(2a), to adjust, wherever possible, the operating conditions, in accordance with such principles and guidelines, with a view to returning the *power system* to a *secure operating state* within at most thirty minutes.
- (c) *Emergency frequency control schemes* should be available and in service to:
 - (1) restore the *power system* to a *satisfactory operating state* following *protected events*; and
 - (2) significantly reduce the risk of *cascading outages* and *major supply disruptions* following significant multiple *contingency events*.
- (d) **[Deleted]**
- (e) Sufficient *system restart ancillary services* should be available in accordance with the *system restart standard* to allow the restoration of *power system security* and any necessary restarting of *generating units* following a *major supply disruption*.
- (f) Sufficient *inertia* should be available in each *inertia sub-network* to meet the applicable *inertia requirements*.
- (g) Sufficient *three phase fault level* should be maintained at each *fault level node* to meet the applicable *system strength requirements*.

4.2.7 Reliable Operating State

The *power system* is assessed to be in a *reliable operating state* when:

- (a) *AEMO* has not *disconnected*, and does not expect to *disconnect*, any points of *load connection* under clause 4.8.9;
- (b) no *load shedding* is occurring or expected to occur anywhere on the *power system* under clause 4.8.9; and

- (c) in *AEMO's* reasonable opinion the *power system* meets, and is projected to meet, the *reliability standard*, having regard to the *reliability standard implementation guidelines*.

4.2.8 Time for undertaking action

The provisions of clause 1.7.1(l) do not apply to this Chapter and an event which is required under this Chapter to occur on or by a stipulated *day* must occur on or by that *day* whether or not a *business day*.

4.3 Power System Security Responsibilities and Obligations

4.3.1 Responsibility of AEMO for power system security

The *AEMO power system security responsibilities* are:

- (a) to maintain *power system security*;
- (b) to monitor the operating status of the *power system*;
- (c) to co-ordinate the *System Operators* in undertaking certain of its activities and operations and monitoring activities of the *power system*;
- (d) to ensure that *high voltage* switching procedures and arrangements are utilised by *Network Service Providers* to provide adequate protection of the *power system*;
- (e) to assess potential infringement of the *technical envelope* or *power system operating procedures* which could affect the security of the *power system*;
- (f) to ensure that the *power system* is operated within the limits of the *technical envelope*;
- (g) to ensure that all *plant* and equipment under its control or co-ordination is operated within the appropriate operational or emergency limits which are advised to *AEMO* by the respective *Network Service Providers* or *Registered Participants*;
- (h) to assess the impacts of technical and any operational *plant* on the operation of the *power system*;
- (i) to arrange the *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *ancillary services* (including *dispatch* by remote control actions or specific directions) in accordance with the *Rules*, allowing for the dynamic nature of the *technical envelope*;
- (j) to determine any potential *constraint* on the *dispatch* of *generating units*, *loads*, *market network services* and *ancillary services* and to assess the effect of this *constraint* on the maintenance of *power system security*;

- (k) to assess the availability and adequacy, including the dynamic response, of *contingency capacity reserves* and *reactive power reserves* in accordance with the *power system security standards* and to ensure that appropriate levels of *contingency capacity reserves* and *reactive power reserves* are available:
 - (1) to ensure the *power system* is, and is maintained, in a *satisfactory operating state*; and
 - (2) to arrest the impacts of a range of significant multiple *contingency events* (affecting up to 60% of the total *power system load*) or *protected events* to allow a prompt restoration or recovery of *power system security*, taking into account under-frequency initiated *load shedding* capability provided under *connection agreements*, by *emergency frequency control schemes* or otherwise;
- (l) to monitor demand and *generation* capacity in accordance with the *reliability standard implementation guidelines* and, if necessary, initiate action in relation to a *relevant AEMO intervention event*;
- (m) to publish as appropriate, information about the potential for, or the occurrence of, a situation which could significantly impact, or is significantly impacting, on *power system security*, and advise of any *low reserve* condition for the relevant periods determined in accordance with the *reliability standard implementation guidelines*;
- (n) to refer to *Registered Participants*, as *AEMO* deems appropriate, information of which *AEMO* becomes aware in relation to significant risks to the *power system* where actions to achieve a resolution of those risks are outside the responsibility or control of *AEMO*;
- (o) to utilise resources and services provided or procured as *ancillary services*, *system strength services* or *inertia network services* or otherwise to maintain or restore the *satisfactory operating state* of the *power system*;
- (p) to procure adequate *system restart ancillary services* in accordance with clause 3.11.9 to enable *AEMO* to co-ordinate a response to a *major supply disruption*;
- (pa) to coordinate the provision of *emergency frequency control schemes* by *Network Service Providers* and to determine the settings and intended sequence of response by those schemes;
- (pb) to determine the boundaries of *inertia sub-networks* and the *inertia requirements* for each *inertia sub-network* and to *enable inertia network services*;
- (pc) to determine the *system strength requirements* for each *region* and to *enable system strength services*;

- (q) to interrupt, subject to clause 4.3.2(l), *Registered Participant connections* as necessary during emergency situations to facilitate the re-establishment of the *satisfactory operating state* of the *power system*;
- (r) to issue a *direction* or *clause 4.8.9 instruction* (as necessary) to any *Registered Participant*;
- (s) to co-ordinate and direct any rotation of widespread interruption of demand in the event of a major *supply* shortfall or disruption;
- (t) to liaise with *participating jurisdictions* should there be a need to manage an extensive disruption, including the use of emergency services powers in a *participating jurisdiction*;
- (u) to determine the extent to which the levels of *contingency capacity reserves* and *reactive power reserves* are or were appropriate through appropriate testing, auditing and simulation studies;
- (v) to investigate and review all major *power system* operational incidents and to initiate action plans to manage any abnormal situations or significant deficiencies which could reasonably threaten *power system security*. Such situations or deficiencies include without limitation:
 - (1) *power system frequencies* outside those specified in the definition of *satisfactory operating state*;
 - (2) *power system voltages* outside those specified in the definition of *satisfactory operating state*;
 - (3) actual or potential *power system* instability; and
 - (4) unplanned/unexpected operation of major *power system* equipment; and
- (w) to ensure that each *System Operator* satisfactorily interacts with *AEMO*, other *System Operators* and *Distribution System Operators* for both *transmission* and *distribution network* activities and operations, so that *power system security* is not jeopardised by operations on the *connected transmission networks* and *distribution networks*.

4.3.2 System security

- (a) *AEMO* must use its reasonable endeavours, as permitted under the *Rules*, including through the provision of appropriate information to *Registered Participants* to the extent permitted by law and under the *Rules*, to achieve the *AEMO power system security responsibilities* in accordance with the *power system security* principles described in clause 4.2.6.
- (b) Where an obligation is imposed on *AEMO* under this Chapter to arrange or control any act, matter or thing or to ensure that any other person undertakes or refrains from any act, that obligation is limited to a requirement for *AEMO* to use reasonable endeavours as permitted under the *Rules*, including

to give such directions as are within its powers, to comply with that obligation.

- (c) If *AEMO* fails to arrange or control any act, matter or thing or the acts of any other person notwithstanding the use of *AEMO's* reasonable endeavours, *AEMO* will not be taken to have breached such obligation.
- (d) *AEMO* must make accessible to *Registered Participants* such information as:
 - (1) *AEMO* considers appropriate;
 - (2) *AEMO* is permitted to disclose in order to assist *Registered Participants* to make appropriate *market* decisions; and
 - (3) *AEMO* is able to disclose to enable *Registered Participants* to consider initiating procedures to manage the potential risk of any necessary action by *AEMO* to restore or maintain *power system security*,

provided that, in doing so, *AEMO* must use reasonable endeavours to ensure that such information is available to those *Registered Participants* who request the information on equivalent bases.

- (e) The *Jurisdictional System Security Coordinator* for a *participating jurisdiction* may nominate an individual to be the principal point of contact with *AEMO* for the *Jurisdictional System Security Coordinator*.
- (f) The *Jurisdictional System Security Coordinator* for each *participating jurisdiction* must provide *AEMO* with:
 - (1) a schedule of *sensitive loads* in that jurisdiction, specifying:
 - (i) the priority, in terms of security of *supply*, that each *load* specified in the schedule has over the other *loads* specified in the schedule; and
 - (ii) the *loads* (if any) for which the approval of the *Jurisdictional System Security Coordinator* must be obtained by *AEMO* under clause 4.3.2(l); and
 - (2) a schedule setting out the order in which *loads* in the *participating jurisdiction*, other than *sensitive loads*, may be shed by *AEMO* for the purposes of undertaking any *load shedding* under rule 4.8.
- (g) A *Jurisdictional System Security Coordinator* may from time to time amend the schedules provided to *AEMO* under clause 4.3.2(f) and must provide to *AEMO* a copy of the amended schedules.
- (h) *AEMO* must develop, update and maintain:

- (1) a set of procedures for each *participating jurisdiction* under which *loads* will be shed (by means other than an *emergency frequency control scheme* included in an *EFCS settings schedule*) and restored in accordance with the priorities set out in the schedules for that *participating jurisdiction* (which procedures for a *participating jurisdiction* shall be known as the *load shedding procedures* for that jurisdiction); and
 - (2) schedules for each *participating jurisdiction* specifying, for each *emergency frequency control scheme* affecting each *region* in that *participating jurisdiction*, settings for operation of the scheme including the matters specified in paragraphs (m) to (p) (which schedule for a *participating jurisdiction* shall be known as the *EFCS settings schedule* for that jurisdiction).
- (ha) In developing and updating *EFCS settings schedules*, AEMO must consult with:
- (1) affected *Network Service Providers*;
 - (2) the relevant *Jurisdictional System Security Coordinators*, in the case of information in the schedule relating to an *under frequency scheme*; and
 - (3) affected *Generators* in the case of information in the schedule relating to an *over frequency scheme*.
- (i) AEMO must provide the *Jurisdictional System Security Coordinator* for a *participating jurisdiction* with a copy of the *load shedding procedures* and the *EFCS settings schedule* for that *participating jurisdiction*, as amended from time to time.
- (j) The *load shedding procedures* and the *EFCS settings schedule* for a *participating jurisdiction* must be consistent with the schedules of the *participating jurisdiction* provided under clause 4.3.2(f) and must, without limitation, include a requirement that:
- (1) automatic *disconnection* of a *sensitive load* under clause 4.3.5(a) is not to occur until the occurrence of a specified *power system frequency* referred to in the *load shedding procedures* or *EFCS settings schedule*;
 - (2) any such *sensitive load* (or part thereof) which would otherwise have been part of a block of *interruptible load* in an *under-frequency* band specified in clause 4.3.5(b), must be replaced in that band in relation to the *participating jurisdiction* with an equivalent amount of *interruptible load* nominated by other *Market Customers* in the relevant *participating jurisdiction*;
 - (3) after *supply* is interrupted to a *load*, *supply* to that *load* must be restored as soon as this can be achieved and in accordance with the schedules of *loads* referred to in clause 4.3.2(f); and

- (4) in the case of the *load shedding procedures*, in the event of a major *supply* shortfall, the rotation of any *load shedding* requirements within *regions* (or parts of *regions*) in the *participating jurisdiction* must be in accordance with the *load shedding procedures*.
- (k) Notwithstanding any other provision of the *Rules*, AEMO must use its reasonable endeavours to ensure that the *power system* is operated in a manner that maintains security of *supply* to any *sensitive loads* prescribed by the *Jurisdictional System Security Coordinator* for each *participating jurisdiction* under clause 4.3.2(f).
- (l)
 - (1) Notwithstanding any other provision of the *Rules*, in the event that AEMO, in its reasonable opinion for reasons of public safety or for *power system security*, needs to interrupt *supply* to any *sensitive loads*, AEMO may only give a direction requiring that interruption:
 - (i) in accordance with the *load shedding procedures*; and
 - (ii) if it is a *sensitive load* of a type described in clause 4.3.2(f)(1)(ii), once the *Jurisdictional System Security Coordinator* for the relevant *participating jurisdiction* has given AEMO its approval (which approval must not be unreasonably withheld).
 - (2) Other than to ensure the maintenance of *power system security* or public safety, after *disconnection*, notwithstanding any other provision of the *Rules*, AEMO must not take any steps to prevent the reconnection of a *sensitive load* of the type described in clause 4.3.2(f)(1)(ii) without the approval of the *Jurisdictional System Security Coordinator* for the relevant *participating jurisdiction* (which approval must not be unreasonably withheld).
 - (3) AEMO must seek the approval of the relevant *Jurisdictional System Security Coordinator* for the order in which a *sensitive load* is to be shed and restored under an *EFCS settings schedule* (which approval must not be unreasonably withheld).
- (m) For each *under frequency scheme*, the applicable *EFCS settings schedule* must set out the manner in which *loads* are to be shed and restored.
- (n) For each *over frequency scheme*, the applicable *EFCS setting schedule* must set out the manner in which *generating units* will be interrupted or have output reduced.
- (o) AEMO must determine the matters referred to in paragraph (n) in a manner AEMO considers is best calculated to be consistent with the *power system security* principles in clause 4.2.6. To that end, AEMO may determine a sequence and settings that will:
 - (1) first, restore the *power system* to a *secure operating state*; and

- (2) then, restore the *power system* to a *reliable operating state*.
- (p) Subject to paragraph (i), *EFCS settings schedules* are *confidential information*.

4.3.3 The role of System Operators

- (a) For the purpose of complying with its obligations under clause 4.3.2, *AEMO* may, from time to time, in addition to any other power or right under the *Rules*:
 - (1) engage such agents or appoint such delegates as it considers appropriate to carry out on its behalf some or all of its rights, functions and obligations under this Chapter (such persons being known as *System Operators* upon registration with *AEMO*); and
 - (2) organise, enter into and manage any contractual arrangements with appropriately competent service providers.
- (b) *AEMO* must make accessible to *Registered Participants* information as to:
 - (1) the engagement or appointment of any agent, delegate or service provider under clause 4.3.3;
 - (2) the identity of that agent, delegate or service provider; and
 - (3) the scope of the engagement or appointment, including without limitation, the activities in relation to which the engagement or appointment applies.
- (c) A *Registered Participant* must ensure that, where *AEMO* has engaged or appointed an agent, delegate or service provider under clause 4.3.3 in relation to certain of its rights, functions or obligations, any communications from the *Registered Participant* to *AEMO* under this Chapter concerning the rights, functions or obligations within the scope of the agent's, delegate's or service provider's engagement or appointment are made through that agent, delegate or service provider to the extent notified to the *Registered Participant* by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *System Operator* must carry out the rights, functions and obligations in respect of which it has been engaged or appointed by *AEMO* in accordance with the provisions of the *Rules*.
- (e) A *System Operator* must, to the extent that the *System Operator* is aware or ought reasonably to have been aware, keep *AEMO* fully and timely informed as to:

- (1) the state of the security of the *power system*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) any present or anticipated risks to *power system security*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) any action contemplated or initiated to address a risk to *power system security* or to restore or maintain the *power system* in a *satisfactory operating state*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) *AEMO* must ensure that any agent engaged, or delegate appointed, under clause 4.3.3(a)(1) is registered by it as a *System Operator*.
- (g) Notwithstanding that *AEMO* may have engaged or appointed an agent, delegate or service provider under clause 4.3.3 to carry out a right, function or obligation of *AEMO*, *AEMO* remains liable under the *Rules* for performance of that right, function or obligation.

4.3.4 Network Service Providers

- (a) Each *Network Service Provider* must use reasonable endeavours to exercise its rights and obligations in relation to its *networks* so as to co-operate with and assist *AEMO* in the proper discharge of the *AEMO power system security responsibilities*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) Each *Network Service Provider* must use reasonable endeavours to ensure that *interruptible loads* are provided as specified in clause 4.3.5 and clause S5.1.10 of schedule 5.1 (including without limitation, through the inclusion of appropriate provisions in *connection agreements*).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b1) Each *Network Service Provider* must, in accordance with clause S5.1.10.1a of schedule 5.1, cooperate with *AEMO* in relation to, design, procure, commission, maintain, monitor, test, modify and report to *AEMO* in respect of, each *emergency frequency control scheme* which is applicable in respect of the *Network Service Provider's transmission or distribution system*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b2) Where an *EFCS settings schedule* applies to an *emergency frequency control scheme*, a *Network Service Provider* must only apply, or allow the application of, settings for the *emergency frequency control scheme* that are consistent with the applicable *EFCS settings schedule*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Each *Network Service Provider* must arrange and maintain, in accordance with the standards described in clause 4.3.4(e), controls, monitoring and secure communication systems to facilitate a manually initiated, rotational *load shedding* and restoration process which may be necessary if there is, in *AEMO's* opinion, a prolonged major *supply* shortage or extreme *power system* disruption.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Each *Network Service Provider* must advise *AEMO* of any *ancillary services* or similar services provided under any *connection agreement* or *network support agreement* to which it is a party, and in respect of *network support and control ancillary services* provided under any *network support agreement* must provide to *AEMO* and update *AEMO* if there has been a material change to the information provided to *AEMO*, details of the following:

- (1) a description of the *network support and control ancillary service*, including:
 - (i) the nature of the *network support and control ancillary service*;
 - (ii) the purpose for which the *network support and control ancillary service* has been acquired;
 - (iii) *connection points* at which the *network support and control ancillary service* is to be provided (to the extent that this information can be reasonably anticipated and provided);

- (iv) the quantity or range of quantity of the *network support and control ancillary service* that can be provided, described in a manner relevant to the stated purpose (to the extent that this information can be reasonably anticipated and provided);
 - (v) the period of any notice that has to be given to the provider of the *network support and control ancillary service* for it to be enabled;
 - (vi) the response time to any instruction for use once the *network support and control ancillary service* has been enabled; and
 - (vii) the communication protocols related to the enabling and use of the *network support and control ancillary service* and the notification of changes to its availability;
- (2) the availability of the *network support and control ancillary service*, including:
- (i) the period over which the *network support and control ancillary service* will be available;
 - (ii) any possible restrictions on the availability of the *network support and control ancillary service*; and
 - (iii) whether the *network support and control ancillary service* is available for the use of parties other than the *Network Service Provider*;
- (3) advice on any changes to the formulation of network limits to reflect the enabling or use of the *network support and control ancillary service*; and
- (4) if the *network support and control ancillary service* is to be *dispatched* by AEMO, the form of instructions for the *dispatch* of the *network support and control ancillary service* by AEMO.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d1) Where *NSCAS* is to be acquired by the *Network Service Provider*, the *Network Service Provider* must develop, in consultation with AEMO, the arrangements for the enabling and use of the *network support and control ancillary service*, and those arrangements must be consistent with meeting the relevant *NSCAS need*.
- (d2) A *Network Service Provider* who enters into a *network support agreement* must negotiate in good faith with AEMO on the form of instructions it will provide to AEMO under paragraph (d)(4) to *dispatch* the *network support and control ancillary service* to ensure those instructions are both

comprehensive and practicable for *AEMO* to implement in *central dispatch* if required.

- (e) *AEMO* must develop, and may amend, standards in consultation with *Network Service Providers* in accordance with the *Rules consultation procedures* which must be met by *Network Service Providers* in arranging and maintaining the controls, monitoring and secure communication systems referred to in clause 4.3.4(c).
- (f) Until the standards contemplated by clause 4.3.4(e) are issued by *AEMO*, each *Network Service Provider* must maintain the control, monitoring and secure communication systems referred to in clause 4.3.4(c) that were in place at 13 December 1998 so as to achieve substantially the same performance and functionality as they did over the 12 months prior to 13 December 1998.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) Each *Network Service Provider* must plan or operate its *transmission system* or *distribution system* in accordance with the *power system* stability guidelines described in clause 4.3.4(h).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g1) Each *Network Service Provider* must ensure that emergency controls are installed in accordance with clause S5.1.8 of schedule 5.1.
- (h) *AEMO* must develop, and may amend, guidelines for *power system* stability but only in consultation with *Registered Participants* in accordance with the *Rules consultation procedures*, and must *publish* the guidelines for *power system* stability.
- (i) The *power system* stability guidelines developed in accordance with clause 4.3.4(h) must detail the policies governing *power system* stability so as to facilitate the operation of the *power system* within stable limits.
- (j) Each *Transmission Network Service Provider* that is an *Inertia Service Provider* must make *inertia network services* available to *AEMO* in accordance with clause 5.20B.4(b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (k) Each *Transmission Network Service Provider* that is an *Inertia Service Provider* must give *AEMO* information about *inertia support activities* and *inertia network services* made available by the *Inertia Service Provider* in accordance with clauses 5.20B.5 and 5.20B.6 and must update *AEMO* if there is a material change to that information.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (l) Each *Transmission Network Service Provider* that is a *System Strength Service Provider* must make *system strength services* available to *AEMO* in accordance with clause 5.20C.3(b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (m) Each *Transmission Network Service Provider* that is a *System Strength Service Provider* must give *AEMO* information about *system strength services* made available by the *System Strength Service Provider* in accordance with clause 5.20C.4 and must update *AEMO* if there is a material change to that information.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (n) If in *AEMO*'s reasonable opinion, there is a risk that an alteration to a *network element*, or the *connection* of any new or additional equipment to a *network*, will:

- (1) adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability*; or
- (2) the use of a *network* by a *Network User*,

AEMO may request the relevant *Network Service Provider* or Embedded Network Service Provider to provide the information specified in paragraph (o) and the relevant *Network Service Provider* or Embedded Network Service Provider must provide the information requested.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (o) For the purposes of paragraph (n), *AEMO* may request the relevant *Network Service Provider* or *Embedded Network Service Provider* to provide the following information:
 - (1) to *AEMO* and any other relevant *Network Service Provider* or *Embedded Network Service Provider*:
 - (i) information about the *protection systems* of the equipment;
 - (ii) information about the control systems of the equipment including:
 - (A) a set of functional block diagrams, including all functions between feedback signals and output;
 - (B) the parameters of each functional block, including all settings, gains, time constants, delays, deadbands and limits;
 - (C) the characteristics of non-linear elements;
 - (D) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;
 - (iii) any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;
 - (2) to *AEMO*, model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the model in subparagraph (ii)(D) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*, and in a form that would allow conversion for use with other software simulation products nominated by *AEMO* in the *Power System Model Guidelines*.
- (p) The information provided under paragraph (o) must contain sufficient detail for *AEMO* and any other relevant *Network Service Provider(s)* or *Embedded Network Service Provider(s)* to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.
- (q) All information provided to *AEMO* and the relevant *Network Service Provider(s)* or *Embedded Network Service Provider(s)* under paragraph (o) must be treated as *confidential information* by those recipients.

4.3.4A Embedded Network Service Provider obligations

- (a) Each *Embedded Network Service Provider* must use reasonable endeavours to exercise its rights and obligations in relation to its *embedded network* so

as to co-operate with and assist AEMO in the proper discharge of the AEMO power system security responsibilities.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (b) If requested by AEMO in relation to its *embedded network*, an *Embedded Network Service Provider* must use reasonable endeavours to ensure that *interruptible loads* are provided as specified in clause 4.3.5 and clause S5.1.10 of schedule 5.1 (including without limitation, through the inclusion of appropriate provisions in *connection agreements*).

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (c) If requested by AEMO in relation to its *embedded network*, an *Embedded Network Service Provider* must in accordance with clause S5.1.10.1a of schedule 5.1, cooperate with AEMO in relation to, design, procure, commission, maintain, monitor, test, modify and report to AEMO in respect of, each *emergency frequency control scheme* which is applicable in respect of the *Embedded Network Service Provider's embedded network*.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (d) If requested by AEMO in relation to its *embedded network*, an *Embedded Network Service Provider* must ensure that *emergency controls* are installed in accordance with clause S5.1.8 of schedule 5.1.

4.3.5 Market Customer obligations

- (a) All *Market Customers* having expected peak demands at *connection points* in excess of 10 MW, must provide automatic *interruptible load* of the type described in clause S5.1.10 of schedule 5.1. The level of this automatic *interruptible load* must be a minimum of 60% of their expected demand, or such other minimum *interruptible load* level as may be periodically determined by the *Reliability Panel*, to be progressively automatically *disconnected* following the occurrence of a *power system under-frequency* condition described in the *power system security standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *Market Customers* must provide their *interruptible load* in manageable blocks spread over a number of steps within *under-frequency* bands from 49.0 Hz down to 47.0 Hz as nominated by AEMO.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Any *load shedding* capability the subject of an *ancillary services agreement* or *enabled* as a *market ancillary service* can be counted as automatic *interruptible load* provided for the purposes of clause 4.3.5.

4.4 Power System Frequency Control

4.4.1 Power system frequency control responsibilities

AEMO must use its reasonable endeavours to:

- (a) control the *power system frequency*; and
- (b) ensure that the *frequency operating standards* set out in the *power system security standards* are achieved.

4.4.2 Operational frequency control requirements

To assist in the effective control of *power system frequency* by *AEMO* the following provisions apply:

- (a) *AEMO* may give *dispatch instructions* in respect of *scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *market ancillary services* pursuant to rule 4.9;
- (b) Each *Generator* must ensure that all of its *generating units* meet the technical requirements for frequency control in clause S5.2.5.11;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) *AEMO* must use its reasonable endeavours to arrange to be available and specifically allocated to *regulating duty* such *generating plant* as *AEMO* considers appropriate which can be automatically controlled or directed by *AEMO* to ensure that all normal *load* variations do not result in *frequency* deviations outside the limitations specified in clause 4.2.2(a); and
- (d) *AEMO* must use its reasonable endeavours to ensure that adequate *facilities* are available and are under the direction of *AEMO* to allow the managed recovery of the *satisfactory operating state* of the *power system*.

4.4.3 Generator protection requirements

Generators must, in accordance with schedule 5.2 and Chapter 5, provide any necessary automatically initiated protective device or systems to protect their

plant and associated facilities against abnormal voltage and extreme frequency excursions of the power system.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.4.4 Instructions to enable inertia network services

- (a) Where a *contingency event* that would result in the *islanding* of an *inertia sub-network* has been classified as a *credible contingency event* or defined as a *protected event*:
 - (1) *AEMO* may require a range and quantity of *inertia network services* to be *enabled* that will provide *inertia* to the *inertia sub-network* to the level required under subparagraph (2) while the *contingency event* remains classified or defined in that way; and
 - (2) the level of *inertia* referred to in subparagraph (1) is:
 - (i) the *minimum threshold level of inertia* for the *inertia sub-network*; or
 - (ii) if the *minimum threshold level of inertia* for the *inertia sub-network* has been adjusted for *inertia support activities* under clause 5.20B.5(a), that adjusted level of *inertia*.
- (b) Where an *inertia sub-network* is *islanded*:
 - (1) *AEMO* may *enable* a range and quantity of *inertia network services* that will provide *inertia* to the *inertia sub-network* to the level required under subparagraph (2) while the *inertia sub-network* remains *islanded*; and
 - (2) the level of *inertia* referred to in subparagraph (1) is:
 - (i) the *secure operating level of inertia* for the *inertia sub-network*; or
 - (ii) if the *secure operating level of inertia* for the *inertia sub-network* has been adjusted for *inertia support activities* under clause 5.20B.5(a), that adjusted level of *inertia*.
- (c) In selecting the *inertia network services* to be *enabled* under paragraph (a) or (b), *AEMO* must use reasonable endeavours to select services in the order of priority specified by the *Inertia Service Provider* in its schedule of *inertia network services* given to *AEMO* under clause 5.20B.6(a).
- (d) For the purposes of paragraphs (a) and (b), *AEMO* may at any time give an instruction to an *Inertia Service Provider* who is providing *inertia network services* or a *Registered Participant* who has agreed with an *Inertia Service*

Provider to provide inertia network services stating that AEMO requires inertia network services to be enabled. Where inertia network services are provided by an inertia generating unit, the instruction must be given in accordance with the procedures for giving dispatch instructions under the Rules. Otherwise, the instruction must be given in accordance with the arrangements for giving instructions applicable to the inertia network service approved by AEMO under clause 5.20B.6(e).

- (e) *AEMO may at any time give an instruction stating that AEMO requires the provision of an inertia network service to cease. The instruction must be given in the manner provided for in paragraph (d).*
- (f) *An instruction to enable or cease providing inertia network services must include:*
 - (1) *specific reference to the inertia network service to which the instruction applies;*
 - (2) *the time the instruction is issued; and*
 - (3) *the time at which the service is to be enabled or cease, if that is different from the time the instruction is issued.*
- (g) *An Inertia Service Provider or Registered Participant providing inertia network services must comply with an instruction given under paragraph (d) or (e).*

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) *An Inertia Service Provider or Registered Participant providing inertia network services must ensure that appropriate personnel or electronic facilities are available at all times to receive and immediately act upon instructions issued by AEMO to enable the inertia network service or cease providing it.*

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.4.5 Instructions to enable system strength services

- (a) *AEMO may at any time enable a range and quantity of system strength services to maintain the minimum three phase fault level at a fault level node when the three phase fault level at the fault level node would otherwise be below the minimum three phase fault level or when reasonably considered necessary by AEMO to maintain the power system in a secure operating state.*

- (b) In selecting the *system strength services* to be *enabled* under paragraph (a), *AEMO* must use reasonable endeavours to select services in the order of priority specified by the *System Strength Service Provider* in its schedule of *system strength services* given to *AEMO* under clause 5.20C.4(a).
- (c) For the purposes of paragraph (a), *AEMO* may at any time give an instruction to a *System Strength Service Provider* who is providing *system strength services* or a *Registered Participant* who has agreed with a *System Strength Service Provider* to provide *system strength services* stating that *AEMO* requires *system strength services* to be *enabled*. Where the *system strength services* are provided by a *system strength generating unit*, the instruction must be given in accordance with the procedures for giving *dispatch instructions* under the *Rules*. Otherwise, the instruction must be given in accordance with the arrangements for giving instructions applicable to the *system strength service* approved by *AEMO* under clause 5.20C.4(e).
- (d) *AEMO* may at any time give an instruction stating that *AEMO* requires the provision of a *system strength service* to cease. The instruction must be given in the manner provided for in paragraph (c).
- (e) An instruction to *enable* or cease providing *system strength services* must include:
 - (1) specific reference to the *system strength service* to which the instruction applies;
 - (2) the time the instruction is issued; and
 - (3) the time at which the service is to be *enabled* or cease, if that is different from the time the instruction is issued.
- (f) A *System Strength Service Provider* or a *Registered Participant* providing *system strength services* must comply with an instruction given under paragraph (c) or (d).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) A *System Strength Service Provider* or a *Registered Participant* providing *system strength services* must ensure that appropriate personnel or electronic facilities are available at all times to receive and immediately act upon instructions issued by *AEMO* to enable the *system strength service* or cease providing it.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.5 Control of Power System Voltage

4.5.1 Power system voltage control

- (a) *AEMO* must determine the adequacy of the capacity of the *power system* to produce or absorb *reactive power* in the control of the *power system voltages*.
- (b) *AEMO*, in consultation with *Network Service Providers*, must assess and determine the limits of the operation of the *power system* associated with the avoidance of *voltage* failure or collapse under any *credible contingency event* or *protected event* scenario.
- (c) The limits of operation of the *power system* must be translated by *AEMO*, in consultation with *Network Service Providers*, into key location operational *voltage* settings or limits, *transmission line* capacity limits, *reactive power* production (or absorption) capacity or other appropriate limits to enable their use by *AEMO* in the maintenance of *power system security*.
- (d) The determination referred to in clause 4.5.1(b) must include a review of the dynamic stability of the *voltage* of the *power system*.
- (e) *AEMO* must use its reasonable endeavours to maintain *voltage* conditions throughout the *power system* so that the *power system* remains in a *satisfactory operating state*.
- (f) *AEMO* must use reasonable endeavours to arrange the provision of *reactive power facilities* and *power system voltage* stabilising facilities through:
 - (1) *ancillary services agreements* in accordance with rule 3.11; or
 - (2) negotiation and agreement with appropriate *Network Service Providers* on the use of their *networks* and the provision of *ancillary services* under *network support agreements*; or
 - (3) obligations on the part of *Registered Participants* under their *connection agreements*.
- (g) Without limitation, such *reactive power facilities* may include:
 - (1) *synchronous generator voltage controls* (rotor current adjustment) usually associated with *tap-changing transformers*;
 - (2) *synchronous condensers* (compensators);
 - (3) *static VAR compensators* (SVC);
 - (4) *shunt capacitors*;
 - (5) *shunt reactors*.

4.5.2 Reactive power reserve requirements

- (a) *AEMO* must use its reasonable endeavours to ensure that sufficient *reactive power reserve* is available at all times to maintain or restore the *power system* to a *satisfactory operating state* after the most critical *contingency event* as determined by previous analysis or by periodic contingency analysis by *AEMO*.
- (b) If *voltages* are outside acceptable limits, and the means of *voltage* control set out in this rule 4.5 are exhausted, *AEMO* must take all reasonable actions, including to direct changes to demand (through selective *load shedding* from the *power system*), additional *generation* operation or reduction in the *transmission line* flows but only to the extent necessary to restore the *voltages* to within the relevant limits. A *Registered Participant* must comply with any such direction.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.5.3 Audit and testing

AEMO must arrange, co-ordinate and supervise the conduct of appropriate tests to assess the availability and adequacy of the provision of *reactive power* to control and maintain *power system voltages* under both *satisfactory operating state* and *contingency event* conditions.

4.6 Protection of Power System Equipment

4.6.1 Power system fault levels

- (a) *AEMO*, in consultation with *Network Service Providers*, must:
 - (1) determine the fault levels at all *busbars* of the *power system* as described in clause 4.6.1(b); and
 - (2) determine the *three phase fault level* at *fault level nodes*.
- (b) *AEMO* must ensure that there are processes in place that will allow the determination of fault levels for normal operation of the *power system* and in anticipation of all *credible contingency events* and *protected events* that *AEMO* considers may affect the configuration of the *power system*, so that *AEMO* can identify:
 - (1) any *busbar* which could potentially be exposed to a fault level which exceeds the fault *current ratings* of the circuit breakers associated with that *busbar*; and
 - (2) any *fault level node* where the *three phase fault level* is likely to be below the minimum *three phase fault level*.

4.6.2 Power system protection co-ordination

AEMO must use its reasonable endeavours to co-ordinate in consultation with the *Network Service Providers*, the protection of *transmission system plant* and equipment that *AEMO* reasonably considers could affect *power system security*.

4.6.3 Audit and testing

AEMO must use its reasonable endeavours to co-ordinate such inspections and tests as *AEMO* thinks appropriate to ensure that the protection of the *power system* is adequate to protect against damage to *power system plant* and equipment.

4.6.4 Short-term thermal ratings of power system

- (a) *AEMO* may act so as to use, or require or recommend actions which use, the full extent of the thermal ratings of *transmission elements* to maintain *power system security*, including the short-term ratings (being time dependent ratings), as defined by the *Network Service Providers* from time to time.
- (b) *AEMO* must use its reasonable endeavours not to exceed the ratings defined by the *Network Service Providers* and not to require or recommend action which causes those ratings to be exceeded, to the extent that *AEMO* is or ought reasonably to be aware of such ratings.

4.6.5 Partial outage of power protection systems

- (a) Where there is an *outage* of one *protection system* of a *transmission line*, *AEMO* must determine, in consultation with the relevant *Network Service Provider*, the most appropriate action. Depending on the circumstances the determination may be:
 - (1) to leave the *transmission element* in service for a limited duration;
 - (2) to take the *transmission element* out of service immediately;
 - (3) to install a temporary *protection system*;
 - (4) to accept a degraded performance from the *protection system*, with or without additional operational measures or temporary protection measures to minimise *power system* impact; or
 - (5) to operate the *transmission element* at a lower capacity.
- (b) If there is an *outage* of both *protection systems* on a *transmission line* and *AEMO* determines this to be an unacceptable risk to *power system security*, *AEMO* must take the *transmission element* out of service as soon as possible and advise the appropriate *Network Service Provider* immediately this action is undertaken.
- (c) The *Network Service Provider* must comply with a determination made by *AEMO* under this clause 4.6.5 unless, in the reasonable opinion of the

Network Service Provider, it would threaten the safety of any person or cause material damage.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.6.6 System strength impact assessment guidelines

- (a) *AEMO* must make, *publish* and may amend *system strength impact assessment guidelines* that set out the methodology to be used by *Network Service Providers* when undertaking *system strength impact assessments* under clause 5.3.4B in relation to a proposed new *connection* of a *generating system* or *market network service facility* or an alteration to a *generating system* to which clause 5.3.9 applies.
- (b) The *system strength impact assessment guidelines* must:
 - (1) provide for a two-stage assessment process comprising:
 - (i) a preliminary assessment to screen for the need for a full assessment; and
 - (ii) a full assessment;
 - (2) require the full assessment to be carried out using a *power system* model that is reasonably appropriate for conducting *system strength impact assessments* and applicable to the location the *transmission network* or *distribution network* at which the *facility* is or may be *connected* and specified by *AEMO* from time to time for this purpose;
 - (3) exclude from the assessment of an *adverse system strength impact* the impact on any *protection system* for a *transmission network* or *distribution network*;
 - (4) provide guidance about the different *network* conditions and *dispatch* patterns and other relevant matters that should be examined when undertaking a full assessment;
 - (5) specify the nature of the impacts that *AEMO* considers to be *adverse system strength impacts* and that must be avoided or overcome by undertaking *system strength connection works* or implementing a *system strength remediation scheme* in accordance with clause 5.3.4B;
 - (6) provide guidance about the matter that must be considered when determining whether a *connection* or alteration will result in an *adverse system strength impact*;
 - (7) include if applicable any thresholds below which an impact may be disregarded when determining the need for a *system strength*

remediation scheme or system strength connection works under clause 5.3.4B; and

- (8) *provide general guidance about options for system strength remediation schemes and system strength connection works.*
- (c) *Subject to paragraph (d), AEMO must comply with the Rules consultation procedures when making or amending the system strength impact assessment guidelines.*
- (d) *AEMO may make minor or administrative amendments to the system strength impact assessment guidelines without complying with the Rules consultation procedures.*
- (e) *AEMO must provide the model referred to in subparagraph (b)(2) to a Local Network Service Provider or, subject to paragraph (f), to a Generator or Connection Applicant who requests the model in connection with a system strength impact assessment.*
- (f) *If AEMO receives a request under paragraph (e) from a Generator or a Connection Applicant:*
 - (1) *AEMO must treat the request as if it were information reasonably required by a Registered Participant under clause 3.13.3(k)(2) and AEMO is only required to provide the model referred to in subparagraph (b)(2) (or the source code for that model) in the form contemplated by clause 3.13.3(l)(2); and*
 - (2) *AEMO may require a Connection Applicant who is not a Registered Participant to give an undertaking in a form satisfactory to AEMO to comply with rule 8.6 as if the Connection Applicant were a Registered Participant as a condition of providing a model to the Connection Applicant under paragraph (e).*

4.7 Power System Stability Co-ordination

4.7.1 Stability analysis co-ordination

- (a) *AEMO must, in cooperation with the relevant Network Service Providers, apply the power system stability guidelines described in clause 4.3.4(h) to the conduct of all necessary calculations associated with the stable operation of the power system and use its reasonable endeavours to coordinate the determination of the settings of equipment used to maintain power system stability. The Network Service Providers must submit to AEMO for approval the settings of any transmission equipment used to maintain the stable operation of the power system.*

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must arrange and endorse the installation of *power system* devices which are approved by *AEMO* to be necessary to assist the stable operation of the *power system*.

4.7.2 Audit and testing

AEMO must arrange, co-ordinate and supervise the conduct of such inspections and tests as it deems appropriate to assess the availability and adequacy of the devices installed to maintain *power system* stability.

4.8 Power System Security Operations

4.8.1 Registered Participants' advice

A *Registered Participant* must promptly advise *AEMO* or a relevant *System Operator* at the time that the *Registered Participant* becomes aware, of any circumstance which could be expected to adversely affect the secure operation of the *power system* or any equipment owned or under the control of the *Registered Participant* or a *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.8.2 Protection or control system abnormality

- (a) If a *Registered Participant* becomes aware that any relevant *protection system* or *control system* is defective or unavailable for service, that *Registered Participant* must advise *AEMO*. If *AEMO* considers it to be a threat to *power system security*, *AEMO* may direct that the equipment protected or operated by the relevant *protection system* or *control system* be taken out of operation or operated as *AEMO* directs.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Registered Participant* must comply with a direction given by *AEMO* under clause 4.8.2(a).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.8.3 AEMO's advice on power system emergency conditions

- (a) *AEMO* must *publish* all relevant details promptly after *AEMO* becomes aware of any circumstance with respect to the *power system* which, in the

reasonable opinion of *AEMO*, could be expected to materially adversely affect *supply* to or from *Registered Participants*.

- (b) Without limitation, such circumstances may include:
 - (1) electricity *supply* capacity shortfall, being a condition where there are insufficient *generation* or *supply* options available to securely *supply* the total load in a *region*;
 - (2) unexpected disruption of *power system security*, which may occur when:
 - (i) an unanticipated major *power system* or *generation plant contingency event* occurs; or
 - (ii) significant environmental or similar conditions, including weather, storms or fires, are likely to, or are affecting, the *power system*; or
 - (3) a *major supply disruption*.

4.8.4 Declaration of conditions

AEMO may declare the following conditions in relation to a period of time, either present or future:

- (a) *Low reserve* condition – when *AEMO* considers that the balance of *generation* capacity and demand for the period being assessed does not meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*.
- (b) *Lack of reserve (LOR)* condition – when *AEMO* determines, in accordance with the *reserve level declaration guidelines*, that the probability of *load shedding* (other than the reduction or *disconnection* of *interruptible load*) is, or is forecast to be, more than remote.

4.8.4A Reserve level declaration guidelines

- (a) *AEMO* must make and publish guidelines (*reserve level declaration guidelines*) that set out how *AEMO* will determine a *lack of reserve* condition.
- (b) The *reserve level declaration guidelines* must:
 - (1) describe how *AEMO* continually assesses the probability of *capacity reserves* being insufficient to avoid *load shedding* (other than the reduction or *disconnection* of *interruptible load*) given reasonably foreseeable conditions and events (**probability assessment**);
 - (2) describe how the probability assessment applies in relation to different periods of time;

- (3) specify at least three probability levels at which *AEMO* will declare a corresponding *lack of reserve* condition in relation to a specified period of time, indicating an increasing probability of *load shedding* (other than the reduction or *disconnection of interruptible load*); and
 - (4) be reviewed by *AEMO* at least once every four years.
- (c) The probability assessment described in the *reserve level declaration guidelines* must be consistent with *good electricity industry practice* and must take into account:
 - (1) actual and forecast *power system* conditions and environmental or other similar conditions;
 - (2) the likelihood of the occurrence and impact on the *power system* of events that are foreseeable in nature but unpredictable in timing; and
 - (3) a prudent allowance for forecasting error.
- (d) *AEMO* may amend, and any person may submit a written request (with reasons) for *AEMO* to amend, the *reserve level declaration guidelines* from time to time.
- (e) When amending the *reserve level declaration guidelines* under paragraph (d), *AEMO* must comply with the *Rules consultation procedures*, except that rule 8.9 is to be read as if:
 - (1) paragraphs (g) to (j) do not apply;
 - (2) paragraph (k)(4) does not apply;
 - (3) paragraph (k)(5) is amended to require summaries of each issue, that the *consulting party* reasonably considers to be material, contained in valid written submission received from Consulted Persons or in meetings, and the *consulting party's* response to each such submission;
 - (4) the references in paragraphs (m) and (n) to "the procedures set out in this clause" are to be read as if they were references to "the procedures set out in this clause, as amended by clause 4.8.4A(e)(1) to (3)".

4.8.4B Lack of reserve framework reporting

- (a) In this clause 4.8.4B:

reporting period means the period beginning on 16 January 2018 and ending on 31 March 2018, and each calendar quarter thereafter.
- (b) *AEMO* must publish a report (**lack of reserve framework report**) within one month following the end of each reporting period.

- (c) The purpose of the lack of reserve framework report is to inform *Registered Participants* about the implementation of the *reserve level declaration guidelines* and to provide *AEMO's* high level analysis of how the *lack of reserve* framework is operating during the relevant reporting period.
- (d) Each lack of reserve framework report must include:
 - (1) *AEMO's* observations of any trends in when and why *lack of reserve* conditions are being declared under the *reserve level declaration guidelines*; and
 - (2) a summary of the leading factors or causes of any *lack of reserve* conditions declared,during the relevant reporting period.

4.8.5 Managing declarations of conditions

- (a) *AEMO* must as soon as reasonably practicable *publish* any declaration under clause 4.8.4.
 - (a1) The *publication* of any such declaration must, to the extent reasonably practicable, include the following:
 - (1) the nature and extent of the *low reserve* or *lack of reserve* condition; and
 - (2) the time period over which the *low reserve* or *lack of reserve* condition applies.
- (b) If *AEMO* makes a declaration under clause 4.8.4, *AEMO* must use its reasonable endeavours to follow the processes set out in clauses 4.8.5A and 4.8.5B.
- (c) Following a declaration under clause 4.8.4, *AEMO* must as soon as reasonably practicable *publish* notice of:
 - (1) any cancellation of that declaration; or
 - (2) any significant change in the *low reserve* or *lack of reserve* condition due to changed positions of *Scheduled Network Service Providers*, *Market Customers*, *Semi-Scheduled Generators* and *Scheduled Generators* or due to other reasons.

4.8.5A Determination of the latest time for AEMO intervention

- (a) *AEMO* must immediately *publish* a notice of any foreseeable circumstances that may require *AEMO* to implement a *AEMO intervention event*.
- (b) A notice referred to in paragraph (a) must include the forecast circumstances creating the need for the *AEMO intervention event*.

- (c) *AEMO* must, as soon as reasonably practicable after the *publication* of a notice in accordance with paragraph (a), estimate and *publish* the latest time at which it would need to intervene through a *AEMO intervention event* should the response from the *market* not be such as to obviate the need for the *AEMO intervention event*.
- (d) In order to estimate the time referred to in paragraph (c), *AEMO* may request information from a *Scheduled Network Service Provider*, *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Customer* and may specify the time within which that information is to be provided.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) The information that *AEMO* may request in accordance with paragraph (d) may include, but is not limited to:
 - (1) *plant* status;
 - (2) any expected or planned *plant outages* and the MW capacity affected by the *outage*, proposed start date and time and expected end date and time associated with the *outage* and an indication of the possibility of deferring the *outage*; and
 - (3) estimates of the relevant costs to be incurred by the *Scheduled Network Service Provider*, *Scheduled Generator* or *Market Customer* should it be the subject of a *direction*, but only if *AEMO* considers it reasonably likely that such *Scheduled Network Service Provider*, *Scheduled Generator* or *Market Customer* will be subject to a *direction*.
- (f) A *Scheduled Network Service Provider*, *Scheduled Generator* or *Semi-Scheduled Generator* or *Market Customer* must use reasonable endeavours:
 - (1) to comply with a request for information under paragraph (d); and
 - (2) to provide *AEMO* with the information required in the time specified by *AEMO*.
- (g) *AEMO* must regularly review its estimate of the latest time at which it would need to intervene through an *AEMO intervention event*, and *publish* any revisions to the estimate.
- (h) *AEMO* must treat any information provided in response to a request under paragraph (d) as *confidential information* and use it for the sole purpose of assessing to which *Scheduled Network Service Provider*, *Market Customer* or *Scheduled Generator* it should issue *directions*.

4.8.5B Notifications of last time of AEMO intervention

If the latest practicable time for an *AEMO intervention event*, as estimated by *AEMO* under clause 4.8.5A, is reached and, taking into account *relevant AEMO intervention events*, the circumstances described under clause 4.8.5A(a) have not been alleviated, *AEMO* must to the extent reasonably practicable immediately:

- (1) *publish* a notice that *AEMO*:
 - (i) considers the time for the negotiation of further *reserve contracts* in accordance with rule 3.20 has elapsed; and
 - (ii) intends to implement an *AEMO intervention event*; and
- (2) amend the *pre-dispatch schedule* to ensure that it is a physically realisable schedule for all periods in which *AEMO* intends to implement an *AEMO intervention event*.

4.8.6 [Deleted]**4.8.7 Managing a power system contingency event**

- (a) During the period when the *power system* is affected by a *contingency event* *AEMO* must carry out actions, in accordance with the guidelines set out in the *power system security standards* and its obligations concerning *sensitive loads*, to:
 - (1) identify the impact of the *contingency event* on *power system security* in terms of the capability of *generating units* or *transmission* or *distribution networks*; and
 - (2) identify and implement the actions required in each affected *region* to restore the *power system* to its *satisfactory operating state*.
- (b) When *contingency events* lead to potential or actual electricity *supply* shortfall events, *AEMO* must follow the procedures outlined in clause 4.8.9.

4.8.8 [Deleted]**4.8.9 Power to issue directions and clause 4.8.9 instructions**

- (a) Notwithstanding any other provision of rule 4.8:
 - (1) *AEMO* may require a *Registered Participant* to do any act or thing if *AEMO* is satisfied that it is necessary to do so to maintain or re-establish the *power system* to a *secure operating state*, a *satisfactory operating state*, or a *reliable operating state*; and
 - (2) *AEMO* may authorise a person to do any of the things contemplated by section 116 of the *National Electricity Law* if *AEMO* is satisfied that it is necessary to do so for reasons of public safety or the security of the electricity system.

- (a1) If *AEMO*, or a person authorised by *AEMO*, requires a *Registered Participant* to:
- (1) take action as contemplated by clause 4.8.9(a) or section 116 of the *National Electricity Law* in relation to *scheduled plant* or a *market generating unit*, *AEMO* is taken to have issued a *direction*; or
 - (2) take some other action contemplated by clause 4.8.9(a) or section 116 of the *National Electricity Law*, *AEMO* is taken to have issued a *clause 4.8.9 instruction*.
- (a2) *AEMO* must use reasonable endeavours to ensure that persons authorised by *AEMO* under clause 4.8.9(a)(2) follow all relevant processes in clause 4.8 prior to issuing a *direction*, unless it is not reasonably practical to do so.
- (b) *AEMO* must develop, and may amend from time to time, in accordance with the *Rules consultation procedures*, procedures for the issuance of *directions*. Such procedures must reflect the following principles:
- (1) *AEMO* must use its reasonable endeavours to minimise any cost related to *directions* and compensation to *Affected Participants* and *Market Customers* pursuant to clause 3.12.2 and compensation to *Directed Participants* pursuant to clauses 3.15.7 and 3.15.7A;
 - (2) a *direction* should be revoked as soon as *AEMO* determines that the *direction* is no longer required;
 - (3) *AEMO* must take into account any applicable guidelines issued by the *Reliability Panel*;
 - (4) *AEMO* must observe its obligations under clause 4.3.2 concerning *sensitive loads*;
 - (5) *AEMO* must expressly notify a *Directed Participant* that *AEMO's* requirement or that of another person authorised by *AEMO* pursuant to clause 4.8.9(a) is a *direction*.
- (c) A *Registered Participant* must use its reasonable endeavours to comply with a *direction* or *clause 4.8.9 instruction* unless to do so would, in the *Registered Participant's* reasonable opinion, be a hazard to public safety, or materially risk damaging equipment, or contravene any other law.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c1) Subject to clause 4.8.9(c) a *Registered Participant* must use its best endeavours to comply with a *direction* or *clause 4.8.9 instruction* in accordance with the timeframe specified by *AEMO* in the *direction* or *clause 4.8.9 instruction*.

- (c2) A *Market Participant* must not by any act or omission, whether intentionally or recklessly, cause or significantly contribute to the circumstances causing a *direction* to be issued, without reasonable cause.
- (d) A *Registered Participant* must immediately notify *AEMO* of its inability to comply or its intention not to comply with a *direction* or *clause 4.8.9 instruction*.
- (e) If a *Registered Participant* does not comply with a *direction* or *clause 4.8.9 instruction*, it must within 2 *business days* of the *direction* or *clause 4.8.9 instruction* deliver to *AEMO* and the *AER* a report detailing the reasons for the non compliance together with all relevant facts.
- (f) *AEMO* must *publish* a report in accordance with clause 3.13.6A.
- (g) Any *Registered Participant* who is aware of a failure to comply with a *direction* or *clause 4.8.9 instruction* or who believes any such failure has taken place must notify *AEMO* and the *AER* in writing and as soon as practicable of that fact.
- (h) If *AEMO* issues a *direction* or *clause 4.8.9 instruction*, *AEMO* may, to give effect to the *direction* or *clause 4.8.9 instruction*:
 - (1) submit, update or vary *dispatch bids*, *dispatch offers* or *rebids* in relation to the *plant* of *Directed Participants* and *Affected Participants*;
 - (2) change other inputs to the *dispatch process*; or
 - (3) select a *Market Participant* or *Market Participants* to become *Affected Participants* to implement clause 3.8.1(b)(11).
- (i) When issuing *clause 4.8.9 instructions* to implement *load shedding* across *interconnected regions*, *AEMO* must use reasonable endeavours to implement *load shedding* in an equitable manner as specified in the *power system security standards*, taking into account the *power transfer capability* of the relevant *networks*.
- (j) When issuing *clause 4.8.9 instructions* to implement *load shedding*, *AEMO* must comply with its obligations under clauses 4.3.2(e) to (l) and Part 8 of the *National Electricity Law*.

4.8.9A System security directions

- (a) Notwithstanding any other provision of the *Rules*, a *Registered Participant* must follow any *direction* issued by or on behalf of *AEMO* and with which that *Registered Participant* is required to comply under Chapter 4 or section 116 of the *National Electricity Law*.
- (b) Any event or action required to be performed pursuant to a *direction* issued under Chapter 4 or section 116 of the *National Electricity Law* on or by a

stipulated *day* is required by the *Rules* to occur on or by that *day*, whether or not a *business day*.

- (c) Any failure to observe such a *direction* will be deemed to be a breach of the *Rules*.
- (d) *AEMO* or any *Registered Participant* who is aware of any such failure must notify the *AER* in writing of the failure.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.8.10 Disconnection of generating units and market network services

- (a) Where, under the *Rules*, *AEMO* has the authority or responsibility to *disconnect* a *generating unit* or a *market network service*, then it may do so (either directly or through any agent) as described in rule 5.9.
- (b) The relevant *Generator* or *Market Network Service Provider* must provide all reasonable assistance to *AEMO* for the purpose of such *disconnection*.

4.8.11 [Deleted]

4.8.12 System restart plan and local black system procedures

- (a) *AEMO* must prepare, and may amend, a *system restart plan* for the purpose of managing and coordinating system restoration activities during any *major supply disruption*.
 - (a1) The *system restart plan* must cover the entire *national grid* but may consist of one or more separable components.
 - (a2) For the purposes of section 54A(2) of the *National Electricity Law*, *AEMO* may disclose the whole or any component of the *system restart plan* to:
 - (1) a *Jurisdictional System Security Coordinator*;
 - (2) a *Network Service Provider*;
 - (3) a *Generator* contracted to provide *SRAS*;
 - (4) any other *Registered Participant* whose assistance *AEMO* considers is necessary for the implementation of the *system restart plan*,

for the purposes of preparing for, and participating in, system restoration activities during a *major supply disruption*.
 - (a3) A *Jurisdictional System Security Coordinator* to whom the whole or any component of the *system restart plan* is provided to under paragraph (a2)(1)

is deemed to be a *Registered Participant* for the purposes of Part C of Chapter 8.

- (b) The *system restart plan* is *confidential information*.
- (c) The *system restart plan* must be consistent with the *system restart standard*.
- (d) Each *Generator* and *Network Service Provider* must develop *local black system procedures* in accordance with the guidelines referred to in clause 4.8.12(e). A *Generator's* or *Network Service Provider's local black system procedures* must be consistent with any *ancillary services agreement* to provide *system restart ancillary services* to which that *Generator* or *Network Service Provider* is a party. On request from *AEMO*, or as a result of a significant change of circumstances, a *Generator* or *Network Service Provider* must review, and amend if appropriate, its *local black system procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) Subject to clause 4.8.12(f), *AEMO* must develop and *publish*, and may amend, guidelines for the preparation of *local black system procedures* in consultation with *Generators* and *Network Service Providers*.
- (f) *Local black system procedures* must:
 - (1) provide sufficient information to enable *AEMO* to understand the likely condition and capabilities of *plant* following any *major supply disruption* such that *AEMO* is able to effectively co-ordinate the safe implementation of the *system restart plan*; and
 - (2) appropriately incorporate any relevant *energy support arrangements* to which a *Generator* or *Network Service Provider* may be party.
- (g) Each *Generator* and *Network Service Provider* must submit its *local black system procedures*, including any amendments to those procedures, to *AEMO* for approval. In considering whether to grant approval, *AEMO* must take into account the consistency of the *local black system procedures* with:
 - (1) the guidelines referred to in clause 4.8.12(e); and
 - (2) relevant components of the *system restart plan*.
- (h) *AEMO* may request amendments to *local black system procedures*, including, without limitation, imposing conditions in respect of any *energy support arrangement* as *AEMO* reasonably considers necessary to ensure the integrity of the *system restart plan*. When requesting amendments to the *local black system procedures*, *AEMO* must provide reasons for those requested amendments.

- (i) Requests by *AEMO* for amendments under clause 4.8.12(h) must be by notice in writing to a *Generator* or *Network Service Provider*. Reasonable requests by *AEMO* for amendments under clause 4.8.12(h) must be complied with by a *Generator* or *Network Service Provider*.
- (j) *AEMO* and *Network Service Providers* must jointly develop communication protocols to facilitate the exchange of all information relevant to the roles played by *AEMO*, *Network Service Providers*, *Generators* and *Customers* in the implementation of the *system restart plan*.

4.8.13 [Deleted]**4.8.14 Power system restoration**

- (a) *AEMO* must notify a *Registered Participant* if, in *AEMO's* reasonable opinion, there is a *major supply disruption* which is affecting, or which may affect, that *Registered Participant*.
- (b) If *AEMO* advises a *Generator* or *Network Service Provider* of a *major supply disruption*, or if the terms of the relevant *local black system procedures* require the *Generator* or *Network Service Provider* to take action, then the *Generator* or *Network Service Provider* must comply with the requirements of the *local black system procedures* as quickly as is practicable.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Where in *AEMO's* reasonable opinion the *system restart plan* cannot be implemented to effectively ameliorate the actual *power system* conditions created by a *major supply disruption*, *AEMO* may adapt or vary the *system restart plan* as it considers reasonably necessary to suit those actual *power system* conditions.
- (d) If there is a *major supply disruption*, a *Generator* or *Network Service Provider* must comply with *AEMO's directions* or clause 4.8.9 instructions regarding the restoration of the *power system*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) If there is a *major supply disruption*, a *Market Customer* must comply with *AEMO's directions* with respect to the timing and magnitude of *load* restoration.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.8.15 Review of operating incidents

- (a) For the purposes of this clause 4.8.15:

Reviewable operating incident means:

- (1) an incident comprising:
 - (i) a *non-credible contingency event* or *multiple contingency events* on the *transmission system*; or
 - (ii) a *black system* condition; or
 - (iii) an event where the *frequency* of the *power system* is outside limits specified in the *power system security and reliability standards*; or
 - (iv) an event where the *power system* is not in a *secure operating state* for more than 30 minutes; or
 - (v) an event where *NEMMCO* issues a *clause 4.8.9 instruction* for *load shedding*,

being an incident identified, in accordance with guidelines determined by the *Reliability Panel* under clause 8.8, to be of significance to the operation of the *power system* or a significant deviation from normal operating conditions; or
- (2) an incident where *NEMMCO* has been responsible for the *disconnection* of *facilities* of a *Registered Participant* under the circumstances described in clause 5.9.5; or
- (3) any other operating incident identified, in accordance with guidelines determined by the *Reliability Panel* under clause 8.8, to be of significance to the operation of the *power system* or a significant deviation from normal operating conditions;

but does not include an incident in respect of which *NEMMCO* is required to conduct a review under clause 3.14.3(c).

- (b) *AEMO* must conduct a review of every reviewable operating incident in order to assess the adequacy of the provision and response of *facilities* or services, and the appropriateness of actions taken to restore or maintain *power system security*.
- (c) *AEMO* must prepare a report on the review of a reviewable operating incident, and where that report relates to an incident described in clause

4.8.15(a)(1) or (3), *AEMO* must make the report available to *Registered Participants* and to the public.

- (ca) With respect to a report that has been prepared by *AEMO* in accordance with clause 4.8.15(a)(1) or (3) that relates to an operating incident involving a *non-credible contingency event*, the report must include details of how the re-classification criteria published under clause 4.2.3B were assessed and applied in the context of that *non-credible contingency event*.
- (d) Where *AEMO* has been responsible for the *disconnection of facilities* of a *Registered Participant* under the circumstances described in clause 5.9.5, *AEMO* must provide a report on that review to the *Registered Participant*, the *AEMC* and the *AER* advising of the circumstances requiring that action.
- (e) A *Registered Participant* must co-operate in any review conducted by *AEMO* including making available relevant records and information.
- (f) *AEMO* may request a *Registered Participant* to provide such information relating to the performance of equipment of that *Registered Participant* during and after reviewable operating incidents, as *AEMO* reasonably requires for the purposes of analysing or reporting on the incident.
- (g) A *Registered Participant* must provide the information requested by *AEMO* under clause 4.8.15(f) within 20 *business days* unless *AEMO* agrees to a longer period, taking into account:
 - (1) the particular circumstances of the reviewable operating incident; and
 - (2) any request made under clause 4.8.15(h).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) *AEMO* must as soon as practicable, provide to a *Registered Participant* such information relating to the performance of equipment of the *Registered Participant* during and after a reviewable operating incident as the *Registered Participant* reasonably requests and in relation to which *AEMO* is required to conduct a review under this clause 4.8.15.
- (i) At any time when no guidelines are in force under rule 8.8, *AEMO* may conduct a review of any incident referred to in clause 4.8.15(a)(1) that *AEMO* considers to be of significance to the operation of the *power system* or a significant deviation from normal operating conditions, and this clause 4.8.15 applies to and in respect of the review as if the incident were a reviewable operating incident.

4.9 Power System Security Related Market Operations

4.9.1 Load forecasting

- (a) *AEMO* must produce (at the intervals indicated and in accordance with the *timetable*) an indicative *load* forecast for each *region* for the periods indicated below:
 - (1) each *day*, a forecast for the *day* ahead, such forecast divided into half-hourly *load* forecasts for each *trading interval*;
 - (2) each *day*, a forecast for 2 to 7 *days* (inclusive) ahead, the forecasts for each *day* divided into half-hourly *load* forecasts for each *trading interval*;
 - (3) every week, a forecast for the 24 *months* ahead of the *day* on which the forecast is produced, with a daily profile based on an estimated weekly *peak load* condition with allowances for weekends and holidays.
- (b) These forecasts must provide an indicative estimate of the total *generation* capacity required to meet the forecast *load* (called "**forecast load (as generated)**"), and an equivalent estimation of the *supply* required to be delivered to the relevant *transmission network* (called "**forecast load (sent out)**").
- (c) The following factors must be taken into account in the development of the *load* forecasts, to the extent that such are relevant to the particular forecast:
 - (1) the annual *load* forecasts and *load* profiles collected by the *Network Service Providers* from all *Registered Participants* as required by schedule 5.7, including *load* management expectations and expected *sent out generation* from *embedded generating units*;
 - (2) historic *load* data, including *transmission* losses and *power station* in-house use of the *generated* output;
 - (3) weather forecasts and the current and historic weather conditions and pattern;
 - (4) the incidence of major events or activities which are known to *AEMO*;
 - (5) anticipated pumped storage *loads*;
 - (6) official economic activity forecasts from *participating jurisdictions*; and
 - (7) other information provided by *Registered Participants*.
- (d) *AEMO* must develop a methodology to create the indicative *load* forecasts.
- (e) **[Deleted]**

- (f) **[Deleted]**
- (g) The *load* forecasts produced by *AEMO* are indicative only as *AEMO* has no direct influence over *Market Participants* in their decisions about their level of demand and, accordingly, no person may claim any loss or damage from *AEMO* as a result of any difference between *load* forecasts and actual *load*.

4.9.2 Instructions to Scheduled Generators and Semi-Scheduled Generators

- (a) To implement *central dispatch* or, where *AEMO* has the power to direct or to instruct a *Scheduled Generator* or *Semi-Scheduled Generator* either under Chapter 3 or this Chapter, then for the purpose of giving effect to that direction or instruction, *AEMO* may at any time give an instruction to the *Generator* in relation to any of its *generating units* (a *dispatch instruction*), in accordance with clause 4.9.5(b), nominating:
 - (1) whether the facilities for *generation* remote control by *AEMO*, if available, must be in service;
 - (2) in the case of a *scheduled generating unit*, the level or schedule of power to be supplied by the *generating unit* over the specified period; and
 - (3) in the case of a *semi-scheduled generating unit*, the maximum level of power to be supplied by the *generating unit* over the specified period.
- (b) Subject to paragraph (c), *AEMO* may at any time give an instruction to a *Generator* in relation to any of its *generating units* with a *nameplate rating* of 30MW or more, or its *systems* of combined *nameplate rating* of 30 MW or more, nominating that:
 - (1) the *generating unit* or *generating system* transformer is to be set to a nominated tap position (if it has on-load tap changing capability);
 - (2) the *generating unit's* or *generating system's voltage control system* set-point is to be set to give a nominated *voltage*; or
 - (3) the *generating unit* or *generating system* is to be operated to supply or absorb a nominated level of *reactive power* at its *connection point*.
- (c) Unless otherwise provided under an *ancillary services agreement*, a *network support agreement* or a *connection agreement*, *AEMO* must not give an instruction under paragraph (b) that requires a *generating unit* or *generating system* to supply or absorb *reactive power* at a level outside the *plant's* relevant *performance standard*.
- (d) A *Scheduled Generator* or *Semi-Scheduled Generator* must, with respect to its *generating units* that have an availability offer of greater than 0 MW (whether *synchronised* or not), ensure that appropriate personnel are available at all times to receive and immediately act upon *dispatch instructions* issued by *AEMO* to the relevant *Generator*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.2A Dispatch Instructions to Scheduled Network Service Providers

- (a) Where *AEMO* has the power to direct or to instruct a *Scheduled Network Service Provider* either under Chapter 3 or this Chapter then, for the purpose of giving effect to that direction or instruction, *AEMO* may at any time give an instruction to a *Scheduled Network Service Provider* in relation to any of its *scheduled network services* (a *dispatch instruction*), in accordance with clause 4.9.5(b), nominating:
 - (1) whether the facilities for remote control by *AEMO*, if available, must be in service; and
 - (2) the level or schedule of power to be transferred by the *scheduled network service* over the specified period.
- (b) A *Scheduled Network Service Provider* must, with respect to its *scheduled network services* that have an availability offer of greater than 0 MW, ensure that appropriate personnel are available at all times to receive and immediately act upon *dispatch instructions* issued by *AEMO* to the *Scheduled Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.3 Instructions to Registered Participants

- (a) *AEMO* may, at any time, give instructions to *Registered Participants* to reduce their *load* for electricity consistent with *dispatch bids* made in accordance with Chapter 3 (*dispatch instructions*).
- (b) A *Market Customer* must, with respect to *scheduled loads* in relation to which a *dispatch bid* has been submitted for a particular *trading interval*, ensure that appropriate personnel or electronic facilities are available at all times to receive and immediately act upon *dispatch instructions* issued by *AEMO* to the *Market Customer*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.3A Ancillary services instructions

- (a) *AEMO* may at any time give an instruction (a *dispatch instruction*) to a *Market Participant* which has classified one or more of its *generating units* or *loads* as an *ancillary service generating unit* or an *ancillary service load*:
 - (1) stating that the relevant *generating unit* or *load* has been selected for the provision of a *market ancillary service*;
 - (2) stating the *market ancillary service* concerned; and
 - (3) nominating the range to be *enabled*.
- (b) *AEMO* may at any time give an instruction (a *dispatch instruction*) to:
 - (1) an *NMAS provider* with whom *AEMO* has an *ancillary services agreement* in relation to the provision of *non-market ancillary services* under that *ancillary services agreement* or which *AEMO* is otherwise entitled to give under that *ancillary service agreement*; or
 - (2) a *Network Service Provider* in relation to the provision of any *non-market ancillary services* or similar services provided under any *connection agreement* or *network support agreement*.
- (c) A *Market Participant* which has:
 - (1) classified one or more of its *generating units* or *loads* as an *ancillary service generating unit* or an *ancillary service load*; and
 - (2) submitted a *market ancillary service offer* in respect of that *generating unit* or *load*,

must ensure that appropriate personnel or electronic facilities are available at all times to receive and immediately act upon *dispatch instructions* issued to the *Market Participant* by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) An *NMAS provider* with whom *AEMO* has an *ancillary services agreement* must ensure that appropriate personnel or electronic facilities are available in accordance with that agreement at all times to receive and immediately act upon *dispatch instructions* issued to that *NMAS provider* by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.3B Compliance with dispatch instructions

- (a) A *dispatch instruction* applies from the time it is given (or any later time specified in the *dispatch instruction*) until the earlier of:
 - (1) the cessation time specified in the *dispatch instruction* (if any); or
 - (2) the time when the next *dispatch instruction* applies.

4.9.4 Dispatch related limitations on Scheduled Generators and Semi-Scheduled Generators

A *Scheduled Generator* or *Semi-Scheduled Generator* (as the case may be) must not, unless in the *Generator's* reasonable opinion, public safety would otherwise be threatened or there would be a material risk of damaging equipment or the environment:

- (a) send out any *energy* from the *generating unit*, except:
 - (1) in accordance with a *dispatch instruction*;
 - (2) in response to remote control signals given by *AEMO* or its agent;
 - (3) in connection with a test conducted in accordance with the requirements of this Chapter or Chapter 5; or
 - (4) in the case of a *scheduled generating unit*:
 - (i) in accordance with the *self-commitment* procedures specified in clause 4.9.6 up to the *self-dispatch level*; or
 - (ii) as a consequence of operation of the *generating unit's* automatic *frequency response mode* to *power system* conditions;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) adjust the *transformer tap position* or *excitation control system voltage* set-point of a *scheduled generating unit* or *semi-scheduled generating unit* except:
 - (1) in accordance with a *dispatch instruction*;
 - (2) in response to remote control signals given by *AEMO* or its agent;
 - (3) if, in the *Generator's* reasonable opinion, the adjustment is urgently required to prevent material damage to the *Generator's plant* or associated equipment, or in the interests of safety; or
 - (4) in connection with a test conducted in accordance with the requirements of rule 5.7;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) *energise a connection point* in relation to a *generating unit* without obtaining approval from *AEMO* immediately prior to *energisation*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) *synchronise or de-synchronise a scheduled generating unit* with a *nameplate rating* of 30MW or more, without prior approval from *AEMO* or other than in response to a *dispatch instruction* except:

- (1) *de-synchronisation* as a consequence of the operation of automatic protection equipment; or
- (2) where such action is urgently required to prevent material damage to *plant* or equipment or in the interests of safety;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) change the *frequency response mode* of a *scheduled generating unit* without the prior approval of *AEMO*; or

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) remove from service or interfere with the operation of any *power system* stabilising equipment installed on that *generating unit*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.4A Dispatch related limitations on Scheduled Network Service Providers

A *Scheduled Network Service Provider* must not, unless in the *Scheduled Network Service Provider's* reasonable opinion public safety would otherwise be threatened or there would be a material risk of damaging equipment or the environment:

- (a) *energise a connection point* in relation to a *scheduled network service* without prior approval from *AEMO*. This approval must be obtained immediately prior to *energisation*; or

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *synchronise a scheduled network service* to, or *de-synchronise a scheduled network service* from, the *power system* without prior approval from *AEMO* except *de-synchronisation* as a consequence of the operation of automatic protection equipment or where such action is urgently required to prevent material damage to *plant* or equipment or in the interests of safety.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.5 Form of dispatch instructions

- (a) A *dispatch instruction* for a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* must include the following:
- (1) specific reference to the *generating unit* (including any aggregated *generating unit*), *scheduled network service* or *scheduled load* or other *facility* to which the *dispatch instruction* applies;
 - (2) the desired outcome of the *dispatch instruction* (if applicable) such as *active power*, *reactive power*, *transformer tap* or other outcome;
 - (3) in the case of a *dispatch instruction* under clause 4.9.2, the *ramp rate* (if applicable) which is to be followed by the *generating unit* or a specific target time to reach the outcome specified in the *dispatch instruction*;
 - (4) the time the *dispatch instruction* is issued;
 - (5) if the time at which the *dispatch instruction* is to take effect is different from the time the *dispatch instruction* is issued, the start time; and
 - (6) in the case of a *dispatch instruction* for a *semi-scheduled generating unit*:
 - (i) a notification as to whether the *dispatch interval* to which the *dispatch instruction* relates is a *semi-dispatch interval* or a *non semi-dispatch interval*; and
 - (ii) the *dispatch level*.

- (a1) A *dispatch instruction* for an *ancillary service* must include:
- (1) specific reference to the *generating unit* or *load* to which the *dispatch instruction* applies;
 - (2) the desired outcome of the *dispatch instruction*;
 - (3) the time the *dispatch instruction* is issued; and
 - (4) if the time at which the *dispatch instruction* is to take effect is different from the time the *dispatch instruction* is issued, the start time.
- (b) The *dispatch instruction* must be provided as provided in clause 3.8.21.

4.9.6 Commitment of scheduled generating units

- (a) Self-commitment:
- (1) In relation to any *scheduled generating unit*, the *Scheduled Generator* must confirm with *AEMO* the expected *synchronising* time at least one hour before the expected actual *synchronising* time, and update this advice 5 minutes before *synchronising* unless otherwise agreed with *AEMO*. *AEMO* may require further notification immediately before *synchronisation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) The *Scheduled Generator* must advise *AEMO* when a *generating unit* reaches the *self-dispatch level* (being a *self-dispatch level* that is greater than zero MW) and must not increase output above that level unless instructed otherwise by *AEMO* to increase output or unless the increase in output results from the *generating unit* being placed under remote control to be loaded in accordance with Chapter 3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) Instructions by *AEMO* to commit a *generating unit* for service:
- (1) A *dispatch instruction* for a *scheduled generating unit* to commit given by *AEMO* in response to a *dispatch offer* must be consistent with the start-up time specified in the latest *dispatch offer* in relation to the *generating unit*.

- (2) When *AEMO* issues a *dispatch instruction* to a *generating unit* for *commitment*, *AEMO* must nominate the time at which the *generating unit* is to be *synchronised*.
- (3) After a *dispatch instruction* for *commitment* of a *generating unit* has been issued, the relevant *Scheduled Generator* must promptly advise *AEMO* of any inability to meet the nominated time to *synchronise*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) Unless instructed otherwise by *AEMO*, at the time a *dispatch instruction* to *commit* takes effect, the relevant *generating unit* must remain on *self-dispatch level* until *AEMO* issues a further *dispatch instruction*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.7 De-commitment, or output reduction, by Scheduled Generators

- (a) In relation to any *scheduled generating unit*, the *Scheduled Generator* must confirm with *AEMO* the expected *de-synchronising* time at least one hour before the expected actual *de-synchronising* time, and update this advice 5 minutes before *de-synchronising* unless otherwise agreed with *AEMO*. *AEMO* may require further notification immediately before *de-synchronisation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Scheduled Generator* must not de-commit a *generating unit* unless it has confirmed with *AEMO*:

- (1) the time to commence decreasing the output of the *generating unit*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) the *ramp rate* to decrease the output of the *generating unit*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) the time to *de-synchronise* the *generating unit*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) the output from which the *generating unit* is to be *de-synchronised*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.8 General responsibilities of Registered Participants

- (a) A *Registered Participant* must comply with a *dispatch instruction* given to it by *AEMO* unless to do so would, in the *Registered Participant's* reasonable opinion, be a hazard to public safety or materially risk damaging equipment.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Scheduled Generator* must ensure that each of its *scheduled generating units* is at all times able to comply with the latest *generation dispatch offer* under Chapter 3 in respect of that *generating unit*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b1) A *Scheduled Network Service Provider* must ensure that each of its *scheduled network services* is at all times able to comply with the latest *network dispatch offer* under Chapter 3 in respect of that *market network service*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) A *Registered Participant* must ensure that each of its *facilities* is at all times able to comply with any relevant *dispatch bid* under Chapter 3 in respect of

the *facility* (as adjusted by any subsequent restatement of that bid under Chapter 3).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *Market Participant* which has classified a *generating unit* or *load* as an *ancillary service generating unit* or an *ancillary service load*, as the case may be, must ensure that the *ancillary service generating unit* or *ancillary service load* is at all times able to comply with the latest *market ancillary service offer* for the relevant *trading interval*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A *Semi-Scheduled Generator* must ensure that each of its *semi-scheduled generating units* is at all times able to comply with its latest *generation dispatch offer*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.9 Scheduled Generator plant changes

A *Scheduled Generator* must, without delay, notify *AEMO* of any event which has changed or is likely to change the operational availability of any of its *scheduled generating units*, whether the relevant *generating unit* is *synchronised* or not, as soon as the *Scheduled Generator* becomes aware of the event.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.9A Scheduled Network Service Provider plant changes

A *Scheduled Network Service Provider* must, without delay, notify *AEMO* of any event which has changed or is likely to change the operational availability of any of its *scheduled network services* as soon as the *Scheduled Network Service Provider* becomes aware of the event.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.9B Ancillary service plant changes

A *Market Participant* which has classified a *generating unit* or *load* as an *ancillary service generating unit* or an *ancillary service load* must, without delay, notify *AEMO* of any event which has changed or is likely to change the availability of a *market ancillary service*, or the capability of the *generating unit* or *load* to respond in the manner contemplated by the *market ancillary service specification*, as soon as the *Market Participant* becomes aware of the event.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.9C Inertia network service availability changes

An *Inertia Service Provider* must, without delay, notify *AEMO* of any event which has changed or is likely to change the availability of any *inertia support activity* or *inertia network service* made available by the *Inertia Service Provider* to *AEMO*, as soon as the *Inertia Service Provider* becomes aware of the event.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.9.9D System strength service availability changes

A *System Strength Service Provider* must, without delay, notify *AEMO* of any event which has changed or is likely to change the availability of any *system strength services* made available by the *System Strength Service Provider* to *AEMO* under clause 5.20C.3, as soon as the *System Strength Service Provider* becomes aware of the event.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.10 Power System Operating Procedures**4.10.1 Power system operating procedures**

- (a) The *power system operating procedures* are:
- (1) any instructions which may be issued by *AEMO* from time to time covering *market* operations and relating to the operation of the *power system*;
 - (2) any guidelines issued from time to time by *AEMO* in relation to *power system security*;

- (3) *regional specific power system operating procedures* covering the operational activities and associated responsibilities of the relevant *Network Service Provider* and any *Registered Participants* connected to the relevant *transmission network* and operational activities for operational elements of the *transmission network* which interface with *Scheduled Generators* and other *Registered Participants* including, but not limited to, those relating to *sensitive loads* and *emergency frequency control schemes*;
 - (4) the *load shedding procedures* and *EFCS settings schedules*; and
 - (5) any other procedures, instructions or guidelines which *AEMO* nominates to be and advises to *Registered Participants* as being *power system operating procedures* from time to time.
- (b) *AEMO* must compile the *regional specific power system operating procedures* in conjunction with the relevant *Network Service Providers* and the relevant *Jurisdictional System Security Coordinators* to the extent required under clause 4.10.1(a)(3).
 - (c) *AEMO* must ensure that the various elements of the *power system operating procedures* are consistent with the *load shedding procedures* and *EFCS settings schedules*.

4.10.2 Transmission network operations

- (a) *AEMO* must exercise any power granted to it by the *Rules* or the *power system operating procedures* to:
 - (1) approve the manner in which operations are carried out on a *transmission network* by the relevant *Network Service Provider*; or
 - (2) instruct the relevant *Network Service Provider* to take any action on the *transmission network*,

in accordance with the appropriate *power system operating procedures*.

- (b) A *Registered Participant* must observe the requirements of the relevant *power system operating procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Any equipment interfacing with a *transmission network* must be operated in accordance with the requirements of Chapter 5, any applicable *connection agreement*, *ancillary services agreement*, *network support agreement*, *inertia services agreement*, *system strength services agreement* and the associated *power system operating procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) *Registered Participants* must ensure that *transmission network* operations performed on their behalf are undertaken by authorised persons advised in writing to *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) *AEMO* must ensure the regular review and update of the *regional specific power system operating procedures*.

4.10.3 Operating interaction with distribution networks

- (a) *AEMO* and each *Distribution System Operator* must maintain effective communications concerning the conditions of its *distribution network* and the *transmission network* or other *distribution network* to which that *distribution network* is *connected* and to co-ordinate activities where operations are anticipated to affect other *transmission* or *distribution networks*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must use its reasonable endeavours to give at least 3 *days'* notice to all affected *Distribution System Operators* prior to a *Transmission Network Service Provider* carrying out switching related to a *transmission network* which could reasonably be expected to affect security of *supply* to any *distribution network*.

4.10.4 Switching of a Distributor's high voltage networks

- (a) A *Distribution System Operator* must use reasonable endeavours to give *AEMO* at least 3 *days'* prior notice of plans to carry out switching related to the *high voltage* network which could reasonably be expected to materially affect power flows at points of *connection* to a *transmission network*. The *Distribution System Operator* must also notify *AEMO* immediately prior to carrying out any such switching.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Distribution System Operator* must provide confirmation to *AEMO* of any such switching immediately after it has occurred.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.10.5 Switching of reactive power facilities

- (a) *AEMO* may instruct a *Distribution System Operator* to place *reactive power facilities* belonging to or controlled by that *Distribution System Operator* into or out of service for the purposes of maintaining *power system security* where prior arrangements concerning these matters have been made between *AEMO* and the *Distribution System Operator*.
- (b) Without limitation to its obligations under such prior arrangements, a *Distribution System Operator* must use reasonable endeavours to comply with such an instruction given by *AEMO* or its authorised agent.

4.10.6 Automatic reclose

- (a) A *Network Service Provider* or a *Distribution System Operator* may request *AEMO* to disable or enable *automatic reclose equipment* in relation to a particular *transmission* or *distribution network* circuit or a feeder connecting its *distribution network* to a *transmission network* which has *automatic reclose equipment* installed on it.
- (b) If a *Distribution System Operator* makes such a request, then *AEMO* must use reasonable endeavours to comply with the request as soon as reasonably practical.
- (c) *AEMO* is not responsible for the consequences of automatic reclosure in relation to a circuit or a feeder and the *Distribution System Operator* must indemnify *AEMO* against any loss or damage arising out of *AEMO* complying with such a request unless the loss or damage is due to the failure by *AEMO* to comply with the request within a reasonable period of time.

4.10.7 Inspection of facilities by AEMO

AEMO may inspect a *facility* of a *Registered Participant* as specified in clause 5.7.1.

4.11 Power System Security Support

4.11.1 Remote control and monitoring devices

- (a) All remote control, operational *metering* and monitoring devices and local circuits as described in schedules 5.2, 5.3 and 5.3a, must be installed and maintained in accordance with the standards and protocols determined and advised by *AEMO* (for use in the *control centres*) for each:

- (1) *scheduled generating unit* and *semi-scheduled generating unit* connected to the *transmission* or *distribution network*; and
- (2) *substation* connected to the *network*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The provider of any *ancillary services*, *system strength services* or *inertia network services* must arrange the installation and maintenance of all *remote control equipment* and *remote monitoring equipment* in accordance with the standards and protocols determined and advised by *AEMO* for use in the relevant *control centre*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The control and monitoring devices must include provision for indication of *active power* and *reactive power* output, provision for signalling the status and any associated alarm condition relevant to achieving adequate control of the *transmission network*, and provision for indication of *generating plant* active and reactive output.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Where reasonably necessary to allow *AEMO* to discharge its *market* and *power system security* functions *AEMO* may, by notice in writing, require a *Network Service Provider*, a *Generator* or a *Market Network Service Provider* to:
 - (1) install *remote monitoring equipment* which, in *AEMO*'s reasonable opinion, is adequate to enable *AEMO* to remotely monitor the performance of a *transmission system* or *distribution system*, *generating unit* (including its *dynamic performance*) or a *market network service facility* as appropriate; and
 - (2) upgrade, modify or replace any *remote monitoring equipment* already installed in a *facility* provided that the existing *remote monitoring equipment* is, in the reasonable opinion of *AEMO*, no longer fit for the intended purpose.
- (e) A *Network Service Provider*, *Generator* or *Market Network Service Provider* who receives a notice in accordance with clause 4.11.1(d), must comply with the notice within 120 *business days* or such further period that *AEMO* requires.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) [Deleted]
- (g) A *Generator* or *Market Network Service Provider* wishing to receive *dispatch instructions* electronically from *AEMO's automatic generation control system* under clause 3.8.21(d) must comply with *AEMO's* reasonable requirements in respect of how the remote control signals are issued by the *automatic generation control system* and transmitted to the *facility*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

4.11.2 Operational control and indication communication facilities

- (a) Each *Network Service Provider* must provide and maintain, in accordance with the standards referred to in clause 4.11.2(c), the necessary primary and, where nominated by *AEMO*, back-up communications facilities for control, operational *metering* and indication from the relevant local sites to the appropriate interfacing termination as nominated by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must provide and maintain the communication facilities between control centres of each *Transmission Network Service Provider*, on the one hand, and the *AEMO co-ordinating centre*, on the other hand.
- (c) *AEMO* must develop, and may amend, standards in consultation with *Network Service Providers* in accordance with the *Rules consultation procedures* which must be met by *Network Service Providers* in providing and maintaining the facilities referred to in clause 4.11.2(a).
- (d) [Deleted]

4.11.3 Power system voice/data operational communication facilities

- (a) *Network Service Providers*, *System Operators*, *Distribution System Operators*, *Generators* and *Market Participants* must advise *AEMO* of each nominated person for the purposes of giving or receiving *operational communications* in relation to each of its *facilities*. The persons so nominated must be those responsible for undertaking the operation of the relevant equipment of the relevant *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) Contact personnel details which must be forwarded to *AEMO* include:

- (1) title of contact personnel;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) the telephone numbers of those personnel;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) the telephone numbers of other available communication systems in relation to the relevant *facility*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) a facsimile number for the relevant *facility*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (5) an electronic mail address for the relevant *facility*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Each *Registered Participant* must provide, for each nominated person, two independent telephone communication systems fully compatible with the equipment installed at the appropriate *control centre* nominated by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Each *Registered Participant* must maintain both telephone communication systems in good repair and must investigate faults within 4 hours, or as otherwise agreed with *AEMO*, of a fault being identified and must repair or procure the repair of faults promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) Each *Registered Participant* must establish and maintain a form of electronic mail facility as approved by *AEMO* for communication purposes (such approval may not be unreasonably withheld).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) *AEMO* must advise all *Registered Participants* of nominated persons for the purposes of giving or receiving *operational communications*.
- (g) Contact personnel details to be provided by *AEMO* include title, telephone numbers, a facsimile number and an electronic mail address for the contact person.

4.11.4 Records of power system operational communication

- (a) *AEMO* and the *System Operators* must record each telephone *operational communication* in the form of log book entries or by another auditable method which provides a permanent record as soon as practicable after making or receiving the *operational communication*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) Records of *operational communications* must include the time and content of each communication and must identify the parties to each communication.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Voice recordings of telephone *operational communications* may be undertaken by *AEMO* and the *System Operators*. *AEMO* and the *System Operators* must ensure that, when a telephone conversation is being recorded under this clause, the persons having the conversation receive an

audible indication that the conversation is being recorded. Voice recordings may be used as an alternative to written logs.

- (d) *AEMO* and the *System Operators* must retain all *operational communications* records including voice recordings for a minimum of 7 years.
- (e) In the event of a dispute involving an *operational communication*, the records of that *operational communication* maintained by, or on behalf of, *AEMO* will constitute prima facie evidence of the contents of the *operational communication*.
- (f) Any recordings made in accordance with this clause 4.11.4 must be made in accordance with the provisions of all applicable privacy laws.

4.11.5 Agent communications

- (a) A *Registered Participant* may appoint an agent (called a *Registered Participant Agent*) to co-ordinate operations of one or more of its *facilities* on its behalf, but only with the prior written consent of *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Registered Participant* which has appointed a *Registered Participant Agent* may replace that *Registered Participant Agent* but only with the prior written consent of *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) *AEMO* may only withhold its consent to the appointment of a *Registered Participant Agent* under clause 4.11.5(a) or (b) if it reasonably believes that the relevant person is not suitably qualified or experienced to operate the relevant *facility*.
- (d) For the purposes of the *Rules*, acts or omissions of a *Registered Participant Agent* are deemed to be acts or omissions of the relevant *Registered Participant*.
- (e) *AEMO* and its representatives (including authorised agents) may:
 - (1) rely upon any communications given by a *Registered Participant Agent* as being given by the relevant *Registered Participant*; and
 - (2) rely upon any communications given to a *Registered Participant Agent* as having been given to the relevant *Registered Participant*.

- (f) *AEMO* and the *System Operators* are not required to consider whether any instruction has been given to a *Registered Participant Agent* by the relevant *Registered Participant* or the terms of those instructions.

4.12 Nomenclature Standards

- (a) A *Network Service Provider* must use the *nomenclature standards* for *transmission* equipment and apparatus as agreed with *AEMO* or, failing agreement, as determined by *AEMO*.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

- (b) A *Registered Participant* must use reasonable endeavours to ensure that its *representatives* comply with the *nomenclature standards* in any *operational communications* with *AEMO*.
- (c) A *Registered Participant* must ensure that nameplates on its equipment relevant to operations at any point within the *power system* conform to the requirements set out in the *nomenclature standards*.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

- (d) A *Registered Participant* must use reasonable endeavours to ensure that nameplates on its equipment relevant to operations at any point within the *power system* are maintained to ensure easy and accurate identification of equipment.
- (e) A *Registered Participant* must ensure that technical drawings and documentation provided to *AEMO* comply with the *nomenclature standards*.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

- (f) *AEMO* may, by notice in writing, request a *Registered Participant* to change the existing numbering or nomenclature of *transmission* equipment and apparatus of the *Registered Participant* for purposes of uniformity, and the *Registered Participant* must comply with such a request provided that if the existing numbering or nomenclature conforms with the *nomenclature standards*, *AEMO* must pay all reasonable costs incurred in complying with the request.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

4.13 [Deleted]**4.14 Acceptance of Performance Standards**

- (a) [Deleted]
- (b) [Deleted]
- (c) [Deleted]
- (d) [Deleted]
- (e) [Deleted]
- (f) [Deleted]
- (g) [Deleted]
- (h) [Deleted]
- (i) [Deleted]
- (j) [Deleted]
- (k) [Deleted]
- (l) [Deleted]
- (m) [Deleted]

(ma) This rule 4.14 applies to an *Embedded Network Service Provider* as if a reference to a *Network Service Provider* were a reference to an *Embedded Network Service Provider*.

- (n) AEMO must establish and maintain a register of the *performance standards* applicable to *plant* as advised by *Registered Participants* in accordance with clause 5.3.7(g)(1), clause 5.3.9(h), clause 5.3C(i), clause 5.3C(j) or established in accordance with rule 4.14.
- (n1) By 1 July each year, AEMO must provide to the AER an up-to-date copy of the register of *performance standards* required to be maintained under clause 4.14(n), including a copy of the corresponding *performance standards*.
- (n2) The AER may, at any time, request AEMO to provide:
 - (1) an up-to-date copy of the register of *performance standards* (current as at the date of the AER's request) including a copy of the corresponding *performance standards*; or
 - (2) a copy of the *performance standards* relating to specified *plant*,

if, in the reasonable opinion of the *AER*, it is required for the performance or exercise of the *AER's* functions.

- (n3) Following a request under subparagraph (n2), *AEMO* must provide the information requested within:
- (1) 10 *business days* for a request under subparagraph (n2)(1); and
 - (2) 5 *business days* for a request under subparagraph (n2)(2),
- unless the *AER* agrees otherwise.
- (o) *AEMO* or, in respect of a matter concerning the quality of *supply* to *Network Users*, *AEMO* in consultation with the relevant *Network Service Provider*, must, when determining the applicable *performance standard* for a particular requirement based on any provision of schedules 5.1, 5.2, 5.3 and 5.3a, require a *Registered Participant* to meet or exceed the *minimum access standard* but must not require the *Registered Participant* to exceed the relevant *automatic access standard* for that requirement.
- (p) A *performance standard* may be amended at any time by agreement between *AEMO*, the relevant *Registered Participant* and the *Network Service Provider* if:
- (1) where the *performance standard* was established under a transitional arrangement in rule 4.16 or 4.17, the amendment is consistent with the actual *plant* capability agreed between *AEMO*, the relevant *Registered Participant* and the *Network Service Provider*, even if it is less than the relevant *minimum access standard* that applied to *applications to connect* at the time of agreement; or
 - (2) the amendment satisfies all requirements for *negotiated access standards* under clause 5.3.4A(b); or
 - (3) the amendment satisfies all requirements to be an *automatic access standard*.
- (q) *AEMO* must not withhold agreement under rule 4.14(p) on a matter that is not an *AEMO advisory matter* under clause 5.3.4A(a), unless the proposed amendment would adversely affect *power system security*.
- (r) The *Network Service Provider* may as a condition of considering an amendment proposed under rule 4.14(p) require payment of a fee to meet the reasonable costs anticipated to be incurred by the *Network Service Provider*, other *Network Service Providers* and *AEMO*, in the assessment of the proposed amendment.
- (s) The *Network Service Provider* must require payment of a fee under rule 4.14(r) if so requested by *AEMO*.

- (t) On payment of the required fee referred to in rule 4.14(r), the *Network Service Provider* must pay the costs anticipated to be incurred by the other *Network Service Providers* and *AEMO*, as appropriate.

4.15 Compliance with Performance Standards

- (a) A *Registered Participant* must:
- (1) ensure that its *plant* meets or exceeds the *performance standard* applicable to its *plant*; and
 - (2) ensure that its *plant* is not likely to cause a material adverse effect on *power system security* through its failure to comply with a *performance standard*; and
 - (3) immediately ensure that its *plant* ceases to be likely to cause a material adverse effect on *power system security* through its failure to comply with a *performance standard*, if:
 - (i) the *Registered Participant* reasonably believes that by failing to comply with a *performance standard*, its *plant* is likely to cause a material adverse effect on *power system security*; or
 - (ii) *AEMO* advises the *Registered Participant* that by failing to comply with a *performance standard*, the *Registered Participant's plant* is likely to cause a material adverse effect on *power system security*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Registered Participant* who engages in the activity of planning, owning, controlling or operating a *plant* to which a *performance standard* applies must institute and maintain a compliance program which complies with rule 4.15(c). The compliance program must be instituted, as soon as reasonably practicable, but no later than:
- (1) 6 months after the day that *AEMO* gives notice to the *Registered Participant* of registration of the *performance standard* under rule 4.14(n); or
 - (2) 6 months after the day on which the *plant* commences operation.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) A compliance program instituted and maintained under rule 4.15(b) must:

- (1) be consistent with the *template for generator compliance programs*; and
 - (2) include procedures to monitor the performance of the *plant* in a manner that is consistent with *good electricity industry practice*; and
 - (3) be modified to be consistent with any amendments made under clause 8.8.3(ba) to the *template for generator compliance programs*, by no later than 6 months after amendments to the *template for generator compliance programs* are published or by a date determined by the *Reliability Panel*; and
 - (4) provide reasonable assurance of ongoing compliance with each applicable *performance standard*.
- (ca) The *template for generator compliance programs* must:
- (1) cover all *performance standards*; and
 - (2) define suitable testing and monitoring regimes for each *performance standard* so that a *Registered Participant* can select a regime that complies with the obligations set out in rules 4.15(a), 4.15(b) and 4.15(c) for their particular *plant*.
- (d) The *AER* may request that a *Registered Participant*, who is required to institute and maintain a compliance program in accordance with rule 4.15(b) or clause 5.7.4(a1), deliver to the *AER*:
- (1) the compliance program records setting out the written results of the performance monitoring conducted in accordance with rule 4.15(f) or clause 5.7.4(a2)(1); and
 - (2) any other records maintained in accordance with clause 5.7.3 or clause 5.7.4, if applicable.
- (e) Each *Registered Participant* must maintain the compliance program records and any other records developed or maintained under clause 5.7.3 or clause 5.7.4 for 7 years and deliver such records to the *AER*, in accordance with rule 4.15(d), within 5 *business days* of the date of the request or such further period as the *AER* requires.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) A *Registered Participant* who engages in the activity of planning, owning, controlling or operating a *plant* to which a *performance standard* applies must immediately notify *AEMO* if:
- (1) the *Registered Participant* becomes aware that the *plant* is breaching a *performance standard* applicable to the *plant*; or

- (2) the *Registered Participant* reasonably believes that the *plant* is likely to breach a *performance standard* applicable to the *plant*,

and AEMO must forward a copy of that notice to the AER and the relevant *Network Service Provider* or *Embedded Network Service Provider* and where the *plant* is connected to an *embedded network*, the *Network Service Provider* for the *parent connection point* no later than 5 *business days* from the day on which AEMO received the notice.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) A notice in accordance with rule 4.15(f) must detail:
- (1) the reason for the actual or likely non-conformance of the *plant* with the *performance standard*;
 - (2) the actual or likely time of commencement of non-conformance of the *plant* with the *performance standard*;
 - (3) the expected duration of non-conformance of the *plant* with the *performance standard*; and
 - (4) the expected performance of the *plant* in comparison with the *performance standard*.
- (h) A *Registered Participant* who has notified AEMO in accordance with rule 4.15(f), must notify AEMO and the relevant *Network Service Provider* or *Embedded Network Service Provider* and where the *plant* is connected to an *embedded network*, the *Network Service Provider* for the *parent connection point* that its *plant* has returned to compliance with the *performance standard* immediately following the *Registered Participant* becoming aware of the return of the *plant* to compliance with the *performance standard*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) If:
- (1) a *Registered Participant* notifies AEMO in accordance with rule 4.15(f); or
 - (2) AEMO otherwise reasonably believes that the *plant* of a *Registered Participant*, in respect of which a *performance standard* applies, is in breach of that *performance standard*,

then:

- (3) *AEMO* must, in accordance with rule 4.15(j), notify the *Registered Participant* and the relevant *Network Service Provider* or Embedded Network Service Provider and where the plant is connected to an embedded network, the *Network Service Provider* for the parent connection point of its determination on the period within which the *Registered Participant* must rectify the breach; and
- (4) *AEMO* must notify the *AER* of a breach notified in accordance with rule 4.15(i)(1) or of its reasonable belief of a breach in accordance with rule 4.15(i)(2), as the case may be; and
- (5) the *Registered Participant* must rectify the breach within that period, unless the *Registered Participant* seeks a review from the *AER* of the rectification period under rule 4.15(n).
- (j) *AEMO* must, when determining the period within which a *Registered Participant* is required to rectify a *performance standard* breach in accordance with rule 4.15(i), take into consideration:
 - (1) the time that *AEMO*, in its reasonable opinion, considers necessary to provide the *Registered Participant* with the opportunity to remedy the breach; and
 - (2) the impact on the operation of the *NEM*, including on the *power system* and the *spot market*, resulting from the breach; and
 - (3) any actions required by *AEMO* in response to the breach.
- (k) **[Deleted]**
- (l) **[Deleted]**
- (m) **[Deleted]**
- (n) If *AEMO* notifies a *Registered Participant* of a rectification period under rule 4.15(i) and that *Registered Participant* considers that *AEMO* has not reasonably applied the criteria under rule 4.15(j) with respect to the rectification period, the *Registered Participant* may, no later than 20 *business days* from the day of receiving *AEMO*'s notification on the rectification period, make an application to the *AER* requesting a review of *AEMO*'s notification and the *Registered Participant*'s reasons for a review.
- (o) If the *AER* receives an application under rule 4.15(n), the *AER* must review the application, no later than 30 *business days* from receiving the application, and either:
 - (1) accept the rectification period determined by *AEMO*; or
 - (2) determine the rectification period on the *Registered Participant*,
 and provide reasons in writing for its determination to the *Registered Participant*, *AEMO* and the relevant *Network Service Provider* or Embedded

Network Service Provider and where the plant is connected to an embedded network, the Network Service Provider for the parent connection point.

- (p) The *Registered Participant* must comply with any determination on the rectification period made under rule 4.15(o) from the day of receiving the *AER's* determination.
- (q) If the *plant* of a *Registered Participant* remains operating in a manner that is in breach of a *performance standard* for a period greater than that determined in accordance with rule 4.15(i) or 4.15(o), *AEMO* must notify the *AER* and the relevant *Network Service Provider* *or Embedded Network Service Provider and where the plant is connected to an embedded network, the Network Service Provider for the parent connection point.*

4.16 Transitioning arrangements for establishment of performance standards

4.16.1 Definitions

In this rule 4.16 and in rule 4.17:

actual capability of an eligible plant in respect of a performance requirement means the capability of the eligible plant in relation to that performance requirement when it is being operated under normal conditions in accordance with *good electricity industry practice*.

agreed performance standard means a standard of performance that:

- (a) is established as a result of that standard being accepted by *NEMMCO* in accordance with:
 - (1) the Old rule 4.14(d)(1); or
 - (2) clause 4.14(d)(1) of the National Electricity Code; and
- (b) is in respect of a performance requirement.

Amending Rule means the National Electricity Amendment (Performance Standards Compliance of Generators) Rule 2008.

deemed performance standard means a standard of performance that:

- (a) is deemed to apply in accordance with:
 - (1) the Old rule 4.14(h); or
 - (2) clause 4.14(h) of the National Electricity Code; and
- (b) is in respect of a performance requirement.

eligible plant means a *generating unit* (including a pumping generating unit) and *plant* associated with that *generating unit* in relation to which:

- (a) a person was registered as a *Generator* as at the *performance standards commencement date*; or
- (b) a *connection agreement* applied as at the *performance standards commencement date*.

Generator notice means a notice given by a *Generator* to *NEMMCO* in accordance with clause 4.16.3(c).

Generator reply notice means a notice given by a *Generator* to *NEMMCO* in accordance with clause 4.16.3(k).

initiating party has the meaning given to it in clause 4.17.2(a).

mandatory standard means a standard of performance in respect of a performance requirement that is not the subject of a *minimum access standard* or an *automatic access standard*.

National Electricity Code means the code of conduct called the National Electricity Code approved, in accordance with section 6(1) of the Old National Electricity Law, as the initial Code for the purposes of that Law, and as amended from time to time in accordance with its terms and the Old National Electricity Law.

NEMMCO notice means a notice given by *NEMMCO* to a *Generator* in accordance with clause 4.16.3(d).

NEMMCO reply notice means a notice given by *NEMMCO* to a *Generator* in accordance with clause 4.16.3(i).

Old National Electricity Law means the Schedule to the National Electricity (South Australia) Act 1996 (SA) as in force from time to time before the commencement of section 12 of the National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005 (SA).

Old rule 4.14(d)(1) means the rule 4.14(d)(1) in the version of the *Rules* which was in force immediately prior to the commencement of the Amending Rule.

Old rule 4.14(h) means the rule 4.14(h) in the version of the *Rules* which was in force immediately prior to the commencement of the Amending Rule.

performance requirement means in the case of:

- (a) any *generating unit* (including a pumping generating unit) and *plant* associated with that *generating unit* – a requirement referred to in clause S5.2.5, S5.2.6, S5.2.8 or S5.2.9; and
- (b) a pumping generating unit and *plant* associated with that pumping generating unit – a requirement referred to in clause S5.3.3, S5.3.5, S5.3.6, S5.3.7 or S5.3.8.

performance standard requirements means the requirements set out in clause 4.16.5(c).

performance standards committee means the committee established by *NEMMCO* under clauses 4.17.1.

performance standards expert means a person engaged by *NEMMCO* under clause 4.17.1(j).

pumping generating unit means a *generating unit* that can also operate as a hydro-electric pump.

receiving party has the meaning given to it in clause 4.17.2(a).

register means the register of *performance standards* established and maintained by *NEMMCO* under rule 4.14(n).

registered performance standard in respect of an eligible plant means a *performance standard* (including any agreed performance standard or deemed performance standard) that is included in the register as being applicable to that eligible plant and that is in respect of a performance requirement.

4.16.2 Exclusions

For the avoidance of doubt:

- (a) this rule 4.16 does not apply in relation to any *performance standard* for an eligible plant where that *performance standard* applies to that eligible plant by virtue of clause 5.3.4A; and
- (b) nothing in this rule 4.16 is to be taken to preclude a *performance standard* that applies to an eligible plant by virtue of those clauses being amended or replaced in accordance with the *Rules*, in which case the *performance standard* as so amended or replaced supersedes the *performance standard* that applies to that eligible plant by virtue of this rule 4.16 or rule 4.17 (as the case may be).

4.16.3 Notification and acceptance of performance standards

Agreement as to performance standards

- (a) *NEMMCO* and a person who is registered as a *Generator* in relation to eligible plant may, at any time before 1 March 2007, agree to a performance standard in respect of a particular performance requirement that is to apply to that eligible plant without following the procedures set out in this clause 4.16.3, but that performance standard must be a standard which, based on the information available to *NEMMCO* at that time, is consistent with the performance standard requirements.
- (b) A performance standard that is agreed under paragraph (a) is to be taken as the *performance standard* in respect of the relevant performance requirement for that eligible plant and *NEMMCO* must forthwith include

that standard in the register as the *performance standard* in respect of that performance requirement for that eligible plant.

(c) If, as at 1 March 2007:

- (1) *NEMMCO* is not required to include the performance standard in the register under paragraph (b); and
- (2) *NEMMCO* and the *Generator* have not agreed that no performance standard in respect of the relevant performance requirement is to apply to that eligible plant,

NEMMCO must give a written notice to the *Generator* of its intention to refer the determination of the performance standard to a performance standards expert.

NEMMCO notice

(d) As soon as reasonably practicable but by no later than 29 December 2006, *NEMMCO* must give to each person who is registered as a *Generator* in relation to any eligible plant a written notice that specifies:

- (1) the registered performance standards that apply to all eligible plants in relation to which that *Generator* is so registered;
- (2) which of those registered performance standards *NEMMCO* requires the *Generator* to renegotiate under clause 4.16.5(i) and in which case *NEMMCO* must also specify:

- (i) the *power system security* issue that *NEMMCO* is seeking to address; and
- (ii) the actual capability of the eligible plant in respect of the performance requirement the subject of the registered performance standard that *NEMMCO* considers is required to address that *power system security* issue; and

(3) where:

- (i) a *performance standard* in respect of a particular performance requirement is not included in the register as being applicable to an eligible plant in relation to which that *Generator* is registered; and
- (ii) *NEMMCO* considers that a performance standard in respect of that performance requirement should apply to that eligible plant,

that performance requirement.

Generator notice

(e) As soon as reasonably practicable but by no later than 5 January 2007, each person who is registered as a *Generator* in relation to any eligible plant must give to *NEMMCO* a written notice that specifies:

- (1) each deemed performance standard in respect of a performance requirement which the *Generator* proposes as being applicable to any of its eligible plants, where that performance requirement is not the subject of a registered performance standard that applies to that eligible plant;
- (2) those registered performance standards that apply to any of its eligible plant which the *Generator* requires *NEMMCO* to renegotiate under clause 4.16.5(k) – in which case the *Generator* must also specify:
 - (i) its best assessment of the actual capability of the eligible plant in respect of the performance requirement the subject of the registered performance standard; and
 - (ii) the lower performance standard that it is proposing in respect of that performance requirement,

and must include with its notice information that supports its assessment of the actual capability of that eligible plant;

- (3) where *NEMMCO* has given the *Generator* a *NEMMCO* notice that specifies the actual capability of an eligible plant in respect of a performance requirement that *NEMMCO* considers is required to address a power system security issue, the *Generator's* best assessment of the actual capability of that eligible plant in respect of that performance requirement - in which case the *Generator* must also include with its notice information that supports its assessment of that actual capability; and

- (4) where:

- (i) *NEMMCO* has given the *Generator* a *NEMMCO* notice that specifies a performance requirement under subparagraph (d)(3); and
- (ii) the *Generator* has not included in its notice a deemed performance standard in respect of that performance requirement that it considers applies to the eligible plant,

the performance standard (if any) that the *Generator* proposes in respect of that performance requirement.

(f) If:

- (1) the *Generator* does not state in a *Generator* notice that it requires a registered performance standard that applies to an eligible plant to be

renegotiated under clause 4.16.5(k), and *NEMMCO* has not specified that standard in a *NEMMCO* notice as a registered performance standard that is to be renegotiated under clause 4.16.5(i), that registered performance standard is to be taken as the *performance standard* in respect of the relevant performance requirement for that eligible plant; or

- (2) the required actual capability of an eligible plant in respect of a performance requirement, as notified to the *Generator* under subparagraph (d)(2), is lower than or equal to the *Generator's* best assessment of the actual capability of that eligible plant in respect of that performance requirement,

then:

- (3) the required actual capability of the eligible plant in respect of that performance requirement, as notified to the *Generator* under subparagraph (d)(2), is to be taken as the *performance standard* in respect of that performance requirement for that eligible plant; and
- (4) *NEMMCO* must forthwith include that standard in the register as the *performance standard* in respect of that performance requirement for that eligible plant.

Provision of connection agreements

(g) Where:

- (1) *NEMMCO* has given the *Generator* a *NEMMCO* notice that specifies the actual capability of an eligible plant in respect of a performance requirement that *NEMMCO* considers is required to address a *power system security* issue and the *performance standard* in respect of that performance requirement is not determined under subparagraphs (f)(2)-(4);
- (2) *NEMMCO* has given the *Generator* a *NEMMCO* notice that specifies a performance requirement under subparagraph (d)(3); or
- (3) a *Generator* gives *NEMMCO* a *Generator* notice that specifies a deemed performance standard under subparagraph (e)(1) or a registered performance standard under subparagraph (e)(2),

and

- (4) the *Generator* has not already provided to *NEMMCO* a copy of the current *connection agreement* that applies to the relevant eligible plant,

then the *Generator* must include with its *Generator* notice or if it does not give *NEMMCO* a *Generator* notice, provide to *NEMMCO* by no later than 5 January 2007, a copy of the current *connection agreement* that applies to the eligible plant.

- (h) The copy of the *connection agreement* referred to in paragraph (g) may be altered in such a way as to mask any commercial arrangements and is *confidential information*.

NEMMCO reply notice

- (i) As soon as reasonably practicable but by no later than the performance standards agreement date, *NEMMCO* must give to each person who is registered as a *Generator* in relation to any eligible plant a written notice that states:
- (1) where the *Generator* has given *NEMMCO* a *Generator* notice that specifies a deemed performance standard under subparagraph (e)(1), whether *NEMMCO* accepts the deemed performance standard as proposed by the *Generator*;
 - (2) where the *Generator* has given *NEMMCO* a *Generator* notice that specifies a proposed lower performance standard under subparagraph (e)(2), whether *NEMMCO* accepts:
 - (i) the *Generator's* assessment of the actual capability of the eligible plant in respect of the performance requirement the subject of the registered performance standard; and/or
 - (ii) the lower performance standard that has been proposed by the *Generator*;
 - (3) where:
 - (i) the *Generator* has given *NEMMCO* a *Generator* notice that, under subparagraph (e)(3), specifies the *Generator's* best assessment of the actual capability of the eligible plant in respect of a performance requirement; and
 - (ii) the required actual capability of the eligible plant in respect of that performance requirement, as notified to the *Generator* under subparagraph (d)(2), is higher than the *Generator's* assessment of the actual capability referred to in paragraph (l),

whether *NEMMCO* accepts the *Generator's* assessment;
 - (4) where the *Generator* has given *NEMMCO* a *Generator* notice that specifies a proposed performance standard under subparagraph (e)(4), whether *NEMMCO* accepts that performance standard; and
 - (5) where *NEMMCO* has given to the *Generator* a *NEMMCO* notice that specifies a performance requirement under subparagraph (d)(3) and the *Generator* has either:
 - (i) not proposed a performance standard under subparagraph (e)(4); or

(ii) not given a *Generator* notice to *NEMMCO*,

the performance standard (if any) that *NEMMCO* proposes for that purpose.

(j) If *NEMMCO* states in a *NEMMCO* reply notice that:

- (1) it accepts a standard referred to in subparagraph (i)(1), (2) or (4), that standard is to be taken as the *performance standard* in respect of the relevant performance requirement for the eligible plant and *NEMMCO* must forthwith include that standard in the register as the *performance standard* in respect of that performance requirement for that eligible plant; or
- (2) it accepts the *Generator's* assessment of the actual capability of an eligible plant in respect of a performance requirement as included in a *Generator* notice under subparagraph (e)(3),

and the *Generator's* assessment of that actual capability is lower than the required actual capability of the eligible plant in respect of that performance requirement as notified to the *Generator* under subparagraph (d)(2), then:

- (3) the *Generator's* assessment of the actual capability of that eligible plant as referred to above is to be taken as the *performance standard* in respect of that performance requirement for that eligible plant; and
- (4) *NEMMCO* must forthwith include that standard in the register as the *performance standard* in respect of that performance requirement for that eligible plant.

Generator reply notice

- (k) Where *NEMMCO* has given a *Generator* a *NEMMCO* reply notice that specifies a proposed performance standard under subparagraph (i)(5), that *Generator* must, as soon as reasonably practicable but by no later than 15 January 2007, give written notice to *NEMMCO* which states whether it accepts that performance standard.
- (l) If the *Generator* states in a *Generator* reply notice that it accepts a standard referred to in paragraph (k), that standard is to be taken as the *performance standard* in respect of the relevant performance requirement for the eligible plant and *NEMMCO* must forthwith include that standard in the register as the performance standard in respect of that performance requirement for that eligible plant.

4.16.4 Actual capability

- (a) If *NEMMCO* notifies a *Generator* in a *NEMMCO* reply notice that it does not accept that the *Generator's* assessment of the actual capability of an eligible plant in respect of a particular performance requirement, then:

- (1) the *Generator* and *NEMMCO* must seek to agree the actual capability of that eligible plant in respect of that performance requirement, taking into account (among other things) the results of relevant tests, the records of the operation of the plant, engineering reports, information provided by *Network Service Providers*, manufacturers' reports and the specifications of the plant or of similar plant; and
- (2) if, within 20 *business days* of the giving of the *NEMMCO* reply notice, the *Generator* and *NEMMCO* have not agreed the actual capability of that eligible plant in respect of that performance requirement:
 - (i) they must seek to agree to the tests or engineering assessments that are to be undertaken for the purpose of establishing that actual capability and the time by which such tests or engineering assessments are to be completed; and
 - (ii) if, within 30 *business days* of the giving of the *NEMMCO* reply notice, they have not agreed to the tests or engineering assessments that are to be undertaken, or the time by which they are to be undertaken, the tests or engineering assessments, and the time by which they are to be undertaken, must be as specified by the *AER* in writing to the *Generator* and *NEMMCO*, such specification to be made at the written request of either the *Generator* or *NEMMCO* within 40 *business days* of the giving of the *NEMMCO* reply notice.
- (b) The *Generator* must use all reasonable endeavours, subject to complying with any other applicable provisions of the *Rules*, to have the tests or engineering assessments agreed or specified under subparagraph (a)(2) undertaken as agreed or specified and must promptly provide the results of such tests or engineering assessments to *NEMMCO*.
- (c) The costs of undertaking the tests or engineering assessments and providing the results to *NEMMCO* as referred to in paragraph (b) must be borne by the *Generator*.
- (d) This clause 4.16.4 does not apply where both the *Generator* and *NEMMCO* agree that there is no need to determine the actual capability of the eligible plant in respect of a particular performance requirement.

4.16.5 Criteria for, and negotiation of, performance standards

Restrictions on NEMMCO regarding performance standards

- (a) *NEMMCO*:
 - (1) must, and must only, accept a deemed performance standard or a proposed performance standard under clause 4.16.3(i)(1), (2) or (4) if it is satisfied that, based on the information available to *NEMMCO* at

that time, the standard is consistent with the performance standard requirements;

- (2) must not propose a performance standard under clause 4.16.3(i)(5) unless it is satisfied that, based on the information available to *NEMMCO* at that time, the standard is consistent with the performance standard requirements,

and may only agree to a performance standard under clause 4.16.3(a)-(c) or as described in clause 4.17.3(f) if it is satisfied that, based on the information available to *NEMMCO* at that time, the standard is consistent with the performance standard requirements.

Preconditions to obligation to negotiate

(b) If:

- (1) *NEMMCO* does not state in a *NEMMCO* reply notice that it accepts a *Generator's* assessment of the actual capability of an eligible plant in respect of a performance requirement, as referred to in clause 4.16.3(i)(3), and the *Generator* is required to renegotiate the relevant registered performance standard pursuant to paragraph (i);
- (2) *NEMMCO* does not state in a *NEMMCO* reply notice that it accepts a performance standard proposed by a *Generator*, as referred to in clause 4.16.3(i)(2), and *NEMMCO* is required to renegotiate the relevant registered performance standard pursuant to paragraph (k);
- (3) *NEMMCO* does not state in a *NEMMCO* reply notice that it accepts a deemed performance standard or a proposed performance standard, as referred to in clause 4.16.3(i)(1) or (4); or
- (4) a *Generator* does not state in a *Generator* reply notice that it accepts a proposed performance standard, as referred to in clause 4.16.3(k),

NEMMCO and the *Generator* must negotiate in good faith to agree the relevant performance standard in accordance with the performance standard requirements.

Criteria for performance standards

- (c) Subject to paragraphs (e) and (f), a performance standard referred to in paragraph (a) or negotiated in accordance with paragraph (b) must be the least onerous of:
 - (1) in the case of a performance standard other than a performance standard referred to in subparagraph (b)(1), the technical characteristics set out in the relevant connection agreement, subject to the technical characteristics set out in any applicable derogation;
 - (2) the relevant *automatic access standard*;

- (3) the relevant mandatory standard; and
 - (4) the actual capability of the eligible plant in respect of the performance requirement the subject of the performance standard as accepted by *NEMMCO* in a *NEMMCO* reply notice, agreed by *NEMMCO* and the *Generator*, established in accordance with tests or engineering assessments agreed or specified under clause 4.16.4(a)(2), or determined by a performance standards expert.
- (d) As a result of the application of paragraph (c), and notwithstanding anything else to the contrary in the *Rules*, the relevant performance standard may be less than the relevant *minimum access standard* or mandatory standard.
- (e) The performance standard may be such other standard of performance as is agreed by *NEMMCO* and the *Generator* and as is higher than that which complies with the requirements set out in paragraphs (c) and (d).
- (f) *NEMMCO* and the *Generator* may agree that a performance requirement is not applicable to an eligible plant, with the result that no *performance standard* in respect of that performance requirement is required for that eligible plant.

Provision of information

- (g) For the purpose of facilitating the negotiations referred to in paragraph (b), the *Generator* must provide to *NEMMCO* as soon as reasonably practicable but by no later than 22 January 2007, a copy of the current *connection agreement* that applies to the relevant eligible plant and details of the design performance of the eligible plant.
- (h) The obligation in paragraph (g) does not apply to the extent the *Generator* has already provided such documents and information to *NEMMCO* and the copy of the *connection agreement* may be altered in such a way as to mask any commercial arrangements and is *confidential information*.

When NEMMCO may require renegotiation of registered performance standard

- (i) *NEMMCO* may only require a *Generator* to renegotiate a registered performance standard pursuant to a *NEMMCO* notice if:
- (1) the registered performance standard is lower than what *NEMMCO* considers, based on the information available to it, to be the actual capability of the eligible plant in respect of the performance requirement the subject of the registered performance standard; and
 - (2) *NEMMCO* is satisfied that a higher performance standard in respect of that performance requirement is required to address a *power system security* issue.
- (j) Notwithstanding paragraph (i), a *Generator* is not required to (but may nevertheless agree to) renegotiate a registered performance standard

pursuant to that clause if the actual capability of that eligible plant in respect of the performance requirement as agreed by *NEMMCO* and the *Generator*, or as established in accordance with tests or engineering assessments agreed or specified under clause 4.16.4(a)(2), is lower than the registered performance standard.

When Generator may require renegotiation of performance standard

- (k) A *Generator* may only require *NEMMCO* to renegotiate a registered performance standard pursuant to a *Generator* notice if the registered performance standard is higher than the *Generator's* best assessment of the actual capability of the eligible plant in respect of the performance requirement the subject of the registered performance standard.
- (l) Notwithstanding paragraph (k), *NEMMCO* is not required to (but may nevertheless agree to) renegotiate a registered performance standard pursuant to that clause if the actual capability of that eligible plant in respect of the performance requirement as agreed by *NEMMCO* and the *Generator*, or as established in accordance with tests or engineering assessments agreed or specified under clause 4.16.4(a)(2), is higher than the registered performance standard.

Consequences of agreeing performance standard

- (m) If *NEMMCO* and a *Generator* agree a performance standard in respect of a performance requirement for any eligible plant under this clause 4.16.5, that performance standard is to be taken as the *performance standard* in respect of that performance requirement for the eligible plant and *NEMMCO* must forthwith include that standard in the register as the performance standard in respect of that performance requirement for that eligible plant.

4.16.6 Consultation with and assistance by Network Service Providers

- (a) Before *NEMMCO*:
 - (1) accepts or agrees to a performance standard under this rule 4.16 or as described in clause 4.17.3(d); or
 - (2) agrees that a performance requirement is not applicable to an eligible plant under clause 4.16.5(f),

NEMMCO must notify the *Network Service Provider* to whose network the relevant eligible plant is directly *connected* and give that *Network Service Provider* a reasonable opportunity to provide its views on that matter to *NEMMCO*.

- (b) As soon as reasonably practicable after including a performance standard for an eligible plant in the register under this rule 4.16 or rule 4.17, *NEMMCO* must give written notice of that performance standard to the *Network Service Provider* to whose *network* that eligible plant is directly *connected*.

- (c) If requested to do so by *NEMMCO* or a *Generator*, a *Network Service Provider* must use its reasonable endeavours to provide such assistance as is requested in connection with the proposal, negotiation, acceptance or agreement of a performance standard under this rule 4.16 or as described in clause 4.17.3(d).

4.16.7 Referral to expert determination

- (a) If:
 - (1) in accordance with clause 4.16.5(b), *NEMMCO* and a *Generator* are required to negotiate to agree a performance standard in respect of a particular performance requirement for an eligible plant;
 - (2) *NEMMCO* and the *Generator* have not agreed under clause 4.16.5(f) that such a performance requirement is not applicable to that eligible plant; and
 - (3) as at 29 January 2007, *NEMMCO* is not required under clause 4.16.5(m) to include in the register a performance standard for that eligible plant that is in respect of that performance requirement,

the *Generator* may give a written notice to *NEMMCO* (or *NEMMCO* may give a written notice to the *Generator*) of its intention to refer the determination of the performance standard in respect of the performance requirement to a performance standards expert.

- (b) If:
 - (1) in accordance with clause 4.16.5(b), *NEMMCO* and a *Generator* are required to negotiate to agree a performance standard in respect of a particular performance requirement for an eligible plant;
 - (2) *NEMMCO* and the *Generator* have not agreed under clause 4.16.5(f) that such a performance requirement is not applicable to that eligible plant; and
 - (3) as at 1 March 2007, *NEMMCO* is not required under clause 4.16.5(m) to include in the register a performance standard for that eligible plant that is in respect of that performance requirement,

NEMMCO must give a written notice to the *Generator* of its intention to refer the determination of the performance standard in respect of the performance requirement to a performance standards expert.

4.16.8 Prior actions

If the *AEMC*, the *AER*, *NEMMCO* or a *Registered Participant* takes any action to enable any entity to perform functions under, or obligations imposed by, this rule 4.16 or rule 4.17 before 7 December 2006 in anticipation of the relevant provision applying on the performance standards transition commencement date, and the action was taken so far as reasonably practicable in accordance with the provision

(as though the provision applied at the time the relevant action was taken), then the action is deemed to have been validly taken in accordance with that provision with effect on and from 7 December 2006.

4.16.9 Deemed performance standards

A deemed performance standard for any eligible plant:

- (a) that is in respect of a particular performance requirement; and
- (b) that is included in the register as at the performance standards transition commencement date,

is to be taken to be the performance standard in respect of that performance requirement for that eligible plant for the purposes of the *Rules* unless it is subsequently amended or replaced in accordance with the *Rules*.

4.16.10 Modification of connection agreements

- (a) Notwithstanding clause 5.2.2(c) and subject to paragraph (b), a *connection agreement* that applies to any eligible plant is to be taken to include:
 - (1) such *performance standards* for that eligible plant as are included in the register under this rule 4.16 or rule 4.17; and
 - (2) except to the extent they have been superseded by a *performance standard* referred to in subparagraph (1), such *performance standards* for that eligible plant as are included in the register as at the performance standards transition commencement date,

and those *performance standards* prevail over any other standards of performance that are included in that *connection agreement* to the extent of any inconsistency between them.

- (b) Clause 4.16.10(a) does not apply to the extent a *performance standard* that is taken to be included in a *connection agreement* under that clause is subsequently amended or replaced in accordance with the *Rules*.

4.17 Expert determination

4.17.1 Performance standards committee and appointment of performance standards experts

- (a) As soon as reasonably practicable but by no later than 10 January 2007, *NEMMCO* must establish a committee comprising six members (the **performance standards committee**).
- (b) The six members must consist of:
 - (1) two persons appointed to represent *NEMMCO*, one of whom is appointed as the chairperson of the committee;

- (2) two persons appointed to represent *Generators*; and
 - (3) two persons appointed to represent *Network Service Providers*.
- (c) A decision of the performance standards committee to nominate a person as a performance standards expert must be made:
 - (1) at a meeting of the performance standards committee; and
 - (2) by at least two thirds of the number of members who attend the meeting.
- (d) A quorum for a meeting of the performance standards committee consists of one member from each of the categories referred to in subparagraph (b)(1) to (3).
- (e) The chairperson of the performance standards committee:
 - (1) is responsible for all procedural matters; and
 - (2) without limiting subparagraph (1), may determine that a member or members may participate in, and form any part of the quorum for, a meeting of the performance standards committee by telephone, closed circuit television or other means, but only if the member who speaks on any matter at that meeting can be heard by the other members at that meeting.
- (f) If a member of the performance standards committee resigns or otherwise ceases to be able or available to perform the functions of a member for more than 2 consecutive meetings of the committee, *NEMMCO* must, as soon as reasonably practicable, appoint another person to replace that member.
- (g) As soon as reasonably practicable after it is established, the performance standards committee must nominate at least two persons as performance standards experts.
- (h) The performance standards committee must:
 - (1) from time to time nominate such number of persons as performance standards experts as is necessary to ensure that the number of performance standards experts at any time is no less than two; and
 - (2) at the request of *NEMMCO*, nominate such additional number of persons as performance standards experts as *NEMMCO* requires.
- (i) If the performance standards committee:
 - (1) fails to nominate at least two persons as performance standards experts within 30 *business days* of the committee being established; or
 - (2) where the number of performance standards experts is reduced to less than two – fails, within 30 *business days* of such reduction occurring,

to nominate such number of persons as performance standards experts as is necessary to restore the number of performance standards experts to two,

NEMMCO must request the *AER* in writing to nominate the requisite number of persons as performance standards experts and the *AER* must nominate that number of performance standards experts as soon as reasonably practicable.

- (j) *NEMMCO* must engage a performance standards expert nominated under this clause 4.17.1 for the purpose of performing the functions of a performance standards expert under this rule 4.17.
- (k) *NEMMCO* must notify the *AER* in writing of each performance standards expert that it engages under paragraph (j).
- (l) The performance standards committee will cease to exist one month after 1 June 2007.

4.17.2 Referral to performance standards expert

- (a) Where *NEMMCO* or a *Generator* gives a notice under clause 4.16.3(c) or clause 4.16.7 of its intention to refer the determination of a performance standard to a performance standards expert, the party giving the notice (the '**initiating party**') and the party to whom the notice is given (the '**receiving party**') must seek to agree on a performance standards expert to determine the performance standard.
- (b) If:
 - (1) 5 *business days* from the giving of the notice under clause 4.16.3(c) or clause 4.16.7 (as the case may be) have elapsed; and
 - (2) the initiating party and the receiving party have not agreed on a performance standards expert to determine the performance standard,then the initiating party or the receiving party may request the *AER* in writing to nominate a performance standards expert to determine the performance standard, in which case:
 - (3) the *AER* must make such nomination by notice in writing given to both the initiating party and the receiving party within 5 *business days* of the *AER* receiving the request to do so; and
 - (4) the nominated performance standards expert will determine the performance standard.
- (c) Within 5 *business days* of the selection of the performance standards expert who will determine the performance standard, or within such longer time as the performance standards expert may agree, the initiating party and the receiving party must each give to the performance standards expert a written

submission as to the performance standard they contend should be adopted and the reasons (together with supporting evidence) for that contention.

4.17.3 Determinations of performance standards experts

- (a) The initiating party, the receiving party and any *Network Service Provider* required to do so by the performance standards expert must promptly supply the performance standards expert with any information, assistance and cooperation requested in writing by the performance standards expert in connection with its determination of a performance standard.
- (b) The performance standards expert must determine the performance standard in accordance with the performance standard requirements. For these purposes the performance standards expert may, without limitation:
 - (1) determine the actual capability of the eligible plant in respect of the performance requirement the subject of the performance standard; or
 - (2) determine that a performance requirement is not applicable to the relevant eligible plant, with the result that no performance standard in respect of that performance requirement is required for that eligible plant.
- (c) The performance standards expert must, as soon as reasonably practicable but no later than 1 June 2007, determine the performance standard and provide *NEMMCO* and the *Generator* with its written determination (including reasons).
- (d) The performance standards expert must not determine a performance standard in respect of a performance requirement for an eligible plant if, prior to making that determination, *NEMMCO* and the *Generator* notify the expert in writing that they have agreed to the relevant performance standard.
- (e) A performance standard in respect of a particular performance requirement that is:
 - (1) agreed as described in paragraph (d); or
 - (2) determined by a performance standards expert,is to be taken as the performance standard in respect of that performance requirement for the relevant eligible plant and *NEMMCO* must forthwith include that standard in the register as the *performance standard* in respect of that performance requirement for that eligible plant.
- (f) Not later than 1 July 2007, a performance standards expert must provide a summary of each determination it makes under this rule 4.17 to *NEMMCO* and *NEMMCO* must *publish* that summary as soon as is reasonably practicable.
- (g) A summary under paragraph (f) must only include the following information:

- (1) the name of the relevant *Generator*;
- (2) the name or a description of the eligible plant; and
- (3) the performance requirement that is the subject of the performance standard that has been determined by the performance standards expert for that eligible plant.

4.17.4 Other matters

- (a) To the extent permitted by law, a performance standards expert is not liable for any loss, damage or liability suffered or incurred by a *Registered Participant* or any other person as a consequence of any act or omission of the performance standards expert that was done in good faith in connection with the determination of a performance standard.
- (b) Before proceeding to determine a performance standard, a performance standards expert may require the initiating party and the receiving party to execute a release and indemnity in relation to any loss, damage or liability that the performance standards expert might, but for the release and indemnity, suffer or incur as a consequence of any act or omission of the performance standards expert that was done in good faith in connection with the determination of the performance standard.
- (c) As part of its engagement by *NEMMCO*, a performance standards expert must enter into a confidentiality deed with *NEMMCO*, for the benefit of *NEMMCO* and each *Generator* in respect of which the performance standards expert determines a performance standard, under which it undertakes to keep confidential all information provided to it for the purposes of determining any performance standard except to the extent that the disclosure of such information is necessary for the purposes of the summary referred to in clause 4.17.3(f).
- (d) The costs of the performance standards expert must be borne equally as between *NEMMCO* and National Generators Forum Limited (ACN 113 331 623).

CHAPTER 5

5. Network Connection Access, Planning and Expansion

Part A Introduction

5.1 Introduction to Chapter 5

5.1.1 Structure of this Chapter

- (a) This Chapter deals with matters relating to *networks*.
- (b) It is divided into the following Parts:
 - (1) this Part is introductory;
 - (2) Part B provides a framework for *connection* and access to a *transmission network* or a *distribution network* and to the *national grid*;
 - (3) Part C addresses the *network* related issues following the negotiation of a *connection agreement* under Part B, namely the design of *connected* equipment, inspection and testing, commissioning and *disconnection* and reconnection; and
 - (4) Part D deals with the planning and expansion of *networks* and the *national grid*.

5.1.2 Overview of Part B and connection and access under the Rules

- (a) Rule 5.1A sets out the purpose, application and principles for Part B.
- (b) Rule 5.2 sets out the obligations of *Registered Participants* under Part B and other relevant Parts of this Chapter 5.
- (c) Rule 5.2A sets out obligations and principles relevant to *connection* and access to *transmission networks* and *large dedicated connection assets*. This includes the classification of certain services relating to assets relevant to *connection* as *prescribed transmission services*, *negotiated transmission services* and *non-regulated transmission services*. Rule 5.2A does not apply to the *declared transmission system* of an *adoptive jurisdiction*.
- (d) Rules 5.3, 5.3A and 5.3AA and Chapter 5A set out processes by which *Connection Applicants* can negotiate for connection and access to the *national grid* from a *Network Service Provider* [and rule 5.3C sets out provisions related to the connection to an embedded network](#). The process applicable will depend on the nature of the application. The table below sets out an overview of the relevant processes:

Connection Applicant	Process
A <i>Registered Participant</i> or a person intending to become a <i>Registered Participant</i> for a <i>generating plant connecting to a transmission network</i>	Rule 5.3 applies
A <i>Registered Participant</i> or a person intending to become a <i>Registered Participant</i> (or a person pursuant to clause 5.1A.1(c)) for a <i>load connecting to a transmission network</i>	Rule 5.3 applies
A <i>load connecting to a distribution network</i> where the <i>Connection Applicant</i> is a <i>Registered Participant</i> or a person intending to become a <i>Registered Participant</i> (and is not acting as the agent of a <i>retail customer</i>)	Rule 5.3 applies
A <i>distribution network</i> (including an <i>embedded network</i>) <i>connecting to another distribution network</i> or to a <i>transmission network</i> where the <i>Connection Applicant</i> is a <i>Registered Participant</i> , intending to become a <i>Registered Participant</i> or will obtain an exemption from registration	Rule 5.3 applies
A <i>Market Network Service Provider</i> or person intending to register as one seeking <i>connection to a distribution network</i> or a <i>transmission network</i>	Rule 5.3 applies
An <i>embedded generating unit connecting to a distribution network (other than an embedded network)</i> where the <i>Connection Applicant</i> is a <i>Registered Participant</i> or a person intending to become a <i>Registered Participant</i>	Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)
<u>An embedded generating unit or load connecting to an embedded network where the Connection Applicant is a Registered Participant or a person intending to become a Registered Participant.</u>	<u>Rule 5.3C and clauses 5.3.4A and 5.3.4B apply</u>

Connection Applicant	Process
A non-registered embedded generator who makes an election for rule 5.3A to apply instead of Chapter 5A (where such an election is provided for in Chapter 5A)	Rules 5.3 and 5.3A apply (see clause 5.3.1A for the interaction between the two rules)
A <i>Generator</i> wishing to alter a <i>connected generating plant</i> in the circumstances set out in clause 5.3.9	Clause 5.3.9 applies
A <i>Connection Applicant</i> for <i>prescribed transmission services</i> or <i>negotiated transmission services</i> that do not require the establishment or modification of a <i>connection</i> or alteration of a <i>connected generating plant</i> in the circumstances set out in clause 5.3.9	Rule 5.3 applies as modified by clause 5.2A.3(c)
An <i>Embedded Generator</i> or <i>Market Network Service Provider</i> applying for <i>distribution network user access</i> (other than where the embedded generating unit is connecting to an embedded network)	Rule 5.3 or 5.3A (as applicable) and rule 5.3AA apply
A <i>load</i> or <i>generating plant</i> connecting to a <i>declared shared network</i>	Rule 5.3 as modified by clause 5.1A.1(d) to (g) and rule 5.3B apply
<p>A <i>load</i> connecting to a <i>distribution network</i> (including an embedded network) where the <i>Connection Applicant</i> is not a <i>Registered Participant</i> and is not intending to become a <i>Registered Participant</i> (unless it is acting as the agent of a <i>retail customer</i>)</p> <p>A non-registered embedded generator who does not make an election for Rule 5.3A to apply instead of Chapter 5A or who is seeking to connect to an embedded network</p>	Chapter 5A applies
A <i>retail customer</i> (or a <i>retailer</i> on behalf of that customer) <i>connecting a</i>	Chapter 5A applies

Connection Applicant	Process
micro embedded generator to a distribution network (including an embedded network)	

- (e) In addition to the rules referred to in paragraph (d), in relation to *connection* and access to a *distribution network* [\(other than the embedded network of an Embedded Network Service Provider\)](#):
- (1) a *Distribution Network Service Provider* must comply with its *negotiating framework* and *Negotiated Distribution Service Criteria* when *negotiating the terms and conditions of access to negotiated distribution services*;
 - (2) disputes relating to the *terms and conditions of access* to a *direct control service* or to a *negotiated distribution service*, *access charges* or matters referred to in clause 5.3AA(f) (*negotiated use of system charges*) or 5.3AA(h) (*avoided charges for the locational component of prescribed TUOS services*) may be referred to the AER in accordance with Part L of Chapter 6;
 - (3) Part G of Chapter 5A provides for dispute resolution by the AER for certain disputes under Chapter 5A; and
 - (4) other disputes relating to *connection* and access may be subject to dispute resolution under rule 8.2.
- (f) In addition to the rules referred to in paragraph (d), in relation to *connection* and access to a *transmission network*:
- (1) schedule 5.11 sets out the negotiating principles which apply to negotiations between a *Transmission Network Service Provider* and a *Connection Applicant* for *negotiated transmission services*;
 - (2) rule 5.4 provides a framework for *Connection Applicants* and *Transmission Network Service Providers* to appoint an *Independent Engineer* to provide advice on certain technical matters; and
 - (3) rule 5.5 provides for commercial arbitration of disputes between a *Transmission Network Service Provider* and a *Connection Applicant* as to *terms and conditions of access* for the provision of *prescribed transmission services* or for the provision of *negotiated transmission services*.
- (g) Part B also provides for a *Dedicated Connection Asset Service Provider* to have an *access policy* for a *large dedicated connection asset* and for *commercial arbitration* under rule 5.5 to apply to a *large DCA services access dispute*.

Part B Network Connection and Access**5.1A Introduction to Part B****5.1A.1 Purpose and Application**

- (a) This Part B:
 - (1) **[Deleted]**
 - (2) has the following aims:
 - (i) to detail the principles and guidelines governing *connection* and access to a *network*;
 - (ii) to establish the process to be followed by a *Registered Participant* or a person intending to become a *Registered Participant* for establishing or modifying a *connection* to a *network* or for altering *generating plant connected to a network*;
 - (iii) to address a *Connection Applicant's* reasonable expectations of the level and standard of *power transfer capability* that the relevant *network* should provide; and
 - (iv) to establish processes to ensure ongoing compliance with the technical requirements of this Part B to facilitate management of the *national grid*.
- (b) **[Deleted]**.
- (c) If a person who is not a *Registered Participant* or a person intending to become a *Registered Participant* requests *connection* of a *load* to a *transmission network* and agrees to comply with this Part B as if that person was a *Registered Participant*, the relevant *Transmission Network Service Provider* must comply with this Part B as if that person was a *Registered Participant*.
- (d) Subject to paragraphs (e) and (g), the following *Rules* apply in the application of this Part B to *transmission services* provided by means of, or in connection with, the *declared transmission system* of an *adoptive jurisdiction*:
 - (1) a reference to a *Network Service Provider* is, in relation to the provision of *connection services*, to be read as a reference to a *declared transmission system operator*; and
 - (2) a reference to a *Network Service Provider* is, in relation to the provision of *shared transmission services*, to be read as a reference to *AEMO*.

- (e) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to *AEMO*:
- (1) clause 5.2.3(b);
 - (2) clause 5.2.6;
 - (3) clause 5.3A.12;
 - (4) clause 5.7.6;
 - (5) clause 5.7.7 (except clause 5.7.7(c));
 - (6) rule 5.11;
 - (7) clause 5.12.1;
 - (8) clause 5.12.2 (except clause 5.12.2(c)(2));
 - (9) clause 5.14.1;
 - (10) schedule 5.1, clause S5.1.2.3;
 - (11) schedule 5.3, clause S5.3.5.
- (f) Subject to clause (f1) a reference in:
- (1) the definition of RIT-T proponent in clause 5.10.2;
 - (2) clause 5.14.3;
 - (3) clause 5.16.4;
 - (4) clause 5.16.5;
 - (5) rule 5.18;
 - (6) rule 5.19;
 - (7) rule 5.20B; and
 - (8) rule 5.20C,
- to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to *AEMO*.
- (f1) A reference in:
- (1) the definition of RIT-T proponent in clause 5.10.2;
 - (2) clause 5.16.4; and

- (3) clause 5.16.5,
to a *Transmission Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to the relevant *declared transmission system operator* where:
- (4) the relevant RIT-T project (as defined in clause 5.10.2) is to address an *identified need* that arises from the retirement or de-rating of *network assets*; and
- (5) a credible option (as defined in clause 5.10.2) for that RIT-T project (as defined in clause 5.10.2) is replacement of *network assets*.
- (g) A reference in any of the following provisions to a *Network Service Provider* will, in relation to the *declared transmission system* of an *adoptive jurisdiction*, be construed as a reference to the relevant *declared transmission system operator*:
 - (1) clause 5.2.3(d)(12), (e) and (e1)(except 5.2.3(e1)(2));
 - (2) clause 5.3.4A(c) and (d);
 - (3) clause 5.9.3;
 - (4) clause 5.9.4;
 - (5) clause 5.9.6;
 - (6) Schedule 5.1, clause S5.1.10.3(a);
 - (7) Schedule 5.2 clause S5.2.3(a)(8).
- (i) The following provisions apply to an *Embedded Network Service Provider* as if a reference to a *Network Service Provider* or *Distribution Network Service Provider* in the provision were a reference to an *Embedded Network Service Provider*:
 - (1) clause 5.3.4A;
 - (2) clause 5.3.4B;
 - (3) clause 5.3.9;
 - (4) rule 5.6;
 - (5) rule 5.7;
 - (6) rule 5.8;
 - (7) rule 5.9;
 - (8) rule 5.18B;

[\(9\) Schedule 5.1a;](#)

[\(10\) Schedule 5.2;](#)

[\(11\) Schedule 5.3; and](#)

[\(12\) Schedule 5.5.](#)

[\(j\) A reference in this Chapter to an *embedded network* is a reference to an *embedded network* of an *Embedded Network Service Provider*.](#)

5.1A.2 Principles

This Part B is based on the following principles relating to *connection* to the *national grid*:

- (a) all *Registered Participants* should have the opportunity to form a *connection* to a *network* and have access to the *network services* provided by the *networks* forming part of the *national grid*;
- (b) the terms and conditions on which *connection* to a *network* and provision of *network service* is to be granted are to be set out in commercial agreements on reasonable terms entered into between a *Network Service Provider* [or *Embedded Network Service Provider*](#) and other *Registered Participants*;
- (c) the technical terms and conditions of *connection agreements* regarding standards of performance must be established at levels at or above the *minimum access standards* set out in schedules 5.1, 5.2, 5.3 and 5.3a, with the objective of ensuring that the *power system* operates securely and reliably and in accordance with the *system standards* set out in schedule 5.1a;
- (d) **[Deleted]**
- (e) the operation of the *Rules* should result in the achievement of:
 - (1) long term benefits to *Registered Participants* in terms of cost and *reliability* of the *national grid*; and
 - (2) open communication and information flows relating to *connections* between *Registered Participants* themselves, and between *Registered Participants* and AEMO, while ensuring the security of *confidential information* belonging to competitors in the *market*.

5.2 Obligations

5.2.1 Obligations of Registered Participants

- (a) All *Registered Participants* must maintain and operate (or ensure their authorised *representatives* maintain and operate) all equipment that is part of their *facilities* in accordance with:

- (1) relevant laws;
 - (2) the requirements of the *Rules*; and
 - (3) *good electricity industry practice* and relevant *Australian Standards*.
- (b) All *Registered Participants* must ensure that the *connection agreements* to which they are a party require the provision and maintenance of all required *facilities* consistent with *good electricity industry practice* and must operate their equipment in a manner:
- (1) to assist in preventing or controlling instability within the *power system*;
 - (2) to comply with their *performance standards*;
 - (3) to assist in the maintenance of, or restoration to, a *satisfactory operating state* of the *power system*; and
 - (4) to prevent uncontrolled separation of the *power system* into isolated *regions* or partly combined *regions*, *intra-regional transmission break-up*, or *cascading outages*, following any *power system* incident.

5.2.2 Connection agreements

- (a) If requested to do so by a *Transmission Network User*, *Distribution Network User*, *AEMO* or the *AER*, a *Network Service Provider* and a *Transmission Network User* or *Distribution Network User* (as the case may be) must document the terms of any *network connection* arrangements made prior to 13 December 1998 and the resulting document will then be deemed to be a *connection agreement* for the purposes of the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Rules* apply to:
- (1) *connection agreements* made after 13 December 1998;
 - (2) deemed *connection agreements* under paragraph (a); and
 - (3) requests to establish *connection* after 13 December 1998.
- (c) This Chapter is neither intended to have, nor is it to be read or construed as having, the effect of:
- (1) altering any of the terms of a *connection agreement*; or
 - (2) altering the contractual rights or obligations of any of the parties under the *connection agreement* as between those parties; or

- (3) relieving the parties under any such *connection agreement* of their contractual obligations under such an agreement.
- (d) Notwithstanding the provisions of clause 5.2.2(c), if any obligation imposed or right conferred on a *Registered Participant* by this Chapter is inconsistent with the terms of a *connection agreement* to which the *Rules* apply and the application of the inconsistent terms of the *connection agreement* would adversely affect the quality or security of *network service* to other *Network Users*, the parties to the *connection agreement* must observe the provisions of this Chapter as if they prevail over the *connection agreement* to the extent of the inconsistency.
- (e) Where an *Embedded Network Service Provider* is also the *Registered Participant* in respect of a facility connected to its *embedded network*, a reference in this Chapter to the *connection agreement* for the *connection* (including in relation to a *Generator* or *Customer*) is taken to be a reference to the statement prepared and maintained by the *Embedded Network Service Provider* for that *connection* under clause 5.3C(b).

5.2.3 Obligations of network service providers

- (a) To be registered by *AEMO* as a *Network Service Provider*, a person must satisfy the relevant requirements specified in Chapter 2 and submit an application to *AEMO* in such form as *AEMO* may require.
- (b) A *Network Service Provider* must comply with the *power system* performance and quality of *supply* standards:
 - (1) described in schedule 5.1;
 - (2) in accordance with any *connection agreement* with a *Registered Participant*,
 and if there is an inconsistency between schedule 5.1 and such a *connection agreement*:
 - (3) if compliance with the relevant provision of the *connection agreement* would adversely affect the quality or security of *network service* to other *Network Users*, schedule 5.1 is to prevail;
 - (4) otherwise the *connection agreement* is to prevail.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Where the provisions of the *connection agreement* vary the technical requirements set out in the schedules to this Chapter, the relevant *Network Service Provider* must report on such variations to *AEMO* on an annual basis. *AEMO* must allow access to such information to all other *Network*

Service Providers and the *Network Service Providers* must keep such information confidential.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d) A *Network Service Provider* must:

(1) review and process *applications to connect* or modify a *connection* which are submitted to it and must enter into a *connection agreement* with each *Registered Participant* and any other person to which it has provided a *connection* in accordance with rules 5.3 or 5.3A (as is relevant) to the extent that the *connection point* relates to its part of the *national grid*;

(1A) co-operate with any other *Network Service Provider* who is processing a *connection* enquiry or *application to connect* to allow that *connection* enquiry or *application to connect* to be processed expeditiously and in accordance with rules 5.3 or 5.3A (as is relevant);

(1B) co-operate with an *Embedded Network Service Provider* who is undertaking a *system strength impact assessment* and required to consult with it in accordance with clause 5.3C.2(d) to allow that assessment to be undertaken expeditiously;

(2) ensure that, to the extent that a *connection point* relates to its part of the *national grid*, every arrangement for *connection* with a *Registered Participant* or any other arrangement involving a *connection agreement* with that *Network Service Provider* complies with all relevant provisions of the *Rules*;

(3) co-ordinate the design aspects of equipment proposed to be *connected* to its *networks* with those of other *Network Service Providers* in accordance with rule 5.6 in order to seek to achieve *power system* performance requirements in accordance with schedule 5.1;

(4) together with other *Network Service Providers*, arrange for and participate in planning and development of their *networks* and *connection points* on or with those *networks* in accordance with Part D of Chapter 5;

(5) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;

(6) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to its *network* in accordance with rule 5.8;

(7) advise a *Registered Participant* or other person with whom there is a *connection agreement* upon request of any expected interruption characteristics at a *connection point* on or with its *network* so that the

Registered Participant or other person may make alternative arrangements for *supply* during such interruptions, including negotiating for an alternative or backup *connection*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (8) use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate and order tests in accordance with rule 5.7 where there are reasonable grounds to question the validity of data;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (9) provide to *AEMO* and other *Network Service Providers* all data available to it and reasonably required for modelling the static and *dynamic performance* of the *power system*;
- (10) forward to *AEMO* and other *Network Service Providers* subsequent updates of the data referred to in subparagraph (9) and, to the best of its ability and knowledge, ensure that all data used for the purposes referred to in rules 5.3 or 5.3A (as is relevant) is consistent with data used for such purposes by other *Network Service Providers*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (11) provide to *AEMO* the information required from *Generators* under schedule 5.2 and from *Customers* under schedule 5.3 and from *Market Network Service Providers* under schedule 5.3a in relation to a *connection agreement* and details of any *connection points* with other *Network Service Providers*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (12) where *network augmentations*, setting changes or other technical issues arise which could impact across *regional* boundaries, provide *AEMO* with a written report on the impact and its effects.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A *Network Service Provider* (including a *Dedicated Connection Asset Service Provider*) must arrange for operation of that part of the *national grid* over which it has control in accordance with instructions given by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e1) A *Network Service Provider* must, except in so far as its *market network services* and parts of its *network* which are used solely for the provision of *market network services* are concerned, arrange for:
- (1) management, maintenance and operation of its part of the *national grid* such that, in the *satisfactory operating state*, electricity may be transferred continuously at a *connection point* on or with its *network* up to the *agreed capability*;
 - (2) operation of its *network* such that the fault level at any *connection point* on or with that *network* does not breach the limits that have been specified in a *connection agreement*;
 - (3) management, maintenance and operation of its *network* to minimise the number of interruptions to *agreed capability* at a *connection point* on or with that *network* by using *good electricity industry practice*; and
 - (4) restoration of the *agreed capability* at a *connection point* on or with that *network* as soon as reasonably practicable following any interruption at that *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) A *Network Service Provider* must comply with *applicable regulatory instruments*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) Each *Network Service Provider* must in respect of new or altered equipment owned, operated or controlled by it for the purpose of providing a *market network service*:

- (1) submit an *application to connect* and enter into a *connection agreement* with a *Network Service Provider* in accordance with rule 5.3 prior to that equipment being connected to the *network* of that *Network Service Provider* or altered (as the case may be);
- (2) comply with the reasonable requirements of *AEMO* and the relevant *Network Service Provider* in respect of design requirements of equipment proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.6 and schedule 5.3a;
- (3) provide forecast information to the relevant *Network Service Provider* in accordance with Part D of Chapter 5;
- (4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
- (5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and
- (6) **[Deleted]**
- (7) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g1) A *Network Service Provider* must comply with any terms and conditions of a *connection agreement* for its *market network service facilities* that provide for the implementation, operation, maintenance or performance of a *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) **[Deleted]**
- (h1) **[Deleted]**
- (h2) **[Deleted]**
- (h3) **[Deleted]**
- (i) This Chapter is neither intended to require, nor is it to be read or construed as having the effect of requiring, a *Network Service Provider* to permit *connection* to or to *augment* any part of its *network* which is solely used for the provision of *market network services*.

- (j) If in *AEMO's* reasonable opinion, there is a risk a *Network Service Provider's plant* or equipment will:
- (1) adversely affect *network capability, power system security, quality or reliability of supply, inter-regional power transfer capability*;
 - (2) adversely affect the use of a *network* by a *Network User*; or
 - (3) have an *adverse system strength impact*,

AEMO may request the *Network Service Provider* to provide information of the type described in clause 4.3.4(o), and following such a request, the *Network Service Provider* must provide the information to *AEMO* and any other relevant *Network Service Provider(s)* or *Embedded Network Service Provider(s)* in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (k) If in *AEMO's* reasonable opinion, information of the type described in clause 4.3.4(o) is required to enable a *Network Service Provider* or *Embedded Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request any other relevant *Network Service Provider* to provide the information, and following such a request, that *Network Service Provider* must provide the information to *AEMO* and the other relevant provider~~*Network Service Provider*~~.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (l) All information provided to *AEMO* and the relevant *Network Service Provider(s)* or *Embedded Network Service Provider(s)* under paragraphs (j) and (k) must be treated as *confidential information* by those recipients.

5.2.3A Obligations of Market Network Service Providers

- (a) If in *AEMO's* reasonable opinion, there is a risk a *Market Network Service Provider's plant* or equipment will:
- (1) adversely affect *network capability, power system security, quality or reliability of supply, inter-regional power transfer capability*;
 - (2) adversely affect the use of a *network* by a *Network User*; or
 - (3) have an *adverse system strength impact*,

AEMO may request the *Market Network Service Provider* to provide information of the type described in clause S5.3a.1(a1), and following such a request, the *Market Network Service Provider* must provide the information to *AEMO* and the relevant *Network Service Provider(s)* in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) If in *AEMO*'s reasonable opinion, information of the type described in clause S5.3a.1(a1) is required to enable a *Network Service Provider* to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Market Network Service Provider* to provide the information, and following such a request, the *Market Network Service Provider* must provide the information to *AEMO* and the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) All information provided to *AEMO* and the relevant *Network Service Provider(s)* under paragraphs (a) and (b) must be treated as *confidential information* by those recipients.

5.2.3B Obligations of Embedded Network Service Providers

- (a) To be registered by *AEMO* as an *Embedded Network Service Provider*, a person must satisfy the relevant requirements specified in Chapter 2 and submit an application to *AEMO* in such form as *AEMO* may require.
- (b) An *Embedded Network Service Provider* must plan and design its facilities and ensure that they are operated to comply with:
 - (1) the performance standards applicable to those facilities;
 - (2) subject to subparagraph (1), its connection agreement applicable to those facilities; and
 - (3) subject to subparagraph (2), the system standards.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (c) An *Embedded Network Service Provider* must:

- (1) enter into a *connection agreement* with each *Registered Participant* to which it has provided a *connection* to the extent that the *connection point* relates to its part of the *national grid* or (where the *Embedded Network Service Provider* is also the *Registered Participant* in respect of a *connection* to its *embedded network*) prepare and maintain a statement of technical terms and conditions in accordance with paragraph (b);
- (2) ensure that, to the extent that a *connection point* relates to its part of the *national grid*, every arrangement for *connection* with a *Registered Participant* complies with all relevant provisions of the *Rules*;
- (3) comply with the reasonable requirements of the relevant *Network Service Provider* in respect of design requirements of equipment proposed to be *connected* to the *network* of that *Network Service Provider* in accordance with rule 5.6 and schedule 5.3;
- (4) provide forecast information to the relevant *Network Service Provider*, in accordance with Part D of Chapter 5;
- (5) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
- (6) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to its *network* in accordance with rule 5.8;
- (7) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.
- (8) use its reasonable endeavours to ensure that modelling data used for planning, design and operational purposes is complete and accurate and order tests in accordance with rule 5.7 where there are reasonable grounds to question the validity of data;

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (9) provide to *AEMO* and other *Network Service Providers* all data available to it and reasonably required for modelling the static and dynamic performance of the *power system*;
- (10) forward to *AEMO* and other *Network Service Providers* subsequent updates of the data referred to in subparagraph (9);

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (11) provide to *AEMO* the information required from *Generators* under schedule 5.2 and from *Customers* under schedule 5.3 and from *Market Network Service Providers* under schedule 5.3a in relation to a

connection agreement and details of any connection points with other Network Service Providers.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (d) Where an embedded generating system of a Registered Participant is connected to its embedded network, an Embedded Network Service Provider must arrange for operation of its embedded network in accordance with instructions given by AEMO.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (e) An Embedded Network Service Provider must comply with applicable regulatory instruments.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (f) An Embedded Network Service Provider must in respect of a new or altered connection to the distribution network of a Network Service Provider submit an application to connect and enter into a connection agreement with the Network Service Provider in accordance with rule 5.3 prior to that equipment being connected or altered (as the case may be).

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (g) An Embedded Network Service Provider must comply with any terms and conditions of a connection agreement that provide for the implementation, operation, maintenance or performance of a system strength remediation scheme.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (h) If in AEMO's reasonable opinion, there is a risk an Embedded Network Service Provider's plant or equipment will:

- (1) adversely affect network capability, power system security, quality or reliability of supply, inter-regional power transfer capability;
- (2) adversely affect the use of a network by a Network User; or
- (3) have an adverse system strength impact.

AEMO may request the Embedded Network Service Provider to provide information of the type described in clause 4.3.4(o), and following such a request, the Embedded Network Service Provider must provide the

information to AEMO and any other relevant Network Service Provider(s) or Embedded Network Service Provider(s) in accordance with the requirements and circumstances specified in the Power System Model Guidelines, the Power System Design Data Sheet and the Power System Setting Data Sheet.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (i) If in AEMO's reasonable opinion, information of the type described in clause 4.3.4(o) is required to enable a Network Service Provider or Embedded Network Service Provider to conduct the assessment required by clause 5.3.4B, AEMO may request any other relevant Network Service Provider or Embedded Network Service Provider to provide the information, and following such a request, that provider must provide the information to AEMO and the other relevant provider.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (j) All information provided to AEMO and the relevant Network Service Provider(s) under paragraphs (h) and (i) must be treated as confidential information by those recipients.

5.2.4 Obligations of customers

- (a) Each Customer must plan and design its facilities and ensure that its facilities are operated to comply with:
- (1) its connection agreement with a Network Service Provider or Embedded Network Service Provider;
 - (2) subject to clause 5.2.4(a)(1), all applicable performance standards; and
 - (3) subject to clause 5.2.4(a)(2), the system standards.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A Customer must:
- (1) submit an application to connect in respect of new or altered equipment owned, operated or controlled by the Customer and enter into a connection agreement with a Network Service Provider in accordance with rule 5.3 prior to that equipment being connected to the network of that Network Service Provider or altered (as the case may be);

- (1A) in the case of a facility being connected to the embedded network of an Embedded Network Service Provider, enter into a connection agreement with the Embedded Network Service Provider and comply with clause 5.3.4A in relation to that connection prior to that equipment being connected to the network of that Embedded Network Service Provider or altered (as the case may be);
- (2) comply with the reasonable requirements of the relevant *Network Service Provider* or Embedded Network Service Provider in respect of design requirements of equipment proposed to be connected to the network of that ~~provider~~ Network Service Provider in accordance with rule 5.6 and schedule 5.3;
- (3) provide *load* forecast information to the relevant *Network Service Provider* in accordance with Part D of Chapter 5;
- (4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
- (5) permit and participate in commissioning of *facilities* and equipment which are to be connected to a *network* for the first time in accordance with rule 5.8; and
- (6) **[Deleted]**
- (7) give notice of any intended voluntary permanent *disconnection* in accordance with rule 5.9.
- (c) If in AEMO's reasonable opinion, there is a risk that a *Customer's plant* will:
- (1) adversely affect *network capability, power system security, quality or reliability of supply* or, inter-regional power transfer capability;
 - (2) adversely affect the use of a *network* by a *Network User*; or
 - (3) have an *adverse system strength impact*,

AEMO may request a *Customer* to which Schedule 5.3 applies to provide information of the type described in clause S5.3.1(a1), and following such a request, the *Customer* must provide the information to AEMO and the relevant *Network Service Provider(s)* or Embedded Network Service Provider(s) in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If in *AEMO's* reasonable opinion, information of the type described in clause S5.3.1(a1) is required to enable a *Network Service Provider* or Embedded Network Service Provider to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Customer* to which Schedule 5.3 applies, to provide the information, and following such a request, the *Customer* must provide the information to *AEMO* and the relevant *Network Service Provider* or Embedded Network Service Provider.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) All information provided to *AEMO* and the relevant *Network Service Provider(s)* under paragraphs (c) and (d) must be treated as *confidential information* by those recipients.

5.2.5 Obligations of Generators

- (a) A *Generator* must plan and design its *facilities* and ensure that they are operated to comply with:
- (1) the *performance standards* applicable to those *facilities*;
 - (2) subject to subparagraph (1), its *connection agreement* applicable to those *facilities*; and
 - (3) subject to subparagraph (2), the *system standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Generator* must:
- (1) submit an *application to connect* in respect of new *generating plant* owned, operated or controlled by the *Generator*, or to be owned, operated or controlled by the *Generator*, and enter into a *connection agreement* with a *Network Service Provider* in accordance with rule 5.3 prior to that *generating plant* being *connected* to the *network* of that provider;

(1A) in the case of *generating plant* being *connected* to the *embedded network* of an *Embedded Network Service Provider*, enter into a *connection agreement* with the *Embedded Network Service Provider* and comply with clauses 5.3.4A and 5.3.4B in relation to that *connection* prior to that *generating plant* being *connected* to the *network* of that provider;
 - (2) comply with the reasonable requirements of the relevant *Network Service Provider* or Embedded Network Service Provider in respect of

design requirements of *generating plant* proposed to be *connected* to the *network* of that provider in accordance with rule 5.6 and schedule 5.2;

- (3) provide *generation* forecast information to the relevant *Network Service Provider* in accordance with Part D of Chapter 5;
 - (4) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
 - (5) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8; and
 - (6) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9.
- (c) A *Generator* must comply with any terms and conditions of a *connection agreement* for its *generating system* that provide for the implementation, operation, maintenance or performance of a *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If in *AEMO's* reasonable opinion, there is a risk that a *Generator's plant* will:
- (1) adversely affect *network capability, power system security, quality or reliability of supply, inter-regional power transfer capability*;
 - (2) adversely affect the use of a *network* by a *Network User*; or
 - (3) have an *adverse system strength impact*,

AEMO may request a *Generator* to provide information of the type described in clause S5.2.4, and following such a request, the *Generator* must provide the information to *AEMO* and the relevant *Network Service Provider(s)* or *Embedded Network Service Provider(s)* in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) If in *AEMO's* reasonable opinion, information of the type described in clause S5.2.4 is required to enable a *Network Service Provider* or *Embedded*

Network Service Provider to conduct the assessment required by clause 5.3.4B, *AEMO* may request a *Generator* to provide the information, and following such a request, the *Generator* must provide the information to *AEMO* and the relevant ~~*Network Service Provider*~~*provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) All information provided to *AEMO* and the relevant ~~*provider(s) Network Service Provider(s)*~~ under paragraphs (c) and (d) must be treated as *confidential information* by those recipients.

5.2.6 Obligations of AEMO

AEMO must provide to *Network Service Providers* on request, a copy of any report provided to *AEMO* by a *Network Service Provider* under clause 5.2.3(d)(12). If a *Registered Participant* reasonably considers that it is or may be adversely affected by a development or change in another *region*, the *Registered Participant* may request the preparation of a report by the relevant *Network Service Provider* as to the technical impacts of the development or change. If so requested, the *Network Service Provider* must prepare such a report and provide a copy of it to *AEMO*, the *Registered Participant* requesting the report and, on request, any other *Registered Participant*.

5.2.6A AEMO review of technical requirements for connection

- (a) *AEMO* must conduct a review of some or all of the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a at least once in every five year period (and may conduct a review more frequently if *AEMO* considers necessary) to assess whether those requirements should be amended, having regard to:
- (1) the *national electricity objective*;
 - (2) the need to achieve and maintain *power system security*;
 - (3) changes in *power system* conditions; and
 - (4) changes in technology and capabilities of *facilities* and *plant*.
- (b) When conducting a review under this clause 5.2.6A, *AEMO* must consult with, among other affected parties, the *Reliability Panel*.
- (c) *AEMO* must commence a review under this clause 5.2.6A with the publication of an approach paper on its website, which must:
- (1) set out the scope of the review, including the nature and extent of the issues to be reviewed;
 - (2) describe the technical requirements to be consulted on; and

- (3) state the date by which a draft report will be published.
- (d) *AEMO* must publish a draft report on its website that:
 - (1) sets out *AEMO's* recommendations for any amendments to the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a and the reasons for those recommendations; and
 - (2) includes an invitation for written submissions to be made to *AEMO* within a period specified in the invitation (which must be at least 30 *business days*) on the technical requirements and recommendations in the draft report and must publish any submissions on its website, subject to obligations in respect of *confidential information*.
- (e) *AEMO* must publish a final report on its website within 12 months of the approach paper's publication under paragraph (c), setting out *AEMO's* recommendations for any amendments to the technical requirements set out in Schedule 5.2, Schedule 5.3 and Schedule 5.3a, having regard to the matters set out in subparagraphs (a)(1) to (4) and any submissions made in response to its invitation under subparagraph (d)(2).
- (f) As soon as practicable following publication of a final report under paragraph (e), *AEMO* must provide written notification to the *AEMC* as to whether *AEMO* will be submitting a *Rule* change proposal that results from the review.

5.2.7 Obligations of Dedicated Connection Asset Service Providers

- (a) *A Dedicated Connection Asset Service Provider* must classify its *dedicated connection asset* as a *small dedicated connection asset* or a *large dedicated connection asset* in accordance with Chapter 2.
- (b) *A Dedicated Connection Asset Service Provider* must plan and design its *dedicated connection assets* and ensure that they are operated to comply with:
 - (1) the *performance standards* applicable to those *facilities connected* to those *dedicated connection assets*;
 - (2) subject to subparagraph (1), its *connection agreement* applicable to those *dedicated connection assets*; and
 - (3) subject to subparagraph (2), the *system standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) *A Dedicated Connection Asset Service Provider* for a *large dedicated connection asset* must prepare, maintain and publish an *access policy* in accordance with clause 5.2A.8.

- (d) *A Dedicated Connection Asset Service Provider* must:
- (1) permit and participate in inspection and testing of *facilities* and equipment in accordance with rule 5.7;
 - (2) permit and participate in commissioning of *facilities* and equipment which are to be *connected* to a *network* for the first time in accordance with rule 5.8;
 - (3) give notice of intended voluntary permanent *disconnection* in accordance with rule 5.9; and
 - (4) in relation to a *connection* to an *identified user shared asset*, ensure that there is a *connection agreement* between itself and the *Primary Transmission Network Service Provider*.

5.2A Transmission network connection and access

5.2A.1 Application

- (a) This rule 5.2A does not apply in relation to *connection* and access to the *declared transmission system* of an *adoptive jurisdiction*.
- (b) In this rule 5.2A, a reference to ownership in relation to an asset includes a leasehold interest.

5.2A.2 Relevant assets

- (a) The assets relevant to *connection* and access to the *transmission network* and the person who is registered for those assets are set out in the following table:

Asset	Registered Person
primary <i>transmission network</i> in the <i>participating jurisdictions</i> .	<i>Primary Transmission Network Service Provider</i>
<i>identified user shared asset</i> owned by the <i>Primary Transmission Network Service Provider</i>	<i>Primary Transmission Network Service Provider</i> (forms part of that provider's broader <i>transmission network</i>)
<i>third party IUSA</i>	<i>Primary Transmission Network Service Provider</i> (as controller and operator of the <i>third party IUSA</i> under a <i>network operating agreement</i>) (forms part of that provider's broader <i>transmission network</i>)

Asset	Registered Person
<i>dedicated connection asset</i>	<i>Dedicated Connection Asset Service Provider</i>
<i>network connection asset</i>	<i>Transmission Network Service Provider</i>
<i>facility of a Transmission Network User</i>	<i>Transmission Network User (if registration required or obtained)</i>

- (b) The intention of this rule 5.2A and Chapter 2 is that there is a *Registered Participant* for each asset connecting the *transmission network* to the *facilities* of the *Transmission Network User*, subject to exemptions obtained under Chapter 2.

5.2A.3 Connection and access to transmission services

- (a) The following *transmission services* are relevant to *connection* and access to the *transmission network*:

Service classification	TNSP obligations	Assets involved
<i>prescribed transmission services</i>	Subject to access under Chapter 5 and economic regulation under Chapter 6A	<i>transmission network and network connection assets</i>
<i>negotiated transmission services</i>	Subject to access under Chapter 5	<i>transmission network</i>
<i>large DCA services</i>	Subject to access under the <i>access policy</i> established under clause 5.2A.8	<i>large dedicated connection assets</i>
<i>non-regulated transmission services</i>	Not subject to access under Chapter 5 or economic regulation under Chapter 6A	<i>transmission system</i>

- (b) A *Connection Applicant* may apply to a *Transmission Network Service Provider* for provision of a *prescribed transmission service* or a *negotiated transmission service* in accordance with rule 5.3 and the relevant *Transmission Network Service Provider* must comply with this Chapter 5 in negotiating a *connection agreement* for the requested service.
- (c) If the *prescribed transmission service* or *negotiated transmission service* sought under paragraph (b) does not require the *Connection Applicant* to establish or modify a *connection* or alter a *generating plant* in the circumstances set out in clause 5.3.9, the processes in rules 5.3, 5.4 and 5.5

will apply with such modifications as is appropriate to the nature of the service requested.

- (d) A *Transmission Network Service Provider* must provide *prescribed transmission services* or *negotiated transmission services* on *terms and conditions of access* that are consistent with the requirements of Chapters 4, 5 and 6A of the *Rules* (as applicable).
- (e) A *Transmission Network Service Provider* or a person who is provided *prescribed transmission services* or *negotiated transmission services* must not engage in conduct for the purpose of preventing or hindering access to those services.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The *Connection Applicant* may terminate negotiations with the *Transmission Network Service Provider* at any time during the *connection* process provided under rules 5.3 and 5.3A with at least three *business days*’ prior written notice.
- (g) A *Transmission Network Service Provider* may terminate negotiations with the *Connection Applicant* with at least three *business days*’ prior written notice if:
 - (1) the *Connection Applicant* becomes insolvent or an equivalent event occurs;
 - (2) the *Connection Applicant* has, in the *Transmission Network Service Provider’s* reasonable opinion, provided false or misleading information;
 - (3) the *Transmission Network Service Provider* has reasonable grounds to believe that the *Connection Applicant* is not negotiating in good faith; or
 - (4) the *Transmission Network Service Provider* has formed the reasonable opinion that the *Connection Applicant* does not intend to obtain the service.

5.2A.4 Transmission services related to connection

- (a) If a service related to assets relevant for *connection* in the following table is classified as:
 - (1) *contestable* – then the *Primary Transmission Network Service Provider* may (but is not obliged to) provide that service as a *non-regulated transmission service* on request from a *Connection Applicant*.

- (2) non-contestable – then the *Primary Transmission Network Service Provider* has the exclusive right to provide that service and must negotiate under rule 5.3 to do so as a *negotiated transmission service* on request from a *Connection Applicant*.

Asset	Service	Example of service	Classification
<i>transmission network including identified user shared asset</i>	Functional specification for <i>IUSA</i>	Specification of: <ul style="list-style-type: none"> • preferred equipment suppliers; • preferred equipment; • land/access requirements; • design specifications; • single line diagrams; • remote monitoring and communication requirements; • protection, control and metering requirements; • minimum operating conditions; • supervisory control and data acquisition system interface requirements; • equipment ratings; • equipment protection ratings; and • spare parts itineraries 	non-contestable
<i>identified user shared asset</i>	Detailed design for <i>IUSA</i>	Provision of: <ul style="list-style-type: none"> • site plan; • asset layout and configuration; • the specification for vendor equipment; 	<i>contestable</i>

Asset	Service	Example of service	Classification
		<ul style="list-style-type: none"> civil, structural, mechanical and electrical detailed design; issued for construction drawings; as built drawings; tender specifications; cable schedules; protection settings; applicable technical studies; earthing design; the design of lightning protection; and the design of insulation co-ordination, <p>consistent with the functional specification.</p>	
<i>transmission network</i>	Cut-in works	Interface works which cut into the existing shared <i>transmission network</i> , these may include tower realignment, protection control and communications requirements	non-contestable
<i>contestable IUSA components</i>	Construction / ownership	Construction and/or ownership of a substation	<i>contestable</i>
<i>non-contestable IUSA components</i>	Construction / ownership	Installation and ownership of supervisory control and data acquisition systems and cabling forming part of the <i>Primary Transmission Network Service Provider's control system</i>	non-contestable

Asset	Service	Example of service	Classification
<i>identified user shared asset</i> owned by the <i>Primary Transmission Network Service Provider</i>	Control, operation and maintenance	<i>Primary Transmission Network Service Provider</i> provides operation and maintenance services	non-contestable
<i>third party IUSA</i>	Control, operation and maintenance under a <i>network operating agreement</i>	See clause 5.2A.7	non-contestable
<i>dedicated connection assets</i>	All development aspects	Design, construction, maintenance and ownership of a power line connecting a <i>facility</i>	<i>contestable</i>

- (b) If the capital cost of all the components that make up an *identified user shared asset* is reasonably expected by the *Primary Transmission Network Service Provider* to be \$10 million or less, the *Primary Transmission Network Service Provider* must undertake the detailed design, construction and ownership of the *identified user shared asset* as a *negotiated transmission service*.
- (c) If the capital cost of all the components that make up an *identified user shared asset* is reasonably expected by the *Primary Transmission Network Service Provider* to exceed \$10 million, the detailed design, construction and ownership of each component of the *identified user shared asset* is a *non-regulated transmission service* to the extent that it satisfies the following criteria:
- (1) the component being constructed is new or a complete replacement of existing assets (and does not involve the reconfiguration of existing assets); and
 - (2) the detailed design and construction of the relevant component of the *identified user shared asset* is separable in that the new component will be distinct and definable from the existing *transmission network*,
- (“**contestable IUSA components**”).
- (d) To the extent that any components of an *identified user shared asset* do not satisfy the criteria set out in paragraph (c) (“**non-contestable IUSA components**”), the *Primary Transmission Network Service Provider* must

negotiate under rule 5.3 to undertake the detailed design, construction and ownership of the *non-contestable IUSA components* as a *negotiated transmission service*.

Note

Parties may seek the advice of an *Independent Engineer* under rule 5.4 if the parties cannot agree on whether a component of an *identified user shared asset* based on the criteria under subparagraph (c)(1) and (2) is a *contestable IUSA component* or a *non-contestable IUSA component*.

5.2A.5 Publication and provision of information

- (a) A *Primary Transmission Network Service Provider* must publish the information on its website, or provide the information to a *Connection Applicant* on request, as required by schedule 5.10.
- (b) A *Primary Transmission Network Service Provider* may charge a *Connection Applicant* a fee for providing information where specified under schedule 5.10, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare that information.
- (c) A *Transmission Network Service Provider* and a *Connection Applicant* must provide information (including commercial information) reasonably required by the other party that would facilitate effective negotiation for the provision of a *negotiated transmission service* in a timely manner.
- (d) The *Connection Applicant* must procure that any persons it engages to undertake services which are specified to be *contestable* in the table in clause 5.2A.4(a) provide information reasonably requested by the *Primary Transmission Network Service Provider*.
- (e) Information required to be provided under paragraphs (c) and (d) that is confidential may be provided subject to a condition that the receiving party must not provide any part of that information to any other person without the consent of the party who provided the information.

5.2A.6 Negotiating principles

- (a) If a *Connection Applicant* seeks access to *negotiated transmission services*, including in relation to an *identified user shared asset*, the *Transmission Network Service Provider* and the *Connection Applicant* must, in negotiating pursuant to rule 5.3 and other relevant *Rules*, negotiate in accordance with the *negotiating principles*.
- (b) A *Transmission Network Service Provider* must, in accordance with the *negotiating principles*:
 - (1) on request, identify and inform a *Connection Applicant* of the reasonable costs and/or the increase or decrease in costs (as appropriate) of providing a *negotiated transmission service*;

- (2) on request, demonstrate to a *Connection Applicant* that the charges for providing a *negotiated transmission service* reflect those costs and/or the cost increment or decrement (as appropriate);
 - (3) determine the potential impact on other *Transmission Network Users* of the provision of a *negotiated transmission service*; and
 - (4) notify and consult with any affected *Transmission Network Users* and ensure that the provision of a *negotiated transmission service* does not result in non-compliance with obligations in relation to other *Transmission Network Users* under the *Rules*.
- (c) If an applicant seeks *large DCA services*, the *Dedicated Connection Asset Service Provider* must comply with its *access policy* and the negotiating principles in schedule 5.12.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.2A.7 Third party IUSAs

- (a) A person must not commission, or permit the commissioning of, a *third party IUSA* unless there is a *network operating agreement* between the owner of that *third party IUSA* and the *Primary Transmission Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The person who owns or is intending to own a *third party IUSA* and the *Primary Transmission Network Service Provider* must:
- (1) include terms and conditions in the *network operating agreement* which give effect to the requirements of paragraphs (c) and (d);
 - (2) include terms and conditions in the *network operating agreement* of the kind set out in Part B of schedule 5.6; and
 - (3) negotiate the *network operating agreement* in accordance with the *negotiating principles* (where applicable).
- (c) The term of the *network operating agreement* must be for a period which is at least equal to the term of the longest *connection agreement* of a member of the initial *identified user group* for the *third party IUSA*.
- (d) The *network operating agreement* must provide for the *Primary Transmission Network Service Provider* to:

- (1) have operation and control of the *third party IUSA* (including the rights and obligations to maintain that asset) for an agreed charge or based on an agreed charging methodology;
 - (2) have an option to purchase the *third party IUSA* at fair market value at the expiry or early termination of the *network operating agreement*;
 - (3) alter, replace or augment the *third party IUSA*;
 - (4) have the right to connect other persons to the *third party IUSA* in accordance with the *Rules*;
 - (5) have unrestricted use of, and access to, the *third party IUSA*; and
 - (6) treat the *third party IUSA* as forming part of the *Primary Transmission Network Service Provider's transmission network* in all material respects and provide *transmission services* to any *Transmission Network User* in accordance with the *Rules*.
- (e) A person who owns a *third party IUSA* must not:
- (1) own, operate or control a *generating system*;
 - (2) own, operate or control a *facility* utilising electrical *energy*; or
 - (3) be a related entity of a person owning, operating or controlling a *generating system* or *facility* utilising electrical *energy*,
- that is *connected* to that *third party IUSA*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) In paragraph (e):

related entity means, in relation to an entity, an entity that controls, or is controlled by, that first mentioned entity;

entity has the meaning given in the *Corporations Act 2001* (Cth) subject to section 64A of the *Corporations Act 2001* (Cth) not applying to such meaning; and

control has the meaning given in the *Corporations Act 2001* (Cth).

5.2A.8 Access framework for large dedicated connection assets

- (a) This clause 5.2A.8 applies only to *large dedicated connection assets*.
- (b) A *Dedicated Connection Asset Service Provider* must prepare, maintain and publish an *access policy* on its website to provide a framework for

applicants to obtain access to *large DCA services*. An *access policy* must include, as a minimum, the following information:

- (1) a description of the routes, tenure arrangements and main components of the *large dedicated connection asset* and the *facilities connected* to it;
 - (2) any material regulatory limitations relating to the development and operation of the *large dedicated connection asset*;
 - (3) the pricing principles and the key terms which are proposed to apply to the provision of *large DCA services* where such principles and terms must be consistent with schedule 5.12;
 - (4) the process by which an applicant may seek access to *large DCA services*, which must include a right for an applicant to obtain sufficient information to enable it to prepare a request for the *large DCA services* it requires and contact details for access enquiries; and
 - (5) advice on the availability of commercial arbitration under rule 5.5 in the case of a dispute.
- (c) The *AER* has the function of:
- (1) approving an *access policy* and variations to it; and
 - (2) enforcing compliance with an *access policy*.
- (d) Within 30 days of an asset being classified as a *large dedicated connection asset* under Chapter 2, a *Dedicated Connection Asset Service Provider* must submit an *access policy* for approval by the *AER*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A *Dedicated Connection Asset Service Provider* may seek approval of a variation to an *access policy* from the *AER* at any time and must do so where required to keep the *access policy* up to date.
- (f) The *AER* must approve an *access policy*, or a variation to an *access policy*, if it is reasonably satisfied that it complies with paragraph (b). If the *AER* does not approve an *access policy* submitted under paragraph (d), the *AER* must notify of the changes required for it to be approved. If an *access policy* is not approved within 6 months of the *AER's* notification of required changes, the *AER* may itself propose an *access policy*.
- (g) The *AER's* proposal for an *access policy* is to be formulated with regard to:
- (1) the minimum requirements set out in paragraph (b);

- (2) the *Dedicated Connection Asset Service Provider's* proposed *access policy*; and
 - (3) the *AER's* reasons for refusing to approve the proposed *access policy*.
- (h) The *AER* may (but is not obliged to) consult on its proposal.
- (i) If the *AER* decides to approve an *access policy* proposed by the *AER*, it must:
 - (1) give a copy of the decision to the *Dedicated Connection Asset Service Provider*; and
 - (2) *publish* the decision on the *AER's* website and make it available for inspection, during business hours, at the *AER's* public offices.
- (j) An *access policy*, or a variation to it, takes effect on a date fixed in the *AER's* decision to approve it.
- (k) A *Dedicated Connection Asset Service Provider* must report on requests for *connection* and access to a *large dedicated connection asset* to the *AER* when such requests are made and when an agreement for access is entered into, in the manner and form notified by the *AER*.
- (l) A *Dedicated Connection Asset Service Provider* or a person who is provided *large DCA services* must not engage in conduct for the purpose of preventing or hindering access to *large DCA services*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (m) A *Dedicated Connection Asset Service Provider* may, but is not required to, give access to an applicant for *large DCA services* if doing so would mean the *large dedicated connection asset* would no longer constitute a *dedicated connection asset*.

Note

An example of where clause 5.2A.8(m) may apply is where the applicant for access to *large DCA services* is a *Distribution Network Service Provider* or a person not seeking access to those services as part of the *identified user group*. The creation of a new *connection point* could change the nature of the services being provided by the *large dedicated connection asset* and therefore change its regulatory treatment.

5.3 Establishing or Modifying Connection

5.3.1 Process and procedures

- (a) For the purposes of this rule 5.3:

establish a connection includes modify an existing *connection* or alter *plant* but does not include alterations to *generating plant* in the circumstances set out in clause 5.3.9.

- (b) A *Registered Participant* or person intending to become a *Registered Participant* who wishes to establish a *connection* to a *network* (other than an embedded network) must follow the procedures in this rule 5.3.
- (b1) In the case of a connection to an embedded network, clauses 5.3.4A and 5.3.4B apply in accordance with rule 5.3C.1(c).
- (c) A *Generator* wishing to alter *connected generating plant* must comply with clause 5.3.9.
- (d) AEMO must comply with clause 5.3.11 in relation to requests to change *normal voltage*.
- (e) For *connection* to a *transmission network*, there may be more than one *Connection Applicant* in relation to a *connection* where there are different persons developing and owning *contestable IUSA components*, *dedicated connection assets* and *Transmission Network User facilities* in relation to that *connection*.

5.3.1A Application of rule to connection of embedded generating units

- (a) For the purposes of this clause 5.3.1A:
 - non-registered embedded generator** has the same meaning as in clause 5A.A.1.
- (b) If a *Connection Applicant* wishes to *connect* an *embedded generating unit* to the distribution network of a Network Service Provider, then:
 - (1) unless otherwise provided, rule 5.3A applies to the proposed connection and clauses 5.3.2, 5.3.3, 5.3.4 and 5.3.5 do not apply to the proposed *connection*; and
 - (2) for the avoidance of doubt, the application of the balance of Chapter 5, Part B to the *Connection Applicant* is otherwise unaffected by this clause 5.3.1A.
- (ba) For the avoidance of doubt, rule 5.3A does not apply to a proposed connection of an embedded generating unit to an embedded network of an Embedded Network Service Provider.
- (c) A reference to a *Connection Applicant* in paragraph (b) is to a:
 - (1) person who intends to be an *Embedded Generator*;
 - (2) person who is required to apply to AEMO for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; or

- (3) non-registered embedded generator who has made an election under clause 5A.A.2(c) [\(where permitted to do so under that clause\)](#),

and who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

5.3.2 Connection enquiry

- (a) A person referred to in clause 5.3.1(b) who wishes to make an *application to connect* must first make a *connection* enquiry by advising the *Local Network Service Provider* of the type, magnitude and timing of the proposed *connection* to that provider's *network*.
- (b) If the information submitted with a *connection* enquiry is inadequate to enable the *Local Network Service Provider* to process the enquiry the provider must within 5 *business days*, advise the *Connection Applicant* what other relevant preliminary information of the kind listed in schedule 5.4 is required before the *connection* enquiry can be further processed.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The *Local Network Service Provider* must advise the *Connection Applicant* within 10 *business days* of receipt of the *connection* enquiry and the further information required in accordance with paragraph (b) if the enquiry would be more appropriately directed to another *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) The *Connection Applicant*, notwithstanding the advice received under paragraph (c), may if it is reasonable in all the circumstances, request the *Local Network Service Provider* to process the *connection* enquiry and the provider must meet this request.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) Where the *Local Network Service Provider* considers that the *connection* enquiry should be jointly examined by more than one *Network Service Provider*, with the agreement of the *Connection Applicant*, one of those *Network Service Providers* may be allocated the task of liaising with the

Connection Applicant and the other *Network Service Providers* to process and respond to the enquiry.

- (f) A *Network Service Provider* must to the extent that it holds technical information necessary to facilitate the processing of a *connection* enquiry made in accordance with paragraph (a) or an *application to connect* in accordance with clause 5.3.4(a), provide that information to the *Connection Applicant* in accordance with the relevant requirements of schedule 5.1, 5.2, 5.3 or 5.3a.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) If applicable, a *Primary Network Service Provider* may charge a *Connection Applicant* an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to provide the information in clauses 5.3.3(b)(5A) and (7) to (10).

5.3.3 Response to connection enquiry

- (a) In preparing a response to a *connection* enquiry, the *Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Network Service Provider* responding to the *connection* enquiry may include in that response the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.
- (b) The *Network Service Provider* must:
 - (1) within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b); or
 - (2) within 30 *business days* after receipt of a request from the *Connection Applicant* to the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d),

provide the following information in writing to the *Connection Applicant*:

- (3) the identity of other parties that the *Network Service Provider* considers:
 - (i) will need to be involved in planning to make the *connection*; and
 - (ii) must be paid for *transmission services* or *distribution services* in the appropriate jurisdiction;
- (4) whether it will be necessary for any of the parties identified in subparagraph (3) to enter into an agreement with the *Connection*

Applicant in respect of the provision of *connection* or other *transmission services* or *distribution services* or both, to the *Connection Applicant*;

- (5) in relation to *Distribution Network Service Providers* and *Network Service Providers* for *declared transmission systems*, whether any service the *Network Service Provider* proposes to provide is *contestable* in the relevant *participating jurisdiction*;
- (5A) whether any service a *Transmission Network Service Provider* proposes to provide in relation to the *connection* enquiry is a *prescribed transmission service*, a *negotiated transmission service* or a *non-regulated transmission service* including, if applicable:
 - (i) whether the capital cost of any *identified user shared asset* is reasonably expected to exceed \$10 million; and
 - (ii) if so, the *contestable IUSA components* and *non-contestable IUSA components*;
- (6) a *preliminary program* showing proposed milestones for *connection* and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld;
- (7) the specification of the interface required to provide the *connection*, including plant and equipment requirements for the *connection* of a *dedicated connection asset* to the *transmission network* and of the interface between the *transmission network* and any *contestable IUSA components*;
- (8) if applicable, the scope of work for any *non-contestable IUSA components*;
- (9) if the response to the *connection enquiry* specifies the need for an *identified user shared asset* the capital cost of which is reasonably expected to exceed \$10 million, a functional specification:
 - (i) setting out the technical parameters for that asset as described in the table in clause 5.2A.4 with sufficient detail to enable the *Connection Applicant* to obtain binding tenders for the provision of detailed design, construction and ownership services for the *contestable IUSA components*;
 - (ii) at the *Primary Transmission Network Service Provider's* option, that is above those minimum requirements in subparagraph (i) subject to the *Primary Transmission Network Service Provider* separately identifying the additional requirements and agreeing to fund the additional works related to those requirements;

- (10) an indicative costing for operation and maintenance services for any *identified user shared asset*, based on the functional specification provided pursuant to subparagraph (9); and
- (11) the amount of any enquiry fee under clause 5.3.2(g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b1) The *Network Service Provider* must:

- (1) within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b); or
- (2) within 30 *business days* after receipt of a request from the *Connection Applicant* to the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d),

provide the *Connection Applicant* with the following written details of each technical requirement relevant to the proposed *plant*:

- (3) the *automatic access standards*;
- (4) the *minimum access standards*;
- (5) the applicable *plant standards*;
- (6) the *negotiated access standards* that will require *AEMO's* involvement in accordance with clause 5.3.4A(c); and
- (7) the *normal voltage* level, if that is to change from the *nominal voltage* level.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b2) A *Registered Participant*, *AEMO* or *interested party* may request the *Reliability Panel* to determine whether, in respect of one or more technical requirements for access, an existing Australian or international standard, or a part thereof, may be adopted as a *plant standard* for a particular class of *plant*.
- (b3) Where, in respect of a technical requirement for access, the *Reliability Panel* determines a *plant standard* for a particular class of *plant* in accordance with clause 8.8.1(a)(8) as an acceptable alternative to a particular *minimum access standard* or *automatic access standard*, a *plant* which meets that *plant standard* is deemed to meet the applicable *automatic access standard* or *minimum access standard* for that technical requirement.

- (b4) In making a determination in accordance with clause 5.3.3(b2) the *Reliability Panel* must consult *Registered Participants* and *AEMO* using the *Rules consultation procedures*.
- (b5) For a *connection point* for a proposed new *connection* of a *generating system* or *market network service facility*, within the time applicable under paragraph (b1), the *Network Service Provider* must provide the *Connection Applicant* with the following written details:
 - (1) the minimum *three phase fault level* at the *connection point*; and
 - (2) the results of the *Network Service Provider's* preliminary assessment of the impact of the new *connection* undertaken in accordance with the *system strength impact assessment guidelines* and clause 5.3.4B.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Within 30 *business days* after receipt of the *connection* enquiry and all such additional information (if any) advised under clause 5.3.2(b) or, if the *Connection Applicant* has requested the *Local Network Service Provider* to process the *connection* enquiry under clause 5.3.2(d), within 20 *business days* after receipt of that request, the *Network Service Provider* must provide to the *Connection Applicant* written advice of all further information which the *Connection Applicant* must prepare and obtain in conjunction with the *Network Service Provider* to enable the *Network Service Provider* to assess an *application to connect* including:
 - (1) details of the *Connection Applicant's* *connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be connected, consistent with the requirements advised in accordance with clause 5.3.3(b1);
 - (2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;
 - (3) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection* requirements and the type, rating and location of the *facility* to be *connected* and will generally be in the nature of the information set out in schedule 5.5 but may be varied by the *Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility* to be *connected*;
 - (4) commercial information to be supplied by the *Connection Applicant* to allow the *Network Service Provider* to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rules 6.21 and 6A.28;

- (5) the amount of the application fee which is payable on lodgement of an *application to connect*, such amount:
 - (i) not being more than necessary to cover the reasonable costs of all work anticipated to arise from investigating the *application to connect* and preparing the associated offer to *connect* and to meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required; and
 - (ii) must not include any amount for, or in anticipation of, the costs of the person using an *Independent Engineer*; and
- (6) any other information relevant to the submission of an *application to connect*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.4 Application for connection

- (a) A person who has made a *connection* enquiry under clause 5.3.2 may, following receipt of the responses under clause 5.3.3, make an *application to connect* in accordance with this clause 5.3.4, clause 5.3.4A and clause 5.3.4B.
- (b) To be eligible for *connection* the *Connection Applicant* must submit an *application to connect* containing:
 - (1) the information specified in clause 5.3.3(c);
 - (2) the relevant application fee to the relevant *Network Service Provider*;
 - (3) for services related to *contestable IUSA components* that the *Connection Applicant* has not obtained from the *Primary Transmission Network Service Provider* (as applicable):
 - (i) the *Connection Applicant's* process for how the *Primary Transmission Network Service Provider* will undertake a review of the detailed design and inspect the construction of those components and how risks of defects will be addressed;
 - (ii) the detailed design of those components; and
 - (iii) if the *Primary Transmission Network Service Provider* will not own the *contestable IUSA components*, the *Connection Applicant's* proposed changes (if any) to the form of *network operating agreement* published pursuant to schedule 5.10; and

- (4) if the *Connection Applicant* has obtained services related to *contestable IUSA components* other than from the *Primary Transmission Network Service Provider*, all information reasonably required for the *Primary Transmission Network Service Provider* to properly provide operation and maintenance services for the life of those components, including details of the *contestable IUSA components'* construction, instructions for operation and maintenance and health safety and asset management manuals.
- (b1) The *Connection Applicant's* detailed design under paragraph (b)(3)(ii):
 - (1) must be consistent with the minimum functional specification provided by the *Primary Transmission Network Service Provider* under clause 5.3.3(b)(9)(i);
 - (2) must not unreasonably inhibit the capacity for future expansion of the *identified user shared asset* or preclude the possibility of future *connections* to that asset; and
 - (3) subject to the *Connection Applicant* considering the *Primary Transmission Network Service Provider's* additional requirements under clause 5.3.3(b)(9)(ii) in good faith, may be (but is not required to be) consistent with those additional requirements.
- (c) In relation to *Distribution Network Service Providers* and *Network Service Providers* for *declared transmission systems*, the *Connection Applicant* may submit *applications to connect* to more than one *Network Service Provider* in order to receive additional offers to *connect* in respect of *facilities* to be provided that are *contestable*.
- (d) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* or *AEMO* in the assessment of the *application to connect*, a *Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers* or *AEMO*, as appropriate.
- (e) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Network Service Provider* pursuant to clause 5.3.3(b1), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.
- (f) The *Connection Applicant* may:
 - (1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3.3(b) who may require a form of agreement;
 - (2) lodge one *application to connect* with the *Network Service Provider* who processed the *connection* enquiry and require it to liaise with

those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*; or

- (3) lodge a combined *application to connect* with the *Primary Network Service Provider* where the *connection* involves more than one *Connection Applicant* due to different persons developing and owning *contestable IUSA components, dedicated connection assets* and *Transmission Network User facilities* in relation to that *connection*.
- (g) A *Connection Applicant* who proposes a *system strength remediation scheme* under clause 5.3.4B must submit its proposal with the *application to connect*.

5.3.4A Negotiated access standards

- (a) *AEMO* must advise on *AEMO advisory matters*.
- (b) A *negotiated access standard* must:
 - (1) subject to subparagraph (1A), be no less onerous than the corresponding *minimum access standard* provided by the *Network Service Provider* under clauses 5.3.3(b1)(4) or S5.4B(b)(2);
 - (1A) with respect to a submission by a *Generator* under clause 5.3.9(b)(3), be no less onerous than the *performance standard* that corresponds to the technical requirement that is affected by the alteration to the *generating system*;
 - (2) be set at a level that will not adversely affect *power system security*;
 - (3) be set at a level that will not adversely affect the quality of *supply* for other *Network Users*; and
 - (4) in respect of *generating plant*, meet the requirements applicable to a *negotiated access standard* in Schedule 5.2.
- (b1) When submitting a proposal for a *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3), and where there is a corresponding *automatic access standard* for the relevant technical requirement, a *Connection Applicant* must propose a standard that is as close as practicable to the corresponding *automatic access standard*, having regard to:
 - (1) the need to protect the *plant* from damage;
 - (2) *power system* conditions at the location of the proposed *connection*; and
 - (3) the commercial and technical feasibility of complying with the *automatic access standard* with respect to the relevant technical requirement.

- (b2) When proposing a *negotiated access standard* under paragraph (b1), the *Connection Applicant* must provide reasons and evidence to the *Network Service Provider* and *AEMO* as to why, in the reasonable opinion of the *Connection Applicant*, the proposed *negotiated access standard* is appropriate, including:
- (1) how the *Connection Applicant* has taken into account the matters outlined in subparagraphs (b1)(1) to (3); and
 - (2) how the proposed *negotiated access standard* meets the requirements of paragraph (b).
- (c) Following the receipt of a proposed *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3), the *Network Service Provider* must consult with *AEMO* as soon as practicable in relation to *AEMO advisory matters* for that proposed standard.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Within 20 *business days* following the later of:
- (1) receipt of a proposed *negotiated access standard* under clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3); and
 - (2) receipt of all information required to be provided by the *Connection Applicant* under clauses S5.2.4, S5.5.6, S5.3.1(a1) or S5.3a.1(a1),

AEMO must advise the *Network Service Provider* in writing, in respect of *AEMO advisory matters*, whether the proposed *negotiated access standard* should be accepted or rejected.

- (d1) When advising the *Network Service Provider* under paragraph (d) to reject a proposed *negotiated access standard*, and subject to obligations in respect of *confidential information*, *AEMO* must:
- (1) provide detailed reasons in writing for the rejection to the *Network Service Provider*, including:
 - (i) where the basis of *AEMO*'s advice is lack of evidence from the *Connection Applicant*, details of the additional evidence of the type referred to in paragraph (b2) *AEMO* requires to continue assessing the proposed *negotiated access standard*; and
 - (ii) the extent to which each of the matters identified at subparagraphs (b)(1), (b)(1A), (b)(2) and (b)(4) contributed to *AEMO*'s decision to reject the proposed *negotiated access standard*; and

- (2) recommend a *negotiated access standard* that AEMO considers meets the requirements of subparagraphs (b)(1), (b)(1A), (b)(2) and (b)(4).
- (e) Within 30 *business days* following the later of:
 - (1) receipt of a proposed *negotiated access standard* in accordance with clauses 5.3.4(e), 5.3A.9(f), 5.3.9(b)(3) or subparagraph (h)(3); and
 - (2) receipt of all information required to be provided by the *Connection Applicant* under clauses S5.2.4, S5.5.6, S5.3.1(a1) or S5.3a.1(a1),
 the *Network Service Provider* must accept or reject a proposed *negotiated access standard*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The *Network Service Provider* must reject the proposed *negotiated access standard* where:
 - (1) in the *Network Service Provider's* reasonable opinion, one or more of the requirements at subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4) are not met; or
 - (2) AEMO has advised the *Network Service Provider* under paragraph (d) to reject the proposed *negotiated access standard*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) If a *Network Service Provider* rejects a proposed *negotiated access standard*, the *Network Service Provider* must, at the same time:
 - (1) subject to obligations in respect of *confidential information*, provide to the *Connection Applicant*:
 - (i) where the basis for the *Network Service Provider's* rejection is lack of evidence from the *Connection Applicant*, details of the additional evidence of the type referred to in paragraph (b2) the *Network Service Provider* requires to continue assessing the proposed *negotiated access standard*;
 - (ii) detailed reasons in writing for the rejection, including the extent to which each of the matters identified at subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4) contributed to the *Network Service Provider's* decision to reject the proposed *negotiated access standard*; and

- (iii) the detailed reasons and recommendation (if any) provided by *AEMO* to the *Network Service Provider* in respect of an *AEMO advisory matter* under subparagraphs (d1)(1) and (2); and
- (2) advise the *Connection Applicant* of a *negotiated access standard* that the *Network Service Provider* considers meets the requirements of subparagraphs (b)(1), (b)(1A), (b)(3) and (b)(4).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) The *Connection Applicant* may in relation to a proposed *negotiated access standard* advised by a *Network Service Provider* in accordance with subparagraph (g)(2):
 - (1) accept the proposed *negotiated access standard*;
 - (2) reject the proposed *negotiated access standard*;
 - (3) propose an alternative *negotiated access standard* to be further evaluated in accordance with the criteria in paragraph (b); or
 - (4) elect to adopt the relevant *automatic access standard* or a corresponding *plant standard*.
- (i) An *automatic access standard* or if the procedures in this clause 5.3.4A have been followed a *negotiated access standard*, that forms part of the terms and conditions of a *connection agreement*, is taken to be the *performance standard* applicable to the *connected plant* for the relevant technical requirement.

5.3.4B System strength remediation for new connections

- (a) A *Network Service Provider* must, in accordance with the *system strength impact assessment guidelines*, undertake a *system strength impact assessment* for each proposed new *connection* of a *generating system* or *market network service facility* and any proposed alteration to a *generating system* to which clause 5.3.9 applies. A *Network Service Provider* must make:
 - (1) a preliminary assessment if it is in receipt of a *connection enquiry* or a request by a *Generator* under clause 5.3.9(c1); ~~and~~
 - (2) a full assessment if it is in receipt of an *application to connect* or submission from a *Generator* under clause 5.3.9, unless the preliminary assessment indicates that the full assessment is not needed; and

- (3) a full assessment if it is an *Embedded Network Service Provider* and the proposed new *connection* or alteration relates to its *embedded network*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Network Service Provider* must give the results of the preliminary assessment and the full assessment to the *Connection Applicant* or *Generator* concerned following consultation with *AEMO*.
- (c) A dispute referred to in paragraph (d) between any of:
- (1) *AEMO*;
 - (2) ~~a~~ *Network Service Provider* required to conduct an assessment under paragraph (a);
 - (3) a *Connection Applicant* who has submitted an *application to connect* for which a full assessment is required under paragraph (a); and
 - (4) a *Generator* who proposes an alteration to a *generating system* to which clause 5.3.9 applies and for which a full assessment is required under paragraph (a),
- may be determined under rule 8.2.
- (d) Paragraph (c) applies to any dispute relating to the assessment of an *adverse system strength impact* as a result of conducting a *system strength impact assessment* including a dispute in relation to:
- (1) whether the model specified by *AEMO* for the purposes of clause 4.6.6(b)(2) was reasonably appropriate for conducting the *system strength impact assessment*; and
 - (2) the application of the *system strength impact assessment guidelines* when undertaking a *system strength impact assessment*.
- (e) Subject to paragraph (f), a *Network Service Provider* must undertake *system strength connection works* at the cost of the *Connection Applicant* or *Generator* (as applicable) if the full assessment undertaken in accordance with the *system strength impact assessment guidelines* indicates that the *Connection Applicant's* proposed new *connection* of a *generating facility* or *market network service facility* or the *Generator's* proposed alteration to a *generating system* to which clause 5.3.9 applies will have an *adverse system strength impact*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) Paragraph (e) does not require a *Network Service Provider* to undertake, nor permit a *Network Service Provider* to require, *system strength connection works* in the following circumstances:
 - (1) the proposed new *connection* or alteration does not proceed;
 - (2) to the extent that the *adverse system strength impact* referred to in paragraph (e) is or will be avoided or remedied by a *system strength remediation scheme* agreed or determined under this clause and implemented by the *Registered Participant* in accordance with its *connection agreement*; or
 - (3) to the extent that the impact is below any threshold specified in the *system strength impact assessment guidelines* for this purpose.
- (g) A *Connection Applicant* must include any proposal for a *system strength remediation scheme* in its *application to connect* or its proposal under clause 5.3.9(b)(4). Where the *Connection Applicant* is seeking connection to an embedded network, it must provide its proposal to the *Embedded Network Service Provider* within a reasonable time of a request by the *Embedded Network Service Provider*.
- (h) A *Connection Applicant* proposing to install *plant* as part of a *system strength remediation scheme* must include a description of the *plant*, the ratings of the proposed *plant* (in MVA) and other information (including models) reasonably required by the *Network Service Provider* and AEMO to assess the *system strength remediation scheme*.
- (i) A *Network Service Provider* must, following the receipt of a proposal for a *system strength remediation scheme*, consult with AEMO as soon as practical in relation to the proposal.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (j) Following the submission of a proposal for a *system strength remediation scheme*, AEMO must use reasonable endeavours to respond to the *Network Service Provider* in writing in respect of the proposal within 20 *business days*.
- (k) A *Network Service Provider* must within 10 *business days* following the receipt of a response from AEMO under paragraph (h) to a proposal for a *system strength remediation scheme*, accept or reject the proposal.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (l) The *Network Service Provider* must reject a proposal for a *system strength remediation scheme* if the scheme is not reasonably likely to achieve its required outcome or would:
 - (1) in the reasonable opinion of the *Network Service Provider* adversely affect quality of *supply* for other *Network Users*; or
 - (2) on *AEMO's* reasonable advice, adversely affect *power system security*.
- (m) If a *Network Service Provider* rejects a proposal for a *system strength remediation scheme*, the *Network Service Provider* must give its reasons but has no obligation to propose a *system strength remediation scheme* that it will accept.
- (n) The *Connection Applicant* submitting a proposal for a *system strength remediation scheme* rejected by a *Network Service Provider* may:
 - (1) propose an alternative *system strength remediation scheme* to be further evaluated following the process initiated under paragraph (i); or
 - (2) request negotiations under paragraph (o).
- (o) If a *Connection Applicant* requests negotiations under this paragraph, the *Connection Applicant*, the *Network Service Provider* and *AEMO* must negotiate in good faith to reach agreement in respect of the proposal for a *system strength remediation scheme*.
- (p) If the matter is not resolved by negotiation under paragraph (o):
 - (1) in the case of a *connection* to a *transmission system* other than the *declared transmission system* of an *adoptive jurisdiction*, the matter may be dealt with as a dispute under rule 5.5 (but not rule 8.2); or
 - (2) otherwise, may be dealt with under rule 8.2 or as a *distribution service access dispute* as applicable.
- (q) The parties to a *connection agreement* containing a *system strength remediation scheme* must not modify the scheme unless the modified scheme has been agreed or determined under this clause. A *Registered Participant* proposing to modify a *system strength remediation scheme* must submit its proposal for modification to the *Network Service Provider* for evaluation by the *Network Service Provider* and *AEMO* under this clause. Once agreed or determined, the modified scheme must be incorporated as an amendment to the *connection agreement* and notified to *AEMO* under clause 5.3.7(g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.5 Preparation of offer to connect

- (a) The *Network Service Provider* to whom the *application to connect* is submitted:
 - (1) at the *automatic access standard* under clause 5.3.4; or
 - (2) at a *negotiated access standard* that the provider has accepted under clause 5.3.4A(e),must proceed to prepare an offer to *connect* in response.
- (b) The *Network Service Provider* must use its reasonable endeavours to advise the *Connection Applicant* of all risks and obligations in respect of the proposed *connection* associated with planning and environmental laws not contained in the *Rules*.
- (c) The *Connection Applicant* must provide such other additional information in relation to the *application to connect* as the *Network Service Provider* reasonably requires to assess the technical performance and costs of the required *connection* (including the details of any person undertaking the construction, detailed design and/or ownership of *contestable IUSA components*) to enable the *Network Service Provider* to prepare an offer to *connect*.
- (d) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Network Service Provider* in preparing the offer to *connect* must consult with *AEMO* and other *Registered Participants* with whom it has *connection agreements*, if the *Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:
 - (1) the technical requirements for the equipment to be *connected*;
 - (2) the extent and cost of *augmentations* and changes to all affected *networks*;
 - (3) any consequent change in *network service charges*; and
 - (4) any possible material effect of this new *connection* on the *network power transfer capability* including that of other *networks*.
- (e) The *Network Service Provider* preparing the offer to *connect* must specify in reasonable detail any *system strength connection works* to be undertaken by the *Network Service Provider*.

- (f) **[Deleted]**
- (g) The *Network Service Provider* preparing the offer to *connect* must include provision for payment of the reasonable costs associated with *remote control equipment* and *remote monitoring equipment* as required by *AEMO* and it may be a condition of the offer to *connect* that the *Connection Applicant* pay such costs.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.6 Offer to connect

- (a) A *Network Service Provider* processing an *application to connect* must make an offer to *connect* the *Connection Applicant's facilities* to the *network* within the following timeframes:
 - (1) where the *application to connect* was made under clause 5.3.4(a), the timeframe specified in the *preliminary program*, subject to clause 5.3.3(b)(6); and
 - (2) where the *application to connect* was made under clause 5.3A.9(b), a period of time no longer than 4 months from the date of receipt of the *application to connect* and any additional information requested under clause 5.3A.9(d), unless agreed otherwise.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (a1) The *Network Service Provider* may amend the time period referred to in paragraph (a)(1) to allow for any additional time taken in excess of the period allowed in the *preliminary program* for the negotiation of *negotiated access standards* in accordance with clause 5.3.4A or a *system strength remediation scheme* in accordance with clause 5.3.4B or any time taken by *AEMO* to respond under clause 5.3.4B(j) in excess of 20 *business days*.
- (a2) In relation to the timeframes fixed in paragraph (a)(2), for the purposes of calculating elapsed time, the following periods shall be disregarded:
 - (1) the period that commences on the day when a dispute is initiated under clause 8.2.4(a) and ends of the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a);
 - (2) any time taken to resolve a *distribution services access dispute*; and
 - (3) any time taken by *AEMO* to respond under clause 5.3.4B(j) in excess of 20 *business days*.

- (b) In relation to an *application to connect* made under clause 5.3.4(a), the offer to *connect* must contain the proposed terms and conditions for *connection* to the *network* including:
- (1) for each technical requirement identified by the *Network Service Provider* under clause 5.3.3(b1), the *automatic access standard* or the *negotiated access standard* as determined in accordance with clauses 5.3.4 and 5.3.4A; and
 - (2) the terms and conditions of the kind set out in Part A and (where applicable) Part B of schedule 5.6,

and must be capable of acceptance by the *Connection Applicant* so as to constitute a *connection agreement* and (where applicable) a *network operating agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b1) The proposed terms and conditions detailed in the offer to *connect* must be no lower than the applicable *minimum access standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b2) An offer to *connect* made under paragraph (a)(2), must be accompanied by:
- (1) so far as is relevant, and in relation to services the *Distribution Network Service Provider* intends to provide, an itemised statement of *connection* costs including:
 - (i) *connection service* charges;
 - (ii) costs associated with *metering* requirements contained in the offer to *connect*;
 - (iii) costs of *network extension*;
 - (iv) details of *augmentation* required to provide the *connection* and associated costs;
 - (v) details of the interface equipment required to provide the *connection* and associated costs;
 - (vi) details of any ongoing operation and maintenance costs and charges by the *Distribution Network Service Provider*; and
 - (vii) other incidental costs and their basis of calculation;

- (2) if any item in the statement of costs in subparagraph (1) differs substantially from the estimate provided under clause S5.4B(h), an explanation of the differences;
 - (3) a *connection agreement* capable of execution by the *Connection Applicant*, which must contain the proposed terms and conditions for *connection* to the *distribution network* (of the kind set out in Part A of schedule 5.6) including, for each technical requirement identified by the *Distribution Network Service Provider* in the detailed response provided under clause 5.3A.8(c), the *automatic access standard* or the negotiated access standard as determined in accordance with clause 5.3.4A; and
 - (4) an explanation:
 - (i) of how the offer to *connect* can be accepted; and
 - (ii) that the offer to *connect* remains open for 20 *business days*, unless otherwise agreed.
- (b3) An offer to *connect* made under paragraph (a)(2) must remain open for acceptance for 20 *business days* from the date it is made and, if not accepted within that period, lapses unless the *Connection Applicant* has sought an extension of the period of time from the *Distribution Network Service Provider*. The *Distribution Network Service Provider* may not unreasonably withhold consent to the extension.
- (b4) An offer to *connect* by a *Primary Transmission Network Service Provider* made under paragraph (a)(1) must include:
- (1) the *Primary Transmission Network Service Provider's* requirements in relation to the matters proposed in clause 5.3.4(b)(3) and (b)(4); and
 - (2) the costs of the services proposed to be provided by the *Primary Transmission Network Service Provider* separated between *negotiated transmission services* and *non-regulated transmission services* (if applicable).
- (b5) A *Connection Applicant* may seek amendments to the offer to *connect* provided that the *Connection Applicant* agrees to changes to the *preliminary program* to reflect the additional time required to agree the amendments.
- (c) The offer to *connect* must be fair and reasonable and must be consistent with the safe and *reliable* operation of the *power system* in accordance with the *Rules*. Without limitation, unless the parties otherwise agree, to be fair and reasonable an offer to *connect* must offer *connection* and *network services* consistent with schedule 5.1 and (as applicable) schedules 5.2, 5.3 and 5.3a and must not impose conditions on the *Connection Applicant* which are more onerous than those contemplated in schedules 5.1, 5.2, 5.3 or 5.3a.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c1) **[Deleted]**

- (d) The *Network Service Provider* must use its reasonable endeavours to provide the *Connection Applicant* with an offer to *connect* in accordance with the reasonable requirements of the *Connection Applicant*, including without limitation, the location of the proposed *connection point* and the level and standard of *power transfer capability* that the *network* will provide.
- (e) An offer to *connect* may contain options for *connection* to a *network* at more than one point in a *network* and/or at different levels of service and with different terms and conditions applicable to each *connection point* according to the different characteristics of *supply* at each *connection point*.
- (f) Both the *Network Service Provider* and the *Connection Applicant* are entitled to negotiate with each other in respect of the provision of *connection* and any other matters relevant to the provision of *connection* and, if negotiations occur, the *Network Service Provider* and the *Connection Applicant* must conduct such negotiations in good faith.
- (g) An offer to *connect* must define the basis for determining *transmission service* charges in accordance with Chapter 6A, including the prudential requirements set out in that Chapter.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) An offer to *connect* must define the basis for determining *distribution service* charges in accordance with Chapter 6, including the prudential requirements set out in Part K of Chapter 6.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) **[Deleted]**

- (j) An offer to *connect* in respect of a *distribution network* made to an *Embedded Generator* or a *Market Network Service Provider*, must conform with the relevant access arrangements set out in rule 5.3AA.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (k) **[Deleted]**

5.3.7 Finalisation of connection agreements and network operating agreements

- (a) If a *Connection Applicant* wishes to accept an offer to *connect*, the *Connection Applicant* must negotiate and enter into:

- (1) a *connection agreement* with each relevant *Network Service Provider* identified in accordance with clauses 5.3.3(b)(3) and (4) or clauses S5.4.A(d) and (e); and
- (2) if applicable, a *network operating agreement* with the *Primary Transmission Network Service Provider*,

and in doing so must use its reasonable endeavours to negotiate in good faith with all parties with which the *Connection Applicant* must negotiate such a *connection agreement* and (if applicable) *network operating agreement*.

- (b) The *connection agreement* must include proposed *performance standards* with respect to each of the technical requirements identified in schedules 5.2, 5.3 and 5.3a and each proposed *performance standard* must have been established in accordance with the relevant technical requirement.
- (c) The proposed *performance standards* must be based on the *automatic access standard* or, if the procedures in clause 5.3.4A have been followed, the *negotiated access standard*.
- (d) The provision of *connection* by any *Network Service Provider* may be made subject to gaining environmental and planning approvals for any necessary *augmentation* or *extension* works to a *network* or any *system strength connection works*.
- (e) Where permitted by the applicable law in the relevant *participating jurisdiction*, the *connection agreement* may assign responsibility to the *Connection Applicant* for obtaining the approvals referred to in paragraph (d) as part of the project proposal and the *Network Service Provider* must provide all reasonable information and may provide reasonable assistance for a reasonable fee to enable preparation of applications for such approvals.
- (f) Subject to paragraph (e), each *connection agreement* must be based on the offer to *connect* as varied by agreement between the parties.
- (f1) The parties may agree to have one *connection agreement* between a *Primary Transmission Network Service Provider*, *Dedicated Connection Asset Service Provider* and a *Transmission Network User* for a *connection*.

- (f2) A *network operating agreement* must be based on the offer to *connect* as varied by agreement between the parties.
- (g) Within 20 *business days* of execution of the *connection agreement*, the *Network Service Provider* responsible for the *connection point* and the *Registered Participant* must jointly notify *AEMO* that a *connection agreement* has been entered into between them and forward to *AEMO* relevant technical details of the proposed *plant* and *connection*, including as applicable:
 - (1) details of all *performance standards* that form part of the terms and conditions of the *connection agreement*;
 - (2) if a *Generator*, the arrangements for:
 - (i) updating the *releasable user guide* and other information required under clause S5.2.4(b); and
 - (ii) informing *AEMO* when the *connection agreement* expires or is terminated;
 - (3) the proposed *metering installation*;
 - (4) arrangements to obtain physical access to the *metering installation* for the *Metering Provider* and the *Metering Data Provider* for *metering installations* type 4A, 5 and 6;
 - (5) the terms upon which a *Registered Participant* is to supply any *ancillary services* under the *connection agreement*; and
 - (6) the details of any *system strength remediation scheme* agreed, determined or modified under clause 5.3.4B.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) *AEMO* must, within 20 *business days* of receipt of the notice under paragraph (g), advise the relevant *Network Service Provider* and the *Registered Participant* of whether the proposed *metering installation* is acceptable for those *metering installations* associated with those *connection points* which are classified as *metering installation* types 1, 2, 3 and 4 as specified in schedule 7.4.

5.3.8 Provision and use of information

- (a) The data and information provided under rules 5.2A, 5.3 and 5.3A is *confidential information* and must:
 - (1) be prepared, given and used in good faith; and

- (2) not be disclosed or made available by the recipient to a third party except as set out in clause 3.13.3 or this clause 5.3.8 or in accordance with rule 8.6.
- (a1) The data and information provided to a *Primary Transmission Network Service Provider* in relation to its provision of non-contestable services as specified under clause 5.2A.4(a) must not be used by the *Primary Transmission Network Service Provider* for the purpose of tendering for, or negotiating, *contestable* services specified under clause 5.2A.4(a) in the *connection* process in which the data or information was given, or in future *connection* processes, without the consent of the *Connection Applicant*.
- (b) The data and information to be provided under this rule 5.3 may be shared between a *Network Service Provider* and AEMO for the purpose of enabling:
 - (1) the *Network Service Provider* to advise AEMO of *ancillary services* ; and
 - (2) either party to:
 - (i) assess the effect of a proposed *facility* or proposed alteration to *generating plant* (as the case may be) on:
 - (A) the performance of the *power system*; or
 - (B) another proposed *facility* or another proposed alteration;
 - (ii) assess proposed *negotiated access standards*;
 - (iii) determine the extent of any required *augmentation* or *extension* or *system strength connection works*; or
 - (iv) assess *system strength remediation scheme* proposals.
- (c) A *Network Service Provider* may disclose the data and information to be provided under rules 5.2A, 5.3 and 5.3A to another *Network Service Provider* if the *Network Service Provider* considers the information or data is materially relevant to that provider for *connection*.
- (d) A person intending to disclose information under paragraphs (b) or (c) must first advise the relevant *Connection Applicant* of the extent of the disclosure, unless the information may be disclosed in accordance with rule 8.6.
- (e) If a *Connection Applicant* or *Network Service Provider* becomes aware of any material change to any information contained in or relevant to an *application to connect*, it must promptly notify the other party in writing of that change.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) A *Registered Participant* must, within 5 *business days* of becoming aware that any information provided to *AEMO* in relation to a *performance standard* or other information of a kind required to be provided to *AEMO* under clause 5.3.7 is incorrect, advise *AEMO* of the correct information.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.9 Procedure to be followed by a Generator proposing to alter a generating system

- (a) This clause 5.3.9 applies where a *Generator* proposes to alter a *connected generating system* or a *generating system* for which *performance standards* have been previously accepted by the *Network Service Provider* and *AEMO* (in relation to *AEMO advisory matters*) and that alteration:
- (1) will affect the performance of the *generating system* relative to any of the technical requirements set out in clauses S5.2.5, S5.2.6, S5.2.7 and S5.2.8; or
 - (2) will, in *AEMO's* reasonable opinion, have an *adverse system strength impact*; or
 - (3) will, in *AEMO's* reasonable opinion, adversely affect *network capability*, *power system security*, quality or reliability of *supply*, *inter-regional power transfer capability* or the use of a *network* by another *Network User*.
- (b) A *Generator* to which this clause applies, must submit to the *Network Service Provider* with a copy to *AEMO*:
- (1) a description of the nature of the alteration and the timetable for implementation;
 - (2) in respect of the proposed alteration to the *generating system*, details of the *generating unit* design data and *generating unit* setting data in accordance with the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) in relation to each relevant technical requirement for which the proposed alteration to the equipment will affect the performance of the *generating system*, the proposed amendments to the *plant's* existing corresponding *performance standard* for that technical requirement; and
 - (4) where relevant, the *Generator's* proposed *system strength remediation scheme*.
- (c) Clause 5.3.4A applies to a submission by a *Generator* under subparagraph (b)(3).
- (c1) Clause 5.3.4B applies to a submission by a *Generator* under subparagraph (b)(4). A *Generator* may request the *Network Service Provider* to undertake a preliminary assessment in accordance with the *system strength impact assessment guidelines* before making a submission under paragraph (b).
- (d) Without limiting paragraph (a), a proposed alteration to the equipment specified in column 1 of the table set out below is deemed to affect the performance of the *generating system* relative to technical requirements specified in column 2, thereby necessitating a submission under subparagraph (b)(3), unless *AEMO* and the *Network Service Provider* otherwise agree.

Column 1 (altered equipment)	Column 2 (clause)
machine windings	S5.2.5.1, S5.2.5.2, S5.2.8
power converter	S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13, S5.2.8
reactive compensation plant	S5.2.5.1, S5.2.5.2, S5.2.5.5, S5.2.5.12, S5.2.5.13
<i>excitation control system</i>	S5.2.5.5, S5.2.5.7, S5.2.5.12, S5.2.5.13
<i>voltage control system</i>	S5.2.5.5, S5.2.5.7, S5.2.5.12, S5.2.5.13
<i>governor control system</i>	S5.2.5.7, S5.2.5.11, S5.2.5.14
<i>power control system</i>	S5.2.5.11, S5.2.5.14
<i>protection system</i>	S5.2.5.3, S5.2.5.4, S5.2.5.5, S5.2.5.7, S5.2.5.8, S5.2.5.9, S5.2.5.10
auxiliary supplies	S5.2.5.1, S5.2.5.2, S5.2.7
remote control and monitoring	S5.2.5.14, S5.2.6.1, S5.2.6.2

Column 1 (altered equipment)	Column 2 (clause)
system	

- (e) The *Network Service Provider* may as a condition of considering a submission made under paragraph (b), require payment of a fee to meet the reasonable costs anticipated to be incurred by the *Network Service Provider*, other *Network Service Providers* and *AEMO*, in the assessment of the submission.
- (f) The *Network Service Provider* must require payment of a fee under paragraph (e) if so requested by *AEMO*.
- (g) On payment of the required fee referred to in paragraph (e), the *Network Service Provider* must pay such amounts as are on account of the costs anticipated to be incurred by the other *Network Service Providers* and *AEMO*, as appropriate.
- (h) If the application of this clause 5.3.9 leads to a variation to an existing *connection agreement* the *Network Service Provider* and the *Generator* must immediately jointly advise *AEMO*, including the details of any *performance standards* amended pursuant to this clause 5.3.9.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3.10 Acceptance of performance standards for generating plant that is altered

- (a) A *Generator* must not commission altered *generating plant* until the *Network Service Provider* has advised the *Generator* that the provider and *AEMO* are satisfied in accordance with paragraph (b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) In relation to altered *generating plant*, the *Network Service Provider* and *AEMO*, to the extent of *AEMO's* advisory role under clause 5.3.4A and clause 5.3.4B, must be satisfied that:
 - (1) the *Generator* has complied with clause 5.3.9; and
 - (2) each amended *performance standard* submitted by the *Generator* either meets:

- (i) the *automatic access standard* applicable to the relevant technical requirement; or
- (ii) the *negotiated access standard* under clause 5.3.4A as applied in accordance with clause 5.3.9(c); and
- (3) any *system strength remediation scheme* satisfies clause 5.3.4B.
- (c) For the purposes of paragraph (a), *AEMO* must advise the *Network Service Provider* as to whether it is satisfied with the matters referred to paragraph (b).

5.3.11 Notification of request to change normal voltage

- (a) On receipt of a request from a *Network Service Provider* to change *normal voltage*, *AEMO* must *publish* a notice to *Registered Participants* advising:
 - (1) the change in *normal voltage* requested; and
 - (2) the *connection point* to which the request relates.
- (b) Within a reasonable period after publication of the notice in paragraph (a), *AEMO* must *publish* a further notice to *Registered Participants* advising:
 - (1) whether the *normal voltage* at the relevant *connection point* will change; and
 - (2) the nature of, and reasons for, any such change.

5.3A Establishing or modifying connection - embedded generation

5.3A.1 Application of rule 5.3A

- (a) For the purposes of this rule 5.3A:

non-registered embedded generator has the same meaning as in clause 5A.A.1
- (b) Where a *Connection Applicant* wishes to connect an *embedded generating unit* to the distribution system of a *Network Service Provider*, this rule 5.3A applies.
- (b1) For the avoidance of doubt, this rule 5.3A does not apply to a proposed connection of an embedded generating unit to an embedded network of an *Embedded Network Service Provider*.
- (c) For the purposes of this rule 5.3A and Schedules 5.4A and 5.4B:
 - (1) a reference to a *Connection Applicant* is to a:
 - (i) person who intends to be an *Embedded Generator*;

- (ii) person who is required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; or
- (iii) non-registered embedded generator who has made an election under clause 5A.A.2(c),

and who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

- (2) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clause 5.3A.5 to process and respond to a *connection* enquiry or required under clause 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned, controlled or operated by that *Distribution Network Service Provider* or for the provision of a *network service*.

5.3A.2 Definitions and miscellaneous

- (a) In this rule 5.3A and Schedules 5.4A and 5.4B:

detailed response means the response to a *connection* enquiry prepared under clause 5.3A.8.

establish a connection has the same meaning as in clause 5.3.1.

information pack means information relevant to the making of an *application to connect* specified in clause 5.3A.3(b).

preliminary response means the response to a *connection* enquiry prepared under clause 5.3A.7.

sub-transmission line has the same meaning as in clause 5.10.2.

zone substation has the same meaning as in clause 5.10.2.

- (b) To the extent a *Distribution Network Service Provider* has provided information required to be provided under this clause 5.3A by the inclusion of that information in:

- (1) its demand side engagement document under clause 5.13.1(g); or

- (2) a *Distribution Annual Planning Report*,

it will comply with the relevant information provision requirements of rule 5.3A by including hyperlinks to the relevant information in information provided to a *Connection Applicant*.

- (c) Where this rule 5.3A fixes a time limit for the provision of information or a response then, for the purposes of calculating elapsed time, the period that:
 - (1) commences on the day when a dispute is initiated under clause 8.2.4(a); and
 - (2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),is to be disregarded.

5.3A.3 Publication of Information

- (a) A *Distribution Network Service Provider* must *publish* the following in the same location on its website:
 - (1) an enquiry form for *connection* of an *embedded generating unit*;
 - (2) a register of completed embedded generation projects under rule 5.18B; and
 - (3) an information pack.
- (b) An information pack must include:
 - (1) a description of the process for lodging an *application to connect* for an *embedded generating unit*, including:
 - (i) the purpose of each stage of the *connection* enquiry and application processes;
 - (ii) the steps a *Connection Applicant* will need to follow at each stage of the *connection* enquiry and application processes;
 - (iii) the information that is to be included by the *Connection Applicant* with a *connection* enquiry and the information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* at each stage of the *connection* enquiry;
 - (iv) the information that is to be included with an *application to connect* and the type of information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* after lodgement of the application;
 - (v) the factors taken into account by the *Distribution Network Service Provider*, at each stage of the *connection* enquiry and application, when assessing an *application to connect* for an *embedded generating unit*;
 - (vi) the process for negotiating *negotiated access standards* under clause 5.3.4A and any *system strength remediation scheme*

under clause 5.3.4B and a summary of the factors the *Distribution Network Service Provider* takes into account when considering proposed *negotiated access standards* and *system strength remediation schemes*; and

- (vii) a list of services, if any, relevant to the *connection* that are *contestable* in the relevant *participating jurisdiction*;
- (2) single line diagrams of the *Distribution Network Service Provider's* preferred *connection* arrangements, and a range of other possible *connection* arrangements for integration of an *embedded generating unit*, showing the *connection point*, the point of common coupling, the *embedded generating unit(s)*, *load(s)*, *meter(s)*, circuit breaker(s) and isolator(s);
- (3) a sample schematic diagram of the *protection system* and *control system* relevant to the *connection* of an *embedded generating unit* to the *distribution network*, showing the *protection system* and *control system*, including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up systems and parameters of protection and *control system* elements;
- (4) worked examples of *connection service* charges, enquiry and application fees for the *connection* of *embedded generating units*, based on the preferred and possible *connection* arrangements set out in paragraph (b)(2);
- (5) details of any *minimum access standards* or *plant standards* the *Distribution Network Service Provider* considers are applicable to *embedded generating units* and *generating plant*;
- (6) technical requirements relevant to the processing of a *connection* enquiry or an *application to connect*, including information of the type, but not limited to:
 - (i) *protection systems* and protection schemes;
 - (ii) fault level management principles;
 - (iii) *reactive power capability* and *power factor* correction;
 - (iv) power quality and how limits are allocated;
 - (v) responses to *frequency* and *voltage* disturbances;
 - (vi) *voltage* control and regulation;
 - (vii) *remote monitoring equipment*, control and communication requirements;
 - (viii) earthing requirements and other relevant safety requirements;

- (ix) circumstances in which *augmentation* may be required to facilitate integration of an *embedded generating unit* into the *network*;
 - (x) commissioning and testing requirements; and
 - (xi) circumstances in which a *system strength remediation scheme* or *system strength connection works* will be required as a condition of *connection*; and
- (7) *model connection agreements* used by that *Distribution Network Service Provider*.

5.3A.4 Fees

- (a) A *Distribution Network Service Provider* may charge a *Connection Applicant* an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare a detailed response to the enquiry.
- (b) The *Distribution Network Service Provider* may specify that an enquiry fee is payable in components.
- (c) The enquiry fee, or such component of it identified by the *Distribution Network Service Provider*, is payable either:
 - (1) on lodgement of the further information identified in S5.4A(o); or
 - (2) on receipt of advice from the *Distribution Network Service Provider* provided pursuant to clause 5.3A.7(b).
- (d) A *Distribution Network Service Provider* must not charge a fee for the provision of a preliminary response.
- (e) A *Distribution Network Service Provider* may charge an application fee, payable on lodgement of an *application to connect*, provided that the fee must not:
 - (1) include an amount for work that was completed in preparing the detailed response to the enquiry; and
 - (2) be more than necessary to:
 - (i) cover the costs of work and expenses reasonably incurred by the *Distribution Network Service Provider* in assessing the *application to connect* and making an offer to *connect*; and
 - (ii) meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required.

5.3A.5 Enquiry

- (a) A *Connection Applicant* who wishes to make an *application to connect* must first make a *connection enquiry* with the *Local Network Service Provider*.
- (b) Subject to paragraph (c), an enquiry must be in the form determined by the *Local Network Service Provider*.
- (c) An enquiry form under paragraph (b) must require the *Connection Applicant* to provide:
 - (1) a qualitative description of the objectives of the project proposal the subject of the *application to connect*;
 - (2) the information specified in Schedule 5.4; and
 - (3) a list of the information required from the *Local Network Service Provider* in relation to its *application to connect* and supporting reasons for its requests.
- (d) A *Local Network Service Provider* must, within 5 *business days* after receiving an enquiry, provide written acknowledgment of receipt of the *connection enquiry*.
- (e) If the *Local Network Service Provider* considers that the *connection enquiry* should be jointly examined by more than one *Distribution Network Service Provider*, then, with the agreement of the *Connection Applicant*, one of those *Distribution Network Service Providers* may be allocated the task of liaising with the *Connection Applicant* and the other *Distribution Network Service Providers* to process and respond to the enquiry.
- (f) If the enquiry is incomplete in a material respect, or the *Connection Applicant* has lodged an enquiry other than in accordance with the form determined by a *Local Network Service Provider*, that *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry, advise the *Connection Applicant* of the deficiency, and may require the *Connection Applicant* to provide the necessary information.
- (g) A *Connection Applicant* may request in a *connection enquiry* made under paragraph (a), that the *Local Network Service Provider* provide only a detailed response under clause 5.3A.8(c) to its enquiry. The *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry and all such additional information (if any) requested under paragraph (f), advise the *Connection Applicant* if it agrees to the request.

5.3A.6 Response to Enquiry

- (a) In response to a *connection enquiry*, the *Distribution Network Service Provider* must provide:
 - (1) subject to clause 5.3A.5(g) or receiving any further information requested under clause 5.3A.5(f), a preliminary response; and

- (2) subject to receiving the enquiry fee and the further information requested under clause 5.3A.8(b), if relevant, a detailed response.
- (b) In preparing either the detailed response or preliminary response, the *Distribution Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Distribution Network Service Provider* responding to the *connection* enquiry may include in its preliminary response or detailed response, the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.

5.3A.7 Preliminary Response to Enquiry

- (a) Unless agreed otherwise, a preliminary response must:
 - (1) be provided within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f); and
 - (2) include the information specified in Schedule 5.4A.
- (b) If the *Distribution Network Service Provider* has agreed under clause 5.3A.5(g) to not provide a preliminary response, it must advise the *Connection Applicant* of the:
 - (1) estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated; and
 - (2) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response,within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f), unless agreed otherwise.
- (c) A *Distribution Network Service Provider* may seek an extension of a time period specified in paragraphs (a) or (b) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.
- (d) Nothing in paragraph (a) or Schedule 5.4A is to be read or construed as requiring the *Distribution Network Service Provider* to undertake detailed design or to perform detailed technical studies or analysis to prepare a preliminary response.

5.3A.8 Detailed Response to Enquiry

- (a) Subject to clause 5.3A.5(g), a *Distribution Network Service Provider* must within 5 *business days* after receiving the further information identified in clause S5.4A(o) provide written acknowledgment of receipt of it.
- (b) If the further information provided under paragraph (a) is incomplete in a material respect the *Distribution Network Service Provider* must within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency and what is required to address it.
- (c) Unless:
 - (1) agreed otherwise; or
 - (2) the proposed *connection* requires the application of the *regulatory investment test for distribution*,
 the *Distribution Network Service Provider* must provide a detailed response within 30 *business days* of the date specified under paragraph (d).
- (d) For the purposes of paragraph (c), the relevant date is the date on which the *Distribution Network Service Provider* has received all of the following:
 - (1) the enquiry fee, or any component of the enquiry fee requested by the *Distribution Network Service Provider*;
 - (2) if the *Connection Applicant* was required to remedy a deficiency in further information provided under paragraph (b), that further information; and
 - (3) if the *Connection Applicant* was required under clause S5.4A(o) to provide further information, that information.
- (e) A *Distribution Network Service Provider* may seek an extension of the time period specified in paragraph (c) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.
- (f) Where the proposed *connection* requires the application of the *regulatory investment test for distribution*, the *Distribution Network Service Provider* and the *Connection Applicant* are to agree a timeframe for the provision of a detailed response, taking into account the status of the relevant RIT-D project (as defined in clause 5.10.2).
- (g) A detailed response must include the information specified in:
 - (1) paragraphs (f), (g) and (m) of Schedule 5.4B;
 - (2) paragraphs (a) - (e1), (h) - (l) and (n)-(o) of Schedule 5.4B.

Note

Clause 5.3A.8(g) requires that a detailed response include all information specified in Schedule 5.4B. The above division may be of relevance for enforcement purposes only.

- (h) A *Connection Applicant* that is a *Registered Participant*, *AEMO* or an *interested party* may make a request in relation to technical requirements for access to the *Reliability Panel* in accordance with clause 5.3.3(b2)-(b4).

5.3A.9 Application for connection

- (a) Following receipt of a detailed response under clause 5.3A.8, a *Connection Applicant* may make an *application to connect* in accordance with this clause 5.3A.9, clause 5.3.4A and clause 5.3.4B.
- (b) To be eligible for *connection*, the *Connection Applicant* must submit an *application to connect* containing the information specified in the detailed response provided under clause 5.3A.8(c) and the application fee specified under clause S5.4B(m) to the *Distribution Network Service Provider*.
- (c) The *Connection Applicant* may submit an *application to connect* to more than one *Distribution Network Service Provider* in order to receive additional offers to *connect* in respect of *facilities* to be provided that are *contestable*.
- (d) If the *application to connect* is incomplete in a material respect the *Distribution Network Service Provider* must, within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency, and the steps required to address it.
- (e) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* or *AEMO* in the assessment of the *application to connect*, a *Distribution Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers* or *AEMO*, as appropriate.
- (f) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Distribution Network Service Provider* pursuant to clause S5.4B(b), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.
- (g) The *Connection Applicant* may:
 - (1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3A.5(e) who may require a form of agreement; or

- (2) lodge one *application to connect* with the *Distribution Network Service Provider* who processed the *connection* enquiry and require it to liaise with those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*.
- (h) A *Connection Applicant* who proposes a *system strength remediation scheme* under clause 5.3.4B must submit its proposal with the *application to connect*.

5.3A.10 Preparation of offer to connect

- (a) The *Distribution Network Service Provider* to whom the *application to connect* is submitted under clause 5.3A.9(a):
 - (1) at the *automatic access standard*; or
 - (2) at a *negotiated access standard* that the provider has accepted under clause 5.3.4A(e),
 must proceed to prepare an offer to *connect* in response.
- (b) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Distribution Network Service Provider* in preparing the offer to *connect* must consult with AEMO and other *Registered Participants* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:
 - (1) the technical requirements for the equipment to be *connected*;
 - (2) the extent and cost of *augmentations* and changes to all affected *networks*;
 - (3) any consequent change in *network service* charges; and
 - (4) any possible material effect of this new *connection* on the *network power transfer capability* including that of other *networks*.
- (c) If the *application to connect* involves the *connection* of *embedded generating units* having a nameplate rating of 10 MW or greater, the *Distribution Network Service Provider* must consult the relevant *Transmission Network Service Provider* regarding the impact of the *connection* contemplated by the *application to connect* on fault levels, line reclosure protocols, and stability aspects.
- (d) The *Transmission Network Service Provider* consulted under paragraph (c) must determine the reasonable costs of addressing those matters for inclusion in the offer to *connect* and the *Distribution Network Service Provider* must make it a condition of the offer to *connect* that the *Connection Applicant* pay these costs.

- (e) The *Distribution Network Service Provider* preparing the offer to *connect* must include provision for payment of the reasonable costs associated with *remote control equipment* and *remote monitoring equipment* as required by AEMO and it may be a condition of the offer to *connect* that the *Connection Applicant* pay these costs.
- (f) The *Distribution Network Service Provider* preparing the offer to *connect* must specify in reasonable detail any *system strength connection works* to be undertaken by the *Distribution Network Service Provider*.

5.3A.11 Technical Dispute

- (a) Rule 8.2 applies to any dispute between a *Distribution Network Service Provider* and a *Connection Applicant* as to the technical requirements to establish or modify a *connection* sought by a *Connection Applicant* in a *connection enquiry* made under clause 5.3A.5 or an *application to connect* under clause 5.3A.9.

5.3A.12 Network support payments and functions

- (a) When negotiating the amount of a *network support payment* with an *Embedded Generator*, the *Transmission Network Service Provider* must take into account the:
 - (1) nature of the *network support services* being provided by the *Embedded Generator*; and
 - (2) extent to which the *Embedded Generator* is being, or will be, compensated for providing those *network support services* by receiving *avoided Customer TUOS charges*.
- (b) Where the relevant *Transmission Network Service Provider* or *Distribution Network Service Provider* decides to implement a *generation option* as an alternative to *network augmentation*, the *Network Service Provider* must:
 - (1) register the *generating unit* with AEMO and specify that the *generating unit* may be periodically used to provide a *network support function* and will not be eligible to set *spot prices* when *constrained on* in accordance with clause 3.9.7; and
 - (2) include the cost of this *network support service* in the calculation of *transmission service* and *distribution service* prices determined in accordance with Chapter 6 or Chapter 6A, as the case may be.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.3AA Access arrangements relating to Distribution Networks

- (a) In this rule 5.3AA:
- (1) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clauses 5.3.3 or 5.3A.5 to process and respond to a *connection* enquiry or required under clauses 5.3.5 or 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned, controlled or operated by that *Distribution Network Service Provider* or for the provision of *network service*; and
 - (2) the references to a *Connection Applicant* are to an *Embedded Generator* or *Market Network Service Provider* who makes a *connection* enquiry under clauses 5.3.2 or 5.3A.5 or an application to *connect* under clauses 5.3.4 or 5.3A.10 in relation to any *generating units* or group of *generating units*, or any *network elements* used in the provision of *network service*, as the case may be.
- (b) If requested by a *Connection Applicant*, whether as part of a *connection* enquiry, application to *connect* or the subsequent negotiation of a *connection agreement*, the *Distribution Network Service Provider* must negotiate in good faith with the *Connection Applicant* to reach agreement in respect of the *distribution network user access* arrangements sought by the *Connection Applicant*.
- (c) As a basis for negotiations under paragraph (b):
- (1) the *Connection Applicant* must provide to the *Distribution Network Service Provider* such information as is reasonably requested relating to the expected operation of:
 - (i) its *generating units* (in the case of an *Embedded Generator*); or
 - (ii) its *network elements* used in the provision of *network service* (in the case of a *Market Network Service Provider*); and
 - (2) the *Distribution Network Service Provider* must provide to the *Connection Applicant* such information as is reasonably requested to allow the *Connection Applicant* to fully assess the commercial significance of the *distribution network user access* arrangements sought by the *Connection Applicant* and offered by the *Distribution Network Service Provider*.
- (d) A *Connection Applicant* may seek *distribution network user access* arrangements at any level of *power transfer capability* between zero and:
- (1) in the case of an *Embedded Generator*, the *maximum power input* of the relevant *generating units* or group of *generating units*; and
 - (2) in the case of a *Market Network Service Provider*, the *power transfer capability* of the relevant *network elements*.

- (e) The *Distribution Network Service Provider* must use reasonable endeavours to provide the *distribution network user access* arrangements being sought by the *Connection Applicant* subject to those arrangements being consistent with *good electricity industry practice* considering:
- (1) the *distribution connection assets* to be provided by the *Distribution Network Service Provider* or otherwise at the *connection point*; and
 - (2) the potential *augmentations* or *extensions* required to be undertaken on all affected *transmission networks* or *distribution networks* to provide that level of *power transfer capability* over the period of the *connection agreement* taking into account the amount of *power transfer capability* provided to other *Registered Participants* under *distribution network user access* arrangements in respect of all affected *distribution networks*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The *Distribution Network Service Provider* and the *Connection Applicant* must negotiate in good faith to reach agreement as appropriate on:
- (1) the *connection service charge* to be paid by the *Connection Applicant* in relation to *distribution connection assets* to be provided by the *Distribution Network Service Provider*;
 - (2) in the case of a *Market Network Service Provider*, the service level standards to which the *Market Network Service Provider* requires the *Distribution Network Service Provider* to adhere in providing its services;
 - (3) the *use of system services charge* to be paid:
 - (i) by the *Connection Applicant* in relation to any *augmentations* or *extensions* required to be undertaken on all affected *transmission networks* and *distribution networks*; and
 - (ii) where the *Connection Applicant* is a *Market Network Service Provider*, to the *Market Network Service Provider* in respect of any reduction in the long run marginal cost of *augmenting* the *distribution network* as a result of it being *connected* to the *distribution network*,

(*negotiated use of system charges*); and
 - (4) the following amounts:
 - (i) the amount to be paid by the *Connection Applicant* to the *Distribution Network Service Provider* in relation to the costs

reasonably incurred by the *Distribution Network Service Provider* in providing *distribution network user access*;

- (ii) where the *Connection Applicant* is an *Embedded Generator*:
 - (A) the compensation to be provided by the *Distribution Network Service Provider* to the *Embedded Generator* in the event that the *generating units* or group of *generating units* of the *Embedded Generator* are *constrained off* or *constrained on* during a *trading interval*; and
 - (B) the compensation to be provided by the *Embedded Generator* to the *Distribution Network Service Provider* in the event that dispatch of the *Embedded Generator's generating units* or group of *generating units* causes another *Generator's generating units* or group of *generating units* to be *constrained off* or *constrained on* during a *trading interval*; and
- (iii) where the *Connection Applicant* is a *Market Network Service Provider*:
 - (A) the compensation to be provided by the *Distribution Network Service Provider* to the *Market Network Service Provider* in the event that the *distribution network user access* is not provided; and
 - (B) the compensation to be provided by the *Market Network Service Provider* to the *Distribution Network Service Provider* in the event that dispatch of the relevant *market network service* causes a *Generator's generating units* or group of *generating units* to be *constrained off* or *constrained on* during a *trading interval* or causes the *dispatch* of another *market network service* to be *constrained*.
- (g) The maximum *negotiated use of system charges* applied by a *Distribution Network Service Provider* must be in accordance with the applicable requirements of Chapter 6 and the *Negotiated Distribution Service Criteria* applicable to the *Distribution Network Service Provider*.
- (h) A *Distribution Network Service Provider* must pass through to a *Connection Applicant* the amount calculated in accordance with paragraph (i) for the locational component of *prescribed TUOS services* that would have been payable by the *Distribution Network Service Provider* to a *Transmission Network Service Provider* had the *Connection Applicant* not been connected to its *distribution network*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) To calculate the amount to be passed through to a *Connection Applicant* in accordance with paragraph (h), a *Distribution Network Service Provider* must, if prices for the locational component of *prescribed TUOS services* were in force at the relevant *transmission network connection point* throughout the relevant *financial year*:
 - (1) determine the charges for the locational component of *prescribed TUOS services* that would have been payable by the *Distribution Network Service Provider* for the relevant *financial year*:
 - (i) where the *Connection Applicant* is an *Embedded Generator*, if that *Embedded Generator* had not injected any *energy* at its *connection point* during that *financial year*;
 - (ii) where the *Connection Applicant* is a *Market Network Service Provider*, if the *Market Network Service Provider* had not been *connected* to the *Distribution Network Service Provider's* *distribution network* during that *financial year*; and
 - (2) determine the amount by which the charges calculated in subparagraph (1) exceed the amount for the locational component of *prescribed TUOS services* actually payable by the *Distribution Network Service Provider*, which amount will be the relevant amount for the purposes of paragraph (h).
- (j) Where prices for the locational component of *prescribed TUOS services* were not in force at the relevant *distribution network connection point* throughout the relevant *financial year*, as referred to in paragraph (i), the *Distribution Network Service Provider* must apply an equivalent procedure to that referred to in paragraph (i) in relation to that component of its *transmission use of system service* charges which is deemed by the relevant *Transmission Network Service Provider* to represent the marginal cost of *transmission*, less an allowance for locational signals present in the *spot market*, to determine the relevant amount for the purposes of paragraph (h).

5.3B Application for connection to declared shared network

- (a) In relation to a *declared transmission system*, the powers, functions and responsibilities of the *Network Service Provider* are divided between *AEMO* and the *declared transmission system operator* as follows:
 - (1) *AEMO* is the *Network Service Provider* in respect of the provision of *shared transmission services*; and
 - (2) the relevant *declared transmission system operator* is the *Network Service Provider* in respect of the provision of *connection services*.

- (b) If:
- (1) a *declared transmission system operator* receives a *connection inquiry* or an *application to connect* to a *declared shared network*; and
 - (2) the inquiry or application relates in whole or part to the provision of *shared transmission services*;
- the *declared transmission system operator* must pass on to AEMO the information provided by the applicant in connection with the inquiry or application.
- (c) Clauses 5.3.1(e), 5.3.2(g), 5.3.3(b)(5A), (7) to (11), 5.3.3(c)(5)(ii), 5.3.4(b)(3) and (4), 5.3.4(b1), 5.3.4(f)(3), 5.3.6(b4) and (b5), 5.3.7(a2), 5.3.7(f1) and (f2) and 5.3.8(a2) do not apply in respect of a *declared transmission system*.

5.3C Registered Participant connections to embedded networks

5.3C.1 Application of this Chapter

- (a) This rule applies in respect of:
- (1) a *Registered Participant* or person intending to become a *Registered Participant* in respect of a *generating system* or *load connected* or to be connected to an *embedded network*;
 - (2) a *Network User* within the meaning of clause S5.3.1(a) in respect of a *generating system* or *load connected* or to be connected to an *embedded network*; and
 - (3) an *Embedded Generator* whose *generating system* is connected to an *embedded network* that proposes to alter a *generating system* in circumstances where clause 5.3.9(a) applies.
- (b) Without limiting Chapter 5A, this Chapter is neither intended to require, nor is it to be read or construed as having the effect of requiring, an *Embedded Network Service Provider* to permit a *Registered Participant* to connect a *generating system* or *load* to any part of its *embedded network*.
- (c) Where an *Embedded Network Service Provider* is also, or will also be, the *Registered Participant* or *Network User* in respect of a *generating system* or *load connected* or to be connected to its *embedded network*, the *Embedded Network Service Provider* must before allowing the connection to its *embedded network* or altering a *generating system* in circumstances where clause 5.3.9(a) applies, prepare and maintain a statement of technical terms and conditions of connection of the *generating system* or *load* including the information specified in Part C of Schedule 5.6 and for the purposes of this Chapter:

- (1) a reference to the *connection agreement* for the *connection* must be taken to include a reference to the statement of technical terms and conditions for the *connection*;
- (2) a reference to entering into or amending a *connection agreement* for the *connection* includes a reference to the preparation and maintenance of the statement; and
- (3) a reference to the *Connection Applicant* for the *connection* will be taken to be a reference to the *Registered Participant* in respect of its *facility*.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

5.3C.2 Performance standards and system strength remediation

- (a) An *Embedded Network Service Provider* must ensure that before a *Connection Applicant* establishes a *connection* to its *embedded network* or alters a *generating system* in circumstances where clause 5.3.9(a) applies, the following technical requirements relevant to the *connected plant* are determined and form part of the terms and conditions of the *connection agreement* with the *Connection Applicant*:
 - (1) the *performance standards* (which may be *automatic access standard* or *negotiated access standards* determined in accordance with clause 5.3.4A);
 - (2) the applicable *plant standards*; and
 - (3) the *normal voltage level*, if that is to change from the *nominal voltage level*.
- (b) For each technical requirement referred to in paragraph (a) that does not meet the *automatic access standards*, the *Connection Applicant* must submit a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.
- (c) An *automatic access standard* or if the procedures in clause 5.3.4A have been followed a *negotiated access standard*, that forms part of the terms and conditions of a *connection agreement*, is taken to be the *performance standard* applicable to the *connected plant* for the relevant technical requirement.
- (d) An *Embedded Network Service Provider* must in accordance with clause 5.4.3B undertake a *system strength impact assessment* before allowing a *Connection Applicant* to establish a *connection* to its *embedded network* or alter a *generating system* in circumstances where clause 5.3.9(a) applies. In undertaking the assessment, the *Embedded Network Service Provider* must consult with other *Network Service Providers* with whom it has *connection agreements*.

- (e) Within 20 business days of execution of a connection agreement, the Embedded Network Service Provider responsible for the connection point and the Registered Participant must jointly notify AEMO that a connection agreement has been entered into between them and forward to AEMO relevant technical details of the proposed plant and connection, including as applicable:
- (1) details of all performance standards that form part of the terms and conditions of the connection agreement;
 - (2) if a Generator, the arrangements for:
 - (i) updating the releasable user guide and other information required under clause S5.2.4(b); and
 - (ii) informing AEMO when the connection agreement expires or is terminated;
 - (3) the proposed metering installation;
 - (4) arrangements to obtain physical access to the metering installation for the Metering Provider and the Metering Data Provider for metering installations type 4A, 5 and 6;
 - (5) the terms upon which a Registered Participant is to supply any ancillary services under the connection agreement; and
 - (6) the details of any system strength remediation scheme agreed, determined or modified under clause 5.3.4B.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

- (f) If the application of clause 5.3.9 leads to a variation to an existing connection agreement for a connection to an embedded network the Embedded Network Service Provider and the Generator must immediately jointly advise AEMO, including the details of any performance standards amended pursuant to clause 5.3.9.

Note

The AEMC recommends that this clause be classified as a civil penalty provision.

5.3C.3 Consultation with AEMO and other Network Service Providers

- (a) So as to maintain levels of service and quality of supply to existing Registered Participants in accordance with the Rules, an Embedded Network Service Provider must, before allowing a Connection Applicant to establish a connection to its embedded network, or alter a generating system in circumstances where clause 5.3.9(a) applies, consult with AEMO and other Registered Participants with whom it has connection agreements, if the Embedded Network Service Provider believes in its reasonable opinion,

that compliance with the terms and conditions of those *connection agreements* will be affected, in order to determine:

- (1) the technical requirements for the equipment to be *connected*;
- (2) the extent and cost of *augmentations* and changes to all affected *networks*;
- (3) any consequent change in *network service charges*; and
- (4) any possible material effect of the new *connection* on the *network power transfer capability* including that of other *networks*.

- (b) If a connection to an *embedded network*, or an alteration to a *generating system* in circumstances where clause 5.3.9(a) applies involves *embedded generating units* having a nameplate rating of 10 MW or greater, the *Embedded Network Service Provider* must, before allowing the *connection* or alteration, consult the *Network Service Provider* with whom it has a *connection agreement* and the relevant *Transmission Network Service Provider* regarding the impact of the *connection* or alteration on fault levels, line reclosure protocols, and stability aspects.

5.4 Independent Engineer

5.4.1 Application

- (a) This rule 5.4 does not apply to the *declared transmission system* of an *adoptive jurisdiction*.
- (b) This rule 5.4 applies only if a relevant *Transmission Network Service Provider* or a *Connection Applicant* requires independent advice in order to reach agreement on or resolve:
 - (1) a technical issue in relation to *negotiated transmission services* related to a *connection* sought by the *Connection Applicant*;
 - (2) whether assets or components form part of a *dedicated connection asset* or form part of an *identified user shared asset*;
 - (3) whether or not a component of an *identified user shared asset* is a *contestable IUSA component* pursuant to clause 5.2A.4(c)(1) and (2); or
 - (4) whether the detailed design of a *contestable IUSA component* is consistent with the functional specification for the relevant *identified user shared asset*,

(“**technical matter**”).
- (c) A technical matter does not include issues relating to:
 - (1) the cost or commercial terms of;

- (2) the process relating to; or
 - (3) the timing of,
- the *connection*.

5.4.2 Establishment of a pool

- (a) The *Adviser* must establish and maintain a pool of persons (who may be individuals or firms) from whom the *Independent Engineer* may be selected in accordance with clauses 5.4.3(d)(2) or 5.4.4(a)(4).
- (b) In selecting persons for the pool, the *Adviser* must have regard to the need for the person to have sufficient experience and expertise in technical matters involved in *connections* to the *transmission network*.
- (c) The *Adviser* must review the composition of the pool at least every two years.

5.4.3 Initiating the Independent Engineer process

- (a) If a technical matter arises that requires independent advice in order to reach an agreement or resolution, a *Transmission Network Service Provider* or a *Connection Applicant* may serve a notice on the other party that:
 - (1) requires the parties to engage an *Independent Engineer*;
 - (2) includes a statement setting out the technical matter; and
 - (3) may request the receiving party to provide information about the technical matter.
- (b) If another *Transmission Network Service Provider*:
 - (1) has the task of liaising with the *Connection Applicant* under clause 5.3.2(e); or
 - (2) has been identified as a party with whom the *Connection Applicant* must enter into an agreement with under clause 5.3.3(b)(4),

and has an interest in the technical issue under clause 5.4.1(b)(1), that *Transmission Network Service Provider* must also be served with a copy of the notice under paragraph (a) and must participate in the *Independent Engineer* process.
- (c) If the technical matter involves a matter that relates to an *AEMO advisory matter*, then *AEMO* must also be served with a copy of the notice under paragraph (a) and may participate in the *Independent Engineer* process.
- (d) Within 10 *business days* of service of a notice under paragraph (a), a party may:

- (1) agree that the technical matter be resolved through an alternative means as agreed by the parties on the terms agreed between the parties; or
 - (2) agree to appoint an *Independent Engineer* from the pool and the scope of work the *Independent Engineer* is to undertake.
- (e) If the parties appoint an *Independent Engineer* in accordance with subparagraph (d)(2), the parties are not required to notify the *Adviser* of the agreed selection in which case clauses 5.4.5 and 5.4.6 apply.

5.4.4 Referral to the Adviser

- (a) If the parties do not reach an agreement under clause 5.4.3(d) within 10 *business days* of service of a notice under clause 5.4.3(a), any party may refer the technical matter to the *Adviser* by serving on the *Adviser* a notice, which must:
- (1) be in a form approved and published by the *Adviser*;
 - (2) contain the names of the parties who seek advice on the technical matter;
 - (3) contain a statement setting out the technical matter;
 - (4) if the parties have agreed on an *Independent Engineer*, the name of that *Independent Engineer* or in the absence of such agreement, contain a request for the *Adviser* to select an *Independent Engineer*;
 - (5) contain the scope of advice required in respect of the technical matter, as agreed by the parties and in the absence of such agreement, request the *Adviser* to assist in determining the scope (which the *Adviser* may do in consultation with the parties and the *Independent Engineer* once appointed); and
 - (6) specify a time frame by which the advice from the *Independent Engineer* is required so as to allow the *Adviser* to consider the availability of potential *Independent Engineers*.
- (b) If the *Adviser* is requested to select an *Independent Engineer* from the pool under clause 5.4.2, it must:
- (1) use reasonable endeavours to ensure the cost, availability, independence and expertise and experience of the selected *Independent Engineer* is appropriate to the technical matter;
 - (2) consult with the parties prior to appointment, and
 - (3) unless the parties otherwise agree, make the appointment within 15 *business days* of the notice under paragraph (a).

- (c) Despite the requirement to consult set out in subparagraph (b)(3), a selection of the *Adviser* is final and binding upon all parties.

5.4.5 Proceedings and decisions of the Independent Engineer

- (a) The *Independent Engineer* may request documents and information from the parties that it reasonably considers is required to provide advice on the technical matter and a party must comply with such a request.
- (b) As a condition of providing documents and information, a party may require the *Independent Engineer* to agree to be bound to the confidentiality obligations under rule 8.6 as if the *Independent Engineer* was a *Registered Participant*.
- (c) The *Independent Engineer* must provide its written advice on a technical matter promptly, and in any case must do so within 30 *business days* after the *Independent Engineer* is appointed unless the parties otherwise agree.
- (d) The *Transmission Network Service Provider* may amend the time period referred to in any stage of the *connection* process under the *preliminary program* to allow for the additional time reasonably required for the *Independent Engineer* process under this rule 5.4.
- (e) The *Independent Engineer* must have regard to the following matters in forming their advice:
 - (1) the technical requirements of the *connection* proposed by either of the parties;
 - (2) the requirement under clause 5.3.4(b1)(2) that the technical requirements of the *connection* must not unreasonably inhibit the capacity for future expansion of an *identified user shared asset* or preclude the possibility of future *connections*;
 - (3) the technical requirements of the *connection* should be consistent with *good electricity industry practice* and contribute to a safe, reliable and secure *transmission system*;
 - (4) any submissions made by *AEMO* on an *AEMO advisory matter*; and
 - (5) any relevant requirements and obligations under the applicable *jurisdictional electricity legislation*.
- (f) The *Independent Engineer* is not bound by the rules of evidence and may inform itself in any manner it thinks fit.
- (g) The *Independent Engineer* is a person who facilitates the resolution of disputes on technical matters, and is a protected person for the purposes of section 120B of the *National Electricity Law* in relation to the exercise of its powers and functions carried out under this clause 5.4.5.
- (h) The *Independent Engineer's* advice is not binding on the parties.

5.4.6 Costs of the Independent Engineer

The costs of any *Independent Engineer*, including any costs incurred by the *Adviser* in performing the functions of the *Adviser* in clause 5.4.4 are to be borne equally by the parties, unless otherwise agreed by the parties.

5.4A [Deleted]

Note

In the transitional rules, rule 5.4A and its associated definitions will be preserved in relation to the *declared transmission system* of an *adoptive jurisdiction*.

5.4AA [Deleted]

5.5 Commercial arbitration for prescribed and negotiated transmission services and large DCA services

5.5.1 Application

- (a) This rule 5.5 does not apply to the *declared transmission system* of an *adoptive jurisdiction*.
- (b) This rule 5.5 applies to any dispute which may arise between a *Transmission Network Service Provider* (including a *Dedicated Connection Asset Service Provider* for a *large dedicated connection asset*) (a **provider**) and a *Connection Applicant* or a person seeking *large DCA services* (an **applicant**) as to *terms and conditions of access*, for the provision of *prescribed transmission services*, the provision of *negotiated transmission services* (each a *transmission services access dispute*); or the provision of *large DCA services* (a *large DCA services access dispute*) (as applicable).
- (c) For the purposes of *prescribed transmission services*, *negotiated transmission services* and *large DCA services*, the *terms and conditions of access*:
 - (1) in relation to *negotiated transmission services*, are:
 - (i) the price of those services; and
 - (ii) other terms and conditions for the provision of those *negotiated transmission services*,
under Chapters 4 and 5 of the *Rules*;
 - (2) in relation to *prescribed transmission services*, are:
 - (i) the price of those services as determined under the *pricing methodology* of the relevant *Transmission Network Service Provider*; and

- (ii) other terms and conditions for the provision of those *prescribed transmission services*,

under Chapters 4, 5 and 6A of the *Rules*; and
- (3) in relation to *large DCA services*, are the price of, and the other terms and conditions for, the provision of those *large DCA services*, as determined under the *access policy*.

5.5.2 Notification of dispute

- (a) A provider or an applicant may notify the *AER* in writing that a *transmission services access dispute* or *large DCA services access dispute* exists.
- (b) On receiving a notification under paragraph (a), the *AER* must give notice in writing of the dispute to the other party to the dispute.
- (c) A provider or an applicant who has given notice of a dispute under paragraph (a) may withdraw notification of the dispute at any time by written notice to the *AER* and the other party to the dispute.
- (d) If the notification of a dispute is withdrawn under paragraph (c), it is taken for the purposes of this clause 5.5.2 to never have been given.

5.5.3 Appointment of commercial arbitrator

- (a) On receiving a notification under clause 5.5.2(a), the *AER* must request the provider and the applicant, by a time specified by the *AER*, to nominate to the *AER* two persons each for appointment as the *commercial arbitrator* to determine the *transmission services access dispute* or *large DCA services access dispute*. The provider and applicant may make the nominations.
- (b) As soon as practicable after the expiry of the time specified by the *AER* under paragraph (a), the *AER* must appoint:
 - (1) one of the persons (if any) nominated to the *AER* by the provider or the applicant under paragraph (a); or
 - (2) if neither the provider or the applicant nominate any such person within the time specified by the *AER* under paragraph (a) or all of the persons so nominated do not qualify for appointment under paragraph (d) or (e), a person determined by the *AER*,

as the *commercial arbitrator* to determine the dispute, and must refer the dispute to that *commercial arbitrator*.
- (c) A decision of the *AER* as to the appointment of the *commercial arbitrator* is final and binding on the provider and the applicant.
- (d) The *AER* may only appoint a person as the *commercial arbitrator* if that person is experienced or trained in dispute resolution techniques.

- (e) A person is not eligible for appointment as the *commercial arbitrator* if that person has any interest that may conflict with, or which may be seen to conflict with, the impartial resolution of the dispute. Where the person who is appointed as the *commercial arbitrator* becomes aware of such conflict after that person commences the hearing of the dispute, the person must advise the parties to that effect.
- (f) Where:
 - (1) the provider or the applicant believes that the person appointed as the *commercial arbitrator* has an interest which may conflict with the impartial resolution of the dispute; or
 - (2) the person appointed as the *commercial arbitrator* discloses the existence of such an interest,the person must not continue to hear and determine the dispute, except with the written consent of the provider and the applicant.

5.5.4 Procedures of commercial arbitrator

- (a) The *commercial arbitrator* may give to the parties such directions as it considers necessary:
 - (1) for the proper conduct of the proceedings, including in relation to the provision of documents and information to the other party and the making of oral and written submissions;
 - (2) relating to the use and disclosure of information obtained from the other party to the dispute (including a direction to keep information confidential); and
 - (3) in relation to the participation (if any) of legal representatives of the parties in the proceedings.
- (b) The *commercial arbitrator* must observe the rules of procedural fairness, but is not bound by the rules of evidence and may inform itself in any manner it thinks fit.

5.5.5 Powers of commercial arbitrator in determining disputes

- (a) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *prescribed transmission services* the *commercial arbitrator* must apply:
 - (1) in relation to price, the *pricing methodology* of the relevant *Transmission Network Service Provider* approved by the AER under Part E and Part J of Chapter 6A of the *Rules*;
 - (2) in relation to other terms and conditions, Chapters 4, 5 and 6A of the *Rules*; and

- (3) in relation to all *terms and conditions of access* (including price) the decision of *AEMO* or the *AER* where those decisions relate to those terms and conditions and are made under Chapters 4, 5 and 6A of the *Rules*.
- (b) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of a *negotiated transmission service* the *commercial arbitrator* must apply:
 - (1) in relation to price for the provision of that service by the provider, the *negotiating principles* that are applicable to that dispute;
 - (2) in relation to other terms and conditions, the *negotiating principles* that are applicable to that dispute and Chapters 4 and 5 of the *Rules*;
 - (3) in relation to all *terms and conditions of access* (including price) the decision of *AEMO* or the *AER* where those decisions relate to those terms and conditions and are made under Chapters 4 and 5 of the *Rules*.
- (c) In determining a *large DCA services access dispute* in relation to the *terms and conditions of access* for the provision of *large DCA services*, the *commercial arbitrator* must:
 - (1) apply the *access policy* of the *Dedicated Connection Asset Service Provider*;
 - (2) apply the relevant negotiating principles in schedule 5.12;
 - (3) have regard to the legitimate business interests of the *Dedicated Connection Asset Service Provider*;
 - (4) have regard to the interests of all persons who have rights to use the *large DCA services*; and
 - (5) have regard to the operational and technical requirements necessary for the safe and reliable operation of the *large dedicated connection asset* and any *facility connected* to it.
- (d) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *negotiated transmission services* a *commercial arbitrator* may:
 - (1) have regard to other matters which the *commercial arbitrator* considers relevant.
 - (2) hear evidence or receive submissions from *AEMO* and *Transmission Network Users* who may be adversely affected.
- (e) In determining a *transmission services access dispute* in relation to the *terms and conditions of access* for the provision of *prescribed transmission services* a *commercial arbitrator* may:

- (1) have regard to other matters which the *commercial arbitrator* considers relevant.
- (2) hear evidence or receive submissions from *AEMO* in relation to *power system security* matters and from *Transmission Network Users* who may be adversely affected.

5.5.6 Determination of disputes

- (a) Subject to paragraph (c), the *commercial arbitrator* must determine the dispute as quickly as possible, and in any case it must do so within 30 *business days* after the dispute is referred to the *commercial arbitrator*.
- (b) The determination of the *commercial arbitrator*:
 - (1) may direct the provision of *prescribed transmissions services* and *negotiated transmission services* in accordance with Chapters 4, 5 and 6A of the *Rules*;
 - (2) may specify, for a *negotiated transmission service* or a *large DCA service*, a price or charge in such a way that it is or is to be adjusted over time;
 - (3) may direct the provision of *large DCA services* in accordance with the access policy of the *Dedicated Connection Asset Service Provider*; and
 - (4) only where the dispute is a *large DCA services access dispute*, may require the enlargement or increase in capacity of, or alterations to, a *large dedicated connection asset*.

Note

An adjustment as referred to in subparagraph (2) may, for example, be appropriate where the cost of providing the *negotiated transmission service* to a *Connection Applicant* or person seeking *large DCA services* changes because the assets used to provide that service are subsequently used to provide a service to another person and the payment for the service by that other person enables the *Transmission Network Service Provider* or *Dedicated Connection Asset Service Provider* to recoup some of those costs from that other person.

- (c) The *commercial arbitrator* may extend the period referred to in paragraph (a) if the provider and the applicant so agree in writing.
- (d) The *commercial arbitrator* may at any time terminate the proceedings without making a decision if it considers that:
 - (1) the dispute is misconceived or lacking in substance;
 - (2) the notification of the dispute to the *AER* under clause 5.5.2(a) was vexatious; or

- (3) the party who notified the dispute to the *AER* under clause 5.5.2(a) has not negotiated in good faith or has notified the dispute prematurely or unreasonably.
- (e) The *commercial arbitrator* must terminate the proceedings without making a decision if at any time, whether on application by the provider or the applicant or otherwise, the arbitrator determines that the *transmission service* or *large DCA service* is capable of being provided on a genuinely competitive basis by a person other than the provider or an entity which is associated with the provider.

5.5.7 Costs of dispute

- (a) The fees and costs of the *commercial arbitrator* must be borne equally by the provider and the applicant unless:
 - (1) paragraph (b) applies; or
 - (2) otherwise agreed between the provider and the applicant.
- (b) The costs of determining the dispute (including the legal costs of either of the parties) may be allocated by the *commercial arbitrator* for payment as between the parties as part of any determination.
- (c) In deciding to allocate costs against one of the parties to the dispute, the *commercial arbitrator* may have regard to any relevant matters including (but not limited to) whether the conduct of that party unreasonably prolonged or escalated the dispute or otherwise increased the costs of resolving the dispute.

5.5.8 Enforcement of agreement or determination and requirement for reasons

- (a) Where the provider and the applicant reach agreement (whether or not the matter is before a *commercial arbitrator*), the parties may execute a written agreement recording their resolution of that dispute.
- (b) The *commercial arbitrator* must give its decision determining the dispute, together with its reasons for that decision, in writing and must provide a copy of its determination:
 - (1) to the provider and to the applicant; and
 - (2) (except to the extent that it contains confidential information) to the *AER* for publication.
- (c) An agreement that is executed under paragraph (a) and a determination of the *commercial arbitrator* under paragraph (b) are binding on the provider and the applicant, and any failure to comply with such an agreement or determination is a breach of the *Rules* in respect of which the *AER* may take action in accordance with the *National Electricity Law*.

5.5.9 Miscellaneous

- (a) To the extent permitted by law, a person who is appointed as a *commercial arbitrator* is not liable for any loss, damage or liability suffered or incurred by any person as a consequence of any act or omission of that person which was done in good faith in connection with the dispute
- (b) A person who is appointed as a *commercial arbitrator* may, before acting in relation to the dispute, require the parties to the dispute (and any one of them) to execute a release and indemnity in relation to any loss, damage or liability that that person would, but for the release or indemnity, suffer or incur as a consequence of any act or omission done in good faith in connection with the dispute.

5.5A [Deleted]**Part C Post-Connection Agreement matters****5.6 Design of Connected Equipment****5.6.1 Application**

This rule 5.6 applies to new installations and modifications to existing installations that include alterations to existing *generating plant*, after:

- (a) 13 December 1998, in the case of installations located in *participating jurisdictions* other than Tasmania; and
- (b) 29 May 2005, in the case of installations located in Tasmania.

5.6.2 Advice of inconsistencies

- (a) At any stage prior to commissioning the *facility* in respect of a *connection* if there is an inconsistency between the proposed equipment and the *connection agreement* including the *performance standards*, the *Registered Participant* or the person intending to be registered as a *Generator* must:
 - (1) advise the relevant *Network Service Provider* and, if the inconsistency relates to *performance standards*, *AEMO*, in writing of the inconsistency; and
 - (2) if necessary, negotiate in good faith with the *Network Service Provider* any necessary changes to the *connection agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) If an inconsistency in a *connection agreement* including a *performance standard* is identified under paragraph (a), the *Registered Participant* or the

person intending to be registered as a *Generator* and the *Network Service Provider* must not commission the *facility* in respect of a *connection* unless the *facility* or the *connection agreement* or *performance standard* has been varied to remove the inconsistency.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) [Deleted]

5.6.3 Additional information

A *Registered Participant* must provide any additional information in relation to its *plant* or associated equipment as the relevant *Network Service Provider* reasonably requests.

5.6.4 Advice on possible non-compliance

- (a) If the relevant *Network Service Provider* reasonably believes that the design of a proposed *facility* has potential to adversely and materially affect the performance of the *power system*, the *Network Service Provider* may require the *Registered Participant* to submit to it specified design information and drawings to enable the *Network Service Provider* to assess the performance of the *facility* in respect of its interaction with the *power system*:
- (1) after the *Registered Participant* has entered into an agreement for the supply of *plant* or associated equipment to be connected; and
 - (2) when the relevant contractor's designs have progressed to a point where preliminary designs are available but prior to manufacture of equipment.
- (b) The *Network Service Provider* must, within 40 *business days* of receipt of such information, use its reasonable endeavours to advise the *Registered Participant* in writing of any design deficiencies which the *Network Service Provider* believes would cause the design to be inconsistent with the *connection agreement* or the *Rules*.
- (c) Notwithstanding paragraph (b), it is the *Registered Participant's* sole responsibility to ensure that all *plant* and equipment associated with the *connection* complies with the *connection agreement* and the *Rules*.

5.6A [Deleted]**5.7 Inspection and Testing****5.7.1 Right of entry and inspection**

- (a) If a *Registered Participant* who is party to a *connection agreement* reasonably believes that the other party to the *connection agreement* (being a party who is also a *Registered Participant*) is not complying with a technical provision of the *Rules* and that, as a consequence, the first *Registered Participant* is suffering, or is likely to suffer, a material adverse effect, then the first *Registered Participant* may enter the relevant *facility* at the *connection point* of the other *Registered Participant* in order to assess compliance by the other *Registered Participant* with its technical obligations under the *Rules*.
- (a1) If a *Network Service Provider* who is party to a *connection agreement* for the *connection* of an *embedded network* reasonably believes that a *Registered Participant* whose *facility* is connected to the *embedded network* is not complying with a technical provision of the *Rules* and that, as a consequence, the *Network Service Provider* is suffering, or is likely to suffer, a material adverse effect, then the *Network Service Provider* may enter the relevant *facility* at the *parent connection point* for the *embedded network* or *child connection point* of the other *Registered Participant* in order to assess compliance by the other *Registered Participant* with its technical obligations under the *Rules*.
- (b) A *Registered Participant* who wishes to inspect the *facilities* of another *Registered Participant* under clause 5.7.1(a) or (a1) ~~clause 5.7.1(a)~~ must give that other *Registered Participant* at least 2 *business days* notice of its intention to carry out an inspection.
- (c) A notice given under clause 5.7.1(b) must include the following information:
- (1) the name of the *representative* who will be conducting the inspection on behalf of the *Registered Participant*;
 - (2) the time when the inspection will commence and the expected time when the inspection will conclude; and
 - (3) the nature of the suspected non-compliance with the *Rules*.
- (d) Neither a *Registered Participant* nor *AEMO* may carry out an inspection under this rule 5.7 within 6 *months* of any previous inspection except for the purpose of verifying the performance of corrective action claimed to have been carried out in respect of a non-conformance observed and documented on the previous inspection or (in the case of *AEMO*) for the purpose of reviewing an operating incident in accordance with clause 4.8.15.

- (e) At any time when the *representative* of a *Registered Participant* is in another *Registered Participant's facility*, that *representative* must:
 - (1) cause no damage to the *facility*;
 - (2) only interfere with the operation of the *facility* to the extent reasonably necessary and approved by the relevant *Registered Participant* (such approval not to be unreasonably withheld or delayed); and
 - (3) observe “permit to test” access to sites and clearance protocols of the operator of the *facility*, provided that these are not used by the operator of the *facility* solely to delay the granting of access to site and inspection.
- (f) Any *representative* of a *Registered Participant* conducting an inspection under this clause 5.7.1 must be appropriately qualified to perform the relevant inspection.
- (g) The costs of inspections under this clause 5.7.1 must be borne by the *Registered Participant* requesting the inspection.
- (h) AEMO or any of its *representatives* may, in accordance with this rule 5.7, inspect a *facility* of a *Registered Participant* and the operation and maintenance of that *facility* in order to:
 - (1) assess compliance by the relevant *Registered Participant* with its operational obligations under Chapter 3 or 4, or an *ancillary services agreement*;
 - (2) investigate any possible past or potential threat to *power system security*; or
 - (3) conduct any periodic familiarisation or training associated with the operational requirements of the *facility*.
- (i) Any inspection under [clause 5.7.1\(a\)](#), [\(a1\)](#) ~~clause 5.7.1(a)~~ or (h) must only be for so long as is reasonably necessary.
- (j) Any equipment or goods installed or left on land or in premises of a *Registered Participant* after an inspection conducted under clause 5.7.1 do not become the property of the relevant *Registered Participant* (notwithstanding that they may be annexed or affixed to the relevant land or premises).
- (k) In respect of any equipment or goods left on land or premises of a *Registered Participant* during or after an inspection, a *Registered Participant*:
 - (1) must not use any such equipment or goods for a purpose other than as contemplated in the *Rules* without the prior written approval of the owner of the equipment or goods;

- (2) must allow the owner of any such equipment or goods to remove any such equipment or goods in whole or in part at a time agreed with the relevant *Registered Participant*, such agreement not to be unreasonably withheld or delayed; and
 - (3) must not create or cause to be created any mortgage, charge or lien over any such equipment or goods.
- (l) A *Registered Participant* (in the case of an inspection carried out under [clause 5.7.1\(a\) or \(a1\)](#)~~clause 5.7.1(a)~~) or *AEMO* (in the case of an inspection carried out under clause 5.7.1(h)) must provide the results of that inspection to the *Registered Participant* whose *facilities* have been inspected, any other *Registered Participant* which is likely to be materially affected by the results of the test or inspection and *AEMO* (in the case of an inspection carried out under [clause 5.7.1\(a\) or \(a1\)](#)~~clause 5.7.1(a)~~).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.7.2 Right of testing

- (a) A *Registered Participant*, who has reasonable grounds to believe that equipment owned or operated by a *Registered Participant* with whom it has a *connection agreement* (which equipment is associated with the *connection agreement*) may not comply with the *Rules* or the *connection agreement*, may request testing of the relevant equipment by giving notice in writing to the other *Registered Participant*.
- [\(a1\) A Network Service Provider who has reasonable grounds to believe that equipment owned or operated by a Registered Participant connected to an embedded network in the provider's network may not comply with the Rules or the connection agreement, may request testing of the relevant equipment by giving notice in writing to the other Registered Participant.](#)
- (b) If a notice is given under [clause 5.7.2\(a\) or \(a1\)](#) ~~clause 5.7.2(a)~~ the relevant test is to be conducted at a time agreed by *AEMO*.
 - (c) The *Registered Participant* who receives a notice under [clause 5.7.2\(a\) or \(a1\)](#) ~~clause 5.7.2(a)~~ must co-operate in relation to conducting tests requested under [clause 5.7.2\(a\) or \(a1\)](#) ~~clause 5.7.2(a)~~.
 - (d) The cost of tests requested under [clause 5.7.2](#) ~~clause 5.7.2(a)~~ must be borne by the *Registered Participant* requesting the test, unless the equipment is determined by the tests not to comply with the relevant *connection agreement* and the *Rules*, in which case all reasonable costs of such tests must be borne by the owner of that equipment.
 - (e) Tests conducted in respect of a *connection point* under clause 5.7.2 must be conducted using test procedures agreed between the relevant *Registered*

Participants, which agreement is not to be unreasonably withheld or delayed.

- (f) Tests under clause 5.7.2 must be conducted only by persons with the relevant skills and experience.
- (g) A *Transmission Network Service Provider* must give *AEMO* adequate prior notice of intention to conduct a test in respect of a *connection point* to that *Network Service Provider's network*.
- (h) The *Registered Participant* who requests a test under this clause 5.7.2 may appoint a *representative* to witness a test and the relevant *Registered Participant* must permit a *representative* appointed under this clause 5.7.2(h) to be present while the test is being conducted.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) A *Registered Participant* who conducts a test must submit a report to the *Registered Participant* who requested the relevant test, *AEMO* and to any other *Registered Participant* which is likely to be materially affected by the results of the test, within a reasonable period after the completion of the test and the report is to outline relevant details of the tests conducted, including but not limited to the results of those tests.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (j) A *Network Service Provider* may attach test equipment or *monitoring equipment* to *plant* owned by a *Registered Participant* or require a *Registered Participant* to attach such test equipment or *monitoring equipment*, subject to the provisions of clause 5.7.1 regarding entry and inspection.
- (k) In carrying out monitoring under clause 5.7.2(j) the *Network Service Provider* must not cause the performance of the monitored *plant* to be *constrained* in any way.

5.7.3 Tests to demonstrate compliance with connection requirements for generators

- (a) Each *Generator* must, in accordance with the time frames specified in rule 4.15, provide evidence to any relevant *Network Service Provider* with which that *Generator* has a *connection agreement* and to *AEMO*, that its *generating system* complies with:
 - (1) the applicable technical requirements of clause S5.2.5; and

- (2) the relevant *connection agreement* including the *performance standards*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) [Deleted]

- (c) If a test required by clause 5.7.3(a) demonstrates that a *generating system* is not complying with one or more technical requirements of clause S5.2.5 or the relevant *connection agreement* or one or more of the *performance standards* then the *Generator* must:

- (1) promptly notify the relevant *Network Service Provider* and *AEMO* of that fact; and
- (2) promptly notify the *Network Service Provider* and *AEMO* of the remedial steps it proposes to take and the timetable for such remedial work; and
- (3) diligently undertake such remedial work and report at monthly intervals to the *Network Service Provider* on progress in implementing the remedial action; and
- (4) conduct further tests or monitoring on completion of the remedial work to confirm compliance with the relevant technical requirements or *performance standards* (as the case may be).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If *AEMO* reasonably believes that a *generating system* is not complying with one or more applicable *performance standards* or one or more applicable technical requirements of clause S5.2.5 or the relevant *connection agreement*, *AEMO* may instruct the *Generator* to conduct tests within 25 *business days* to demonstrate that the relevant *generating system* complies with those *performance standards* or technical requirements.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) If the tests undertaken in accordance with paragraph (d) provide evidence that the *generating system* continues to comply with those requirements *AEMO* must reimburse the *Generator* for the reasonable expenses incurred as a direct result of conducting the tests.

- (f) If *AEMO*:
 - (1) is satisfied that:
 - (i) a *generating system* is not complying with the relevant *performance standards* for that system in respect of one or more of the technical requirements contained in S5.2.5, S5.2.6, S5.2.7 or S5.2.8 and the relevant *connection agreement*; or
 - (ii) a *generating system's* performance is not adequately represented by the applicable analytical model provided under clause 5.7.6(h) or clause S5.2.4; and
 - (2) holds the reasonable opinion that the performance of the *generating system*, or inadequacy of the applicable analytical model of the *generating system* is or will impede *AEMO's* ability to carry out its role in relation to *power system security*,

AEMO may direct the relevant *Generator* to operate the *generating system* at a particular *generated* output or in a particular mode until the relevant *Generator* submits evidence reasonably satisfactory to *AEMO* that the *generating system* is complying with the relevant *performance standard* and performing substantially in accordance with the applicable analytical model.

- (g) Each *Generator* must maintain records for 7 years for each of its *generating systems* and *power stations* setting out details of the results of all technical performance and monitoring conducted under this clause 5.7.3 and make these records available to *AEMO* on request.

5.7.3A Tests to demonstrate compliance with system strength remediation schemes

- (a) Each *Registered Participant* required under a *connection agreement* to implement a *system strength remediation scheme* by means of *facilities* owned, operated or controlled by the *Registered Participant* must at the request of *AEMO* or the relevant *Network Service Provider* made not more than once in a calendar year provide evidence that those *facilities* satisfy the requirements of the *system strength remediation scheme* set out in the *connection agreement*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) If at any time the *facilities* do not satisfy the requirements of the *system strength remediation scheme* set out in the *connection agreement*, the *Registered Participant* must:
 - (1) promptly notify the relevant *Network Service Provider* and *AEMO* of that fact;

- (2) promptly notify the *Network Service Provider* and *AEMO* of the remedial steps it proposes to take and the timetable for such remedial work;
- (3) diligently undertake such remedial work and report at monthly intervals to the *Network Service Provider* on progress in implementing the remedial action; and
- (4) conduct further tests or monitoring on completion of the remedial work to confirm compliance with the requirements of the *system strength remediation scheme*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) If *AEMO* reasonably believes the requirements of a *system strength remediation scheme* are not being complied with, *AEMO* may instruct the *Registered Participant* to conduct tests within 25 *business days* to demonstrate that the requirements are being met.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If the tests undertaken in accordance with paragraph (c) provide evidence that the requirements of a *system strength remediation scheme* are being complied with, *AEMO* must reimburse the *Registered Participant* for the reasonable expenses incurred as a direct result of conducting the tests.
- (e) If *AEMO*:
 - (1) is satisfied that the requirements of a *system strength remediation scheme* are not being complied with; and
 - (2) holds the reasonable opinion that the failure is impeding or will impede *AEMO's* ability to carry out its role in relation to *power system security*,

AEMO may direct the relevant *Registered Participant* to operate its *facility* at a particular output or *power transfer capability* or in a particular mode until the relevant *Registered Participant* submits evidence reasonably satisfactory to *AEMO* that the requirements of the *system strength remediation scheme* are being complied with.

- (f) Each *Registered Participant* referred to in paragraph (a) must maintain records for 7 years for each of its relevant *facilities* setting out details of the results of monitoring and testing conducted under this clause 5.7.3A and make these records available to *AEMO* on request.

5.7.4 Routine testing of protection equipment

- (a) A *Registered Participant* must co-operate with any relevant *Network Service Provider* to test the operation of equipment forming part of a *protection system* relating to a *connection point* at which that *Registered Participant* is *connected* to a *network* and the *Registered Participant* must conduct these tests:
 - (1) prior to the *plant* at the relevant *connection point* being placed in service; and
 - (2) at intervals specified in the *connection agreement* or in accordance with an asset management plan agreed between the *Network Service Provider* and the *Registered Participant*.
- (a1) A *Network Service Provider* must institute and maintain a compliance program to ensure that its *facilities* of the following types, to the extent that the proper operation of a *facility* listed in this clause may affect *power system security*, operate reliably and in accordance with their performance requirements under schedule 5.1:
 - (1) *protection systems*;
 - (2) *control systems* for maintaining or enhancing *power system* stability;
 - (3) *control systems* for controlling *voltage* or *reactive power*; and
 - (4) *control systems* for *load shedding*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (a2) A compliance program under clause 5.7.4(a1) must:
 - (1) include monitoring of the performance of the *facilities*;
 - (2) to the extent reasonably necessary, include provision for periodic testing of the performance of those *facilities* upon which *power system security* depends;
 - (3) provide reasonable assurance of ongoing compliance of the *facilities* with the relevant performance requirements of schedule 5.1; and
 - (4) be in accordance with *good electricity industry practice*.
- (a3) A *Network Service Provider* must immediately notify *AEMO* if it reasonably believes that a *facility* of a type listed in clause 5.7.4(a1) does not comply with, or is likely not to comply with, its performance requirements.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (a4) A notice issued under clause 5.7.4(a3) must:
- (1) identify the *facility* and the requirement with which the *facility* does not comply;
 - (2) give an explanation of the reason why the *facility* failed to comply with its performance requirement;
 - (3) give the date and time when the *facility* failed to comply with its performance requirement;
 - (4) give the date and time when the *facility* is expected to again comply with its performance requirement; and
 - (5) describe the expected impact of the failure on the performance of the *Network Service Provider's transmission system or distribution system*.
- (b) Each *Registered Participant* must bear its own costs of conducting tests under this clause 5.7.4.

5.7.5 Testing by Registered Participants of their own plant requiring changes to normal operation

- (a) A *Registered Participant* proposing to conduct a test on equipment related to a *connection point*, which requires a change to the normal operation of that equipment, must give notice in writing to the relevant *Network Service Provider* of at least 15 *business days* except:
- (1) in an emergency; or
 - (2) where *AEMO* has notified the relevant *Network Service Provider* of the proposed date and time of a test of the *Registered Participant's* equipment to be conducted in accordance with the requirements of the *SRAS Guideline*, under an *ancillary services agreement* between *AEMO* and the *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The notice to be provided under clause 5.7.5(a) must include:
- (1) the nature of the proposed test;
 - (2) the estimated start and finish time for the proposed test;

- (3) the identity of the equipment to be tested;
- (4) the *power system* conditions required for the conduct of the proposed test;
- (5) details of any potential adverse consequences of the proposed test on the equipment to be tested;
- (6) details of any potential adverse consequences of the proposed test on the *power system*; and
- (7) the name of the person responsible for the co-ordination of the proposed test on behalf of the *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The *Network Service Provider* must review the proposed test described in a notice provided under clause 5.7.5(a) to determine whether the test:
 - (1) could adversely affect the normal operation of the *power system*;
 - (2) could cause a threat to *power system security*;
 - (3) requires the *power system* to be operated in a particular way which differs from the way in which the *power system* is normally operated; or
 - (4) could affect the normal *metering* of *energy* at a *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If the *Network Service Provider* determines that the proposed test does fulfil one of the conditions specified in clause 5.7.5(c), then the *Registered Participant* and *Network Service Provider* must seek *AEMO's* approval prior to undertaking the test, which approval must not be unreasonably withheld or delayed.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) If, in *AEMO's* reasonable opinion, a test could threaten public safety, damage or threaten to damage equipment or adversely affect the operation of the *power system*, *AEMO* may direct that the proposed test procedure be modified or that the test not be conducted at the time proposed.

- (f) *AEMO* must advise *Network Service Providers* of any test which may have a possible effect on normal *metering of energy* at a *connection point*.
- (g) *AEMO* must advise any other *Registered Participants* who might be adversely affected by a proposed test and consider any reasonable requirements of those *Registered Participants* when approving the proposed test.
- (h) The *Registered Participant* who conducts a test under this clause 5.7.5 must ensure that the person responsible for the co-ordination of a test promptly advises *AEMO* when the test is complete.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) If *AEMO* approves a proposed test, *AEMO* must use its reasonable endeavours to ensure that *power system* conditions reasonably required for that test are provided as close as is reasonably practicable to the proposed start time of the test and continue for the proposed duration of the test.
- (j) Within a reasonable period after any such test has been conducted, the *Registered Participant* who has conducted a test under this clause 5.7.5 must provide the *Network Service Provider* with a report in relation to that test including test results where appropriate.

5.7.6 Tests of generating units requiring changes to normal operation

- (a) A *Network Service Provider* may, at intervals of not less than 12 months per *generating system*, require the testing by a *Generator* of any *generating unit connected* to the *network* of that provider in order to determine analytic parameters for modelling purposes or to assess the performance of the relevant *generating unit* or *generating system* for the purposes of a *connection agreement*, and that provider is entitled to witness such tests.
- (b) If *AEMO* reasonably considers that:
 - (1) the analytic parameters for modelling of a *generating unit* or *generating system* are inadequate; or
 - (2) available information, including results from a previous test of a *generating unit* or *generating system*, are inadequate to determine parameters for an applicable model developed in accordance with the *Power System Model Guidelines*, or otherwise agreed with *AEMO* under clause S5.2.4(c)(2),

AEMO may direct a *Network Service Provider* to require a *Generator* to conduct a test under paragraph (a), and *AEMO* may witness such a test.

- (c) Adequate notice of not less than 15 *business days* must be given by the *Network Service Provider* to the *Generator* before the proposed date of a test under paragraph (a).
- (d) The *Network Service Provider* must use its best endeavours to ensure that tests permitted under this clause 5.7.6 are conducted at a time which will minimise the departure from the *commitment* and *dispatch* that are due to take place at that time.
- (e) If not possible beforehand, a *Generator* must conduct a test under this clause 5.7.6 at the next scheduled *outage* of the relevant *generating unit* and in any event within 9 months of the request.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) A *Generator* must provide any reasonable assistance requested by the *Network Service Provider* in relation to the conduct of tests.
- (f1) If requested by a *Network Service Provider* who required the test under clause 5.7.6(a), a *Generator* must provide to the *Network Service Provider* any relevant information relating to the *plant* which is the subject of a test carried out under this clause 5.7.6, including model source code provided to AEMO under clause S5.2.4(b)(6).
- (g) Tests conducted under this clause 5.7.6 must be conducted in accordance with test procedures agreed between the *Network Service Provider* and the relevant *Generator* and a *Generator* must not unreasonably withhold its agreement to test procedures proposed for this purpose by the *Network Service Provider*.
- (h) A *Generator* must provide the test records obtained from a test under paragraph (a) to the *Network Service Provider*, who must derive the analytical parameters for the applicable model developed in accordance with the *Power System Model Guidelines*, or otherwise agreed with AEMO under clause S5.2.4(c)(2) and provide them and any new or revised model source code to the relevant *Generator*.
- (i) The *Generator*, the *Network Service Provider* and AEMO must each bear its own costs associated with tests conducted under this clause 5.7.6 and no compensation is to be payable for financial losses incurred as a result of these tests or associated activities.

5.7.7 Inter-network power system tests

- (a) For each kind of development or activity described in the first column of chart 1 below, the *Proponent* is as set out in the second column and the *Relevant Transmission Network Service Provider (Relevant TNSP)* is as set

out in the third column, respectively, opposite the description of the development or activity.

Chart 1

No.	Kind of development or activity	<i>Proponent</i>	<i>Relevant TNSP</i>
	column 1	column 2	column 3
1.	A new <i>transmission line</i> between two <i>networks</i> , or within a <i>transmission network</i> , that is anticipated to have a <i>material inter-network impact</i> is commissioned.	<i>Network Service Provider</i> in respect of the new <i>transmission line</i> .	<i>Proponent</i> and the <i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>transmission line</i> is connected.
2.	An existing <i>transmission line</i> between two <i>networks</i> , or within a <i>transmission network</i> , that is anticipated to have a <i>material inter-network impact</i> is augmented or substantially modified.	<i>Network Service Provider</i> in respect of the <i>augmentation</i> or <i>modification</i> of the <i>transmission line</i> .	<i>Proponent</i> and the <i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>transmission line</i> is connected.
3.	A new <i>generating unit</i> or <i>facility</i> of a <i>Customer</i> or a <i>network</i> development is commissioned that is anticipated to have a <i>material inter-network impact</i> .	<i>Generator</i> in respect of the <i>generating unit</i> and associated <i>connection assets</i> . <i>Customer</i> in respect of the <i>facility</i> and associated <i>connection assets</i> . <i>Network Service Provider</i> in respect of the relevant <i>network</i> .	<i>Transmission Network Service Provider</i> in respect of any <i>network</i> to which the <i>generating unit, facility</i> or <i>network</i> development is connected and, if a <i>network</i> development, then also the <i>Proponent</i> .
4.	Setting changes are made to any <i>power system</i> stabilisers as a result of a <i>generating unit, facility</i> of a <i>Customer</i> or <i>network</i> development being commissioned, modified or replaced.	<i>Generator</i> in respect of the <i>generating unit</i> . <i>Customer</i> in respect of the <i>facility</i> . <i>Network Service Provider</i> in respect of the relevant <i>network</i> .	<i>Transmission Network Service Provider</i> in respect of any <i>transmission network</i> to which the <i>generating unit, facility</i> or <i>network</i> development is connected.
5.	Setting changes are made to any <i>power system</i>	<i>AEMO</i> .	None.

No.	Kind of development or activity	<i>Proponent</i>	<i>Relevant TNSP</i>
	column 1	column 2	column 3
	stabilisers as a result of a decision by <i>AEMO</i> , which are not covered by item 4 in this chart.		
6.	<i>AEMO</i> determines that a test is required to verify the performance of the <i>power system</i> in light of the results of planning studies or simulations or one or more system incidents.	<i>AEMO</i> .	None.

- (b) A *Registered Participant*, not being a *Transmission Network Service Provider*, determined in accordance with clause 5.7.7(a) to be a *Proponent* for a development or activity detailed in chart 1, may require the *Relevant TNSP* corresponding to that development or activity to undertake on their behalf their obligations as the *Proponent* and, where the *Relevant TNSP* receives a written request to undertake those obligations, the *Relevant TNSP* must do so.
- (c) Where, in this clause 5.7.7, there is a reference to a *Proponent* that reference includes a *Relevant TNSP* required in accordance with clause 5.7.7(b) to undertake the obligations of another *Registered Participant*.
- (d) If a *Relevant TNSP* is required by a *Registered Participant* in respect of a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled load* or a *market network service*, any of which have a *nameplate rating* in excess of 30 MW, to act as a *Proponent* in accordance with clause 5.7.7(b), that *Relevant TNSP* is entitled to recover all reasonable costs incurred from the *Registered Participant* that required the *Relevant TNSP* to act as the *Proponent*.
- (e) A *Registered Participant* wishing to undertake a development or conduct an activity listed in item 1, 2, 3 or 4 of chart 1 must notify *AEMO* not less than 80 *business days* before the *transmission line*, *generating unit*, *facility* or *network development* is planned to be commissioned, modified or replaced, giving details of the development or activity.
- (f) If *AEMO* receives a notice under clause 5.7.7(e), then it must provide a copy of the notice to each *jurisdictional planning representative* and consult with each *jurisdictional planning representative* about the potential impact of the development or activity.

- (g) *AEMO* or the *Relevant TNSP* for a development or activity may notify the *Proponent* of the development or activity that *AEMO* or the *Relevant TNSP* believes an *inter-network test* is required for that development or activity.
- (h) *AEMO* or the *Relevant TNSP* may only give a notice under clause 5.7.7(g) if:
 - (1) *AEMO* or the *Relevant TNSP* considers that the development or activity may have a material impact on the magnitude of the *power transfer capability* of more than one *transmission network* and, in the circumstances, an *inter-network test* is required; or
 - (2) an *inter-network test* is required having regard to guidelines *published* under clause 5.7.7(k) and the surrounding circumstances.
- (i) If the *Relevant TNSP* gives a notice under clause 5.7.7(g), then it must also promptly give a copy of the notice to *AEMO*.
- (j) A *Registered Participant* undertaking a development or activity listed in chart 1 must provide information reasonably requested by *AEMO* or the *Relevant TNSP* for making an assessment under this clause.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (k) *AEMO* may develop, *publish* and amend from time to time, in accordance with the *Rules consultation procedures*, a set of guidelines to assist *Registered Participants* to determine when an *inter-network test* may be required.
- (l) *AEMO* and the *Relevant TNSP* must consider any relevant guidelines in determining whether an *inter-network test* is required.
- (m) If *AEMO* or the *Relevant TNSP* gives notice under clause 5.7.7(g), then the *Proponent* must, in consultation with *AEMO*, prepare a draft *test program* for the *inter-network test* and provide it to *AEMO*, each *jurisdictional planning representative* and the *Relevant TNSP* (if the *Relevant TNSP* gave the notice).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (n) However, if *AEMO* determines that an *inter-network test* is required for a reason contemplated in item 5 or 6 of chart 1, then it must prepare a draft *test program* for the *inter-network test* in consultation with the *jurisdictional planning representatives* and provide that draft *test program* to each *jurisdictional planning representative*.

- (o) If a *jurisdictional planning representative* considers that any changes should be made to a draft *test program*, the *jurisdictional planning representative* must, within 10 *business days* after being provided with the draft *test program*, make a recommendation to *AEMO* that identifies the changes it proposes should be made to the draft *test program*.
- (p) *AEMO* must:
 - (1) *publish* a copy of the draft *test program* and any relevant changes recommended by any *jurisdictional planning representative* and invite interested *Registered Participants* to make written submissions; and
 - (2) only accept as valid submissions received not later than the closing date for submissions specified in the notice *publishing* the copy of the draft *test program* (not to be less than 14 days after the date of *publication*); and
 - (3) provide the *jurisdictional planning representatives* with copies of all valid submissions and seek any further recommendations they may have.
- (q) *AEMO* must determine and *publish* in accordance with clause 3.13.13 the *test program* for an *inter-network test* after taking into account the recommendations of the *jurisdictional planning representatives* and any valid submissions received from *Registered Participants*.
- (r) In determining the *test program*, *AEMO* must so far as practicable have regard to the following principles:
 - (1) *power system security* must be maintained in accordance with Chapter 4; and
 - (2) the variation from the *central dispatch* outcomes that would otherwise occur if there were no *inter-network test* should be minimised; and
 - (3) the duration of the tests should be as short as possible consistently with test requirements and *power system security*; and
 - (4) the test facilitation costs to be borne by the *Proponent* under paragraph (aa) should be kept to the minimum consistent with this paragraph.
- (s) **[Deleted]**
- (t) An *inter-regional test* must not be conducted within 20 *business days* after *AEMO publishes* the *test program* for the *inter-network test* determined by *AEMO* under clause 5.7.7(r).
- (u) The *Proponent* in respect of an *inter-network test* must seek to enter into agreements with other *Registered Participants* to provide the test facilitation services identified in the *test program* in order to ensure that the *power system* conditions required by the *test program* are achieved.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (v) If the *Proponent* approaches another *Registered Participant* seeking to enter into an agreement under clause 5.7.7(u) then the *Proponent* and the *Registered Participant* must negotiate in good faith concerning the provision of the relevant test facilitation service.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (w) If:
 - (1) a *Proponent* approaches another *Registered Participant* as described in clause 5.7.7(v); and
 - (2) the *Proponent* and the other *Registered Participant* have not agreed the terms and conditions to be included in the agreement under which the *Registered Participant* will provide the test facilitation service requested within 15 *business days* of the approach,

then those terms and conditions must be determined in accordance with rule 8.2 and a dispute of this type is deemed to fall within clause 8.2.5(c)(2).
- (x) If the dispute concerns the price which the *Proponent* is to pay for a test facilitation service, then it must be resolved applying the following principles:
 - (1) the other *Registered Participant* is entitled to recover the costs it incurs, and a reasonable rate of return on the capital it employs, in providing the test facilitation service, determined taking into account the additional costs associated with:
 - (i) maintaining the equipment necessary to provide the test facilitation service;
 - (ii) any labour required to operate and maintain the equipment used to provide the test facilitation service; and
 - (iii) any materials consumed when the test facilitation service is utilised; and
 - (2) the other *Registered Participant* is entitled to be compensated for any commercial opportunities foregone by providing the test facilitation service.
- (y) When the terms and conditions are determined in accordance with rule 8.2 under this clause 5.7.7, then the *Proponent* and the other *Registered*

Participant must enter into an agreement setting out those terms and conditions.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (z) If *AEMO* is not the *Proponent* in respect of an *inter-network test*, the *Proponent* must:
- (1) prior to the scheduled date of the *inter-network test*, confirm to *AEMO* that the test facilitation services identified in the *test program* will be available to be utilised, who will be providing them and the operational arrangements for utilising them;
 - (2) provide sufficient information to enable *AEMO* to utilise the test facilitation services in conducting the *inter-network test*; and
 - (3) respond promptly to any queries *AEMO* raises with the *Proponent* concerning the availability of the test facilitation services and *AEMO's* ability to utilise those services in conducting the *inter-network tests*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (aa) The *Proponent* in respect of an *inter-network test* must bear all of the following costs associated with that *inter-network test*:
- (1) any amounts payable under an agreement under which test facilitation services are provided;
 - (2) the *Proponent's* own costs associated with the *inter-network test* and in negotiating and administering the agreements referred to in clause 5.7.7(u); and
 - (3) if the *Proponent* is not *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then the *Proponent* must enter into an agreement with *AEMO* to pay that amount to *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (ab) If the *Proponent* is *AEMO* and the amount of *settlements residue* on any *directional interconnector* for a *trading interval* during which there is an

impact on *central dispatch* outcomes as a result of the *inter-network test* is negative, then *AEMO* must adjust that residue to be zero and must recover the amount as provided for in clause 2.11.3(b)(2A).

- (ac) *AEMO* must establish operational conditions to achieve the particular *power transfer* levels for each stage of the *inter-network test* as contemplated by the *test program*:
 - (1) utilizing where practicable and economic to do so the test facilitation services identified in the *test program*; and
 - (2) otherwise, by applying to the minimum extent necessary to fulfil the test requirements, *inter-network testing constraints*.
- (ad) An *inter-network test* must be coordinated by an officer nominated by *AEMO* who has authority to stop the test or any part of it or vary the procedure within pre-approved guidelines determined by *AEMO* if that officer considers any of these actions to be reasonably necessary.
- (ae) Each *Registered Participant* must:
 - (1) cooperate with *AEMO* in planning, preparing for and conducting *inter-regional tests*;
 - (2) act in good faith in respect of, and not unreasonably delay, an *inter-network test*; and
 - (3) comply with any instructions given to it by *AEMO* under clause 5.7.7(af).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (af) *AEMO* may utilise test facilitation services under agreements entered into by the *Proponent* under this clause 5.7.7 during an *inter-network test* in order to achieve operational conditions on the *power system* which are reasonably required to achieve valid test results.

5.7.8 Contestable IUSA components

- (a) Before commissioning, the *Primary Transmission Network Service Provider* must ensure that *contestable IUSA components* are built to the standards specified in the functional specification provided under clause 5.3.3(b)(9) and the *Connection Applicant* for the *identified user shared asset* must provide access to the *Primary Transmission Network Service Provider* to make inspections, and agree to such tests, as is reasonably required for that purpose.

- (b) The *Connection Applicant* for the *identified user shared asset* must pay the reasonable costs of inspections and tests which are reasonably required by the *Transmission Network Service Provider* under paragraph (a).

5.8 Commissioning

5.8.1 Requirement to inspect and test equipment

- (a) A *Registered Participant* must ensure that any of its new or replacement equipment is inspected and tested to demonstrate that it complies with relevant *Australian Standards*, the *Rules* and any relevant *connection agreement* prior to or within an agreed time after being *connected* to a *transmission network* or *distribution network*, and the relevant *Network Service Provider* is entitled to witness such inspections and tests.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Registered Participant* must produce test certificates on demand by the relevant *Network Service Provider* showing that the equipment has passed the tests and complies with the standards set out in clause 5.8.1(a) before *connection* to a *network*, or within an agreed time thereafter.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.8.2 Co-ordination during commissioning

A *Registered Participant* seeking to *connect* to a *network* must co-operate with the relevant *Network Service Provider(s)* and *AEMO* to develop procedures to ensure that the commissioning of the *connection* and *connected facility* is carried out in a manner that:

- (a) does not adversely affect other *Registered Participants* or affect *power system security* or quality of *supply* of the *power system*; and
- (b) minimises the threat of damage to any other *Registered Participant's* equipment.

5.8.3 Control and protection settings for equipment

- (a) Not less than 3 months prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system* (other than replacement by identical equipment), the *Registered Participant* must submit to the relevant *Network Service Provider* sufficient design information including proposed parameter

settings to allow critical assessment including analytical modelling of the effect of the new or replacement equipment on the performance of the *power system*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The *Network Service Provider* must:

- (1) consult with other *Registered Participants* and *AEMO* as appropriate; and
- (2) within 20 *business days* of receipt of the design information under clause 5.8.3(a), notify the *Registered Participant* and *AEMO* of any comments on the proposed parameter settings for the new or replacement equipment.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) If the *Network Service Provider's* comments include alternative parameter settings for the new or replacement equipment, then the *Registered Participant* must notify the *Network Service Provider* that it either accepts or disagrees with the alternative parameter settings suggested by the *Network Service Provider*.
- (d) The *Network Service Provider* and the *Registered Participant* must negotiate parameter settings that are acceptable to them both and if there is any unresolved disagreement between them, the matter must be referred to *AEMO* whose decision must be given within 20 *business days* of referral of the dispute and, once a decision is given, it is to be final.
- (e) The *Registered Participant* and the *Network Service Provider* must co-operate with each other to ensure that adequate grading of protection is achieved so that faults within the *Registered Participant's facility* are cleared without adverse effects on the *power system*.

5.8.4 Commissioning program

- (a) Prior to the proposed commencement of commissioning by a *Registered Participant* of any new or replacement equipment that could reasonably be expected to alter performance of the *power system*, the *Registered Participant* must advise the relevant *Network Service Provider* and *AEMO* in writing of the commissioning program including test procedures and proposed test equipment to be used in the commissioning.

- (b) Notice under clause 5.8.4(a) must be given not less than 3 months prior to commencement of commissioning for a *connection* to a *transmission network* and not less than 1 month prior to commencement of commissioning for a *connection* to a *distribution network*.
- (c) The relevant *Network Service Provider* and *AEMO* must, within 15 *business days* of receipt of such advice under clause 5.8.4(a), notify the *Registered Participant* either that they:
 - (1) agree with the proposed commissioning program; or
 - (2) require changes to it in the interest of maintaining *power system security*, safety or quality of *supply*.
- (d) If the relevant *Network Service Provider* or *AEMO* require changes to the proposed commissioning program, then the parties must co-operate to reach agreement and finalise the commissioning program within a reasonable period.
- (e) A *Registered Participant* must not commence the commissioning until the commissioning program has been finalised and the relevant *Network Service Provider* and *AEMO* must not unreasonably delay finalising a commissioning program.

5.8.5 Commissioning tests

- (a) The relevant *Network Service Provider* and/or *AEMO* has the right to witness commissioning tests relating to new or replacement equipment that could reasonably be expected to alter performance of the *power system* or the accurate *metering* of energy.
- (b) The relevant *Network Service Provider* must, within a reasonable period of receiving advice of commissioning tests, notify the *Registered Participant* whose new or replacement equipment is to be tested under this clause 5.8.5 whether or not it:
 - (1) wishes to witness the commissioning tests; and
 - (2) agrees with the proposed commissioning times.
- (c) A *Registered Participant* whose new or replacement equipment is tested under this clause 5.8.5 must submit to the relevant *Network Service Provider* the commissioning test results demonstrating that a new or replacement item of equipment complies with the *Rules* or the relevant *connection agreement* or both to the satisfaction of the relevant *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If the commissioning tests conducted in relation to a new or replacement item of equipment demonstrates non-compliance with one or more requirements of the *Rules* or the relevant *connection agreement* then the *Registered Participant* whose new or replacement equipment was tested under this clause 5.8.5 must promptly meet with the *Network Service Provider* to agree on a process aimed at achievement of compliance of the relevant item with the *Rules*.
- (e) On request by a *Network Service Provider*, *AEMO* may direct that the commissioning and subsequent *connection* of the *Registered Participant's* equipment must not proceed if the relevant equipment does not comply with the requirements described in clause 5.8.1(a).

5.9 Disconnection and Reconnection

5.9.1 Voluntary disconnection

- (a) Unless agreed otherwise and specified in a *connection agreement*, a *Registered Participant* must give to the relevant *Network Service Provider* notice in writing of its intention to permanently *disconnect* a *facility* from a *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Registered Participant* is entitled, subject to the terms of the relevant *connection agreement*, to require voluntary permanent *disconnection* of its equipment from a *network* in which case appropriate operating procedures necessary to ensure that the *disconnection* will not threaten *power system security* must be implemented in accordance with clause 5.9.2.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The *Registered Participant* must pay all costs directly attributable to the voluntary *disconnection* and *decommissioning*.

5.9.2 Decommissioning procedures

- (a) In the event that a *Registered Participant's facility* is to be permanently *disconnected* from a *network*, whether in accordance with clause 5.9.1 or otherwise, the *Network Service Provider* and the *Registered Participant* must, prior to such *disconnection* occurring, follow agreed procedures for *disconnection*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Network Service Provider* must notify *AEMO* and any *Registered Participants* with whom it has a *connection agreement* if it believes, in its reasonable opinion, the terms and conditions of such a *connection agreement* will be affected by procedures for *disconnection* or proposed procedures agreed with any other *Registered Participant*. The parties must negotiate any amendments to the procedures for *disconnection* or the *connection agreement* that may be required.
- (c) Any *disconnection* procedures agreed to or determined under clause 5.9.2(a) must be followed by all relevant *Network Service Providers* and *Registered Participants*.

5.9.3 Involuntary disconnection

- (a) *AEMO* may direct a *Network Service Provider* to, or a *Network Service Provider* may (either on its own initiative or in accordance with a direction from *AEMO*), *disconnect* a *Registered Participant's facilities* from a *network*, or a *Registered Participant's market loads*, in the following circumstances:
 - (1) pursuant to a direction for a disconnection made by a court under:
 - (a) section 62 or 63 of the *National Electricity Law*;
 - (b) section 44AAG of the *Competition and Consumer Act 2010* (Cth); or
 - (c) section 44AAGA of the *Competition and Consumer Act 2010* (Cth).
 - (2) during an emergency in accordance with clause 5.9.5;
 - (3) in accordance with the *National Electricity Law*; or
 - (4) in accordance with the provisions of the *Registered Participant's connection agreement*.
- (b) In all cases of *disconnection* by a *Network Service Provider* at *AEMO's* direction during an emergency in accordance with clause 5.9.5, *AEMO* must undertake a review under clause 4.8.15 and *AEMO* must then provide a report to the *Registered Participant*, the *AEMC* and the *AER* advising of the circumstances requiring such action.
- (c) A *Network Service Provider* that has received a direction from *AEMO* under this clause 5.9.3 must comply with that direction promptly

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) *A Registered Participant's facilities or market loads may be disconnected from a network by automatic operation of an emergency frequency control scheme.*

5.9.4 Direction to disconnect

- (a) Where a *disconnection* is made pursuant to clause 5.9.3(a)(1), neither AEMO nor the relevant *Network Service Provider* is liable in any way for any loss or damage suffered or incurred by the *Registered Participant* by reason of the *disconnection* and neither AEMO nor the relevant *Network Service Provider* is obliged for the duration of the *disconnection* to fulfil any agreement to convey electricity to or from the *Registered Participant's facility*.
- (b) *A Registered Participant* must not bring proceedings against AEMO or a *Network Service Provider* to seek to recover any amount for any loss or damage described in clause 5.9.4(a).
- (c) *Transmission service* charges and *distribution service* charges must be paid by a *Registered Participant* whose *facilities* have been *disconnected* under clause 5.9.3 as if any *disconnection* had not occurred.
- (d) *A Network Service Provider* that has received a direction from AEMO to *disconnect a Registered Participant's facilities* in the circumstances described in clause 5.9.3(a)(1) must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.9.4A Notification of disconnection

If the AER applies to a court for a direction, under section 62 or 63 of the *National Electricity Law* or pursuant to regulations made under section 44AAG of the *Competition and Consumer Act 2010* (Cth), that a *Registered Participant's market loads* be *disconnected*, the AER must promptly notify AEMO and the *participating jurisdictions* which the AER considers may be affected.

5.9.5 Disconnection during an emergency

- (a) Where AEMO may direct a *Network Service Provider* to *disconnect a Registered Participant's facilities* during an emergency under the *Rules* or otherwise, then AEMO may:

- (1) require the relevant *Registered Participant* to reduce the *power transfer* at the proposed point of *disconnection* to zero in an orderly manner and then direct a *Network Service Provider* to *disconnect* the *Registered Participant's facility* by automatic or manual means; or
 - (2) direct a *Network Service Provider* to immediately *disconnect* the *Registered Participant's facilities* by automatic or manual means where, in *AEMO's* reasonable opinion, it is not appropriate to follow the procedure set out in clause 5.9.5(a)(1) because action is urgently required as a result of a threat to safety of persons, hazard to equipment or a threat to *power system security*.
- (b) A *Network Service Provider* that has received a direction from *AEMO* under this clause 5.9.5 must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.9.6 Obligation to reconnect

- (a) Either *AEMO* (by directing the *Network Service Provider*) or the relevant *Network Service Provider* (either on its own initiative or in accordance with a direction from *AEMO*) must reconnect a *Registered Participant's facilities* to a *transmission network* or *distribution network* at a reasonable cost to the *Registered Participant* as soon as practicable if:
- (1) *AEMO* is reasonably satisfied that there no longer exists an emergency due to which the *Registered Participant's facilities* were *disconnected* under clause 5.9.5;
 - (2) *AEMO* is reasonably satisfied that there no longer exists a reason for the *disconnection* under the *National Electricity Law* or the *Registered Participant's connection agreement*;
 - (3) one of the following occurs:
 - (i) a breach of the *Rules* giving rise to the *disconnection* has been remedied;
 - (ii) where the breach is not capable of remedy, compensation has been agreed and paid by the *Registered Participant* to the affected parties or, failing agreement, the amount of compensation payable has been determined in accordance with the dispute resolution procedure in rule 8.2 and that amount has been paid;
 - (iii) where the breach is not capable of remedy and the amount of compensation has not been agreed or determined, assurances for the payment of reasonable compensation have been given to the

satisfaction of *AEMO*, the *Network Service Provider* and the parties affected; or

- (iv) the *Registered Participant* has taken all necessary steps to prevent the re-occurrence of the breach and has delivered binding undertakings to *AEMO* or the *Network Service Provider* that the breach will not re-occur.
- (4) *AEMO* is reasonably satisfied that there no longer exists the *power system* conditions due to which the *Registered Participant's facilities* or *loads* were *disconnected* by operation of an *emergency frequency control scheme*.
- (b) In carrying out its obligations under clause 5.9.6(a), *AEMO* must, to the extent practicable, arrange for the implementation of an equitable sharing of the reconnection of *facilities* across *interconnected regions* up to the *power transfer capability* of the *network* and, in performing these obligations within a *region*, both *AEMO* and the relevant *Network Service Provider* must, to the extent practicable, give priority to reconnection of a *region's sensitive loads*.
- (c) A *Network Service Provider* that has received a direction from *AEMO* under this clause 5.9.6 must comply with that direction promptly.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Part D Network Planning and Expansion

Note:

Parts B and C will be inserted by Schedule 2 of the National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017 No. 4 which commences on 1 July 2018.

5.10 Network development generally

5.10.1 Content of Part D

- (a) Clause 5.10.2 sets out local definitions used in Part D.
- (b) Clause 5.11.1 sets out obligations regarding forecasts for connection points to the *transmission network*.
- (c) Clause 5.11.2 sets out the obligations of *Network Service Providers* relating to the identification of network limitations.
- (d) Clause 5.12 sets out planning and reporting obligations for *Transmission Network Service Providers*.

- (e) Clause 5.13 sets out planning and reporting obligations for *Distribution Network Service Providers*.
- (e1) Clause 5.13A sets out the obligations to provide distribution zone substation information.
- (f) Clause 5.14 sets out joint planning obligations of *Network Service Providers*.
- (f1) Rule 5.14B relates to guidelines for *Transmission Annual Planning Reports*.
- (g) Clause 5.15 relates to regulatory investment tests generally.
- (h) Clause 5.16 relates to the *regulatory investment test for transmission*.
- (i) Clause 5.17 relates the *regulatory investment test for distribution*.
- (j) Clause 5.18 relates to the construction of *funded augmentations*.
- (j1) Rule 5.18A sets out the obligations of *Transmission Network Service Providers* in relation to a register of large generator connections.
- (j2) Rule 5.18B sets out obligations of *Distribution Network Service Providers* in relation to completed embedded generation projects.

Note:

Rule 5.18B commences operation on 1 July 2018 when clause 5.4.5 is renumbered as rule 5.18B under the National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017 No. 4

- (k) Clause 5.19 relates to Scale Efficient Network Extensions.
- (l) Clause 5.20 relates to *AEMO's* National Transmission Planning responsibilities.
- (m) Clause 5.20A relates to *power system frequency* management planning.
- (m1) Clause 5.20B sets out the process for identifying and providing the *inertia requirements* for *inertia sub-networks*.
- (m2) Clause 5.20C sets out the process for identifying and providing the *system strength requirements* for each *region*.
- (n) Clause 5.21 sets out *AEMO's* obligations to *publish* information and guidelines and provide advice regarding network development.
- (o) Clause 5.22 relates to the *AEMC's last resort planning powers*.

5.10.2 Definitions

In this Part D and schedules 5.8, 5.9 and 5.4A:

asset management means the development and implementation of plans and processes, encompassing management, financial, consumer, engineering, information technology and other business inputs to ensure assets achieve the expected level of performance and minimise costs to consumers over the expected life cycle of the assets.

cost threshold means a cost threshold specified in clause 5.15.3(b) or 5.15.3(d) (as relevant).

cost threshold determination means a final determination under clause 5.15.3(i).

cost threshold review means a review conducted under clause 5.15.3(e).

credible option has the meaning given to it in clause 5.15.2(a).

demand side engagement document means the document *published* by the *Distribution Network Service Provider* under clause 5.13.1(g).

demand side engagement register means a facility by which a person can register with a *Distribution Network Service Provider* their interest in being notified of developments relating to *distribution network* planning and expansion.

demand side engagement strategy means the strategy developed by a *Distribution Network Service Provider* under clause 5.13.1(e) and described in its demand side engagement document.

de-rate means, in respect of a *Network Service Provider*, a reduction in the *network capability* of a *network element* in the *network* of that *Network Service Provider*.

design fault level means the maximum level of fault current that a *facility* can sustain while maintaining operation at an acceptable *performance standard*.

dispute notice has the meaning given in clause 5.16.5(c)(1) and 5.17.5(c)(1).

disputing party has the meaning given in clause 5.16.5(c) and 5.17.5(c).

distribution asset means the apparatus, equipment and plant, including *distribution lines*, *substations* and sub-transmission lines, of a *distribution system*.

draft project assessment report means the report prepared under clause 5.17.4(i).

final project assessment report means the report prepared under clauses 5.17.4(o) or (p).

firm delivery capacity means the maximum allowable output or load of a *network* or *facility* under *single contingency* conditions, including any short term overload capacity having regard to external factors, such as ambient temperature, that may affect the capacity of the *network* or *facility*.

forward planning period means the period determined by the *Distribution Network Service Provider* under clause 5.13.1(a)(1).

joint planning project means a project the purpose of which is to address a need identified under clause 5.14.1(d)(3) or clause 5.14.2(a) or clause 5.14.3(a).

load transfer capacity means meeting the *load* requirements for a *connection point* by the reduction of *load* or group of *loads* at the *connection point* and increasing the *load* or group of *loads* at a different *connection point*.

non-network options report means the report prepared under clause 5.17.4(b).

non-network provider means a person who provides *non-network options*.

normal cyclic rating means the normal level of allowable *load* on a primary distribution feeder having regard to external factors, such as ambient temperature and wind speed, that may affect the capacity of the primary distribution feeder.

potential credible option means an option which a RIT-D proponent or RIT-T proponent (as the case may be) reasonably considers has the potential to be a credible option based on its initial assessment of the *identified need*.

potential transmission project means investment in a transmission asset of a *Transmission Network Service Provider* which:

- (a) is an *augmentation*; and
- (b) has an estimated capital cost in excess of \$5 million (as varied in accordance with a cost threshold determination); and
- (c) the person who identifies the project considers is likely, if constructed, to relieve forecast constraints in respect of *national transmission flow paths* between *regional reference nodes*.

preferred option has the meaning given in clause 5.16.1(b) and 5.17.1(b).

primary distribution feeder means a *distribution line* connecting a sub-transmission asset to either other *distribution lines* that are not sub-transmission lines, or to distribution assets that are not sub-transmission assets.

project assessment conclusions report means the report prepared under clause 5.16.4(t) or (u).

project assessment draft report means the report prepared under clause 5.16.4(j).

project specification consultation report means the report prepared under clause 5.16.4(b).

protected event EFCS investment means investment by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* for the purposes of

installing or modifying an *emergency frequency control scheme* applicable in respect of the *Network Service Provider's transmission or distribution system* in accordance with a *protected event EFCS standard*.

reconfiguration investment has the meaning given to it in clause 5.16.3(a)(5).

regulatory investment test for distribution application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.17.2 as in force from time to time, and include amendments made in accordance with clause 5.17.2(e).

regulatory investment test for transmission application guidelines means the guidelines developed and *published* by the *AER* in accordance with clause 5.16.2 as in force from time to time, and include amendments made in accordance with clause 5.16.2(e).

reliability corrective action means investment by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* in respect of its *transmission network* or *distribution network* for the purpose of meeting the service standards linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments* and which may consist of *network options* or *non-network options*.

RIT-D project means:

- (a) a project the purpose of which is to address an *identified need* identified by a *Distribution Network Service Provider*; or
- (b) a joint planning project that is not a RIT-T project.

RIT-D proponent means the *Network Service Provider* applying the *regulatory investment test for distribution* to a RIT-D project to address an *identified need*. The RIT-D proponent may be:

- (a) if the *identified need* is identified during joint planning under clause 5.14.1(d)(3), a *Distribution Network Service Provider* or a *Transmission Network Service Provider*; or
- (b) in any other case, a *Distribution Network Service Provider*.

RIT-T project means:

- (a) a project the purpose of which is to address an *identified need* identified by a *Transmission Network Service Provider*; or
- (b) a joint planning project if:
 - (1) at least one potential credible option to address the *identified need* includes investment in a *network* or *non-network option* on a *transmission network* (other than *dual function assets*) with an estimated capital cost greater than the cost threshold that applies under clause 5.16.3(a)(2); or

- (2) the *Network Service Providers* affected by the joint planning project have agreed that the *regulatory investment test for transmission* should be applied to the project.

RIT-T proponent means the *Network Service Provider* applying the *regulatory investment test for transmission* to a RIT-T project to address an *identified need*. The RIT-T proponent may be:

- (a) if the *identified need* is identified during joint planning under clause 5.14.1(d)(3), a *Distribution Network Service Provider* or a *Transmission Network Service Provider*; or
- (b) in any other case (including under clause 5.14.3(a)), a *Transmission Network Service Provider*.

sub-transmission means any part of the *power system* which operates to deliver electricity from the *transmission system* to the *distribution network* and which may form part of the *distribution network*, including zone substations.

sub-transmission line means a power line connecting a sub-transmission asset to either the *transmission system* or another sub-transmission asset.

system limitation means a limitation identified by a *Distribution Network Service Provider* under clause 5.13.1(d)(2).

system limitation template means a template developed and *published* by the *AER* under clause 5.13.3(a).

TAPR Guidelines means the guidelines *published* by the *AER* under clause 5.14B.1.

total capacity means the theoretical maximum allowable output or *load* of a *network* or *facility* with all network components and equipment intact.

transmission asset means the apparatus, equipment and plant, including *transmission lines* and *substations* of a *transmission system*.

transmission-distribution connection point means:

- (a) subject to paragraph (b), the agreed point of supply established between a *transmission network* and a *distribution network*;
- (b) in relation to the *declared transmission system* of an *adoptive jurisdiction*, the agreed point of supply between the transmission assets of the *declared transmission system operator* and a *distribution network*.

zone substation means a *substation* for the purpose of connecting a *distribution network* to a sub-transmission *network*.

5.10.3 Interpretation

The terms *Network Service Provider*, *Transmission Network Service Provider* and *Distribution Network Service Provider* when used in rules 5.11 to 5.17 and schedules 5.8 and 5.9 are not intended to refer to, and are not to be read or construed as referring to, any *Network Service Provider* in its capacity as a *Market Network Service Provider*.

5.11 Forecasts of connection to transmission network and identification of system limitations

5.11.1 Forecasts for connection to transmission network

- (a) The relevant *Network Service Provider* must give at least 40 *business days* written notice to each relevant *Registered Participant* of the annual date by which the *Registered Participant* must provide the relevant *Network Service Provider* with the short and long term electricity generation, market network service and load forecast information listed in schedule 5.7 in relation to each *connection point* which connects the *Registered Participant* to a *transmission network* of that *Network Service Provider* and any other relevant information as reasonably required by the *Network Service Provider*.
- (b) Details of planned future *generating units*, *market network services* and *loads*, being details regarding the proposed commencing date, *active power capability* and *reactive power capability*, *power transfer capability*, operating times/seasons and special operating requirements, must be given by each relevant *Registered Participant* to the relevant *Network Service Provider* on reasonable request.
- (c) Each relevant *Registered Participant* must use reasonable endeavours to provide accurate information under paragraph (a) which must include details of any factors which may impact on *load* forecasts or proposed *facilities* for *generation* or *market network services*.
- (d) If the *Network Service Provider* reasonably believes any forecast information to be inaccurate, the *Network Service Provider* may modify that forecast information and must advise the relevant *Registered Participant* and AEMO in writing of this action and the reason for the modification. The *Network Service Provider* is not responsible for any adverse consequences of this action or for failing to modify forecast information under this paragraph (d).

5.11.2 Identification of network limitations

Each *Network Service Provider* must:

- (a) extrapolate the forecasts provided to it by *Registered Participants* for the purpose of planning;

- (b) if the analysis required by paragraph (a) indicates that any relevant technical limits of the *transmission or distribution systems* will be exceeded, either in normal conditions or following the contingencies specified in schedule 5.1, notify any affected *Registered Participants* and *AEMO* of these limitations; and
- (c) notify any affected *Registered Participants* and *AEMO* of the expected time for undertaking proposed corrective action which may consist of:
 - (1) *dual function assets* or an investment in a *transmission network* designed to address limitations in respect of a *distribution network* notified under paragraph (b); and
 - (2) *network options* or *non-network options* or modifications to *connection facilities*, designed to address the limitations notified under paragraph (b).

5.12 Transmission annual planning process

5.12.1 Transmission annual planning review

- (a) Each *Transmission Network Service Provider* must analyse the expected future operation of its *transmission networks* over an appropriate planning period, taking into account the relevant forecast *loads*, any future *generation*, *market network service*, demand side and *transmission* developments and any other relevant data.
- (b) Each *Transmission Network Service Provider* must conduct an annual planning review which must:
 - (1) incorporate the forecast *loads* as submitted or modified in accordance with clause 5.11.1; and
 - (2) include a review of the adequacy of existing *connection points* and relevant parts of the *transmission system* and planning proposals for future *connection points*; and
 - (3) take into account the most recent *NTNDP* and *power system frequency risk review*; and
 - (4) consider the potential for *augmentations*, or non-*network* alternatives to *augmentations*, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the *market*;
 - (5) consider the condition of *network* assets; and
 - (6) consider the potential for replacements of *network* assets, or *non-network options* to replacements of *network* assets, that are likely to provide a net economic benefit to all those who produce, consume and transport electricity in the *market*.

- (c) The minimum planning period for the purposes of the annual planning review is 10 years for *transmission networks*.

5.12.2 Transmission Annual Planning Report

- (a) Subject to paragraph (b), by 30 June each year all *Transmission Network Service Providers* must *publish* a *Transmission Annual Planning Report* setting out the results of the annual planning review conducted in accordance with clause 5.12.1.
- (b) If a *Network Service Provider* is a *Transmission Network Service Provider* only because it owns, operates or controls *dual function assets* then it may *publish* its *Transmission Annual Planning Report* in the same document and at the same time as its *Distribution Annual Planning Report*.
- (c) The *Transmission Annual Planning Report* must be consistent with the TAPR Guidelines and set out:
 - (1) the forecast *loads* submitted by a *Distribution Network Service Provider* in accordance with clause 5.11.1 or as modified in accordance with clause 5.11.1(d), including at least:
 - (i) a description of the forecasting methodology, sources of input information, and the assumptions applied in respect of the forecast *loads*;
 - (ii) a description of high, most likely and low growth scenarios in respect of the forecast *loads*;
 - (iii) an analysis and explanation of any aspects of forecast *loads* provided in the *Transmission Annual Planning Report* that have changed significantly from forecasts provided in the *Transmission Annual Planning Report* from the previous year; and
 - (iv) an analysis and explanation of any aspects of forecast *loads* provided in the *Transmission Annual Planning Report* from the previous year which are significantly different from the actual outcome;
 - (1A) for all *network* asset retirements, and for all *network* asset de-ratings that would result in a *network constraint*, that are planned over the minimum planning period specified in clause 5.12.1(c), the following information in sufficient detail relative to the size or significance of the asset:
 - (i) a description of the *network* asset, including location;
 - (ii) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider* for deciding that it is necessary or prudent for the *network* asset to be retired or

- de-rated, taking into account factors such as the condition of the *network* asset;
- (iii) the date from which the *Transmission Network Service Provider* proposes that the *network* asset will be retired or de-rated; and
 - (iv) if the date to retire or de-rate the *network* asset has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;
- (1B) for the purposes of subparagraph (1A), where two or more *network* assets are:
- (i) of the same type;
 - (ii) to be retired or de-rated across more than one location;
 - (iii) to be retired or de-rated in the same calendar year; and
 - (iv) each expected to have a replacement cost less than \$200,000 (as varied by a cost threshold determination),
- those assets can be reported together by setting out in the *Transmission Annual Planning Report*:
- (v) a description of the *network* assets, including a summarised description of their locations;
 - (vi) the reasons, including methodologies and assumptions used by the *Transmission Network Service Provider*, for deciding that it is necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;
 - (vii) the date from which the *Transmission Network Service Provider* proposes that the *network* assets will be retired or de-rated; and
 - (viii) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Transmission Annual Planning Report*, an explanation of why this has occurred;
- (2) planning proposals for future *connection points*;
- (3) a forecast of *constraints* and inability to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction* over 1, 3 and 5 years, including at least:
- (i) a description of the *constraints* and their causes;
 - (ii) the timing and likelihood of the *constraints*;

- (iii) a brief discussion of the types of planned future projects that may address the *constraints* over the next 5 years, if such projects are required; and
 - (iv) sufficient information to enable an understanding of the *constraints* and how such forecasts were developed;
- (4) in respect of information required by subparagraph (3), where an estimated reduction in forecast *load* would defer a forecast *constraint* for a period of 12 months, include:
 - (i) the year and months in which a *constraint* is forecast to occur;
 - (ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur;
 - (iii) the estimated reduction in forecast *load* in MW needed; and
 - (iv) a statement of whether the *Transmission Network Service Provider* plans to issue a request for proposals for *augmentation*, replacement of *network* assets, or a *non-network option* identified by the annual planning review conducted under clause 5.12.1(b) and if so, the expected date the request will be issued;
- (5) for all proposed *augmentations* to the *network* and proposed replacements of *network* assets the following information, in sufficient detail relative to the size or significance of the project and the proposed operational date of the project:
 - (i) project/asset name and the month and year in which it is proposed that the asset will become operational;
 - (ii) the reason for the actual or potential *constraint*, if any, or inability, if any, to meet the *network* performance requirements set out in schedule 5.1 or relevant legislation or regulations of a *participating jurisdiction*, including *load* forecasts and all assumptions used;
 - (iii) the proposed solution to the *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any;
 - (iv) total cost of the proposed solution;
 - (v) whether the proposed solution will have a *material inter-network impact*. In assessing whether an *augmentation* to the *network* will have a *material inter-network impact* a *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by *AEMO* in accordance with clause 5.21 (if any such criteria have been *published* by *AEMO*); and

- (vi) other reasonable *network options* and *non-network options* considered to address the actual or potential *constraint* or inability to meet the *network* performance requirements identified in subparagraph (ii), if any. Other reasonable *network* and *non-network options* include, but are not limited to, *interconnectors*, *generation options*, *demand side options*, *market network service options* and options involving other *transmission and distribution networks*;
- (6) the manner in which the proposed *augmentations* and proposed replacements of *network* assets relate to the most recent *NTNDP* and the development strategies for current or potential *national transmission flow paths* that are specified in that *NTNDP*;
- (6A) for proposed new or modified *emergency frequency control schemes*, the manner in which the project relates to the most recent *power system frequency risk review*;
- (7) information on the *Transmission Network Service Provider's* asset management approach, including:
 - (i) a summary of any asset management strategy employed by the *Transmission Network Service Provider*;
 - (ii) a summary of any issues that may impact on the system *constraints* identified in the *Transmission Annual Planning Report* that has been identified through carrying out asset management; and
 - (iii) information about where further information on the asset management strategy and methodology adopted by the *Transmission Network Service Provider* may be obtained.
- (8) any information required to be included in a *Transmission Annual Planning Report* under:
 - (i) clause 5.16.3(c) in relation to a *network* investment which is determined to be required to address an urgent and unforeseen *network* issue; or
 - (ii) clauses 5.20B.4(h) and (i) and clauses 5.20C.3(f) and (g) in relation to *network* investment and other activities to provide *inertia network services*, *inertia support activities* or *system strength services*.
- (9) emergency controls in place under clause S5.1.8, including the *Network Service Provider's* assessment of the need for new or altered emergency controls under that clause;
- (10) *facilities* in place under clause S5.1.10;

- (11) an analysis and explanation of any other aspects of the *Transmission Annual Planning Report* that have changed significantly from the preceding year's *Transmission Annual Planning Report*, including the reasons why the changes have occurred; and
 - (12) the results of joint planning (if any) undertaken with a *Transmission Network Service Provider* under clause 5.14.3 in the preceding year, including a summary of the process and methodology used by the *Transmission Network Service Providers* to undertake joint planning and the outcomes of that joint planning.
- (d) A *declared transmission system operator* for all or part of the *declared shared network* must provide to *AEMO* within a reasonable period of receiving a request, such information as reasonably requested by *AEMO* to enable it to comply with:
- (1) clause 5.12.1(b)(5);
 - (2) clause 5.12.1(b)(6);
 - (3) clause 5.12.2(c)(1A);
 - (4) clauses 5.12.2(c)(4), (5) and (6) as they relate to the proposed replacement of *network* assets; and
 - (5) clause 5.12.2(c)(7).

5.13 Distribution annual planning process

5.13.1 Distribution annual planning review

Scope

- (a) A *Distribution Network Service Provider* must:
- (1) subject to paragraph (b), determine an appropriate forward planning period for its distribution assets; and
 - (2) analyse the expected future operation of its *network* over the forward planning period in accordance with this clause 5.13.1.
- (b) The minimum forward planning period for the purposes of the *distribution* annual planning review is 5 years.
- (c) The *distribution* annual planning review must include all assets that would be expected to have a material impact on the *Distribution Network Service Provider's network* over the forward planning period.

Requirements

- (d) Each *Distribution Network Service Provider* must, in respect of its *network*:

- (1) prepare forecasts covering the forward planning period of *maximum demands* for:
 - (i) sub-transmission lines;
 - (ii) zone substations; and
 - (iii) to the extent practicable, primary distribution feeders,having regard to:
 - (iv) the number of customer *connections*;
 - (v) *energy* consumption; and
 - (vi) estimated total output of known *embedded generating units*;
- (2) identify, based on the outcomes of the forecasts in subparagraph (1), limitations on its *network*, including limitations caused by one or more of the following factors:
 - (i) forecast *load* exceeding total capacity;
 - (ii) the requirement for asset refurbishment or replacement;
 - (iii) the requirement for *power system security* or *reliability* improvement;
 - (iv) design fault levels being exceeded;
 - (v) the requirement for *voltage* regulation and other aspects of quality of supply to other *Network Users*; and
 - (vi) the requirement to meet any *regulatory obligation or requirement*;
- (3) identify whether corrective action is required to address any system limitations identified in subparagraph (2) and, if so, identify whether the *Distribution Network Service Provider* is required to:
 - (i) carry out the requirements of the *regulatory investment test for distribution*; and
 - (ii) carry out demand side engagement obligations as required under paragraph (f); and
- (4) take into account any *jurisdictional electricity legislation*.

Demand side engagement obligations

- (e) Each *Distribution Network Service Provider* must develop a strategy for:
 - (1) engaging with non-network providers; and

- (2) considering *non-network options*.
- (f) A *Distribution Network Service Provider* must engage with non-network providers and consider *non-network options* for addressing system limitations in accordance with its demand side engagement strategy.
- (g) A *Distribution Network Service Provider* must document its demand side engagement strategy in a demand side engagement document which must be *published* by no later than 31 August 2013.
- (h) A *Distribution Network Service Provider* must include the information specified in schedule 5.9 in its demand side engagement document.
- (i) A *Distribution Network Service Provider* must review and *publish* a revised demand side engagement document at least once every three years.
- (j) A *Distribution Network Service Provider* must establish and maintain a facility by which parties can register their interest in being notified of developments relating to *distribution network* planning and expansion. A *Distribution Network Service Provider* must have in place a facility under this paragraph (j) no later than the date of publication of the *Distribution Network Service Provider's* demand side engagement document under paragraph (g).

5.13.2 Distribution Annual Planning Report

- (a) For the purposes of this clause 5.13.2:

DAPR date means for a *Distribution Network Service Provider*:

- (1) the date by which it is required to *publish* a *Distribution Annual Planning Report* under *jurisdictional electricity legislation*; or
- (2) if no such date is specified in *jurisdictional electricity legislation*, 31 December.
- (b) By the DAPR date each year, a *Distribution Network Service Provider* must *publish* the *Distribution Annual Planning Report* setting out the results of the *distribution* annual planning review for the forward planning period.

Note

Under clause 5.12.2(b), if a person is a *Transmission Network Service Provider* only because it owns, operates or controls *dual function assets* then it may *publish* its *Transmission Annual Planning Report* in the same document and at the same time as its *Distribution Annual Planning Report* under this clause 5.13.2.

- (c) A *Distribution Network Service Provider* must include the information specified in schedule 5.8 in its *Distribution Annual Planning Report*.
- (d) Despite paragraph (c), a *Distribution Network Service Provider* is not required to include in its *Distribution Annual Planning Report* information

required in relation to transmission-distribution connection points if it is required to do so under *jurisdictional electricity legislation*.

- (e) As soon as practicable after it *publishes* a *Distribution Annual Planning Report* under paragraph (b), a *Distribution Network Service Provider* must *publish* on its website the contact details for a suitably qualified staff member of the *Distribution Network Service Provider* to whom queries on the report may be directed.

5.13.3 Distribution system limitation template

- (a) The *AER* must develop and *publish* a system limitation template in accordance with paragraph (c) and having regard to paragraph (b). The system limitation template must be developed by the *AER* in consultation with *Distribution Network Service Providers* and any persons who have identified themselves to the *AER* as having an interest in the form or contents of the system limitation template.
- (b) The purpose of the system limitation template is to facilitate the publication by *Distribution Network Service Providers* of information on system limitations referred to in their *Distribution Annual Planning Reports* in a useable, consistent, accessible format to assist third parties to propose alternative options to address system limitations.
- (c) The system limitation template must:
 - (1) provide a template for the reporting of the following information:
 - (i) the name (or identifier) and location of *substations*, sub-transmission lines, zone substations and, where appropriate, primary feeders, where there is a system limitation or a projected system limitation during the forward planning period that has been identified in a *Distribution Network Service Provider's Distribution Annual Planning Report*;
 - (ii) the estimated timing (months(s) and year) of the system limitation or projected system limitation identified in subparagraph (i);
 - (iii) the *Distribution Network Service Provider's* proposed option to address the system limitation;
 - (iv) the estimated capital or operating cost of the proposed option; and
 - (v) the amount by which peak demand at the location of the system limitation or projected system limitation would need to be reduced in order to defer the proposed solution, and the dollar value to the *Distribution Network Service Provider* of each year of deferral; and

- (2) include a statement that any information provided using the system limitation template must be read in conjunction with the reporting *Distribution Network Service Provider's Distribution Annual Planning Report*.
- (d) At the same time as it *publishes* its *Distribution Annual Planning Report* each year, a *Distribution Network Service Provider* must *publish* a report which contains the information specified in paragraph (c) in the form required by the system limitation template.

5.13A Distribution zone substation information

Definitions

- (a) In this rule:

annual zone substation report means a report containing historical zone substation information for a reporting year (other than a reporting year covered by the ten year zone substation report).

reporting year for a *Distribution Network Service Provider* means a period of one year that ends on the same date in each reporting year (e.g. a period of one year ending on 30 June).

ten year zone substation report means a report containing historical zone substation information that is available for the ten reporting years prior to the commencement of this rule 5.13A.

zone substation information means the information specified in paragraph (b).

Zone substation information

- (b) Zone substation information means the following information for each zone substation on the *Distribution Network Service Provider's distribution network*:
 - (1) the name or other identifier for the zone substation that corresponds to that used by the *Distribution Network Service Provider* in the regional development plan referred to in clause S5.8(n);
 - (2) if the *Distribution Network Service Provider* has determined under paragraph (g) that the *load* for the zone substation should not be disclosed, a statement to the effect that the information has not been provided for that zone substation for reasons of confidentiality;
 - (3) each date and time interval for which *load* data is available for the zone substation;
 - (4) for each date and time interval specified under subparagraph (b)(3), *load* (in kW or MW); and

- (5) any additional information relating to *load* at the zone substation that the *Distribution Network Service Provider* wishes to provide.

Note

The following are examples of additional information that may be provided by a *Distribution Network Service Provider* under clause 5.13A(b)(5):

- (a) apparent power measured in kVA or MVA;
 - (b) reactive power measured in kVAr or MVar; or
 - (c) power factor.
- (c) The *Distribution Network Service Provider's* obligation to provide zone substation information under subparagraphs (b)(4) and (5) is to provide raw data. A *Distribution Network Service Provider* is not required to analyse, assess or validate the quality or accuracy of that data before it is provided to a person who requests it under this rule 5.13A.

Requests for zone substation information

- (d) A *Distribution Network Service Provider* must publish on its website:
- (1) information on how a person may request a ten year zone substation report and/or annual zone substation reports;
 - (2) the electronic format (and any other format) in which the *Distribution Network Service Provider* can make zone substation information available;
 - (3) the end date of the *Distribution Network Service Provider's* reporting year;
 - (4) the start and end dates of the period to which the ten year zone substation report relates;
 - (5) details of the annual zone substation reports that are available on request;
 - (6) information on when the next annual zone substation report will be available on request; and
 - (7) the amount of the fee payable to the *Distribution Network Service Provider* for provision of the ten year zone substation report and each annual zone substation report. Any fee specified must be no more than that required to meet the reasonable costs anticipated to be incurred by the *Distribution Network Service Provider* in providing the relevant zone substation reports.
- (e) Any person may request a *Distribution Network Service Provider* to provide zone substation information. A request for zone substation information must:

- (1) specify whether the person requires:
 - (i) a ten year zone substation report; and/or
 - (ii) one or more annual zone substation reports;
- (2) specify the format in which the person wishes to receive the reports under subparagraph (e)(1), which must be a format specified by the *Distribution Network Service Provider* under paragraph (d)(2);
- (3) include an acknowledgment that:
 - (i) any zone substation information provided by the *Distribution Network Service Provider* under subparagraphs (b)(4) and (5) is raw data and the *Distribution Network Service Provider* has not analysed, assessed or validated the quality or accuracy of that data; and
 - (ii) the *Distribution Network Service Provider* makes no warranty or guarantee as to the quality, accuracy or suitability for any particular purpose of the zone substation information;
- (4) be accompanied by any applicable fees specified on the *Distribution Network Service Provider's* website; and
- (5) otherwise be in the format reasonably required by the *Distribution Network Service Provider* and as specified on its website.

Obligations of Distribution Network Service Providers to provide zone substation information

- (f) If a *Distribution Network Service Provider* receives a request in accordance with paragraph (e) it:
 - (1) must provide the report(s) requested as soon as practicable but, in any event, within 30 *business days* of the date of the request; and
 - (2) must not require the person who requested the report(s) to meet any further conditions or make any further acknowledgments or undertakings to the *Distribution Network Service Provider* before providing the report(s).
- (g) A *Distribution Network Service Provider* is not required to provide information under subparagraphs (b)(3) and (4) for a zone substation if, in the reasonable opinion of the *Distribution Network Service Provider*, that information is confidential or commercially-sensitive to a third party.

5.14 Joint planning

5.14.1 Joint planning obligations of Transmission Network Service Providers and Distribution Network Service Providers

- (a) Subject to paragraphs (b) and (c):
 - (1) each *Distribution Network Service Provider* must conduct joint planning with each *Transmission Network Service Provider* of the *transmission networks* to which the *Distribution Network Service Provider's networks* are connected; and
 - (2) each *Transmission Network Service Provider* must conduct joint planning with each *Distribution Network Service Provider* of the *distribution networks* to which the *Transmission Network Service Provider's networks* are connected.
- (b) In the case of the *declared shared network* of an *adoptive jurisdiction*, the relevant *declared transmission system operator*, the relevant *Distribution Network Service Provider*, AEMO and any *interested party* that has informed AEMO of its interest in the relevant plans, shall conduct joint planning.
- (c) For the purposes of this clause 5.14.1, a *Transmission Network Service Provider* does not include a *Network Service Provider* that is a *Transmission Network Service Provider* only because it owns, controls or operates *dual function assets*.
- (d) The relevant *Distribution Network Service Provider* and *Transmission Network Service Provider* must:
 - (1) assess the adequacy of existing *transmission* and *distribution networks* and the assets associated with transmission-distribution connection points over the next five years and to undertake joint planning of projects which relate to both *networks* (including, where relevant, *dual function assets*);
 - (2) use best endeavours to work together to ensure efficient planning outcomes and to identify the most efficient options to address the needs identified in accordance with subparagraph (4);
 - (3) identify any limitations or constraints:
 - (i) that will affect both the *Transmission Network Service Provider's* and *Distribution Network Service Provider's network*; or
 - (ii) which can only be addressed by corrective action that will require coordination by the *Transmission Network Service Provider* and the *Distribution Network Service Provider*; and

- (4) where the need for a joint planning project is identified under subparagraph (3):
 - (i) jointly determine plans that can be considered by relevant *Registered Participants*, *AEMO*, *interested parties*, and parties registered on the demand side engagement register of each *Distribution Network Service Provider* involved in joint planning;
 - (ii) determine whether the joint planning project is a RIT-T project or a RIT-D project; and
 - (iii) may agree on a lead party to be responsible for carrying out the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be) in respect of the joint planning project.
- (e) If a *Network Service Provider*, as the lead party for one or more *Network Service Providers*, undertakes the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be) in respect of a joint planning project, the other *Network Service Providers* will be taken to have discharged their obligation to undertake the relevant test in respect of that project.

5.14.2 Joint planning obligations of Distribution Network Service Providers and Distribution Network Service Providers

- (a) *Distribution Network Service Providers* must undertake joint planning with other *Distribution Network Service Providers* where there is a requirement to consider the need for any *augmentation* or *non-network options* that affect more than one *Distribution Network Service Provider's network*.
- (b) *Distribution Network Service Providers* involved in joint planning may agree on a lead party to be responsible for carrying out the *regulatory investment test for distribution* in respect of the joint planning project.
- (c) If a *Distribution Network Service Provider*, as the lead party for one or more *Distribution Network Service Providers*, undertakes the *regulatory investment test for distribution* in respect of a joint planning project, the other *Distribution Network Service Providers* will be taken to have discharged their obligation to undertake the *regulatory investment test for distribution* in respect of that project.

5.14.3 Joint planning obligations of Transmission Network Service Providers

Transmission Network Service Providers must undertake joint planning if:

- (a) a possible credible option to address a *constraint* in a *transmission network* is an *augmentation* to the *transmission network* of another *Transmission Network Service Provider*; and

- (b) that *constraint* is not already being considered under other processes under the *Rules*.

5.14A Joint planning in relation to retirement or de-ratings of network assets forming part of the Declared Shared Network

- (a) In the case of a proposed retirement or de-rating of a *network* asset that forms part of the *declared shared network* of an *adoptive jurisdiction*, *AEMO* and the relevant *declared transmission system operator* must conduct joint planning in respect of that proposed retirement or de-rating if an *identified need* arises from that proposed retirement or de-rating.
- (b) In conducting joint planning under paragraph (a), *AEMO* and the *declared transmission system operator* must use best endeavours to work together to identify the most efficient options to address the relevant *identified need*.

5.14B TAPR Guidelines

5.14B.1 Development of TAPR Guidelines

- (a) The *AER* must, in accordance with the *transmission consultation procedures*, make and *publish* TAPR Guidelines that set out the required format of *Transmission Annual Planning Reports*.
- (b) The *AER* must develop and *publish* the first TAPR Guidelines under the *Rules* by the date specified in the *Rules* and there must be TAPR Guidelines in force at all times after that date.
- (c) Subject to paragraph (d), the *AER* may, from time to time and in accordance with the *transmission consultation procedures*, amend or replace the TAPR Guidelines.
- (d) The *AER* may make administrative or minor amendments to the TAPR Guidelines without complying with the *transmission consultation procedures*.

5.15 Regulatory investment tests generally

5.15.1 Interested parties

In clauses 5.16.4, 5.16.5, 5.17.4 and 5.17.5, *interested party* means a person including an end user or its *representative* who, in the *AER's* opinion, has the potential to suffer a material and adverse *National Electricity Market* impact from the investment identified as the preferred option in the project assessment conclusions report or the final project assessment report (as the case may be).

5.15.2 Identification of a credible option

- (a) A credible option is an option (or group of options) that:
 - (1) addresses the *identified need*;

- (2) is (or are) commercially and technically feasible; and
 - (3) can be implemented in sufficient time to meet the *identified need*,
and is (or are) identified as a credible option in accordance with paragraphs (b) or (d) (as relevant).
- (b) In applying the *regulatory investment test for transmission*, the RIT-T proponent must consider, in relation to a RIT-T project other than those described in clauses 5.16.3(a)(1)-(8), all options that could reasonably be classified as credible options taking into account:
 - (1) energy source;
 - (2) technology;
 - (3) ownership;
 - (4) the extent to which the credible option enables *intra-regional* or *inter-regional* trading of electricity;
 - (5) whether it is a *network option* or a *non-network option*;
 - (6) whether the credible option is intended to be regulated;
 - (7) whether the credible option has a proponent; and
 - (8) any other factor which the RIT-T proponent reasonably considers should be taken into account.
- (c) In applying the *regulatory investment test for distribution*, the RIT-D proponent must consider, in relation to a RIT-D project other than those described in clauses 5.17.3(a)(1)-(7), all options that could reasonably be classified as credible options, without bias as to:
 - (1) energy source;
 - (2) technology;
 - (3) ownership; and
 - (4) whether it is a *network option* or a *non-network option*.
- (d) The absence of a proponent does not exclude an option from being considered a credible option.

5.15.3 Review of costs thresholds

Regulatory investment test for transmission thresholds

- (a) Every 3 years the AER must undertake a review of the changes in the input costs used to calculate the estimated capital costs in relation to *transmission* investment as referred to in paragraph (b), for the purposes of determining

whether the cost thresholds specified in paragraph (b) need to be changed to maintain the appropriateness of the cost thresholds over time by adjusting those cost thresholds to reflect any increase or decrease in the input costs since:

- (1) July 2009 in respect of the first cost threshold review; and
- (2) the date of the previous review in respect of every subsequent cost threshold review.

Note

The cost thresholds are regularly reviewed by the *AER* under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the *AER*'s website www.aer.gov.au.

- (b) For the purposes of paragraph (a), the cost thresholds for review are the following amounts:

- (1) **[Deleted]**
- (1A) of less than \$200,000 referred to in clause 5.12.2(c)(1B)(iv);
- (2) of less than \$5 million referred to in clause 5.16.3(a)(2);
- (3) **[Deleted]**
- (4) of less than \$5 million referred to in clause 5.16.3(a)(5);
- (5) of less than \$35 million referred to in clause 5.16.4(z1)(1); and
- (6) in excess of \$5 million in relation to investment in transmission assets of the type referred to in the definition of potential transmission project in clause 5.10.2.

Regulatory investment test for distribution costs thresholds

- (c) Subject to paragraph (f)(2), every 3 years, and at the same time as it undertakes its review of the cost thresholds for *regulatory investment test for transmission* under paragraph (a), the *AER* must undertake a review of the changes in the input costs used to calculate the estimated capital costs in relation to:

- (1) projects subject to the *regulatory investment test for distribution*; and
- (2) the cost threshold for committed investments that are to address an urgent and unforeseen *network* need subject to the *Distribution Annual Planning Report*,

for the purposes of determining whether the costs thresholds specified in paragraph (d) need to be changed to maintain the appropriateness of the cost thresholds over time by adjusting those cost thresholds to reflect any increase or decrease in the input costs since:

- (3) 1 January 2013 in respect of the first cost threshold review; and
- (4) the date of the previous review in respect of every subsequent cost threshold review.
- (d) For the purposes of paragraph (c), the cost thresholds for review are the following amounts:
 - (1) \$5 million referred to in clause 5.17.3(a)(2);
 - (2) **[Deleted]**;
 - (3) \$10 million referred to in clause 5.17.4(n)(2);
 - (4) \$20 million referred to in clause 5.17.4(s);
 - (4A) of less than \$200,000 referred to in S5.8(b2)(4);
 - (5) \$2 million referred to in S5.8(g).

Note

The cost thresholds are regularly reviewed by the *AER* under paragraph (b). The current thresholds are specified in the latest cost threshold determination available on the *AER*'s website www.aer.gov.au.

Cost threshold reviews

- (e) Each cost threshold review is to be commenced by the *AER* by 31 July of the relevant year.
- (f) The first review of the cost thresholds for: :
 - (1) the *regulatory investment test for transmission* under paragraph (a) must be initiated in 2012; and
 - (2) the *regulatory investment test for distribution* under paragraph (c) must be initiated in 2015.
- (g) Within six weeks following the commencement of a cost threshold review, the *AER* must *publish* a draft determination outlining:
 - (1) whether the *AER* has formed the view that any of the cost thresholds need to be amended to reflect increases or decreases in the input costs to ensure that the appropriateness of the cost thresholds is maintained over time;
 - (2) its reasons for determining whether the cost thresholds need to be varied to reflect increases or decreases in the input costs;
 - (3) if there is to be a variation in a cost threshold, the amount of the new cost threshold and the date the new cost threshold will take effect; and
 - (4) its reasons for determining the amount of the new cost threshold.

- (h) At the same time as it *publishes* the draft determination under paragraph (f), the *AER* must *publish* a notice seeking submissions on the draft determination. The notice must specify the period within which written submissions can be made (the cost threshold consultation period) which must be no less than 5 weeks from the date of the notice.
- (i) The *AER* must consider any written submissions received during the cost threshold consultation period in making its final determination in respect of the matters outlined in paragraph (g).
- (j) The final determination on cost thresholds must be made and *published* by the *AER* within 5 weeks following the end of the cost threshold consultation period.
- (k) The *AER* may *publish* a draft determination under paragraph (g), a notice under paragraph (h), or a final determination under paragraph (j) for any cost threshold reviews under paragraphs (a) and (c) as a single document.

5.15.4 Costs determinations

- (a) Where the *AER* engages a consultant to assist in making a determination under clauses 5.16.5, 5.16.6 or 5.17.5 the *AER* may make a costs determination.
- (b) Where a costs determination is made, the *AER* may:
 - (1) render the RIT-T proponent or the RIT-D proponent (as the case may be) an invoice for the costs; or
 - (2) determine that the costs should:
 - (i) be shared by all the parties to the dispute, whether in the same proportion or differing proportions; or
 - (ii) be borne by a party or parties to the dispute other than the RIT-T proponent or the RIT-D proponent (as the case may be) whether in the same proportion or differing proportions; and
 - (iii) the *AER* may render invoices accordingly.
- (c) If an invoice is rendered under subparagraph (b)(2)(iii), the *AER* must specify a time period for the payment of the invoice that is no later than 30 *business days* from the date the *AER* makes a determination under paragraph (a).

5.16 Regulatory investment test for transmission

5.16.1 Principles

- (a) The *AER* must develop and *publish* the *regulatory investment test for transmission* in accordance with the *transmission consultation procedures* and this rule 5.16.1.
- (b) The purpose of the *regulatory investment test for transmission* is to identify the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the *market* (the preferred option). For the avoidance of doubt, a preferred option may, in the relevant circumstances, have a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action or the provision of *inertia network services* required under clause 5.20B.4 or the provision of *system strength services* required under clause 5.20C.3.
- (c) The *regulatory investment test for transmission* must:
 - (1) be based on a cost-benefit analysis that is to include an assessment of reasonable scenarios of future supply and demand if each credible option were implemented compared to the situation where no option is implemented;
 - (2) not require a level of analysis that is disproportionate to the scale and likely impact of each of the credible options being considered;
 - (3) be capable of being applied in a predictable, transparent and consistent manner;
 - (4) require the RIT-T proponent to consider the following classes of market benefits that could be delivered by the credible option:
 - (i) changes in fuel consumption arising through different patterns of *generation dispatch*;
 - (ii) changes in voluntary *load* curtailment;
 - (iii) changes in involuntary *load shedding*, with the market benefit to be considered using a reasonable forecast of the value of electricity to consumers;
 - (iv) changes in costs for parties, other than the RIT-T proponent, due to:
 - (A) differences in the timing of new *plant*;
 - (B) differences in capital costs; and
 - (C) differences in the operating and maintenance costs;

- (v) differences in the timing of expenditure;
 - (vi) changes in *network* losses;
 - (vii) changes in *ancillary services* costs;
 - (viii) competition benefits;
 - (ix) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing that credible option with respect to the likely future investment needs of the *market*; and
 - (x) other classes of market benefits that are:
 - (A) determined to be relevant by the RIT-T proponent and agreed to by the *AER* in writing before the date the relevant project specification consultation report is made available to other parties under clause 5.16.4; or
 - (B) specified as a class of market benefit in the *regulatory investment test for transmission*;
- (5) require a RIT-T proponent to include a quantification of all classes of market benefits which are determined to be material in the RIT-T proponent's reasonable opinion;
- (6) require a RIT-T proponent to consider all classes of market benefits as material unless it can, in the project assessment draft report, or in respect of a proposed preferred option which is subject to the exemption contained in clause 5.16.4(z1), in the project specification consultation report, provide reasons why:
- (i) a particular class of market benefit is likely not to affect materially the outcome of the assessment of the credible options under the *regulatory investment test for transmission*; or
 - (ii) the estimated cost of undertaking the analysis to quantify the market benefit is likely to be disproportionate to the scale, size and potential benefits of each credible option being considered in the report;
- (7) with respect to the classes of market benefits set out in subparagraphs (4)(ii) and (iii), ensure that, if the credible option is for reliability corrective action, the quantification assessment required by paragraph (5) will only apply insofar as the market benefit delivered by the credible option exceeds the minimum standard required for reliability corrective action;
- (8) require the RIT-T proponent to quantify the following classes of costs:
- (i) costs incurred in constructing or providing the credible option;

- (ii) operating and maintenance costs in respect of the credible option;
- (iii) the cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of the credible option; and
- (iv) any other class of costs that are:
 - (A) determined to be relevant by the RIT-T proponent and agreed to by the *AER* in writing before the date the relevant project specification consultation report is made available to other parties under clause 5.16.4; or
 - (B) specified as a class of cost in the *regulatory investment test for transmission*;
- (9) provide that any cost or market benefit which cannot be measured as a cost or market benefit to *Generators, Distribution Network Service Providers, Transmission Network Service Providers* or consumers of electricity may not be included in any analysis under the *regulatory investment test for transmission*;
- (10) specify:
 - (i) the method or methods permitted for estimating the magnitude of the different classes of market benefits;
 - (ii) the method or methods permitted for estimating the magnitude of the different classes of costs;
 - (iii) the method or methods permitted for estimating market benefits which may occur outside the region in which the *networks* affected by the RIT-T project are located; and
 - (iv) the appropriate method and value for specific inputs, where relevant, for determining the discount rate or rates to be applied;
- (11) specify that a sensitivity analysis is required of any modelling relating to the cost-benefit analysis; and
- (12) reflect that the credible option that maximises the present value of net economic benefit to all those who produce, consume or transport electricity in the market may, in some circumstances, have a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.

5.16.2 Regulatory investment test for transmission application guidelines

- (a) At the same time as the *AER* develops and *publishes* a proposed *regulatory investment test for transmission* under the *transmission consultation procedure*, the *AER* must also develop and *publish* guidelines for the

operation and application of the *regulatory investment test for transmission* (the regulatory investment test for transmission application guidelines) in accordance with the *transmission consultation procedures* and this rule 5.16.

- (b) The regulatory investment test for transmission application guidelines must:
 - (1) give effect to and be consistent with this clause 5.16.2 and clauses 5.15.2, 5.16.3, 5.16.4 and 5.16.5; and
 - (2) provide guidance on:
 - (i) the operation and application of the *regulatory investment test for transmission*;
 - (ii) the process to be followed in applying the *regulatory investment test for transmission*; and
 - (iii) how disputes raised in relation to the *regulatory investment test for transmission* and its application will be addressed and resolved.
- (c) The regulatory investment test for transmission application guidelines must provide guidance and worked examples as to:
 - (1) what constitutes a credible option;
 - (2) acceptable methodologies for valuing the costs of a credible option;
 - (3) what may constitute an externality under the *regulatory investment test for transmission*;
 - (4) the classes of market benefits to be considered for the purposes of clause 5.16.1(c)(4);
 - (5) the suitable modelling periods and approaches to scenario development;
 - (6) the acceptable methodologies for valuing the market benefits of a credible option referred to clause 5.16.1(c)(4), including the option value, competition benefits and market benefits that accrue across regions;
 - (7) the appropriate approach to undertaking a sensitivity analysis for the purposes of clause 5.16.1(c)(11);
 - (8) the appropriate approaches to assessing uncertainty and risks; and
 - (9) when a person is sufficiently committed to a credible option for reliability corrective action to be characterised as a proponent for the purposes of clause 5.15.2(b)(7).

- (d) The *AER* must ensure that there is a *regulatory investment test for transmission* and regulatory investment test for transmission application guidelines in force at all times.
- (e) The *AER* may, from time to time, amend or replace the *regulatory investment test for transmission* and regulatory investment test for transmission application guidelines in accordance with the *transmission consultation procedures*, provided the *AER publishes* any amendments to, or replacements of, the *regulatory investment test for transmission* or regulatory investment test for transmission application guidelines at the same time.
- (f) An amendment referred to in paragraph (e) does not apply to a current application of the *regulatory investment test for transmission* and the regulatory investment test for transmission application guidelines under the *Rules* by RIT-T proponent.
- (g) For the purposes of paragraph (f), a "current application" means any action or process initiated under the *Rules* which relies on or is referenced to the *regulatory investment test for transmission* and/or the regulatory investment test for transmission application guidelines and is not completed at the date of the relevant amendment to the *regulatory investment test for transmission* and/or the regulatory investment test for transmission application guidelines.

5.16.3 Investments subject to the regulatory investment test for transmission

- (a) A RIT-T proponent must apply the *regulatory investment test for transmission* to a RIT-T project except in circumstances where:
 - (1) the RIT-T project is required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *transmission network* as described in paragraph (b);
 - (2) the estimated capital cost of the most expensive option to address the *identified need* which is technically and economically feasible is less than \$5 million (as varied in accordance with a cost threshold determination);
 - (3) the proposed expenditure relates to maintenance and is not intended to *augment* the *transmission network* or replace *network* assets;
 - (4) **[Deleted]**;
 - (5) the proposed relevant *network* investment is an investment undertaken by a *Transmission Network Service Provider* which:
 - (i) re-routes one or more paths of a *network* for the long term; and
 - (ii) has a substantial primary purpose other than the need to *augment a network*,

- (a reconfiguration investment) and which the RIT-T proponent reasonably estimates to have an estimated capital cost of less than \$5 million (as varied in accordance with a cost threshold determination) or which has, or is likely to have, no material impact on *network* users;
- (6) the *identified need* can only be addressed by expenditure on a *connection asset* which provides services other than *prescribed transmission services* or *standard control services*;
 - (7) the cost of addressing the *identified need* is to be fully recovered through charges other than charges in respect of *prescribed transmission services* or *standard control services*;
 - (8) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment the transmission network*; or
 - (9) the proposed expenditure is an *inertia service payment* or a *system strength service payment*;
 - (10) the proposed expenditure is for *network* investment undertaken by the *Transmission Network Service Provider* to satisfy its obligation as an *Inertia Service Provider* under clause 5.20B.4 to make available *inertia network services* in relation to an *inertia shortfall* for an *inertia sub-network* and:
 - (i) immediately prior to the notice of the *inertia shortfall* being given by *AEMO* under clause 5.20B.3(c), the *Inertia Service Provider* is not under an obligation to provide *inertia network services* for that *inertia sub-network* (including under rule 11.100); and
 - (ii) the time by which the *Inertia Service Provider* must make the *inertia network services* available is less than 18 months after the notice is given by *AEMO* under clause 5.20B.3(c); or
 - (11) the proposed expenditure is for *network* investment undertaken by the *Transmission Network Service Provider* to satisfy its obligation as a *System Strength Service Provider* under clause 5.20C.3 to make available *system strength services* in relation to a *fault level shortfall* for a *fault level node* and:
 - (i) immediately prior to the notice of the *fault level shortfall* being given by *AEMO* under clause 5.20C.2(c), the *System Strength Service Provider* is not under an obligation to provide *system strength services* for that *fault level node* (including under rule 11.101); and
 - (ii) the time by which the *System Strength Service Provider* must make the *system strength services* available is less than 18 months after the notice is given by *AEMO* under clause 5.20C.2(c).

- (b) For the purposes of paragraph (a)(1), a RIT-T project will be required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *transmission network* if:
 - (1) it is necessary that the assets or services to address the issue be operational within 6 months of the issue being identified;
 - (2) the event or circumstances causing the *identified need* was not reasonably foreseeable by, and was beyond the reasonable control of, the *Network Service Provider(s)* that identified the *identified need*;
 - (3) a failure to address the *identified need* is likely to materially adversely affect the *reliability* and *secure operating state* of the *transmission network*; and
 - (4) it is not a *contingent project*.
- (c) If a proposed relevant *network* investment is determined to be required to address an urgent and unforeseen *network* issue as described in paragraph (b), and the *Network Service Provider* making the investment is a *Transmission Network Service Provider*, then the *Transmission Network Service Provider* must provide the following information in its next *Transmission Annual Planning Report* following the identification of the need for the relevant *network* investment:
 - (1) the date when the proposed relevant *network* investment became or will become operational;
 - (2) the purpose of the proposed relevant *network* investment; and
 - (3) the total cost of the proposed relevant *network* investment.
- (d) With the exception of *funded augmentations*, for each RIT-T project to which the *regulatory investment test for transmission* does not apply in accordance with paragraphs (a)-, the *Network Service Providers* affected by the RIT-T project must ensure, acting reasonably, that the investment required to address the *identified need* is planned and developed at least cost over the life of the investment.
- (e) A RIT-T proponent must not treat different parts of an integrated solution to an *identified need* as distinct and separate options for the purposes of determining whether the *regulatory investment test for transmission* applies to each of those parts.

5.16.4 Regulatory investment test for transmission procedures

- (a) If a RIT-T project is subject to the *regulatory investment test for transmission* under clause 5.16.3, then the RIT-T proponent must consult all *Registered Participants*, *AEMO* and *interested parties* on the RIT-T project in accordance with this clause 5.16.4.

Project specification consultation report

- (b) A RIT-T proponent must prepare a report (the project specification consultation report), which must include:
 - (1) a description of the *identified need*;
 - (2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, why the RIT-T proponent considers reliability corrective action is necessary);
 - (3) the technical characteristics of the *identified need* that a non-network option would be required to deliver, such as:
 - (i) the size of *load* reduction or additional supply;
 - (ii) location; and
 - (iii) operating profile;
 - (4) if applicable, reference to any discussion on the description of the identified need or the credible options in respect of that *identified need* in the most recent *NTNDP*;
 - (5) a description of all credible options of which the RIT-T proponent is aware that address the *identified need*, which may include, without limitation, alternative *transmission* options, *interconnectors*, *generation*, demand side management, *market network services* or other *network options*;
 - (6) for each credible option identified in accordance with subparagraph (5), information about:
 - (i) the technical characteristics of the credible option;
 - (ii) whether the credible option is reasonably likely to have a *material inter-network impact*;
 - (iii) the classes of market benefits that the RIT-T proponent considers are likely not to be material in accordance with clause 5.16.1(c)(6), together with reasons of why the RIT-T proponent considers that these classes of market benefits are not likely to be material;
 - (iv) the estimated construction timetable and commissioning date; and
 - (v) to the extent practicable, the total indicative capital and operating and maintenance costs.
- (c) The RIT-T proponent must make the project specification consultation report available to all *Registered Participants*, *AEMO* and other *interested parties*.

- (d) The RIT-T proponent must:
 - (1) provide a summary of the project specification consultation report to *AEMO* within 5 *business days* of making the project specification consultation report; and
 - (2) upon request by an *interested party*, provide a copy of the project specification consultation report to that person within 3 *business days* of the request.
- (e) Within 3 *business days* of receipt of the summary, *AEMO* must *publish* the summary of the project specification consultation report on its website.
- (f) The RIT-T proponent must seek submissions from *Registered Participants*, *AEMO* and *interested parties* on the credible options presented, and the issues addressed, in the project specification consultation report.
- (g) The period for consultation referred to in paragraph (f) must be not less than 12 weeks from the date that *AEMO publishes* the summary of the project specification consultation report on its website.
- (h) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (c) to make the project specification consultation report available by including the project specification consultation report as part of its *Transmission Annual Planning Report*.
- (i) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (c) to make the project specification consultation report available by including the project specification consultation report as part of its *Distribution Annual Planning Report*.

Project assessment draft report

- (j) If one or more *Network Service Providers* wishes to proceed with a RIT-T project, within 12 months of the end date of the consultation period referred to in paragraph (g), or such longer time period as is agreed in writing by the *AER*, the RIT-T proponent for the relevant RIT-T project must prepare a report (the project assessment draft report), having regard to the submissions received, if any, under paragraph (f) and make that report available to all *Registered Participants*, *AEMO* and *interested parties*.
- (k) The project assessment draft report must include:
 - (1) a description of each credible option assessed;
 - (2) a summary of, and commentary on, the submissions to the project specification consultation report;

- (3) a quantification of the costs, including a breakdown of operating and capital expenditure, and classes of material market benefit for each credible option;
- (4) a detailed description of the methodologies used in quantifying each class of material market benefit and cost;
- (5) reasons why the RIT-T proponent has determined that a class or classes of market benefit are not material;
- (6) the identification of any class of market benefit estimated to arise outside the *region* of the *Transmission Network Service Provider* affected by the RIT-T project, and quantification of the value of such market benefits (in aggregate across all regions);
- (7) the results of a net present value analysis of each credible option and accompanying explanatory statements regarding the results;
- (8) the identification of the proposed preferred option;
- (9) for the proposed preferred option identified under subparagraph (8), the RIT-T proponent must provide:
 - (i) details of the technical characteristics;
 - (ii) the estimated construction timetable and commissioning date;
 - (iii) if the proposed preferred option is likely to have a *material inter-network impact* and if the *Transmission Network Service Provider* affected by the RIT-T project has received an *augmentation technical report*, that report; and
 - (iv) a statement and the accompanying detailed analysis that the preferred option satisfies the *regulatory investment test for transmission*.
- (l) If a *Network Service Provider* affected by a RIT-T project elects to proceed with a project which is for reliability corrective action, it can only do so where the proposed preferred option has a proponent. The RIT-T proponent must identify that proponent in the project assessment draft report.
- (m) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (j) to make the project assessment draft report available by including the project assessment draft report as part of its *Transmission Annual Planning Report* provided that report is *published* within 12 months of the end date of the consultation period required under paragraph (g) or within 12 months of the end of such longer time period as is agreed by the *AER* in writing under paragraph (j).
- (n) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (j) to make the project assessment draft report available by including the project assessment draft report as part

of its *Distribution Annual Planning Report* provided that report is *published* within 12 months of the end date of the consultation period required under paragraph (g) or within 12 months of the end of such longer time period as is agreed by the *AER* in writing under paragraph (j).

- (o) The RIT-T proponent must:
 - (1) provide a summary of the project assessment draft report to *AEMO* within 5 *business days* of making the project assessment draft report; and
 - (2) upon request by an *interested party*, provide a copy of the project assessment draft report to that person within 3 *business days* of the request.
- (p) Within 3 *business days* of receipt of the summary, *AEMO* must *publish* the summary of the project assessment draft report on its website.
- (q) The RIT-T proponent must seek submissions from *Registered Participants*, *AEMO* and *interested parties* on the preferred option presented, and the issues addressed, in the project assessment draft report.
- (r) The period for consultation referred to in paragraph (q) must be not less than 6 weeks from the date that *AEMO publishes* the summary of the report on its website.
- (s) Within 4 weeks after the end of the consultation period required under paragraph (r), at the request of an *interested party*, a *Registered Participant* or *AEMO* (each being a relevant party for the purposes of this paragraph), the relevant *Network Service Provider* must meet with the relevant party if a meeting is requested by two or more relevant parties and may meet with a relevant party if after having considered all submissions, the relevant *Network Service Provider*, acting reasonably, considers that the meeting is necessary.

Project assessment conclusions report

- (t) As soon as practicable after the end of the consultation period on the project assessment draft report referred to in paragraph (r), the RIT-T proponent must, having regard to the submissions received, if any, under paragraph (q) and the matters discussed at any meetings held, if any, under paragraph (s), prepare and make available to all *Registered Participants*, *AEMO* and *interested parties* and *publish* a report (the project assessment conclusions report).
- (u) If:
 - (1) the RIT-T proponent is exempt from making a project assessment draft report under paragraph (z1); and
 - (2) a *Network Service Provider* affected by a RIT-T project, within 12 months of the end date of the period for consultation referred to in

paragraph (g), or within 12 months of the end date of such longer time period as is agreed in writing by the *AER* elects to proceed with the proposed *transmission investment*,

the relevant *Network Service Provider* must, having regard to the submissions received, if any, under paragraph (g) as soon as practicable prepare and make available to all *Registered Participants*, *AEMO* and *interested parties* and *publish* a report (the project assessment conclusions report).

- (v) The project assessment conclusions report must set out:
 - (1) the matters detailed in the project assessment draft report as required under paragraph (k); and
 - (2) a summary of, and the RIT-T proponent's response to, submissions received, if any, from *interested parties* sought under paragraph (q).
- (w) The RIT-T proponent must:
 - (1) provide a summary of the project assessment conclusions report to *AEMO* within 5 *business days* of making the project assessment conclusions report; and
 - (2) upon request by an *interested party*, provide a copy of the project assessment conclusions report to that person within 3 *business days* of the request.
- (x) Within 3 *business days* of receipt of the summary, *AEMO* must *publish* the summary of the project assessment conclusions report on its website.
- (y) A RIT-T proponent that is a *Transmission Network Service Provider* may discharge its obligation under paragraph (t) and (u) to make the project assessment conclusions report available by including the project assessment conclusions report as part of its *Transmission Annual Planning Report* provided that the report is *published* within 4 weeks from the date of making available the project assessment conclusions report under paragraph (t) or (u), as the case may be.
- (z) A RIT-T proponent that is a *Distribution Network Service Provider* may discharge its obligation under paragraph (t) and (u) to make the project assessment conclusions report available by including the project assessment conclusions report as part of its *Distribution Annual Planning Report* provided that the report is *published* within 4 weeks from the date of making available the project assessment conclusions report under paragraph (t) or (u), as the case may be.

Exemption from drafting a project assessment draft report for RIT-T projects without material market benefits

- (z1) A RIT-T proponent is exempt from paragraphs (j) to (s) if:

- (1) the estimated capital cost of the proposed preferred option is less than \$35 million (as varied in accordance with a cost threshold determination);
 - (2) the relevant *Network Service Provider* has identified in its project specification consultation report:
 - (i) its proposed preferred option;
 - (ii) its reasons for the proposed preferred option; and
 - (iii) that its RIT-T project has the benefit of this exemption;
 - (3) the RIT-T proponent considers, in accordance with clause 5.16.1(c)(6), that the proposed preferred option and any other credible option in respect of the *identified need* will not have a material market benefit for the classes of market benefit specified in clause 5.16.1(c)(4) except those classes specified in clauses 5.16.1(c)(4)(ii) and (iii), and has stated this in its project specification consultation report; and
 - (4) the RIT-T proponent forms the view that no submissions were received on the project specification consultation report which identified additional credible options that could deliver a material market benefit.
- (z2) The RIT-T proponent must address in the project assessment conclusions report any issues that were raised in relation to a proposed preferred option to which paragraph (z1) applies during the consultation on the project specification consultation report.

Reapplication of regulatory investment test for transmission

- (z3) If:
- (1) a RIT-T proponent has *published* a project assessment conclusions report in respect of a RIT-T project;
 - (2) a *Network Service Provider* still wishes to undertake the RIT-T project to address the *identified need*; and
 - (3) there has been a material change in circumstances which, in the reasonable opinion of the RIT-T proponent means that the preferred option identified in the project assessment conclusions report is no longer the preferred option,
- then the RIT-T proponent must reapply the *regulatory investment test for transmission* to the RIT-T project, unless otherwise determined by the *AER*.
- (z4) For the purposes of paragraph (z3), a material change in circumstances may include, but is not limited to, a change to the key assumptions used in identifying:

- (1) the *identified need* described in the project assessment conclusions report; or
 - (2) the credible options assessed in the project assessment conclusions report.
- (z5) When making a determination under paragraph (z3) the *AER* must have regard to:
- (1) the credible options (other than the preferred option) identified in the project assessment conclusions report;
 - (2) the change in circumstances identified by the RIT-T proponent; and
 - (3) whether a failure to promptly undertake the RIT-T project is likely to materially affect the *reliability* and *secure operating state* of the *transmission network* or a significant part of that *network*.

Declared transmission system operator may request assistance from AEMO to conduct market benefits assessments for replacement RIT-T projects

- (z6) Where a RIT-T proponent is a *declared transmission system operator* within a *declared shared network*, it may in relation to RIT-T projects to address an *identified need* that arises from the retirement or de-rating of *network* assets, request assistance and information from *AEMO* as reasonably required for it to consider and conduct market benefits assessments as required by:
- (1) clause 5.16.4(b)(6)(iii);
 - (2) clause 5.16.4(k)(3) to (k)(6); and
 - (3) clause 5.16.4(v).
- (z7) *AEMO* must provide assistance and information requested under paragraph (z6) to the *declared transmission system operator* within a reasonable period of time.

5.16.5 Disputes in relation to application of regulatory investment test for transmission

- (a) *Registered Participants*, the *AEMC*, *Connection Applicants*, *Intending Participants*, *AEMO* and *interested parties* may, by notice to the *AER*, dispute conclusions made by the RIT-T proponent in the project assessment conclusions report in relation to:
- (1) the application of the *regulatory investment test for transmission*;
 - (2) the basis on which the RIT-T proponent has classified the preferred option as being for reliability corrective action; or

- (3) the RIT-T proponent's assessment regarding whether the preferred option will have a *material inter-network impact*, in accordance with any criteria for a *material inter-network impact* that are in force at the time of the preparation of the project assessment conclusions report.
- (b) A dispute under this clause 5.16.5 may not be raised in relation to any matters set out in the project assessment conclusions report which:
 - (1) are treated as externalities by the *regulatory investment test for transmission*; or
 - (2) relate to an individual's personal detriment or property rights.
- (c) Within 30 days of the date of *publication* of the project assessment conclusions report under clause 5.16.4 (t), (u), (y) or (z) (as the case may be), the party disputing a conclusion made in the project assessment conclusions report (a disputing party) must:
 - (1) give notice of the dispute in writing setting out the grounds for the dispute (the dispute notice) to the *AER*; and
 - (2) at the same time, give a copy of the dispute notice to the RIT-T proponent.
- (d) Subject to paragraph (f)(3), within 40 days of receipt of the dispute notice or within an additional period of up to 60 days where the *AER* notifies *interested parties* that the additional time is required to make a determination because of the complexity or difficulty of the issues involved, the *AER* must either:
 - (1) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that the grounds for the dispute are misconceived or lacking in substance; and
 - (2) notify the RIT-T proponent that the dispute has been rejected; or
 - (3) subject to paragraph (f), make and *publish* a determination:
 - (i) directing the RIT-T proponent to amend the matters set out in the project assessment conclusions report; or
 - (ii) stating that, based on the grounds of the dispute, the RIT-T proponent will not be required to amend the project assessment conclusions report.
- (e) The RIT-T proponent must comply with an *AER* determination made under paragraph (d)(3)(i) within a timeframe specified by the *AER* in its determination.
- (f) In making a determination under paragraph (d)(3), the *AER*:

- (1) must only take into account information and analysis that the RIT-T proponent could reasonably be expected to have considered or undertaken at the time that it performed the *regulatory investment test for transmission*;
 - (2) must *publish* its reasons for making a determination;
 - (3) may request further information regarding the dispute from the disputing party or the RIT-T proponent in which case the period of time for rejecting a dispute or making a determination under paragraph (d) is extended by the time it takes the relevant party to provide the requested further information to the *AER*;
 - (4) may disregard any matter raised by the disputing party or the RIT-T proponent that is misconceived or lacking in substance; and
 - (5) where making a determination under subparagraph (d)(3)(i), must specify a reasonable timeframe for the RIT-T proponent to comply with the *AER's* direction to amend the matters set out in the project assessment conclusions report.
- (g) The *AER* may only make a determination under subparagraph (d)(3)(i) if it determines that:
- (1) the RIT-T proponent has not correctly applied the *regulatory investment test for transmission* in accordance with the *Rules*;
 - (2) the RIT-T proponent has erroneously classified the preferred option as being for reliability corrective action;
 - (3) the RIT-T proponent has not correctly assessed whether the preferred option will have a *material inter-network impact*; or
 - (4) there was a manifest error in the calculations performed by the RIT-T proponent in applying the *regulatory investment test for transmission*.
- (h) A disputing party or the RIT-T proponent (as the case may be) must as soon as reasonably practicable provide any information requested under paragraph (f)(3) to the *AER*.
- (i) The relevant period of time in which the *AER* must make a determination under paragraph (d)(3) is automatically extended by the period of time taken by the RIT-T proponent or a disputing party to provide any additional information requested by the *AER* under this clause 5.16.5, provided:
- (1) the *AER* makes the request for the additional information at least 7 *business days* prior to the expiry of the relevant period; and
 - (2) the RIT-T proponent or the disputing party provides the additional information within 14 *business days* of receipt of the request.

5.16.6 Determination that preferred option satisfies the regulatory investment test for transmission

- (a) After the expiry of the 30 day period referred to in clause 5.16.5(c) and where a preferred option is not for reliability corrective action, the RIT-T proponent may request, in writing to the *AER*, that the *AER* make a determination as to whether the preferred option satisfies the *regulatory investment test for transmission*.
- (b) The *AER*:
 - (1) must, within 120 *business days* of receipt of the request from the applicant, subject to paragraph (c), make and *publish* a determination, including reasons for its determination;
 - (2) must use the findings and recommendations in the project assessment conclusions report in making its determination under subparagraph (1);
 - (3) may request further information from the RIT-T proponent; and
 - (4) may have regard to any other matter the *AER* considers relevant.
- (c) The relevant period of time in which the *AER* must make a determination under paragraph (b) is automatically extended by the period of time taken by the RIT-T proponent to provide any additional information requested by the *AER* under this clause 5.16.6, provided:
 - (1) the *AER* makes the request for the additional information at least 7 *business days* prior to the expiry of the relevant period; and
 - (2) the RIT-T proponent provides the additional information within 14 *business days* of receipt of the request.

5.17 Regulatory investment test for distribution**5.17.1 Principles**

- (a) The *AER* must develop and *publish* the *regulatory investment test for distribution* in accordance with the *distribution consultation procedures* and this clause 5.17.1.
- (b) The purpose of the *regulatory investment test for distribution* is to identify the credible option that maximises the present value of the net economic benefit to all those who produce, consume and transport electricity in the *National Electricity Market* (the preferred option). For the avoidance of doubt, a preferred option may, in the relevant circumstances, have a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.
- (c) The *regulatory investment test for distribution* must:

- (1) be based on a cost-benefit analysis that must include an assessment of reasonable scenarios of future supply and demand;
- (2) not require a level of analysis that is disproportionate to the scale and likely impact of each of the credible options being considered;
- (3) be capable of being applied in a predictable, transparent and consistent manner;
- (4) require the RIT-D proponent to consider whether each credible option could deliver the following classes of market benefits:
 - (i) changes in voluntary *load* curtailment;
 - (ii) changes in involuntary *load shedding* and *customer* interruptions caused by *network* outages, using a reasonable forecast of the value of electricity to *customers*;
 - (iii) changes in costs for parties, other than the RIT-D proponent, due to differences in:
 - (A) the timing of new *plant*;
 - (B) capital costs; and
 - (C) the operating and maintenance costs;
 - (iv) differences in the timing of expenditure;
 - (v) changes in load transfer capacity and the capacity of *Embedded Generators* to take up *load*;
 - (vi) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing the credible option with respect to the likely future investment needs of the *National Electricity Market* ;
 - (vii) changes in *electrical energy losses*; and
 - (viii) any other class of market benefit determined to be relevant by the *AER*.
- (5) with respect to the classes of market benefits set out in subparagraphs (4)(i) and (ii), ensure that, if a credible option is for reliability corrective action, the consideration and any quantification assessment of these classes of market benefits will only apply insofar as the market benefit delivered by that credible option exceeds the minimum standard required for reliability corrective action;

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- (6) require the RIT-D proponent to consider whether the following classes of costs would be associated with each credible option and, if so, quantify the:
 - (i) financial costs incurred in constructing or providing the credible option;
 - (ii) operating and maintenance costs over the operating life of the credible option;
 - (iii) cost of complying with laws, regulations and applicable administrative requirements in relation to the construction and operation of the credible option; and
 - (iv) any other financial costs determined to be relevant by the *AER*.
 - (7) require a RIT-D proponent, in exercising judgement as to whether a particular class of market benefit or cost applies to each credible option, to have regard to any submissions received on the non-network options report and/or draft project assessment report where relevant;
 - (8) provide that any market benefit or cost which cannot be measured as a market benefit or cost to persons in their capacity as *Generators, Distribution Network Service Providers, Transmission Network Service Providers* or consumers of electricity must not be included in any analysis under the *regulatory investment test for distribution*; and
 - (9) specify:
 - (i) the method or methods permitted for estimating the magnitude of the different classes of market benefits;
 - (ii) the method or methods permitted for estimating the magnitude of the different classes of costs;
 - (iii) the appropriate method and value for specific inputs, where relevant, for determining the discount rate or rates to be applied;
 - (iv) that a sensitivity analysis is required for modelling the cost-benefit analysis; and
 - (v) that the credible option that maximises the present value of net economic benefit to all those who produce, consume or transport electricity in the *National Electricity Market* may, in some circumstances, be a negative net economic benefit (that is, a net economic cost) where the *identified need* is for reliability corrective action.
- (d) A RIT-D proponent may, under the *regulatory investment test for distribution*, quantify each class of market benefits under paragraph (c)(4) where the RIT-D proponent considers that:

- (1) any applicable market benefits may be material; or
- (2) the quantification of market benefits may alter the selection of the preferred option.
- (e) The *regulatory investment test for distribution* permits a single assessment of an integrated set of related and similar investments.

5.17.2 Regulatory investment test for distribution application guidelines

- (a) At the same time as the AER develops and *publishes* a proposed *regulatory investment test for distribution* under the *distribution consultation procedure*, the AER must also develop and *publish* guidelines for the operation and application of the *regulatory investment test for distribution* in accordance with the *distribution consultation procedures* and this clause 5.17.2.
- (b) The regulatory investment test for distribution application guidelines must:
 - (1) give effect to and be consistent with this clause 5.17.2 and clauses 5.15.2, 5.17.3, 5.17.4 and 5.17.5; and
 - (2) provide guidance on:
 - (i) the operation and application of the *regulatory investment test for distribution*;
 - (ii) the process to be followed in applying the *regulatory investment test for distribution*;
 - (iii) what will be considered to be a material and adverse *National Electricity Market* impact for the purposes of the definition of *interested parties* in clause 5.15.1.
 - (iv) how disputes raised in relation to the *regulatory investment test for distribution* and its application will be addressed and resolved.
- (c) The regulatory investment test for distribution application guidelines must provide guidance and worked examples as to:
 - (1) how to make a determination under clause 5.17.4(c);
 - (2) what constitutes a credible option;
 - (3) the suitable modelling periods and approaches to scenario development;
 - (4) the classes of market benefits to be considered for the purposes of clause 5.17.1(c)(4);

- (5) the acceptable methodologies for valuing the market benefits of a credible option referred to in clause 5.17.1(c)(4);
 - (6) acceptable methodologies for valuing the costs of a credible option referred to in clause 5.17.1(c)(6);
 - (7) the appropriate approach to undertaking a sensitivity analysis for the purposes of clause 5.17.1(c)(9)(iv);
 - (8) the appropriate approaches to assessing uncertainty and risks; and
 - (9) what may constitute an externality under the *regulatory investment test for distribution*.
- (d) The AER must develop and *publish* the first *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines by 31 August 2013, and there must be a *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines in force at all times after that date.
 - (e) The AER may, from time to time, amend or replace the *regulatory investment test for distribution* and regulatory investment test for distribution application guidelines in accordance with the *distribution consultation procedures*, provided the AER *publishes* any amendments to, or replacements of, the *regulatory investment test for distribution* or regulatory investment test for distribution application guidelines at the same time.
 - (f) An amendment referred to in paragraph (e) does not apply to a current application of the *regulatory investment test for distribution* and the regulatory investment test for distribution application guidelines under the *Rules* by a RIT-D proponent.
 - (g) For the purposes of paragraph (f), a “current application” means any action or process initiated under the *Rules* which relies on or is referenced to the *regulatory investment test for distribution* and/or the regulatory investment test for distribution application guidelines and is not completed at the date of the relevant amendment to the *regulatory investment test for distribution* and/or the regulatory investment test for distribution application guidelines.
 - (h) The AER may *publish* the *regulatory investment test for distribution*, the regulatory investment test for distribution application guidelines, the *regulatory investment test for transmission* and the regulatory investment test for transmission application guidelines in a single document.

5.17.3 Projects subject to the regulatory investment test for distribution

- (a) A RIT-D proponent must apply the *regulatory investment test for distribution* to a RIT-D project except in circumstances where:
 - (1) the RIT-D project is required to address an urgent and unforeseen *network* issue that would otherwise put at risk the reliability of the

- distribution network* or a significant part of that *network* as described in paragraph (c);
- (2) the estimated capital cost to the *Network Service Providers* affected by the RIT-D project of the most expensive potential credible option to address the *identified need* is less than \$5 million (as varied in accordance with a cost threshold determination);
 - (3) the cost of addressing the *identified need* is to be fully recovered through charges other than charges in respect of *standard control services* or *prescribed transmission services*;
 - (4) the *identified need* can only be addressed by expenditure on a *connection asset* which provides services other than *standard control services* or *prescribed transmission services*;
 - (5) the RIT-D project is related to the maintenance of existing assets and is not intended to *augment* a *network* or replace *network* assets;
 - (6) **[Deleted]**; or
 - (7) the proposed expenditure relates to protected event EFCS investment and is not intended to *augment* a *network*.
- (b) If a potential credible option to address an *identified need* includes expenditure on a *dual function asset*, the project must be assessed under the *regulatory investment test for distribution* unless the *identified need* was identified through joint planning under rule 5.14 and the project to address the *identified need* is a RIT-T project.
- (c) For the purposes of paragraph (a)(1), a RIT-D project will be required to address an urgent and unforeseen *network* issue that would otherwise put at risk the *reliability* of the *distribution network* or a significant part of that *network* if:
- (1) it is necessary that the assets or services to address the issue be operational within six months of the issue being identified;
 - (2) the event or circumstances causing the *identified need* was not reasonably foreseeable by, and was beyond the reasonable control of, the *Network Service Provider(s)* that identified the *identified need*;
 - (3) a failure to address the *identified need* is likely to materially adversely affect the *reliability* and *secure operating state* of the *distribution network* or a significant part of that *network*; and
 - (4) it is not a *contingent project*.
- (d) With the exception of *negotiated distribution services* and *negotiated transmission services*, for each RIT-D project to which the *regulatory investment test for distribution* does not apply in accordance with paragraph (a)(1)-(6), the *Network Service Providers* affected by the RIT-D project

must ensure, acting reasonably, that the investment required to address the *identified need* is planned and developed at least cost over the life of the investment.

- (e) A RIT-D proponent must not treat different parts of an integrated solution to an *identified need* as distinct and separate options for the purposes of determining whether the *regulatory investment test for distribution* applies to each of those parts.

5.17.4 Regulatory investment test for distribution procedures

- (a) If a RIT-D project is subject to the *regulatory investment test for distribution* under clause 5.17.3, then the RIT-D proponent must consult with the following persons on the RIT-D project in accordance with this clause 5.17.4:
 - (1) all *Registered Participants*, *AEMO*, *interested parties* and non-network providers; and
 - (2) if the RIT-D proponent is a *Distribution Network Service Provider*, persons registered on its demand side engagement register.

Screening for non-network options

- (b) Subject to paragraph (c), a RIT-D proponent must prepare and *publish* a non-network options report under paragraph (e) if a RIT-D project is subject to the *regulatory investment test for distribution* under clause 5.17.3.
- (c) A RIT-D proponent is not required to comply with paragraph (b) if it determines on reasonable grounds that there will not be a *non-network option* that is a potential credible option, or that forms a significant part of a potential credible option, for the RIT-D project to address the identified need.
- (d) If a RIT-D proponent makes a determination under paragraph (c), then as soon as possible after making the determination it must *publish* a notice setting out the reasons for its determination, including any methodologies and assumptions it used in making its determination.

Non-network options report

- (e) A non-network options report must include:
 - (1) a description of the *identified need*;
 - (2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, why the RIT-D proponent considers reliability corrective action is necessary);
 - (3) if available, the relevant annual deferred *augmentation* charge associated with the *identified need*;

- (4) the technical characteristics of the *identified need* that a non-network option would be required to deliver, such as:
 - (i) the size of *load* reduction or additional *supply*;
 - (ii) location;
 - (iii) contribution to *power system security* or *reliability*;
 - (iv) contribution to *power system* fault levels as determined under clause 4.6.1; and
 - (v) the operating profile;
- (5) a summary of potential credible options to address the *identified need*, as identified by the RIT-D proponent, including *network options* and *non-network options*.
- (6) for each potential credible option, the RIT-D proponent must provide information, to the extent practicable, on:
 - (i) a technical definition or characteristics of the option;
 - (ii) the estimated construction timetable and commissioning date (where relevant); and
 - (iii) the total indicative cost (including capital and operating costs); and
- (7) information to assist non-network providers wishing to present alternative potential credible options including details of how to submit a *non-network* proposal for consideration by the RIT-D proponent.
- (f) The non-network options report must be *published* in a timely manner having regard to the ability of parties to identify the scope for, and develop, alternative potential credible options or variants to the potential credible options.
- (g) At the same time as *publishing* the non-network options report, the RIT-D proponent, if it is a *Distribution Network Service Provider*, must notify persons registered on its demand side engagement register of the report's *publication*.
- (h) *Registered Participants*, *AEMO*, *interested parties*, non-network providers and (if relevant) persons registered on the *Distribution Network Service Provider's* demand side engagement register must be provided with not less than three months in which to make submissions on the non-network options report from the date that the RIT-D proponent *publishes* the report.

Draft project assessment report

- (i) If one or more *Network Service Providers* wishes to proceed with a RIT-D project following a determination under paragraph (c) or the *publication* of a non-network options report then the RIT-D proponent, having regard, where relevant, to any submissions received on the non-network options report, must prepare and *publish* a draft project assessment report within:
 - (1) 12 months of:
 - (i) the end of the consultation period on a non-network options report; or
 - (ii) where a non-network options report is not required, the publication of a notice under paragraph (d); or
 - (2) any longer time period as agreed to in writing by the *AER*.
- (j) The draft project assessment report must include the following:
 - (1) a description of the *identified need* for the investment;
 - (2) the assumptions used in identifying the *identified need* (including, in the case of proposed reliability corrective action, reasons that the RIT-D proponent considers reliability corrective action is necessary);
 - (3) if applicable, a summary of, and commentary on, the submissions on the non-network options report;
 - (4) a description of each credible option assessed;
 - (5) where a *Distribution Network Service Provider* has quantified market benefits in accordance with clause 5.17.1(d), a quantification of each applicable market benefit for each credible option;
 - (6) a quantification of each applicable cost for each credible option, including a breakdown of operating and capital expenditure;
 - (7) a detailed description of the methodologies used in quantifying each class of cost and market benefit;
 - (8) where relevant, the reasons why the RIT-D proponent has determined that a class or classes of market benefits or costs do not apply to a credible option;
 - (9) the results of a net present value analysis of each credible option and accompanying explanatory statements regarding the results;
 - (10) the identification of the proposed preferred option;
 - (11) for the proposed preferred option, the RIT-D proponent must provide:
 - (i) details of the technical characteristics;

- (ii) the estimated construction timetable and commissioning date (where relevant);
 - (iii) the indicative capital and operating cost (where relevant);
 - (iv) a statement and accompanying detailed analysis that the proposed preferred option satisfies the *regulatory investment test for distribution*; and
 - (v) if the proposed preferred option is for reliability corrective action and that option has a proponent, the name of the proponent; and
- (12) contact details for a suitably qualified staff member of the RIT-D proponent to whom queries on the draft report may be directed.
- (k) The RIT-D proponent must *publish* a request for submissions on the matters set out in the draft project assessment report, including the proposed preferred option, from:
 - (1) *Registered Participants, AEMO*, non-network providers and *interested parties*; and
 - (2) if the RIT-D proponent is a *Distribution Network Service Provider*, persons on its demand side engagement register.
- (l) If the proposed preferred option has the potential to, or is likely to, have an adverse impact on the quality of service experienced by consumers of electricity, including:
 - (1) anticipated changes in voluntary *load* curtailment by consumers of electricity; or
 - (2) anticipated changes in involuntary *load shedding* and customer interruptions caused by *network* outages,

then the RIT-D proponent must consult directly with those affected customers in accordance with a process reasonably determined by the RIT-D proponent.
- (m) The consultation period on the draft project assessment report must not be less than six weeks from the *publication* of the report.

Exemption from the draft project assessment report

- (n) A RIT-D proponent is not required to prepare and *publish* a draft project assessment report under paragraph (i) if:
 - (1) the RIT-D proponent made a determination under paragraph (c) and has *published* a notice under paragraph (d); and

- (2) the estimated capital cost to the *Network Service Providers* affected by the RIT-D project of the proposed preferred option is less than \$10 million (varied in accordance with a cost threshold determination).

Final project assessment report

- (o) As soon as practicable after the end of the consultation period on the draft project assessment report, the RIT-D proponent must, having regard to any submissions received on the draft project assessment report, *publish* a final project assessment report.
- (p) If the RIT-D project is exempt from the draft project assessment report stage under paragraph (n), the RIT-D proponent must *publish* the final project assessment report as soon as practicable after the publication of the notice under paragraph (d).
- (q) At the same time as *publishing* the final project assessment report, a RIT-D proponent that is a *Distribution Network Service Provider* must notify persons on its demand side engagement register of the report's *publication*.
- (r) The final project assessment report must set out:
 - (1) if a draft project assessment report was prepared:
 - (i) the matters detailed in that report as required under paragraph (j); and
 - (ii) a summary of any submissions received on the draft project assessment report and the RIT-D proponent's response to each such submission; and
 - (2) if no draft project assessment report was prepared, the matters specified in paragraph (j).
- (s) If the preferred option outlined in the final project assessment report has an estimated capital cost to the *Network Service Providers* affected by the RIT-D project of less than \$20 million (varied in accordance with a cost threshold determination), the RIT-D proponent may discharge its obligations to *publish* its final project assessment report under paragraphs (o) and (p) by including the final project assessment report as part of its *Distribution Annual Planning Report* (where the RIT-D proponent is a *Distribution Network Service Provider*) or its *Transmission Annual Planning Report* (where the RIT-D proponent is a *Transmission Network Service Provider*).

Reapplication of regulatory investment test for distribution

- (t) If:
 - (1) a RIT-D proponent has *published* a final project assessment report in respect of a RIT-D project;

- (2) a *Network Service Provider* still wishes to undertake the RIT-D project to address the *identified need*; and
- (3) there has been a material change in circumstances which, in the reasonable opinion of the RIT-D proponent means that the preferred option identified in the final project assessment report is no longer the preferred option,

then the RIT-D proponent must reapply the *regulatory investment test for distribution* to the RIT-D project, unless otherwise determined by the *AER*.

- (u) For the purposes of paragraph (t), a material change in circumstances may include, but is not limited to, a change to the key assumptions used in identifying:
 - (1) the *identified need* described in the final project assessment report; or,
 - (2) the credible options assessed in, the final project assessment report.
- (v) When making a determination under paragraph (t) the *AER* must have regard to:
 - (1) the credible options (other than the preferred option) identified in the final project assessment report;
 - (2) the change in circumstances identified by the RIT-D proponent; and
 - (3) whether a failure to promptly undertake the RIT-D project is likely to materially affect the *reliability* and *secure operating state* of the *distribution network* or a significant part of that *network*.

5.17.5 Disputes in relation to application of regulatory investment test for distribution

- (a) *Registered Participants*, the *AEMC*, *Connection Applicants*, *Intending Participants*, *AEMO*, *interested parties*, and non-network providers may, by notice to the *AER*, dispute conclusions made by the RIT-D proponent in the final project assessment report on the grounds that:
 - (1) the RIT-D proponent has not applied the *regulatory investment test for distribution* in accordance with the *Rules*; or
 - (2) there was a manifest error in the calculations performed by the RIT-D proponent in applying the *regulatory investment test for distribution*.
- (b) A dispute under this clause 5.17.5 may not be raised in relation to any matters set out in the final project assessment report which:
 - (1) are treated as externalities by the *regulatory investment test for distribution*; or
 - (2) relate to an individual's personal detriment or property rights.

- (c) Within 30 days of the date of *publication* of the final project assessment report under clause 5.17.4(o), (p) or (s) (as the case may be), the party disputing matters in the final project assessment report (a disputing party) must:
 - (1) give notice of the dispute in writing setting out the grounds for the dispute (the dispute notice) to the *AER*; and
 - (2) at the same time, give a copy of the dispute notice to the RIT-D proponent.
- (d) Subject to paragraph (h), within 40 days of receipt of the dispute notice or within an additional period of up to 60 days where the *AER* notifies a relevant party that the additional time is required to make a determination because of the complexity or difficulty of the issues involved, the *AER* must either:
 - (1) reject any dispute by written notice to the person who initiated the dispute if the *AER* considers that the grounds for the dispute are invalid, misconceived or lacking in substance; and
 - (2) notify the RIT-D proponent that the dispute has been rejected; or
 - (3) subject to paragraph (f) and (g), make and *publish* a determination:
 - (i) directing the RIT-D proponent to amend the matters set out in the final project assessment report; or
 - (ii) stating that, based on the grounds of the dispute, the RIT-D proponent will not be required to amend the final project assessment report.
- (e) A RIT-D proponent must comply with an *AER* determination made under subparagraph (d)(3)(i) within a timeframe specified by the *AER* in its determination.
- (f) In making a determination under paragraph (d)(3), the *AER*:
 - (1) must only take into account information and analysis that the RIT-D proponent could reasonably be expected to have considered or undertaken at the time that it performed the *regulatory investment test for distribution*;
 - (2) must *publish* its reasons for making a determination;
 - (3) may disregard any matter raised by the disputing party or the RIT-D proponent that is misconceived or lacking in substance; and
 - (4) where making a determination under subparagraph (d)(3)(i), must specify a reasonable timeframe for the RIT-D proponent to comply with the *AER*'s direction to amend the matters set out in the final project assessment report.

- (g) The *AER* may only make a determination under subparagraph (d)(3)(i) if it determines that:
 - (1) the RIT-D proponent has not correctly applied the *regulatory investment test for distribution* in accordance with the *Rules*; or
 - (2) there was a manifest error in the calculations performed by the RIT-D proponent in applying the *regulatory investment test for distribution*.
- (h) The *AER* may request additional information regarding the dispute from the disputing party or the RIT-D proponent in which case the period of time for rejecting a dispute under paragraph (d)(1) or making a determination under paragraph (d)(3) is automatically extended by the time it takes the relevant party to provide the additional information to the *AER* provided:
 - (1) the *AER* makes the request for additional information at least seven days prior to the expiry of the relevant period; and
 - (2) the RIT-D proponent or disputing party provides the additional information within 14 days of receipt of the request under subparagraph (1).
- (i) A disputing party or the RIT-D proponent (as the case may be) must as soon as reasonably practicable provide any information requested under paragraph (h) to the *AER*.

5.18 Construction of funded augmentations

- (a) The term *Transmission Network Service Provider* when used in this rule 5.18 is not intended to refer to, and is not to be read or construed as referring to, any *Transmission Network Service Provider* in its capacity as a *Market Network Service Provider*.
- (b) A *Transmission Network Service Provider* who proposes to construct a *funded augmentation* must make available to all *Registered Participants* and *AEMO* a notice which must set out:
 - (1) a detailed description of the proposed *funded augmentation*;
 - (2) all relevant technical details concerning the proposed *funded augmentation*, the impact of the *funded augmentation* on the relevant *transmission network's Transmission Network Users* and the construction timetable and commissioning date for the *funded augmentation*;
 - (3) an *augmentation technical report* prepared by *AEMO* if, and only if, the *funded augmentation* is reasonably likely to have a *material inter-network impact* and the *Transmission Network Service Provider* has not received consent to proceed with construction from all *Transmission Network Service Providers* whose *transmission networks* are materially affected by the *funded augmentation*. In assessing whether a *funded augmentation* is reasonably likely to have

a *material inter-network impact*, the *Transmission Network Service Provider* must have regard to the objective set of criteria *published* by *AEMO* (if any such criteria have been *published* by *AEMO*).

- (c) The *Transmission Network Service Provider* must provide a summary of the notice prepared in accordance with paragraph (b) to *AEMO*. Within 3 *business days* of receipt of the summary, *AEMO* must *publish* the summary on its website.
- (d) The *Transmission Network Service Provider* must consult with any *interested parties*, in accordance with the *Rules consultation procedures*, on any matter set out in the notice prepared in accordance with paragraph (b).

5.18A Large generator connections

5.18A.1 Definitions

- (a) In this rule 5.18A:

assessment date means, in respect of a new large generator connection, the first TAPR date that falls no earlier than 18 months after the commissioning date for that large generator connection.

commissioning date means, in respect of a new large generator connection, the date of commencement of commissioning of the *connection* and *connected facilities* of that large generator connection.

connections register has the meaning given in clause 5.18A.2.

impact assessment has the meaning given in clause 5.18A.3.

large generator connection means *generating units* that:

- (1) have a *nameplate rating* of 30MW or greater; or
- (2) are part of a group of *generating units* connected at a common *connection point* with a combined *nameplate rating* of 30 MW or greater,

which are owned, operated or controlled by a *Generator* and are *connected* to the *Transmission Network Service Provider's network*.

TAPR date means the date under clause 5.12.2 by which a *Transmission Network Service Provider* must *publish* its *Transmission Annual Planning Report*.

5.18A.2 Register of large generator connections

- (a) A *Transmission Network Service Provider* must establish, maintain and publish, on its website, a register of information regarding large generator connections (**connections register**), including but not limited to the following information in respect of each large generator connection:

- (1) location of the *connection point* for the large generator connection;
 - (2) person who is registered by *AEMO* as a *Generator* in respect of the large generator connection at that *connection point*;
 - (3) technology of the *generating units* (e.g. hydro, open cycle gas turbine, steam sub-critical etc);
 - (4) aggregate *nameplate rating* capacity of all *generating units* comprised in the large generator connection;
 - (5) date of cessation of a person's registration with *AEMO* as *Generator* in respect of the large generator connection, where relevant; and
 - (6) impact assessment of that large generator connection, prepared in accordance with clause 5.18A.3 (if any).
- (b) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Transmission Network Service Provider* must not publish *confidential information* as part of, or in connection with, the connections register.
- (c) The *Transmission Network Service Provider* must:
- (1) include in the first connections register the details contained in subparagraphs (a)(1)-(5), for all large generator connections on its *network* with a commissioning date after 13 December 1998; and
 - (2) by the TAPR date each year, update the connections register to include:
 - (i) the details contained in subparagraphs (a)(1)-(6) for all new large generator connections on its *network*; and
 - (ii) updated information for all large generator connections contained in the connections register where the information listed in subparagraphs (a)(1)-(5) has changed.

5.18A.3 Impact assessment of large generator connections

- (a) Following the commissioning date of a new large generator connection on a *Transmission Network Service Provider's network*, the *Transmission Network Service Provider* must prepare an assessment of the impact of that large generator connection on its *network* by the assessment date (**impact assessment**).
- (b) An impact assessment prepared in accordance with this clause 5.18A.3 is not required to be updated by the *Transmission Network Service Provider* at any future point in time.
- (c) The purpose of the impact assessment is to identify any material effects of the large generator connection on the *Transmission Network Service*

Provider's network, as compared with the absence of that large generator connection on its *network*.

- (d) Subject to paragraph (e), when preparing an impact assessment, a *Transmission Network Service Provider* must consider whether the new large generator connection has resulted in changes to:
 - (1) *ancillary service* requirements to the extent such changes relate specifically to the *Transmission Network Service Provider's network*;
 - (2) the level, and pattern, of *network* congestion on its *network*;
 - (3) the timing of expenditure for the *Transmission Network Service Provider* on its *network*; and
 - (4) the level of *interconnector power transfer capability* on its *network*,
 and if such changes have occurred, include details of the changes in the impact assessment to the extent they have had a material impact on the *Transmission Network Services Provider's network*.
- (e) If the *Transmission Network Service Provider* considers any of the changes referred to in paragraph (d) to have an immaterial impact on its *network*, outline the reasons why it has determined such impacts to be immaterial.
- (f) The impact assessment must:
 - (1) be based on historical data;
 - (2) consider the impacts referred to in paragraph (d) for the 12 months immediately preceding the commissioning date as compared to the 12 months following the commissioning date; and
 - (3) include a detailed description of the methodologies or data used in quantifying each impact referred to in paragraph (d).

5.18B Completed embedded generation projects

5.18B.1 Definitions

- (a) For the purposes of this rule 5.18B:

completed embedded generation projects means all *embedded generating units* owned, operated or controlled by:

- (1) a *Generator*; or
- (2) a person who was required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*,

and are connected to the network of a *Distribution Network Service Provider*. ~~the *Distributor Network Service Provider's network*~~.

DAPR date means:

(1) subject to paragraph (2), the DAPR date as defined in clause 5.13.2; and

(2) in the case of an *Embedded Network Service Provider*, 31 December.

DAPR date has the same meaning as in clause 5.13.2.

5.18B.2 Register of completed embedded generation projects

- (a) In relation to completed embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:
 - (1) technology of *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc) and its make and model;
 - (2) maximum power *generation* capacity of all *embedded generating units* comprised in the relevant *generating system*;
 - (3) contribution to fault levels;
 - (4) the size and rating of the relevant *transformer*;
 - (5) a single line diagram of the *connection* arrangement;
 - (6) *protection systems* and communication systems;
 - (7) *voltage* control and *reactive power capability*; and
 - (8) details specific to the location of a *facility connected* to the *network* that are relevant to any of the details in subparagraphs (1)-(7).
- (b) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register.
- (c) The *Distribution Network Service Provider* must:
 - (1) include in the register the details contained in paragraph (b) for all completed embedded generation projects within the 5 year period preceding the establishment of the register; and
 - (2) update the register by the DAPR date each year thereafter with details of all completed embedded generation projects in the 5 year period preceding the DAPR date.

5.19 SENE Design and Costing Study

5.19.1 Definitions

In this rule 5.19:

forecast generation scenarios means different assumptions made by the *Transmission Network Service Provider* conducting a SENE Design and Costing Study about the likely timing and capacity of future *connections of generating systems* in the geographic area relevant to the study and the probability of that capacity materialising.

Scale Efficient Network Extension means an *augmentation* to a *transmission network* which is capable of facilitating the future *connection* to the *transmission network* of two or more *generating systems* in the same geographic area that have different owners, operators or controllers.

SENE Design and Costing Study means a study undertaken by a *Transmission Network Service Provider* in accordance with this rule 5.19 which compares the cost of forecast *connections of generating systems* to a *transmission network augmented* by a Scale Efficient Network Extension and the cost of those forecast *connections connecting* to the *national grid* in the same geographic area in the absence of the Scale Efficient Network Extension.

SENE Study Proponent means a person that makes a request under clause 5.19.2(a).

SENE study information means:

- (a) any data or information provided to a *Transmission Network Service Provider* by a *Network Service Provider* under clause 5.19.5 for the purposes of a SENE Design and Costing Study;
- (b) any data or information provided to a *Transmission Network Service Provider* by a person for the purposes of a SENE Design and Costing Study, provided that the person has registered its interest in response to an invitation under clause 5.19.3(e)(3); and
- (c) any data or information contained in a SENE Design and Costing Study published under clause 5.19.6.

5.19.2 Interpretation

In this rule 5.19:

- (a) a reference to a *Transmission Network Service Provider* does not include a *Distribution Network Service Provider* in its capacity as owner, controller or operator of a *dual function asset*; and
- (b) a reference to a *transmission network* does not include *dual function assets*.

5.19.3 Request for SENE Design and Costing Study

- (a) Any person may request a *Transmission Network Service Provider* to undertake a SENE Design and Costing Study in relation to the construction of a Scale Efficient Network Extension for *connection* to its *transmission network*.
- (b) If the *Transmission Network Service Provider* receives a request under paragraph (a), the *Transmission Network Service Provider* must undertake a SENE Design and Costing Study if the following conditions are satisfied:
 - (1) at the time the study is requested, the *Transmission Network Service Provider* is not undertaking another SENE Design and Costing Study in relation to the same geographic area;
 - (2) it has agreed the scope and timing of the SENE Design and Costing Study with the SENE Study Proponent in accordance with paragraph (c); and
 - (3) the SENE Study Proponent or any other person or group of persons (which may include the SENE Study Proponent) has agreed to pay all the reasonable costs incurred by the *Transmission Network Service Provider* in undertaking the study, including any costs it incurs in meeting its obligation under clause 5.19.5(b).
- (c) The *Transmission Network Service Provider*:
 - (1) must in accordance with clause 5.19.4, negotiate with the SENE Study Proponent in good faith to reach agreement on the cost, scope and timeframes for undertaking the SENE Design and Costing Study; and
 - (2) without limiting subparagraph (1), must not unreasonably withhold its consent to undertake a SENE Design and Costing Study in accordance with the scope and timeframes for the study proposed by the SENE Study Proponent.
- (d) The *Transmission Network Service Provider* must undertake the SENE Design and Costing Study in accordance with the agreement reached with the SENE Study Proponent under paragraph (c).
- (e) As soon as practicable after the conditions referred to in paragraph (b) are satisfied in relation to a SENE Design and Costing Study, the relevant *Transmission Network Service Provider* must publish on its website a notice of the commencement of the study. A notice under this paragraph (e) must:
 - (1) specify the geographic area that is being considered in the study;
 - (2) specify the dates agreed between the *Transmission Network Service Provider* and the SENE Study Proponent for completion of the study and any other milestones for the study;

- (3) invite any person who may be interested in providing SENE study information to the *Transmission Network Service Provider* to register their interest by written notice to the *Transmission Network Service Provider* within a period specified in the notice, being a period not less than 10 *business days* from the date the notice is published; and
- (4) include a statement to the effect that by registering with the *Transmission Network Service Provider* in accordance with subparagraph (3), the person is giving consent to the use and disclosure of the SENE study information subsequently provided by that person in accordance with clause 5.19.7.

5.19.4 Content of SENE Design and Costing Study

In negotiating the scope of the SENE Design and Costing Study with the SENE Study Proponent under clause 5.19.3(c), the *Transmission Network Service Provider* must consider the following matters:

- (a) the construction of future *generating systems* and the capacity of those *generating systems* in the relevant geographic area that are considered likely to require *connection* to the *national grid*, based on forecast generation scenarios;
- (b) having regard to each forecast generation scenario:
 - (1) the most appropriate location of the point of *connection* of the Scale Efficient Network Extension to the present *transmission network*;
 - (2) the configuration of the Scale Efficient Network Extension including the point at which *generating systems* may connect to the Scale Efficient Network Extension;
 - (3) the capacity and technical specifications of the Scale Efficient Network Extension;
 - (4) indicative development, operating and other costs for the Scale Efficient Network Extension, based on an indicative timetable for development of the Scale Efficient Network Extension;
 - (5) opportunities for developing the Scale Efficient Network Extension incrementally;
 - (6) the likely impact of the Scale Efficient Network Extension on its *transmission network*, including the type and estimated cost of any other *augmentation* that would be required to ensure that the Scale Efficient Network Extension did not increase congestion on its *transmission network*;
 - (7) a comparison between:
 - (i) the estimated total project expenditure (excluding any revenue impact) of forecast *connections* of *generating systems* to the

Transmission Network Service Provider's network as augmented by a Scale Efficient Network Extension; and

- (ii) the estimated total project expenditure (excluding any revenue impact) of forecast *connections of generating systems* to the *Transmission Network Service Provider's network*, or, if different, the *Local Network Service Provider's network*, in the same geographic area in the absence of the Scale Efficient Network Extension; and
- (c) the most recent *NTNDP* and the *Transmission Network Service Provider's* most recent *Transmission Annual Planning Report* (to the extent relevant).

5.19.5 Co-operation of other Network Service Providers

- (a) A *Network Service Provider* must co-operate with any *Transmission Network Service Provider* that is undertaking a SENE Design and Costing Study to enable that *Transmission Network Service Provider* to undertake the study expeditiously and consider the matters referred to in clause 5.19.4.
- (b) A *Transmission Network Service Provider* may request data or information (including *confidential information*) or assistance from another *Network Service Provider* for the purposes of undertaking a SENE Design and Costing Study but must meet the reasonable costs of the *Network Service Provider* in complying with the request.
- (c) A *Network Service Provider* may, but is not required to, provide such data, information or assistance as requested under paragraph (b). If a *Network Service Provider* provides such information or data it must identify any information or data that is *confidential information*.

5.19.6 Publication of SENE Design and Costing Study report

As soon as practicable after the SENE Design and Costing Study is completed, the *Transmission Network Service Provider* that undertook the study must publish on its website a report of the study that includes:

- (a) a description of the scope of the SENE Design and Costing Study;
- (b) a description of the Scale Efficient Network Extension for each forecast generation scenario considered in the study, including its configuration;
- (c) any assumptions made as part of the study;
- (d) a summary of the key matters considered as part of the SENE Design and Costing Study; and
- (e) the study's conclusions as well as an explanation of the reasoning which underlies those conclusions.

5.19.7 Provision and use of information

- (a) The SENE study information must:
 - (1) be prepared, given and used in good faith; and
 - (2) not be disclosed or made available by the relevant *Transmission Network Service Provider* to a third party except as set out in this clause 5.19.7 or in accordance with rule 8.6 as if it were *confidential information* for the purposes of that rule.
- (b) A *Transmission Network Service Provider* conducting a SENE Design and Costing Study may disclose SENE study information to another *Network Service Provider* if the relevant *Transmission Network Service Provider* considers the data or information is materially relevant to that provider for the purposes of providing information or assistance under clause 5.19.5.
- (c) If a *Transmission Network Service Provider* intends to disclose information under paragraph (b), it must first advise the relevant information provider of the extent of the disclosure, unless the information may be disclosed in accordance with rule 8.6.
- (d) A *Transmission Network Service Provider* may:
 - (1) use SENE study information to prepare the relevant SENE Design and Costing Study or any future SENE Design and Costing Study; and
 - (2) subject to paragraph (e), include SENE study information in a report published under clause 5.19.6.
- (e) A *Transmission Network Service Provider* must not include in a report published under clause 5.19.6, SENE study information which the relevant *Network Service Provider* has identified as *confidential information* under clause 5.19.5(c).

5.20 National transmission planning

In this rule:

NSCAS trigger date means for any *NSCAS gap* identified in clause 5.20.2(c)(8)(i), the date that the *NSCAS gap* first arises.

NSCAS tender date means for any *NSCAS gap* identified in clause 5.20.2(c)(8)(i), the date or indicative date that *AEMO* would need to act so as to call for offers to acquire *NSCAS* to meet that *NSCAS gap* by the relevant *NSCAS* trigger date in accordance with clause 3.11.3(c)(4).

5.20.1 Preliminary consultation

- (a) By no later than 30 January each year, *AEMO* must *publish*:

- (1) a document that sets out the *NTNDP inputs* that it proposes to use for the preparation or revision of the *NTNDP* for the following calendar year; and
 - (2) a document (the **statement of material issues**):
 - (i) summarising the issues *AEMO* considers to be the material issues involved in the preparation or revision of the *NTNDP* for the following calendar year; and
 - (ii) giving an indication of *AEMO's* preliminary views on how those issues should be resolved; and
 - (3) the *inertia requirements methodology* and the *system strength requirements methodology*.
- (b) At the same time as it *publishes* the documents referred to in paragraph (a), *AEMO* must *publish* an invitation for written submissions to be made to *AEMO* within a period (at least 30 *business days*) specified in the invitation on:
- (1) the proposed *NTNDP inputs*; and
 - (2) the content of the *NTNDP* as it applies for the current year, including the location of the current and potential *national transmission flow paths* identified in the *NTNDP*; and
 - (3) the issues raised in the statement of material issues; and
 - (4) the *inertia requirements methodology* and the *system strength requirements methodology*.
- (c) A person may make a written submission to *AEMO* on the proposed *NTNDP inputs*, the content of the *NTNDP* as it applies for the current year, the *inertia requirements methodology*, the *system strength requirements methodology* or an issue raised in the statement of material issues within the period specified in the invitation.

5.20.2 Publication of NTNDP

- (a) By no later than 31 December each year, *AEMO* must *publish* the *NTNDP* for the following year.
- (b) In preparing the *NTNDP* that is to be *published* under paragraph (a), *AEMO* must:
 - (1) take into account the submissions made in response to the invitation referred to in clause 5.20.1(b); and
 - (2) consider the following matters:

- (i) the quantity of electricity that flowed, the periods in which the electricity flowed, and *constraints* on the *national transmission flow paths* over the previous year;
 - (ii) the forecast quantity of electricity that is expected to flow, the periods in which the electricity is expected to flow, and the magnitude and significance of future *network losses* and *constraints*, on the current and potential *national transmission flow paths* over the year in which the *NTNDP* is to apply or some other period to which a scenario that is used for the purposes of the *NTNDP* applies;
 - (iii) the projected capabilities of the *national transmission grid*, and the *network support and control ancillary services* required to support the existing and future capabilities of the *national transmission grid*, under each of the scenarios that is being used for the purposes of the *NTNDP*;
 - (iv) relevant intra-jurisdictional developments and any incremental works that may be needed to co-ordinate *national transmission flow path* planning with intra-jurisdictional planning;
 - (v) such other matters as *AEMO*, in consultation with the *participating jurisdictions*, considers appropriate; and
- (3) have regard to the following documents:
- (i) the most recent *Transmission Annual Planning Reports* that have been *published*;
 - (ii) the most recent *statement of opportunities* that has been *published*;
 - (iii) the most recent gas statement of opportunities published under the National Gas Law;
 - (iv) the current revenue determination for each *Transmission Network Service Provider*;
 - (v) any other documents that *AEMO* considers relevant.
- (c) An *NTNDP* that is *published* under paragraph (a) must:
- (1) consider and assess an appropriate course for the efficient development of the *national transmission grid* for a planning horizon of at least 20 years from the beginning of the year in which the *NTNDP* applies; and
 - (2) take into account all *transmission elements* which are part of, or materially affect, the transmission capability of any current or potential *national transmission flow paths*; and

- (3) take into account all *NSCAS* provided; and
- (4) identify a range of credible scenarios for the geographic pattern of the demand for, and supply of, electricity for the planning horizon of the *NTNDP*; and
- (5) identify the location of current *national transmission flow paths* and specify their transmission capability; and
- (6) identify the location of the potential *national transmission flow paths* over the planning horizon of the *NTNDP* under each of the scenarios referred to in subparagraph (3); and
- (7) specify a development strategy for each current and potential *national transmission flow path* in accordance with clause 5.20.3; and
- (8) include an assessment that identifies:
 - (i) any *NSCAS gap*; and
 - (ii) for any *NSCAS gap* identified in subparagraph (i) required to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*, the relevant *NSCAS* trigger date;
 - (iii) for any *NSCAS gap* identified in subparagraph (i) required to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*, the relevant *NSCAS* tender date;
- (9) report on *NSCAS* acquired by *AEMO* in the previous *NTNDP* year; and
- (10) include a summary of the information specified in rule 3.7A in relation to congestion on each current *national transmission flow path*; and
- (11) include a consolidated summary of the *augmentations* proposed by each *Transmission Network Service Provider* in the most recent *Transmission Annual Planning Reports* they have *published* and an analysis of the manner in which the proposed *augmentations* relate to the *NTNDP* and any previous *NTNDP*; and
- (12) summarise the material issues arising from the submissions received in response to the invitation referred to in clause 5.20.1(b), explain how those issues have been addressed in the *NTNDP* and give reasons for not addressing any of those issues in the *NTNDP*; and
- (13) describe the boundaries of the *inertia sub-networks* and related *inertia requirements* determined by *AEMO* under rule 5.20B since the last

NTNDP and details of *AEMO's* assessment of any *inertia shortfall* and *AEMO's* forecast of any *inertia shortfall* arising at any time within a planning horizon of at least 5 years; and

- (14) describe the *system strength requirements* determined by *AEMO* under rule 5.20C since the last *NTNDP* and details of *AEMO's* assessment of any *fault level shortfall* and *AEMO's* forecast of any *fault level shortfall* arising at any time within a planning horizon of at least 5 years.
- (d) *AEMO* must *publish* the first *NTNDP* (the ***NTNDP for 2011***) no later than 31 December 2010.
- (e) If, after the *publication* of the most recent *NTNDP*, *AEMO* becomes aware of information that shows the *NTNDP* to be incorrect in a material respect, *AEMO* must *publish* a correction of the *NTNDP* as soon as practicable.

5.20.3 Development strategies for national transmission flow paths

A development strategy for a current or potential *national transmission flow path* that is specified in accordance with clause 5.20.2(c)(7) must:

- (a) be proposed for each of the scenarios referred to in clause 5.20.2(c)(4); and
- (b) to the extent reasonably practicable and appropriate, be consistent with:
 - (1) the co-optimisation of *network* and *non-network* investment; and
 - (2) the maximisation of net economic benefit to all those who produce, consume and transport electricity to the *market*; and
 - (3) the service standards that are linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments*; and
- (c) take into account the following matters:
 - (1) the current or likely capacity of the *national transmission flow path*, and the need to increase that capacity to relieve current or likely *constraints* and congestion points; and
 - (2) technically feasible *network* and *non-network options* (including additional *generation* and demand side options) for relieving current or likely *constraints* or congestion points; and
 - (3) possible market benefits associated with each of the options identified under subparagraph (2); and
- (d) include a high level assessment as to:
 - (1) which of the options, or combination of options, identified under paragraph (c)(2) provides the most efficient strategy for the

development of the *national transmission grid* under each of the scenarios referred to in clause 5.20.2(c)(4); and

- (2) the manner in which each such option, or combination of options, relates to the overall development of the *power system*.

5.20.4 NTNDP database

- (a) *AEMO* must establish, maintain and make available to the public a database (the *NTNDP database*) that includes *NTNDP inputs* used by it in preparing the most recent *NTNDP*.
- (b) The *NTNDP inputs* for an *NTNDP* include:
 - (1) assumptions made about the cost of fuel used for the generation of electricity (including gas and coal); and
 - (2) the conversion factors used to relate the consumption of a given quantity of fuel to the production of electricity using that quantity of fuel; and
 - (3) assumptions about the capital costs associated with the generation of electricity; and
 - (4) prevailing location of generation capacity; and
 - (5) assumptions about the price of carbon; and
 - (6) electricity demand forecasts.
- (b1) Subject to paragraph (b2), *AEMO* must include the following in the *NTNDP database*:
 - (i) any forecasts prepared under clause 5.20.6(b)(i); and
 - (ii) sufficient information used to develop the forecasts referred to in paragraph (i) to enable an understanding of how such forecasts were developed.
- (b2) The information referred to in paragraph (b1)(ii) must be included in the *NTNDP database* at the same time as, or as soon as reasonably practical after, the inclusion of the forecasts in the database.
- (d) A part of the database established for *confidential information* is not to be accessible to the public.

Note:

The disclosure of *protected information* to the public may however be authorised under the *National Electricity Law*.

5.20.5 Jurisdictional planning bodies and jurisdictional planning representatives

- (a) A *jurisdictional planning body* must provide assistance *AEMO* reasonably requests in connection with the performance of its *NTP functions*.
- (b) If there is no *jurisdictional planning body* or no *jurisdictional planning representative* for a *participating jurisdiction*, *AEMO* may assume the functions of such a body or representative under the *Rules*.

5.20.6 NTP Functions

- (a) This rule has effect for the purposes of section 49(2)(e) of the *National Electricity Law*.
- (b) The *NTP functions* also include the following:
 - (i) developing any forecasts of electricity demand at a *regional* or *connection point* level.
- (c) To avoid doubt, the *NTP functions* do not include determining the *inertia requirements* or the assessment of *inertia shortfalls* or the *system strength requirements* or the assessment of any *fault level shortfalls*.

5.20.7 Inertia and system strength requirements methodologies

- (a) The *inertia requirements methodology* determined by *AEMO* must provide for *AEMO* to take the following matters into account in determining the *secure operating level of inertia*:
 - (1) the capabilities and expected response times provided by *generating units* providing *market ancillary services* (other than the *regulating raise service* or *regulating lower service*) in the *inertia sub-network*;
 - (2) the maximum *load shedding* or *generation shedding* expected to occur on the occurrence of any *credible contingency event* affecting the *inertia sub-network* when the *inertia sub-network* is *islanded*;
 - (3) additional *inertia* needed to account for the possibility of a reduction in *inertia* if the *contingency event* that occurs is the loss or unavailability of a *synchronous generating unit*, *synchronous condenser* or any other *facility* or service that is material in determining *inertia requirements*;
 - (4) any *constraints* that could reasonably be applied to the *inertia sub-network* when *islanded* to achieve a *secure operating state* and any *unserved energy* that might result from the *constraints*; and
 - (5) any other matters as *AEMO* considers appropriate.

- (b) The *system strength requirements methodology* determined by AEMO must provide for AEMO to take the following matters into account in determining the *fault level nodes* and the minimum *three phase fault level*:
- (1) the combination of *three phase fault levels* at each *fault level node* in the *region* that could reasonably be considered to be sufficient for the *power system* to be in a *secure operating state*;
 - (2) the maximum *load shedding* or *generation shedding* expected to occur on the occurrence of any *credible contingency event* or *protected event* affecting the *region*;
 - (3) the stability of the *region* following any *credible contingency event* or *protected event*;
 - (4) the risk of *cascading outages* as a result of any *load shedding* or *generating system* or *market network service facility* tripping as a result of a *credible contingency event* or *protected event* in the *region*;
 - (5) additional contribution to the *three phase fault level* needed to account for the possibility of a reduction in the *three phase fault level* at a *fault level node* if the *contingency event* that occurs is the loss or unavailability of a *synchronous generating unit* or any other *facility* or *service* that is material in determining the *three phase fault level* at the *fault level node*;
 - (6) the stability of any equipment that is materially contributing to the *three phase fault level* or *inertia* within the *region*; and
 - (7) any other matters as AEMO considers appropriate.

5.20A Frequency management planning

5.20A.1 Power system frequency risk review

- (a) AEMO must, through a *power system frequency risk review* under this rule, review:
- (1) *non-credible contingency events* the occurrence of which AEMO expects would be likely to involve uncontrolled increases or decreases in *frequency* (alone or in combination) leading to *cascading outages*, or *major supply disruptions*;
 - (2) current arrangements for management of the *non-credible contingency events* described in sub-paragraph (1); and
 - (3) options for future management of those events.
- (b) the options referred to in subparagraph (a)(3) may include:
- (1) new or modified *emergency frequency control schemes*;

- (2) declaration of the event as a *protected event*;
 - (3) *network augmentation*; and
 - (4) *non-network* alternatives to *augmentation*.
- (c) a *power system frequency risk review* must:
- (1) identify *non-credible contingency events* referred to in paragraph (a) that *AEMO* considers should be priorities for assessment having regard to:
 - (i) the likely *power system security* outcomes if the event occurs;
 - (ii) the likelihood of the event occurring;
 - (iii) whether in *AEMO's* opinion there are reasonably likely to be options for management of the event that are technically feasible, and (on the basis of *AEMO's* preliminary assessment of the estimated costs and benefits of that option) are economically feasible; and
 - (iv) other factors that *AEMO* considers relevant;
 - (2) for events identified under subparagraph (1):
 - (i) assess options for future management of the event that are technically and economically feasible;
 - (ii) assess the expected costs and time for implementation of each option and any other factors that *AEMO* considers should be taken into account in selecting a recommended option; and
 - (iii) identify the recommended option or range of options;
 - (3) for current *protected events*:
 - (i) assess the adequacy and costs of the arrangements for management of the event;
 - (ii) consider whether to recommend a request to the *Reliability Panel* to revoke the declaration of the event as a *protected event*; and
 - (iii) except where a recommendation is to be made under subparagraph (ii), identify any need for changes to the arrangements for management of the event and where applicable, identify the options for change and in relation to each option, the matters referred to in subparagraphs (2)(ii) and (iii); and

- (4) assess the performance of existing *emergency frequency control schemes* and identify any need to modify the scheme.

5.20A.2 Power system frequency risk review process

- (a) AEMO must undertake a *power system frequency risk review* at least every two years.
- (b) AEMO must put in place arrangements it considers appropriate to consult with and take into account the views of *Transmission Network Service Providers* in the conduct of a *power system frequency risk review*.
- (c) Where AEMO is considering a new or modified *emergency frequency control scheme*, AEMO must consult with *Distribution Network Service Providers* whose *distribution system* is likely to be directly affected by the scheme.
- (d) When undertaking a *power system frequency risk review*, AEMO may consult with any other parties it considers appropriate, including without limitation, *Jurisdictional System Security Coordinators*.

5.20A.3 Power system frequency risk review report

- (a) On completion of a *power system frequency risk review*, AEMO must publish a draft report setting out its findings and recommendations on the matters set out in clause 5.20A.1, and invite written submissions to be made within a period of at least 10 *business days* specified in the invitation. AEMO must publish its final report as soon as reasonably practicable following the receipt of submissions.
- (b) Where a *power system frequency risk review* identifies the need for a new or modified *emergency frequency control scheme* (alone or in combination with the declaration of a *protected event*) the report under this clause must:
 - (1) specify the areas of the *power system* to which the *emergency frequency control scheme* will apply and whether it is an *over frequency scheme*, *under frequency scheme*, or both; and
 - (2) include the anticipated time required to design, procure and commission the new or modified scheme.
- (c) Where, as the result of a *power system frequency risk review*, AEMO recommends seeking declaration or revocation of a *non-credible contingency event* as a *protected event*, the report under this clause must include the proposed timetable for submission of a request to the *Reliability Panel* under clause 5.20A.4 or clause 5.20A.5 (as applicable).

5.20A.4 Request for protected event declaration

- (a) AEMO must develop and submit to the *Reliability Panel* a request for declaration of a *non-credible contingency event* as a *protected event* in

accordance with the recommendations of a *power system frequency risk review* and taking into account any guidelines issued by the *Reliability Panel* under clause 8.8.1(a)(2d) as to the timing and content of requests under this clause.

- (b) A request under this clause must include:
 - (1) information explaining the nature and likelihood of the *non-credible contingency event* and the consequences for the *power system* if the event were to occur including *AEMO's* estimate of *unserved energy*;
 - (2) options for managing the *non-credible contingency event* as a *protected event*, *AEMO's* recommended option or range of options and the rationale for the recommendation;
 - (3) for each recommended option under subparagraph (2), *AEMO's* estimate of the additional costs to operate the *power system* in accordance with the *power system* security principles in clause 4.2.6 if the event is declared to be a *protected event* including a description of the mechanisms that may be used;
 - (4) where a recommended option for managing the *non-credible contingency event* includes a new or modified *emergency frequency control scheme*:
 - (i) the *target capabilities* proposed to be included in the *protected event EFCS standard* for the scheme, the rationale for the proposed *target capabilities* and the corresponding expected *power system security* outcomes including *AEMO's* estimate of *unserved energy* associated with operation of the scheme; and
 - (ii) *AEMO's* estimate of the costs to procure and commission the scheme and maintain its availability and performance, including upfront costs and ongoing maintenance costs;
 - (5) *AEMO's* proposals for other matters that may be determined by the *Reliability Panel* under clause 8.8.4 in connection with the request; and
 - (6) other information *AEMO* considers reasonably necessary to assist the *Reliability Panel* to consider the request.

5.20A.5 Request to revoke a protected event declaration

- (a) If *AEMO* recommends in a *power system frequency risk review* that a *non-credible contingency event* should no longer be managed as a *protected event*, *AEMO* must submit to the *Reliability Panel* a request to revoke the declaration of a *non-credible contingency event* as a *protected event* in accordance with the recommendations of the *power system frequency risk review*.
- (b) A request under this clause must include:

- (1) information explaining the nature of the *non-credible contingency event* and the consequences for the *power system* if the event were to cease to be managed as a *protected event*; and
- (2) other information *AEMO* considers reasonably necessary to assist the *Reliability Panel* to consider the request.

5.20B Inertia sub-networks and requirements

5.20B.1 Boundaries of inertia sub-networks

- (a) For the purpose of determining the required levels of *inertia* in the *national grid*, the *connected transmission systems* forming part of the *national grid* are to be divided into *inertia sub-networks*.
- (b) *AEMO* must determine the boundaries of *inertia sub-networks* and may from time to time adjust the boundaries, including adjustments that result in new *inertia sub-networks*.
- (c) The boundaries of an *inertia sub-network* must be aligned with the boundaries of a *region* or wholly confined within a *region*.
- (d) Subject to paragraph (c), in determining and adjusting the boundaries of *inertia sub-networks*, *AEMO* must take into account the following matters:
 - (1) synchronous *connections* between the proposed *inertia sub-network* and adjacent parts of the *national grid*;
 - (2) the likelihood of the proposed *inertia sub-network* being *islanded*; and
 - (3) the criticality and practicality of maintaining the proposed *inertia sub-network* in a *satisfactory operating state* if it is *islanded* and being able to return to a *secure operating state* while *islanded*.
- (e) In determining and adjusting the boundaries of *inertia sub-networks*, *AEMO* must comply with the *Rules consultation procedures*.
- (f) *AEMO* must publish the boundaries of the *inertia sub-networks* and any adjustments in the *NTNDP*.

5.20B.2 Inertia requirements

- (a) *AEMO* must from time to time determine the *inertia requirements* for *inertia sub-networks* applying the *inertia requirements methodology*. *AEMO* must make a determination under this paragraph:
 - (1) subject to subparagraph (2) and any other requirements under the *Rules*, for any *inertia sub-network*, no more than once in every 12 month period; and
 - (2) for each affected *inertia sub-network*, as soon as reasonably practical after becoming aware of a material change to the *power system* likely

to affect the *inertia requirements* for the *inertia sub-network* where the timing, occurrence or impact of the change was unforeseen.

- (b) The *inertia requirements* to be determined for each *inertia sub-network* are:
 - (1) the *minimum threshold level of inertia*, being the minimum level of *inertia* required to operate the *inertia sub-network* in a *satisfactory operating state* when the *inertia sub-network* is *islanded*; and
 - (2) the *secure operating level of inertia*, being the minimum level of *inertia* required to operate the *inertia sub-network* in a *secure operating state* when the *inertia sub-network* is *islanded*.
- (c) AEMO must *publish* the *inertia requirements* determined for each *inertia sub-network* together with the results of its assessment under clause 5.20B.3 in the NTNDP.

5.20B.3 Inertia shortfalls

- (a) AEMO must as soon as practicable following its determination of the *inertia requirements* for an *inertia sub-network* under clause 5.20B.2 assess:
 - (1) the level of *inertia* typically provided in the *inertia sub-network* having regard to typical patterns of *dispatched generation in central dispatch*;
 - (2) whether in AEMO's reasonable opinion, there is or is likely to be an *inertia shortfall* in the *inertia sub-network* and AEMO's forecast of the period over which the *inertia shortfall* will exist; and
 - (3) where AEMO has previously assessed that there was or was likely to be an *inertia shortfall*, whether in AEMO's reasonable opinion that *inertia shortfall* has been or will be remedied.
- (b) In making its assessment under paragraph (a) for an *inertia sub-network*, AEMO must take into account:
 - (1) over what time period and to what extent the *inertia* that is typically provided in the *inertia sub-network* is or is likely to be below the *secure operating level of inertia*;
 - (2) the levels of *inertia* that are typically provided in adjacent *connected inertia sub-networks* and the likelihood of the *inertia sub-network* becoming *islanded*; and
 - (3) any other matters that AEMO reasonably considers to be relevant in making its assessment.
- (c) If AEMO assesses that there is or is likely to be an *inertia shortfall* in any *inertia sub-network*, AEMO must *publish* and give to the *Inertia Service Provider* for the *inertia sub-network* a notice of that assessment that includes AEMO's specification of the date by which the *Inertia Service*

Provider must ensure the availability of *inertia network services* in accordance with clause 5.20B.4(b), which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *Inertia Service Provider*.

- (d) If *AEMO* assesses that an *inertia shortfall* in an *inertia sub-network* has been or will be remedied, *AEMO* must *publish* and give to the *Inertia Service Provider* for the *inertia sub-network* a notice of that assessment that includes *AEMO's* specification of the date from which the obligation of the *Inertia Service Provider* under clause 5.20B.4(b) ceases, which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *Inertia Service Provider*.

5.20B.4 Inertia Service Provider to make available inertia services

- (a) The *Inertia Service Provider* for an *inertia sub-network* is:
 - (1) the *Transmission Network Service Provider* for the *inertia sub-network*; or
 - (2) if there is more than one *Transmission Network Service Provider* for the *inertia sub-network*, the *jurisdictional planning body* for the *participating jurisdiction* in which the *inertia sub-network* is located.
- (b) If *AEMO* gives a notice under clause 5.20B.3(c) that *AEMO* has assessed that there is or is likely to be an *inertia shortfall* in an *inertia sub-network*, the *Inertia Service Provider* for the *inertia sub-network* must make *inertia network services* available in accordance with paragraph (c) that when *enabled* will provide *inertia* to:
 - (1) the *secure operating level of inertia*; or
 - (2) the *secure operating level of inertia* as adjusted for *inertia support activities*, but not less than the *minimum threshold level of inertia* as adjusted for *inertia support activities*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) For the purposes of paragraph (b), an *Inertia Service Provider* for an *inertia sub-network* must:
 - (1) use reasonable endeavours to make the *inertia network services* available by the date specified by *AEMO* in the notice under clause 5.20B.3(c);
 - (2) make a range and level of *inertia network services* available such that it is reasonably likely that *inertia network services* that provide the required level of *inertia* when *enabled* are continuously available,

- taking into account planned *outages* and the risk of unplanned *outages*;
- (3) ensure that the *inertia network services* that when *enabled* provide *inertia* up to the *minimum threshold level of inertia* (as adjusted for *inertia support activities* if applicable) are qualifying *inertia network services* as specified in paragraph (d);
 - (4) ensure that the *inertia network services* that when *enabled* provide *inertia* beyond the *minimum threshold level of inertia* up to the *secure operating level of inertia* (as adjusted for *inertia support activities* if applicable), are qualifying *inertia network services* as specified in paragraph (e); and
 - (5) maintain the availability of those *inertia network services* until the date the *Inertia Service Provider's* obligation ceases, as specified by AEMO under clause 5.20B.3(d).
- (d) The *inertia network services* that qualify to provide *inertia* up to the *minimum threshold level of inertia* are:
- (1) *inertia network services* made available by the *Inertia Service Provider* investing in its *network* through the installation, commissioning and operation of a *synchronous condensor*; and
 - (2) *inertia network services* made available to the *Inertia Service Provider* by a *Registered Participant* and provided by means of a *synchronous generating unit* or a *synchronous condensor* under an *inertia services agreement*.
- (e) The *inertia network services* that qualify to provide *inertia* beyond the *minimum threshold level of inertia* up to the *secure operating level of inertia* are:
- (1) the *inertia network services* referred to in paragraph (d);
 - (2) *inertia network services* made available by the *Inertia Service Provider* investing in its *network* other than those referred to in paragraph (d); and
 - (3) *inertia network services* made available to the *Inertia Service Provider* by a *Registered Participant* under an *inertia services agreement* other than those referred to in paragraph (d).
- (f) An *Inertia Service Provider* required to make *inertia network services* available under paragraph (b) must make available the least cost option or combination of options that will satisfy its obligation within the time referred to in subparagraph (c)(1) and for so long as the obligation to make the *inertia network services* available continues.
- (g) An *Inertia Service Provider* required to make *inertia network services* available under paragraph (b) must prepare and *publish* information to

enable potential providers of *inertia network services* to develop *non-network options* for consideration by the *Inertia Service Provider* including:

- (1) a description of the requirement for *inertia network services* including timing;
 - (2) the technical characteristics that a *non-network option* would be required to deliver, such as the level of *inertia*, location, availability, response time and operating profile;
 - (3) a summary of potential options to make the *inertia network services* available identified by the *Inertia Service Provider*, including *network options* and *non-network options*; and
 - (4) information to assist providers of *non-network options* wishing to present proposals to the *Inertia Service Provider* including details of how to submit a proposal for consideration.
- (h) An *Inertia Service Provider* must provide information in its *Transmission Annual Planning Report* about:
- (1) the activities undertaken to satisfy its obligation to make *inertia network services* available under paragraph (b); and
 - (2) *inertia support activities* undertaken to reduce the *minimum threshold level of inertia* or the *secure operating level of inertia*.
- (i) If the *Inertia Service Provider* proposes *network* investment for either of the purposes specified in paragraph (h), the *Inertia Service Provider* must provide the following information in its next *Transmission Annual Planning Report*:
- (1) the date when the proposed relevant *network* investment became or will become operational;
 - (2) the purpose of the proposed relevant *network* investment;
 - (3) the total cost of the proposed relevant *network* investment; and
 - (4) the indicative total cost of any *non-network options* considered.
- (j) An *Inertia Service Provider* may include the cost of *inertia service payments* in the calculation of *network support payments* in accordance with Chapter 6A.

5.20B.5 Inertia support activities

- (a) AEMO may at the request of an *Inertia Service Provider* approve activities (*inertia support activities*) under this clause and agree corresponding adjustments to the *minimum threshold level of inertia* or the *secure*

operating level of inertia for the purposes of clause 5.20B.4(b) where the activities:

- (1) are to be undertaken by the *Inertia Service Provider* or provided as a service to the *Inertia Service Provider*;
- (2) are not *inertia network services*; and
- (3) *AEMO* is satisfied the activities will contribute to the operation of the *inertia sub-network* in a *satisfactory operating state* or *secure operating state* in the circumstances described in clause 4.4.4(a) or (b) as applicable.

Note

If approved by *AEMO* under paragraph (a), inertia support activities may include installing or contracting for the provision of *frequency* control services, installing emergency protection schemes or contracting with *Generators* in relation to the operation of their *generating units* in specified conditions.

- (b) An adjustment to the *minimum threshold level of inertia* or the *secure operating level of inertia* for *inertia support activities* will apply to the level determined by *AEMO* and only where and to the extent that the approved activity is *enabled* and performing in accordance with the conditions of any approval determined by *AEMO*.
- (c) An *Inertia Service Provider* making a request under paragraph (a) must give *AEMO*:
 - (1) details of the proposed *inertia support activity* and the other information about the *inertia support activity* consistent with the requirements of clause 5.20B.6(c);
 - (2) the proposed technical specification and performance standards and the information about arrangements to *enable* the *inertia support activity* consistent with the requirements of clause 5.20B.6(d);
 - (3) information about how the *inertia support activity* will contribute to operation of the *inertia sub-network* in a *satisfactory operating state* or *secure operating state* in the circumstances described in clause 4.4.4(a) or (b) as applicable;
 - (4) the *Inertia Service Provider's* proposal for calculating adjustments to be made and the times they will apply; and
 - (5) any other information requested by *AEMO* in connection with the request.
- (d) *AEMO* may give or withhold its approval under this clause in its discretion and subject to any conditions determined by *AEMO*.
- (e) The technical specification, performance standards and information referred to in paragraph (c)(2) and any change to them must be approved by *AEMO*.

- (f) An *Inertia Service Provider* must obtain *AEMO's* approval under paragraph (e) before any change to the technical specification, performance standards or arrangements to give instructions that apply to an *inertia support activity* comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

5.20B.6 Inertia network services information and approvals

- (a) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must prepare and give to *AEMO* and keep up to date, a schedule setting out:
- (1) the *inertia network services* made available by the *Inertia Service Provider* for the *inertia sub-network*; and
 - (2) the *Inertia Service Provider's* proposed order of priority for the *inertia network services* to be *enabled*.
- (b) Where the *Inertia Service Provider* procures *inertia network services* from a *Generator* provided by means of a *synchronous generating unit* under an *inertia services agreement*, the *Inertia Service Provider* must register the *generating unit* with *AEMO* as an *inertia generating unit* and specify that the *generating unit* may be periodically used to provide *inertia network services* and will not be eligible to set *spot prices* when *constrained on* to provide *inertia* in accordance with clause 3.9.7(c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must give to *AEMO* and keep up to date the following details for each *inertia network service*:
- (1) a description of the *inertia network service*, including:
 - (i) the nature of the *inertia network service*;
 - (ii) the *generating unit* or other *facilities* used to provide the *inertia network service*;
 - (iii) the purpose for which the *inertia network service* is being provided;
 - (iv) the location in the *transmission network* or *distribution network* of the *facilities* used to provide the *inertia network service*;

- (v) the quantity of *inertia* to be provided when the *inertia network service* is *enabled* and;
 - (vi) any other information requested by *AEMO* in connection with the *inertia network service*;
- (2) information about the availability of the *inertia network service*, including:
 - (i) the times when, and the period over which, the *inertia network service* will be available to provide *inertia*; and
 - (ii) any possible restrictions on the availability of the *inertia network service*
- (d) An *Inertia Service Provider* required to make *inertia network services* available under clause 5.20B.4(b) must prepare and submit to *AEMO* for approval under paragraph (e) the following details for each *inertia network service*:
 - (1) the technical specification and performance standards for the *inertia network service*; and
 - (2) the arrangements necessary for *AEMO* to give instructions to *enable* or cease the provision of the *inertia network service* including:
 - (i) the period of any notice that has to be given to the provider of the *inertia network service* for it to be *enabled*;
 - (ii) the response time to any instruction for the *inertia network service* to be *enabled* or to cease being provided; and
 - (iii) communication protocols between it, *AEMO* and the *Registered Participants* that provide *inertia network services*.
- (e) The technical specification, performance standards and arrangements necessary for *AEMO* to give the instructions referred to in paragraph (d) and any change to them must be consistent with the *Rules* and approved by *AEMO*.
- (f) An *Inertia Service Provider* must ensure that *AEMO's* approval is obtained under paragraph (e) before the *inertia network service* is first made available and in the case of a change, before the change comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) *AEMO* must use reasonable endeavours to respond to the *Inertia Service Provider* within 20 *business days* following the receipt of a request for approval under paragraph (e) stating whether it gives its approval.

- (h) If *AEMO* does not approve the matters in a request for approval under paragraph (e):
 - (1) *AEMO* must tell the *Inertia Service Provider* its reasons for withholding approval and may advise the *Inertia Service Provider* of the changes *AEMO* requires to be made; and
 - (2) the *Inertia Service Provider* must amend its request to address the matters identified by *AEMO* and submit to *AEMO* a new request for approval.

5.20C System strength requirements

5.20C.1 System strength requirements

- (a) *AEMO* must from time to time determine the *system strength requirements* for each *region* applying the *system strength requirements methodology*. *AEMO* must make a determination under this paragraph:
 - (1) subject to subparagraph (2) and any other requirements under the *Rules*, for any *region*, no more than once in every 12 month period; and
 - (2) for each affected *region*, as soon as reasonably practical after becoming aware of a material change to the *power system* likely to affect the *system strength requirements* for the *region* where the timing, occurrence or impact of the change was unforeseen.
- (b) The *system strength requirements* to be determined for each *region* are:
 - (1) the *fault level nodes* in the *region*, being the location on the *transmission network* for which the *three phase fault level* must be maintained at or above a minimum *three phase fault level* determined by *AEMO*; and
 - (2) for each *fault level node*, the minimum *three phase fault level*.
- (c) *AEMO* must publish the *system strength requirements* determined for each *region* together with the results of its assessment under clause 5.20C.2 in the *NTNDP*.

5.20C.2 Fault level shortfalls

- (a) *AEMO* must as soon as practicable following its determination of the *system strength requirements* for a *region* under clause 5.20C.1 assess:
 - (1) the *three phase fault level* typically provided at each *fault level node* in the *region* having regard to typical patterns of *dispatched generation* in *central dispatch*;

- (2) whether in *AEMO's* reasonable opinion, there is or is likely to be a *fault level shortfall* in the *region* and *AEMO's* forecast of the period over which the *fault level shortfall* will exist; and
 - (3) where *AEMO* has previously assessed that there was or was likely to be a *fault level shortfall*, whether in *AEMO's* reasonable opinion that *fault level shortfall* has been or will be remedied.
- (b) In making its assessment under paragraph (a) for a *region*, *AEMO* must take into account:
 - (1) over what time period and to what extent the *three phase fault levels* at *fault level nodes* that are typically observed in the *region* are likely to be insufficient to maintain the *power system* in a *secure operating state*; and
 - (2) any other matters that *AEMO* reasonably considers to be relevant in making its assessment.
- (c) If *AEMO* assesses that there is or is likely to be a *fault level shortfall* in a *region*, *AEMO* must *publish* and give to the *System Strength Service Provider* for the *region* a notice of that assessment that includes *AEMO's* specification of:
 - (1) the extent of the *fault level shortfall*; and
 - (2) the date by which the *System Strength Service Provider* must ensure the availability of *system strength services* in accordance with clause 5.20C.3(b), which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *System Strength Service Provider*.
- (d) If *AEMO* assesses that a *fault level shortfall* in a *region* has been or will be remedied, *AEMO* must *publish* and give to the *System Strength Service Provider* for the *region* a notice of that assessment that includes *AEMO's* specification of the date from which the obligation of the *System Strength Service Provider* under clause 5.20C.3(b) ceases, which must not be earlier than 12 months after the notice is *published* unless an earlier date is agreed with the *System Strength Service Provider*.

5.20C.3 System Strength Service Provider to make available system strength services

- (a) The *System Strength Service Provider* for a *region* is:
 - (1) the *Transmission Network Service Provider* for the *region*; or
 - (2) if there is more than one *Transmission Network Service Provider* for a *region*, the *jurisdictional planning body* for the *participating jurisdiction* in which the *region* is located.

- (b) If *AEMO* gives a notice under clause 5.20C.2(c) that *AEMO* has assessed that there is or is likely to be a *fault level shortfall* at a *fault level node* in a *region*, the *System Strength Service Provider* for the *region* must make *system strength services* available in accordance with paragraph (c) that when *enabled* will address the *fault level shortfall* at the relevant *fault level node*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) For the purposes of paragraph (b), a *System Strength Service Provider* for a *region* must:
- (1) use reasonable endeavours to make the *system strength services* available by the date specified by *AEMO* in the notice under clause 5.20C.2(c);
 - (2) make a range and level of *system strength services* available such that it is reasonably likely that *system strength services* that address the *fault level shortfall* when *enabled* are continuously available, taking into account planned *outages*, the risk of unplanned *outages* and the potential for the *system strength services* to impact typical patterns of *dispatched generation* in *central dispatch*; and
 - (3) maintain the availability of those *system strength services* until the date the *System Strength Service Provider's* obligation ceases, as specified by *AEMO* under clause 5.20C.2(d).
- (d) A *System Strength Service Provider* required to make *system strength services* available under paragraph (b) must make available the least cost option or combination of options that will satisfy its obligation within the time referred to in subparagraph (c)(1) and for so long as the obligation to make the *system strength services* available continues.
- (e) A *System Strength Service Provider* required to make *system strength services* available under paragraph (b) must prepare and *publish* information to enable potential providers of *system strength services* to develop *non-network options* for consideration by the *System Strength Service Provider* including:
- (1) a description of the requirement for *system strength services* including timing;
 - (2) the technical characteristics that a non-network option would be required to deliver, such as the contribution to the *three phase fault level*, location, availability, response time and operating profile;
 - (3) a summary of potential options to make the *system strength services* available identified by the *System Strength Service Provider*, including *network options* and *non-network options*; and

- (4) information to assist providers of *non-network options* wishing to present proposals to the *System Strength Service Provider* including details of how to submit a proposal for consideration.
- (f) A *System Strength Service Provider* must provide information in its *Transmission Annual Planning Report* about the activities undertaken to satisfy its obligation to make *system strength services* available under paragraph (b).
- (g) If the *System Strength Service Provider* proposes *network* investment for the purpose specified in paragraph (f), the *System Strength Service Provider* must provide the following information in its next *Transmission Annual Planning Report*:
 - (1) the date when the proposed relevant *network* investment became or will become operational;
 - (2) the purpose of the proposed relevant *network* investment;
 - (3) the total cost of the proposed relevant *network* investment;
 - (4) the indicative total costs of any *non-network options* considered.
- (h) A *System Strength Service Provider* may include the cost of *system strength service payments* in the calculation of *network support payments* in accordance with Chapter 6A.

5.20C.4 System strength services information and approvals

- (a) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must prepare and give to AEMO and keep up to date, a schedule setting out:
 - (1) the *system strength services* available to contribute to the *three phase fault level* at each *fault level node* in the *region* for which there is a *fault level shortfall*; and
 - (2) the *System Strength Service Provider's* proposed order of priority for the *system strength services* to be *enabled*.
- (b) Where the *System Strength Service Provider* procures *system strength services* from a *Generator* provided by means of a *generating unit* under a *system strength services agreement*, the *System Strength Service Provider* must register the *generating unit* with AEMO as a *system strength generating unit* and specify that the *generating unit* may be periodically used to provide *system strength services* and will not be eligible to set *spot prices* when *constrained on* to provide *system strength services* in accordance with clause 3.9.7(c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must give to AEMO and keep up to date the following details for each *system strength service*:
 - (1) a description of the *system strength service*, including:
 - (i) the nature of the *system strength service*;
 - (ii) the *generating unit* or other *facilities* used to provide the *system strength service*;
 - (iii) the purpose for which the *system strength service* is being provided;
 - (iv) the location in the *transmission network* or *distribution network* of the *facilities* used to provide the *system strength service*;
 - (v) the contribution to the *three phase fault level* at each relevant *fault level node* and the *facility's connection point* when the *system strength service* is enabled; and
 - (vi) any other information (including models) requested by AEMO to assess the contribution of the *system strength service* referred to in subparagraph (v).
 - (2) information about the availability of the *system strength service*, including:
 - (i) the times when, and the period over which, the *system strength service* will be available to contribute to the *three phase fault level* at each relevant *fault level node*; and
 - (ii) any possible restrictions on the availability of the *system strength service*.
- (d) A *System Strength Service Provider* required to make *system strength services* available under clause 5.20C.3(b) must prepare and submit to AEMO for approval under paragraph (e) the following details for each *system strength service*:
 - (1) the technical specification and performance standards for the *system strength service*; and
 - (2) the arrangements necessary for AEMO to give instructions to *enable* or cease the provision of the *system strength service* including:

- (i) the period of any notice that has to be given to the provider of the *system strength service* for it to be *enabled*;
 - (ii) the response time to any instruction for the *system strength service* to be *enabled* or to cease being provided; and
 - (iii) communication protocols between it, *AEMO* and the *Registered Participants* that provide *system strength services*.
- (e) The technical specification, performance standards and arrangements necessary for *AEMO* to give the instructions referred to in paragraph (d) and any change to them must be consistent with the *Rules* and approved by *AEMO*.
- (f) A *System Strength Service Provider* must ensure that *AEMO*'s approval is obtained under paragraph (e) before the *system strength service* is first made available and in the case of a change, before the change comes into effect.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) *AEMO* must use reasonable endeavours to respond to the *System Strength Service Provider* within 20 *business days* following the receipt of a request for approval under paragraph (e) stating whether it gives its approval.
- (h) If *AEMO* does not approve the matters in a request for approval under paragraph (e):
- (1) *AEMO* must tell the *System Strength Service Provider* its reasons for withholding approval and may advise the *System Strength Service Provider* of the changes *AEMO* requires to be made; and
 - (2) the *System Strength Service Provider* must amend its request to address the matters identified by *AEMO* and submit to *AEMO* a new request for approval.

5.21 **AEMO's obligation to publish information and guidelines and provide advice**

- (a) In carrying out its *NTP functions*, *AEMO* must:
- (1) *publish* an objective set of criteria for assessing whether a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*; and
 - (2) prepare and *publish augmentation technical reports* on proposed *transmission network augmentations* that are reasonably likely to have a *material inter-network impact*; and

- (3) *publish* guidelines to assist *Registered Participants* to determine when an *inter-network test* may be required; and
 - (4) provide advice to the *AEMC* as requested about the exercise of the *last resort planning power*.
- (b) *AEMO* must develop and *publish*, and may vary from time to time, an objective set of criteria for assessing whether a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*. In developing (or varying) the objective set of criteria, *AEMO* must:
 - (1) proceed in accordance with the *Rules consultation procedures*; and
 - (2) have regard to:
 - (i) the relevant guiding objectives and principles provided by the *AEMC*; and
 - (ii) the advice of *jurisdictional planning representatives*.
- (c) The *AEMC* must provide *AEMO* with guiding objectives and principles for the development by *AEMO* of the objective set of criteria for assessing whether or not a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*.
- (d) If *AEMO* receives a written request for an *augmentation technical report* on a proposed *transmission network augmentation* that is reasonably likely to have a *material inter-network impact*, or *AEMO* decides in the course of exercising its functions under Chapter 8, Part H, that a proposed *transmission network augmentation* is reasonably likely to have a *material inter-network impact*, *AEMO* must:
 - (1) immediately undertake a review of all matters referred to it by the *Transmission Network Service Provider* in order to assess the proposed *augmentation*; and
 - (2) consult with, and take into account the recommendations of, the *jurisdictional planning representatives* in relation to the proposed *augmentation*; and
 - (3) make a determination as to:
 - (i) the performance requirements for the equipment to be *connected*; and
 - (ii) the extent and cost of *augmentations* and changes to all affected *transmission networks*; and
 - (iii) the possible material effect of the new *connection* on the *network power transfer capability* including that of other *transmission networks*; and

- (4) within 90 *business days* of the date of the request or decision (or some other period agreed between the *Transmission Network Service Provider* and *AEMO*), *AEMO* must *publish an augmentation technical report* that sets out:

- (i) *AEMO's* determination; and
- (ii) the reasons for the determination (including a statement of any information and assumptions on which the determination is based).

A request for an *augmentation technical report* on a proposed *transmission network augmentation* must be accompanied by sufficient information to enable *AEMO* to make a proper assessment of the proposed *augmentation* and *AEMO's* reasonable fees covering the direct costs and expenses of preparing the report.

- (e) *AEMO* may, for the purpose of preparing an *augmentation technical report*, by written notice request a *Transmission Network Service Provider* to provide *AEMO* with additional information reasonably available to it and the *Transmission Network Service Provider* must comply with the request.
- (f) The period for *AEMO* to *publish an augmentation technical report* will be automatically extended by the time taken by the *Transmission Network Service Provider* to provide additional information requested by *AEMO*.
- (g) If the objective set of criteria developed and published under paragraph (b) is changed after a project assessment draft report has been made available to *Registered Participants* and *AEMO*, the relevant *Transmission Network Service Provider* is entitled to choose whether the new criteria, or the criteria that existed when the project assessment draft report was made available to *Registered Participants* and *AEMO*, are to be applied.

5.22 Last resort planning power

- (a) In this rule 5.22:

directed party means one or more *Registered Participants* directed by the *AEMC* in accordance with this rule 5.22 and may include:

- (1) a single *Registered Participant*;
- (2) two or more *Registered Participants* who are directed by the *AEMC* to jointly and co-operatively comply with a direction under paragraph (c).

direction notice is a notice issued under paragraph (i).

Purpose

- (b) The purpose of a *last resort planning power* is to ensure timely and efficient *inter-regional transmission* investment for the long term interests of consumers of electricity.

AEMC last resort planning power

- (c) The *AEMC* may, in accordance with this rule 5.22, direct one or more *Registered Participants*:
 - (1) to identify a potential transmission project and apply the *regulatory investment test for transmission* to that project; or
 - (2) to apply the *regulatory investment test for transmission* to a potential transmission project identified by the *AEMC*.
- (d) The *AEMC* must exercise a *last resort planning power*:
 - (1) consistently with the purpose referred to in paragraph (b); and
 - (2) in accordance with the *last resort planning power guidelines*.

Advice from AEMO

- (e) The *AEMC* may request advice from *AEMO* in relation to the exercise of the *last resort planning power*, in accordance with the *last resort planning power guidelines*.

Relevant considerations

- (f) In deciding whether or not to exercise a *last resort planning power* the *AEMC* must take into account:
 - (1) advice provided by *AEMO*;
 - (2) the *NTNDP* for the current and the previous year;
 - (3) *Transmission Annual Planning Reports published by Transmission Network Service Providers* under clause 5.12.2; and
 - (4) other matters that are relevant in all the circumstances.
- (g) In deciding whether or not to exercise the *last resort planning power* the *AEMC* must:
 - (1) identify a problem relating to *constraints* in respect of *national transmission flow paths* between *regional reference nodes* or a potential transmission project (**the problem** or **the project**);
 - (2) make reasonable inquiries to satisfy itself that there are no current processes underway for the application of the *regulatory investment test for transmission* in relation to the problem or the project;

- (3) consider whether there are other options, strategies or solutions to address the problem or the project, and must be satisfied that all such other options are unlikely to address the problem or the project in a timely manner;
- (4) be satisfied that the problem or the project may have a significant impact on the efficient operation of the *market*; and
- (5) be satisfied that but for the *AEMC* exercising the *last resort planning power*, the problem or the project is unlikely to be addressed.

Direction notice

- (h) The *AEMC* must exercise a *last resort planning power* by giving a direction notice in writing to a directed party that states:
 - (1) the relevant action under paragraph (c) that the directed party is required to undertake; and
 - (2) the *AEMC's* reasons for exercising the *last resort planning power*.
- (i) A direction notice given by the *AEMC* under paragraph (h) may specify one or more of the following:
 - (1) one or more alternative projects which a directed party must consider when applying the *regulatory investment test for transmission* to potential transmission projects;
 - (2) the time period within which the application of the *regulatory investment test for transmission* must be carried out by a directed party; or
 - (3) consultation and publication requirements that are in addition to those required by the *regulatory investment test for transmission*.
- (j) The *AEMC* must *publish* the direction notice referred to in paragraph (h) on its website.
- (k) A directed party must comply with:
 - (1) a direction notice;
 - (2) the requirements of the *last resort planning power guidelines*; and
 - (3) the requirements for the application of the *regulatory investment test for transmission*.
- (l) If a directed party (an earlier directed party) fails to comply with a direction notice, the *AEMC* may:
 - (1) in accordance with this rule 5.22, give a direction notice to a *Registered Participant* other than the earlier directed party; and

- (2) inform the *AER* of the earlier directed party's failure to comply with the direction notice.

Annual reporting for last resort planning power

- (m) The *AEMC* must report annually on the matters which the *AEMC* has considered during that year in deciding whether or not to exercise the *last resort planning power*, and may include the information in its Annual Report published under s.27 of the *Australian Energy Market Commission Establishment Act 2004* (SA).

Last resort planning power guidelines

- (n) The *AEMC* must develop and *publish* guidelines (the *last resort planning power guidelines*) for or with respect to:
 - (1) the processes to be followed by the *AEMC* in exercising the *last resort planning power*;
 - (2) the advice to be provided to the *AEMC* by *AEMO*, including the terms of reference for any such advice;
 - (3) the matters that *AEMO* and the *AEMC* may consider in recommending or nominating a person as an appropriate directed party; and
 - (4) the provision of information to the *AEMC* in relation to the exercise of the *last resort planning power*.
- (o) The *AEMC* must develop and *publish* the *last resort planning power guidelines* in accordance with the *transmission consultation procedures*.
- (p) The *AEMC* must develop and *publish* the first *last resort planning power guidelines* by 1 January 2008 and there must be such guidelines available at all times after that date.
- (q) The *AEMC* may from time to time and in accordance with the *transmission consultation procedures*, amend or replace the *last resort planning power guidelines*.

Schedule 5.1a System standards

S5.1a.1 Purpose

The purpose of this schedule is to establish *system standards* that:

- (a) are necessary or desirable for the safe and reliable operation of the *facilities of Registered Participants*;
- (b) are necessary or desirable for the safe and reliable operation of equipment;
- (c) could be reasonably considered *good electricity industry practice*; and

- (d) seek to avoid the imposition of undue costs on the industry or *Registered Participants*.

A *Registered Participant* should not, by virtue of this schedule, rely on *system standards* being fully complied with at a *connection point* under all circumstances. However, a *Registered Participant* should expect to be reasonably informed of circumstances where the standard of *supply* at its *connection points* will not conform to the *system standards*.

Except for standards of *frequency* and system stability, a *Registered Participant* should have the opportunity to negotiate or renegotiate relevant terms of a *connection agreement* (including relevant charges), to improve the standard of *supply* to the level of the *system standard*.

The *system standards* are set out below.

S5.1a.2 Frequency

The *frequency operating standards* are *system standards* and are as determined by the *Reliability Panel* and published by the AEMC.

S5.1a.3 System stability

The *power system* should remain in synchronism and be stable:

- (a) **Transient stability:** following any *credible contingency event* or *protected event*; and
- (b) **Oscillatory stability:** in the absence of any *contingency event*, for any level of *inter-regional* or *intra-regional* power transfer up to the applicable operational limit; and
- (c) **Voltage stability:** stable *voltage* control must be maintained following the most severe *credible contingency event* or any *protected event*.

For the purposes of clause S5.1a.3 a *credible contingency event* includes the application of a fault (other than a three-phase fault) to any part of the *power system* and de-energisation of the faulted element within the allowable clearance time applicable to that element according to clause S5.1a.8.

The halving time of any *inter-regional* or *intra-regional* oscillation, being the time for the amplitude of an oscillation to reduce by half, should be less than 10 seconds. To allow for planning and operational uncertainties, the *power system* should be planned and operated to achieve a halving time of 5 seconds.

S5.1a.4 Power frequency voltage

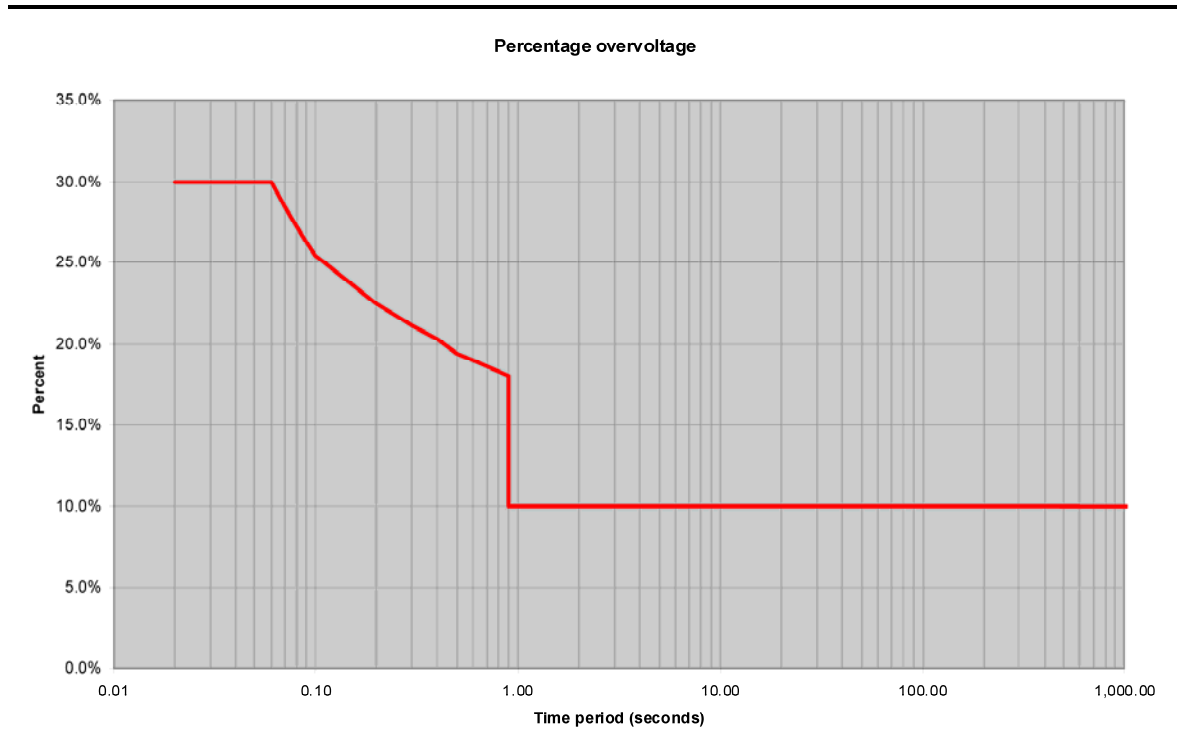
Except as a consequence of a *contingency event*, the *voltage* of *supply* at a *connection point* should not vary by more than 10 percent above or below its *normal voltage*, provided that the *reactive power* flow and the *power factor* at the

connection point is within the corresponding limits set out in the *connection agreement*.

As a consequence of a *credible contingency event*, the *voltage of supply* at a *connection point* should not rise above its *normal voltage* by more than a given percentage of *normal voltage* for longer than the corresponding period shown in Figure S5.1a.1 for that percentage.

As a consequence of a *contingency event*, the *voltage of supply* at a *connection point* could fall to zero for any period.

Figure S5.1a.1



S5.1a.5 Voltage fluctuations

The *voltage* fluctuation level of *supply* should be less than the “compatibility levels” set out in Table 1 of *Australian Standard AS/NZS 61000.3.7:2001*. To facilitate the application of this standard *Network Service Providers* must establish “planning levels” for their *networks* as provided for in the *Australian Standard*.

The following principles apply to the use of the shared network:

- (a) the sharing between *Network Users* of the capability of *connection assets* to withstand *voltage* fluctuations is to be managed by *Network Service Providers* in accordance with the provisions of clause S5.1.5 of schedule 5.1; and

- (b) to the extent practicable, the costs of managing or abating the impact of *voltage* fluctuations in excess of the costs which would result from the application of an *automatic access standard* are to be borne by those *Network Users* whose *facilities* cause the *voltage* fluctuations.

S5.1a.6 Voltage waveform distortion

Harmonic *voltage* distortion level of *supply* should be less than the “compatibility levels” defined in Table 1 of *Australian Standard AS/NZS 61000.3.6:2001*. To facilitate the application of this standard *Network Service Providers* must establish “planning levels” for their *networks* as provided for in the *Australian Standard*.

The following principles apply to the use of the shared network:

- (a) the sharing between *Network Users* of the capability of *connection assets* to absorb or mitigate harmonic *voltage* distortion is to be managed by *Network Service Providers* in accordance with the provisions of clause S5.1.6 of schedule 5.1; and
- (b) to the extent practicable, the costs of managing or abating the impact of harmonic distortion in excess of the costs which would result from the application of an *automatic access standard* are to be borne by those *Network Users* whose *facilities* cause the harmonic *voltage* distortion.

S5.1a.7 Voltage unbalance

Except as a consequence of a *contingency event*, the average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 2 of Table S5.1a.1, when determined over a 30 minute averaging period.

As a consequence of a *credible contingency event* or *protected event*, the average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 3 of Table S5.1a.1, when determined over a 30 minute averaging period.

The average *voltage* unbalance, measured at a *connection point*, should not vary by more than the amount set out in column 4 of Table S5.1a.1 for the relevant nominal *supply voltage*, when determined over a 10 minute averaging period.

The average *voltage* unbalance, measured at a *connection point*, should not vary more often than once per hour by more than the amount set out in column 5 of Table S5.1a.1 for the relevant nominal *supply voltage*, when determined over a 1 minute averaging period.

For the purpose of this clause, *voltage* unbalance is measured as negative sequence voltage.

Table S5.1a.1

Nominal supply voltage (kV)	Maximum negative sequence voltage (% of nominal voltage)			
Column 1	Column 2	Column 3	Column 4	Column 5
	no contingency event	credible contingency event or protected event	general	once per hour
	30 minute average	30 minute average	10 minute average	1 minute average
more than 100	0.5	0.7	1.0	2.0
more than 10 but not more than 100	1.3	1.3	2.0	2.5
10 or less	2.0	2.0	2.5	3.0

S5.1a.8 Fault clearance times

- (a) Faults anywhere within the *power system* should be cleared sufficiently rapidly that:
- (1) the *power system* does not become unstable as a result of faults that are *credible contingency events*;
 - (2) *inter-regional* or *intra-regional power transfers* are not unduly constrained; and
 - (3) consequential equipment damage is minimised.
- (b) The *fault clearance time* of a primary *protection system* for a *short circuit fault* of any *fault type* anywhere:
- (1) within a *substation*;
 - (2) within *connected plant*; or
 - (3) on at least the half of a power line nearer to the *protection system*,
- should not exceed the relevant time in column 2 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.
- (c) The *fault clearance time* of a primary *protection system* for a *short circuit fault* of any *fault type* anywhere on the remote portion of a power line for which the near portion is protected by a primary *protection system* under

clause S5.1a8(b) should not exceed the relevant time in column 3 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.

- (d) The *fault clearance time* of a *breaker fail protection system* or similar *back-up protection system* for a *short circuit fault* of any *fault type* should not exceed the relevant time in column 4 of Table S5.1a.2 for the *nominal voltage* that applies at the fault location.
- (e) The owner of the faulted element may require shorter *fault clearance times* to minimise *plant* damage.
- (f) The allowable *fault clearance times* specified in Table S5.1a.2 apply in accordance with the provisions of clause S5.1.9 to *facilities* constructed or modified on or after the *performance standards commencement date*.
- (g) For *facilities* other than those referred to in clause S5.1a.8(f), the applicable allowable *fault clearance times* must be derived by the relevant *Network Service Provider* from the existing capability of each *facility* on the *performance standards commencement date*.

Table S5.1a.2

Nominal voltage at fault location(kV)	Time(milliseconds)		
Column 1	Column 2	Column 3	Column 4
400kV and above	80	100	175
at least 250kV but less than 400kV	100	120	250
more than 100kV but less than 250kV	120	220	430
less than or equal 100 kV	As necessary to prevent <i>plant</i> damage and meet stability requirements		

Schedule 5.1 Network Performance Requirements to be Provided or Co-ordinated by Network Service Providers

S5.1.1 Introduction

This schedule describes the planning, design and operating criteria that must be applied by *Network Service Providers* to the *transmission networks* and *distribution networks* which they own, operate or control. It also describes the requirements on *Network Service Providers* to institute consistent processes to determine the appropriate technical requirements to apply for each *connection* enquiry or *application to connect* processed by the *Network Service Provider* with the objective that all *connections* satisfy the requirements of this schedule.

The criteria and the obligations of *Registered Participants* to implement them, fall into two categories, namely:

- (a) those required to achieve adequate levels of *network power transfer capability* or quality of *supply* for the common good of all, or a significant number of, *Registered Participants*; and
- (b) those required to achieve a specific level of *network service* at an individual *connection point*.

A *Network Service Provider* must:

- (1) fully describe the quantity and quality of *network services* which it agrees to provide to a person under a *connection agreement* in terms that apply to the *connection point* as well as to the *transmission or distribution system* as a whole;
- (2) ensure that the quantity and quality of those *network services* are not less than could be provided to the relevant person if the *national grid* were planned, designed and operated in accordance with the criteria set out in this clause S5.1.1 and recognising that levels of service will vary depending on location of the *connection point* in the *network*; and
- (3) observe and apply the relevant provisions of the *system standards* in accordance with this schedule 5.1.

To the extent that this schedule 5.1 does not contain criteria which are relevant to the description of a particular *network service*, the *Network Service Provider* must describe the *network service* in terms which are fair and reasonable.

This schedule includes provisions for *Network Service Providers* and *Registered Participants* to negotiate the criteria to apply to a *connection* within defined ranges between a lower bound (*minimum access standard*) and an upper bound (*automatic access standard*). All criteria which are intended to apply to a *connection* must be recorded in a *connection agreement*. Where it is intended to apply a *negotiated access standard* in accordance with clause 5.3.4A of the *Rules*, the *Network Service Provider* must first be satisfied that the application of the *negotiated access standard* will not adversely affect other *Registered Participants*.

S5.1.2 Network reliability

S5.1.2.1 Credible contingency events

Network Service Providers must plan, design, maintain and operate their *transmission networks* and *distribution networks* to allow the transfer of power from *generating units* to *Customers* with all *facilities* or equipment associated with the *power system* in service and may be required by a *Registered Participant* under a *connection agreement* to continue to allow the transfer of power with certain facilities or *plant* associated with the *power system* out of service, whether

or not accompanied by the occurrence of certain faults (called *credible contingency events*).

The following *credible contingency events* and practices must be used by *Network Service Providers* for planning and operation of *transmission networks* and *distribution networks* unless otherwise agreed by each *Registered Participant* who would be affected by the selection of *credible contingency events*:

- (a) The *credible contingency events* must include the *disconnection* of any single *generating unit* or *transmission line*, with or without the application of a single circuit two-phase-to-ground solid fault on lines operating at or above 220 kV, and a single circuit three-phase solid fault on lines operating below 220 kV. The *Network Service Provider* must assume that the fault will be cleared in primary protection time by the faster of the duplicate protections with installed intertrips available. For existing *transmission lines* operating below 220 kV but above 66 kV a two-phase to earth fault criterion may be used if the modes of operation are such as to minimise the probability of three-phase faults occurring and operational experience shows this to be adequate, and provided that the *Network Service Provider* upgrades performance when the opportunity arises.
- (b) For lines at any *voltage* above 66 kV which are not protected by an overhead earth wire and/or lines with tower footing resistances in excess of 10 ohms, the *Network Service Provider* may extend the criterion to include a single circuit three-phase solid fault to cover the increased risk of such a fault occurring. Such lines must be examined individually on their merits by the relevant *Network Service Provider*.
- (c) For lines at any *voltage* above 66 kV a *Network Service Provider* must adopt operational practices to minimise the risk of slow fault clearance in case of inadvertent closing on to earths applied to equipment for maintenance purposes. These practices must include but not be limited to:
 - (1) Not leaving lines equipped with intertrips alive from one end during maintenance; and
 - (2) *Off-loading* a three terminal (tee connected) line prior to restoration, to ensure switch on to fault *facilities* are operative.
- (d) The *Network Service Provider* must ensure that all *protection systems* for lines at a *voltage* above 66 kV, including associated intertripping, are well maintained so as to be available at all times other than for short periods (not greater than eight hours) while the maintenance of a *protection system* is being carried out.

S5.1.2.2 Network service within a region

The following paragraphs of this section set out minimum standards for certain *network services* to be provided to *Registered Participants* by *Network Service Providers* within a *region*. The amount of *network* redundancy provided must be determined by the process set out in rules 5.12 and 5.13 of the *Rules* and is

expected to reflect the grouping of *generating units*, their expected capacity factors and availability and the size and importance of *Customer* groups.

The standard of service to be provided at each *connection point* must be included in the relevant *connection agreement*, and must include a *power transfer capability* such as that which follows:

- (a) In the *satisfactory operating state*, the *power system* must be capable of providing the highest reasonably expected requirement for *power transfer* (with appropriate recognition of diversity between individual peak requirements and the necessity to withstand *credible contingency events*) at any time.
- (b) During the most critical single element *outage* the *power transfer* available through the *power system* may be:
 - (1) zero (single element *supply*);
 - (2) the defined capacity of a backup *supply*, which, in some cases, may be provided by another *Network Service Provider*;
 - (3) a nominated proportion of the normal *power transfer capability* (eg 70 percent); or
 - (4) the normal *power transfer capability* of the *power system* (when required by a *Registered Participant*).

In the case of clauses S5.1.2.2(b)(2) and (3) the available capacity would be exceeded sufficiently infrequently to allow maintenance to be carried out on each *network element* by the *Network Service Provider*. A *connection agreement* may state the expected proportion of time that the normal capability will not be available, and the capability at those times, taking account of specific design, locational and seasonal influences which may affect performance, and the random nature of element *outages*.

A *connection agreement* may also state a conditional *power transfer capability* that allows for both circuits of a double circuit line or two closely parallel circuits to be out of service.

S5.1.2.3 Network service between regions

The *power transfer capability* between *regions* must be determined by the process set out in Part B of Chapter 5.

The following paragraphs of this section set out a framework within which *Network Service Providers* must describe to *AEMO* the levels of *network service* that apply for *power transfer* between *regions*. In cases where *power transfer capability* is determined by stability considerations on the *power system* (refer to clause S5.1.8 of this schedule) it is expected that line *outages* within *transmission networks* within a *region* will weaken the *network* so as to result in reduced *power transfer capability* even in the absence of *outages* of the lines between *regions*.

- (a) In the *satisfactory operating state* the *power transfer capability* between *regions* is defined by a multi-term equation for each *connection* between *regions* which takes account of all *power system* operating conditions which can significantly impact on performance. The majority of these operating conditions are the result of *market* operation and are outside the control of the *Network Service Provider*. In the *satisfactory operating state* the *network* must be planned by the *Network Service Provider* and operated by *AEMO* to withstand the impact of any *single contingency* with severity less than the *credible contingency events* stated in clause S5.1.2.1.
- (b) During critical single element *outages* reduced *power transfer capabilities* will apply. In those cases where *outage* of the remaining element will result in breaking of the *connection* between the *regions* *AEMO* must provide for the effect on *power system frequency* in the separate *transmission systems* following this event when determining the maximum *power transfer*.

S5.1.3 Frequency variations

A *Network Service Provider* must ensure that within the *extreme frequency excursion tolerance limits* all of its *power system* equipment will remain in service unless that equipment is required to be switched to give effect to manual *load shedding* in accordance with clause S5.1.10, or is required by *AEMO* to be switched for operational purposes or is required to be switched or *disconnected* for operation of an *emergency frequency control scheme*.

Sustained operation outside the *extreme frequency excursion tolerance limits* need not be taken into account by *Network Service Providers* in the design of *plant* which may be *disconnected* if this is necessary for the protection of that *plant*.

S5.1.4 Magnitude of power frequency voltage

A *Transmission Network Service Provider* must plan and design its *transmission system* and equipment for control of *voltage* such that the minimum steady state *voltage* magnitude, the maximum steady state *voltage* magnitude and variations in *voltage* magnitude are consistent with the levels stipulated in clause S5.1a.4 of the *system standards*.

- (a) The *Network Service Provider* must determine the *automatic access standard* for the *voltage* of *supply* at the *connection point* such that the *voltage* may vary in accordance with clause S5.1a.4 of the *system standards*.
- (b) The *Network Service Provider* must determine the *minimum access standard* for the *voltage* of *supply* at the *connection point* such that the *voltage* may vary:
 - (1) as a consequence of a *credible contingency event* or *protected event* in accordance with clause S5.1a.4; and
 - (2) otherwise, between 95 percent and 105 percent of the target *voltage*.

- (c) For the purposes of clause S5.1.4(b) the target *voltage* must be determined as follows:
- (1) if the *connection point* is connected to a *transmission line* (but not through a *transformer*), the *Network Service Provider* must determine the target *voltage* in consultation with *AEMO* taking into account the capability of existing *facilities* that are subject to that *supply voltage*; and
 - (2) otherwise, *Network Users* that share the same *supply voltage* must jointly determine the target *voltage* which may be specified to vary with aggregate *loading level*;
- provided that at all times the *supply voltage* remains between 90 percent and 110 percent of the *normal voltage* determined in accordance with clause S5.1a.4 except as a consequence of a *contingency event*.
- (d) For the purposes of this clause, the *voltage* of *supply* is measured as the *RMS phase voltage*.

Where the independent control of *voltage* at the *connection point* is possible without adverse impact on *voltage* control at another *connection point*, the *Network Service Provider* must make reasonable endeavours to meet the request. The target *voltage* and any agreement to a target range of *voltage* magnitude must be specified in the relevant *connection agreement*. The agreement may include a different target range in the *satisfactory operating state* and after a *credible contingency event* or *protected event* (and how these target ranges may be required to vary with *loading level*).

A *Network Service Provider* must ensure that each *facility* that is part of its *transmission network* or *distribution network* is capable of continuous uninterrupted operation in the event that variations in *voltage* magnitude occur due to faults external to the *facility*. The design of a *facility* should anticipate the likely time duration and magnitude of variations in the power-frequency phase *voltages* which may arise dependent on the nature and location of the fault.

S5.1.5 Voltage fluctuations

A *Network Service Provider* must use reasonable endeavours to design and operate its *transmission system* or *distribution system* and include conditions in *connection agreements* in relation to the permissible variation with time of the power generated or load taken by a *Network User* to ensure that other *Network Users* are supplied with a power-frequency *voltage* which fluctuates to an extent that is less than the levels stipulated in accordance with the provisions of clause S5.1a.5 of the *system standards* and this clause S5.1.5.

In accordance with AS/NZS 61000.3.7:2001 and guidelines published by *Standards Australia* and applying the assumption that *Customers* will comply with their obligations under schedule 5.3, a *Network Service Provider* must determine “Planning Levels” for *connection points* on their *network* in order to maintain *voltage* fluctuation levels for all supply points to customers supplied

from their *network* below the “Compatibility Levels” defined in Table 1 of AS/NZS 61000.3.7:2001.

The *Network Service Provider* must allocate emission limits in response to a *connection* enquiry or an *application to connect* and evaluate the acceptability for *connection* of fluctuating sources as follows:

- (a) *Automatic access standard*: the *Network Service Provider* must allocate emission limits no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.7:2001.
- (b) *Minimum access standard*: subject to clause S5.1.5(c), the determination by the *Network Service Provider* of acceptable emission limits must be undertaken in consultation with the party seeking *connection* using the stage 3 evaluation procedure defined in AS/NZS 61000.3.7:2001.
- (c) In respect of each new *connection* at a level of performance below the *automatic access standard* the *Network Service Provider* must include provisions in the relevant *connection agreement* requiring the *Network User* if necessary to meet the *system standards* or allow connection of other *Network Users* to either upgrade to the *automatic access standard* or fund the reasonable cost of the works necessary to mitigate their effect of connecting at a standard below the *automatic access standard*.
- (d) If for existing customer *connections* the level of *voltage* fluctuation is, or may be, exceeded as a result of a proposed new *connection*, the *Network Service Provider* must, if the cause of that excessive level cannot be remedied by enforcing the provisions of existing *connection agreements*, undertake all reasonable works necessary to meet the technical standards in this schedule or to permit the proposed new *connection* within the requirements stated in this clause.

For other than a new *connection* in accordance with the preceding paragraph, the responsibility of a *Network Service Provider* for excursions in *voltage* fluctuations above the levels defined above is limited to *voltage* fluctuations caused by *network plant* and the pursuit of all reasonable measures available under the *Rules* and its *connection agreements*.

S5.1.6 Voltage harmonic or voltage notching distortion

A *Network Service Provider* must use reasonable endeavours to design and operate its *network* and include conditions in *connection agreements* to ensure that the effective harmonic *voltage* distortion at any point in the *network* will be limited to less than the levels stipulated in accordance with the provisions of clause S5.1a.6 of the *system standards* and this clause S5.1.6.

In accordance with AS/NZS 61000.3.6:2001 and guidelines published by *Standards Australia* and applying the assumption that *Customers* will comply with their obligations under schedule 5.3 *Network Service Providers* must determine “Planning Levels” for *connection points* on their *network* in order to

maintain harmonic *voltage* distortion for all supply points to customers supplied from their *network* below the “Compatibility Levels” defined in Table 1 of AS/NZS 61000.3.6:2001.

The *Network Service Provider* must allocate emission limits to a *connection* enquiry or an *application to connect* and must evaluate the acceptability for *connection* of distorting sources as follows:

- (a) *Automatic access standard*: the *Network Service Provider* must allocate emission limits no more onerous than the lesser of the acceptance levels determined in accordance with either of the stage 1 or the stage 2 evaluation procedures defined in AS/NZS 61000.3.6:2001.
- (b) *Minimum access standard*: subject to clause S5.1.6(c), the determination by the *Network Service Provider* of acceptable emission limits must be undertaken in consultation with the party seeking *connection* using the Stage 3 evaluation procedure defined in AS/NZS 61000.3.6:2001.
- (c) In respect of each new *connection* at a level of performance below the *automatic access standard* the *Network Service Provider* must include provisions in the relevant *connection agreement* requiring the *Network User* if necessary to meet the *system standards* or allow connection of other *Network Users* to either upgrade to the *automatic access standard* or fund the reasonable cost of the works necessary to mitigate their effect of connecting at a standard below the *automatic access standard*.
- (d) If for existing customer *connections* the level of harmonic *voltage* distortion is, or may be, exceeded as a result of a proposed new *connection*, the *Network Service Provider* must, if the cause of that excessive level cannot be remedied by enforcing the provisions of existing *connection agreements*, undertake all works necessary to meet the technical standards in this schedule or to permit a proposed new *connection* within the *automatic access standard* defined in clause S5.3.8 and the requirements stated in this clause.

For other than a new *connection* in accordance with the preceding paragraph, the responsibility of a *Network Service Provider* for harmonic *voltage* distortion outside the range defined above is limited to harmonic *voltage* distortion caused by *network plant* and the pursuit of all measures available under the *Rules* and its *connection agreements*.

S5.1.7 Voltage unbalance

- (a) A *Transmission Network Service Provider* must balance the effective impedance of the phases of its *network*, and a *Distribution Network Service Provider* must balance the current drawn in each phase at each of its *connection points*, so as to achieve average levels of negative sequence *voltage* at all *connection points* that are equal to or less than the values set out in Table S5.1a.1 as determined in accordance with the accompanying provisions of clause S5.1a.7 of the *system standards*.

- (b) A *Network Service Provider* must include conditions in *connection agreements* to ensure that a *Connection Applicant* will balance the current drawn in each phase at each of its *connection points* so as to achieve:
 - (1) for those *Network Users* listed in clause S5.3(a): the levels permitted in accordance with clause S5.3.6 of schedule 5.3;
 - (2) for *Market Network Service Providers*: the levels permitted in accordance with clause S5.3a.9 of schedule 5.3a;
 - (3) otherwise: the average levels of negative sequence *voltage* at each of its *connection points* that are equal to or less than the values set out in Table S5.1a.1 and the accompanying provisions of clause S5.1a.7 of the *system standards*.

The responsibility of the *Network Service Provider* for *voltage* unbalance outside the ranges defined above is limited to *voltage* unbalance caused by the *network* and the pursuit of all measures available under the *Rules* and its *connection agreements*.

- (c) A *Network Service Provider* must include conditions in *connection agreements* to ensure that each *Generator* will balance:
 - (1) the *voltage generated* in each phase of its *generating system*; and
 - (2) when not generating, the current drawn in each phase,

in order to achieve average levels of negative sequence *voltage* at each of the *generating system connection points* due to phase imbalances within the *generating plant* that are not more than the values determined by the *Network Service Provider* to achieve average levels of negative sequence *voltage* at the *connection points* of other *Network Users* in accordance with clause S5.1a.7.
- (d) When including conditions under paragraph (c), the *Network Service Provider* must have regard to the capabilities of the relevant *generating plant* technology.

S5.1.8 Stability

In conforming with the requirements of the *system standards*, the following criteria must be used by *Network Service Providers* for both planning and operation:

For stable operation of the *national grid*, both in a *satisfactory operating state* and following any *credible contingency events* or any *protected event* described in clause S5.1.2.1:

- (a) the *power system* will remain in synchronism;
- (b) damping of *power system* oscillations will be adequate; and

(c) *voltage* stability criteria will be satisfied.

Damping of *power system* oscillations must be assessed for planning purposes according to the design criteria which states that *power system damping* is considered adequate if after the most critical *credible contingency event* or any *protected event*, simulations calibrated against past performance indicate that the halving time of the least damped electromechanical mode of oscillation is not more than five seconds.

To assess the damping of *power system* oscillations during operation, or when analysing results of tests such as those carried out under clause 5.7.7 of the *Rules*, the *Network Service Provider* must take into account statistical effects. Therefore, the *power system damping* operational performance criterion is that at a given operating point, real-time monitoring or available test results show that there is less than a 10 percent probability that the halving time of the least damped mode of oscillation will exceed ten seconds, and that the average halving time of the least damped mode of oscillation is not more than five seconds.

The *voltage* control criterion is that stable *voltage* control must be maintained following the most severe *credible contingency event* or any *protected event*. This requires that an adequate *reactive power* margin must be maintained at every *connection point* in a *network* with respect to the *voltage* stability limit as determined from the *voltage/reactive load* characteristic at that *connection point*. Selection of the appropriate margin at each *connection point* is at the discretion of the relevant *Network Service Provider*, subject only to the requirement that the margin (expressed as a capacitive *reactive power* (in MVar)) must not be less than one percent of the maximum fault level (in MVA) at the *connection point*.

In planning a *network* a *Network Service Provider* must consider *non-credible contingency events* such as *busbar* faults which result in tripping of several circuits, uncleared faults, double circuit faults and multiple contingencies which could potentially endanger the stability of the *power system*. In those cases where the consequences to any *network* or to any *Registered Participant* of such events are likely to be severe disruption a *Network Service Provider* and/or a *Registered Participant* must in consultation with AEMO, install, maintain and upgrade emergency controls within the *Network Service Provider's* or *Registered Participant's* system or in both, as necessary, to minimise disruption to any *transmission* or *distribution network* and to significantly reduce the probability of cascading failure.

A *Registered Participant* must co-operate with a *Network Service Provider* to achieve stable operation of the *national grid* and must use all reasonable endeavours to negotiate with the *Network Service Provider* regarding the installation of emergency controls as described in the previous paragraph. The cost of installation, maintenance and operation of the emergency controls must be borne by the *Network Service Provider* who is entitled to include this cost when calculating the *Transmission Customer use of system* price.

S5.1.9 Protection systems and fault clearance times**Network Users**

- (a) A *Network Service Provider* must determine the *automatic access standard* and *minimum access standard* that applies to the protection zone of each *protection system* in relation to the *connection point* and the *plant* to be *connected*, as follows:

- (1) The *automatic access standard* for *fault clearance time* for any *fault type* is the lesser of the *system standard* set out in clause S5.1a.8 that applies to the highest *nominal voltage* within the *protection system's* protection zone and the corresponding *minimum access standard* determined under clauses S5.1.9(a)(2) or S5.1.9(a)(3) as applicable.

- (2) The *minimum access standard* for *fault clearance time* of a primary *protection system* is:

- (i) for a *fault type* that constitutes a *credible contingency event* in the relevant protection zone, the longest time such that a *short circuit fault* of that *fault type* that is cleared in that time would not cause the *power system* to become unstable when operating at any level of *inter-regional* or *intra-regional power transfer* that would be permissible (taking into account all other limiting criteria) if the *fault clearance time* for such a fault at the *connection point* were the *system standard* set out in clause S5.1a.8 that applies to the *nominal voltage* at the *connection point*; and

- (ii) for a *fault type* that does not constitute a *credible contingency event* in the relevant protection zone:

- (A) if a two phase to ground fault in that protection zone constitutes a *credible contingency event*, the corresponding *fault clearance time* for a two phase to ground *short circuit fault* in that protection zone as determined under clause S5.1.9(a)(2)(i); and

- (B) otherwise, the shortest of the *fault clearance times* for a two phase to ground *short circuit fault* in each adjoining protection zone (excluding *transformer* protection zones and *dead zones*) as determined under clauses S5.1.9(a)(2)(i) or S5.1.9(e).

- (3) The *minimum access standard* for *fault clearance time* of a *breaker fail protection system* or similar back-up *protection system* is the longest time such that a *short circuit fault* of any *fault type* that is cleared in that time would not damage any part of the *power system* (other than the faulted element) while the fault current is flowing or being interrupted.

- (b) [Deleted]

Transmission systems and distribution systems

- (c) Subject to clauses S5.1.9(k) and S5.1.9(l), a *Network Service Provider* must provide sufficient primary *protection systems* and back-up *protection systems* (including *breaker fail protection systems*) to ensure that a fault of any *fault type* anywhere on its *transmission system* or *distribution system* is automatically *disconnected* in accordance with clause S5.1.9(e) or clause S5.1.9(f).
- (d) If the *fault clearance time* determined under clause S5.1.9(e) of a primary *protection system* for a two phase to ground *short circuit fault* is less than 10 seconds, the primary *protection system* must have sufficient redundancy to ensure that it can clear *short circuit faults* of any *fault type* within the relevant *fault clearance time* with any single protection element (including any communications facility upon which the *protection system* depends) out of service.
- (e) The *fault clearance time* of a primary *protection system* of a *Network Service Provider* must not exceed:
 - (1) for any *fault type* that constitutes a *credible contingency event* in the relevant protection zone, the longest time such that a *short circuit fault* of that *fault type* that is cleared in that time would not cause the *power system* to become unstable when operating at any level of *inter-regional* or *intra-regional power transfer* that would be permissible (taking into account all other limiting criteria) if the *fault clearance time* for such a fault in that protection zone were the relevant *system standard* set out in clause S5.1a.8; and
 - (2) for any *fault type* that does not constitute a *credible contingency event* in the relevant protection zone:
 - (i) if a two phase to ground fault in that protection zone is a *credible contingency event*, the corresponding *fault clearance time* for a two phase to ground fault in that protection zone as determined under clause S5.1.9(e)(1); and
 - (ii) otherwise, the shortest of the *fault clearance times* for a two phase to ground fault in each adjoining protection zone (excluding *transformer* protection zones and dead zones) as determined under clauses S5.1.9(a)(2)(i), S5.1.9(e)(1) or S5.1.9(e)(2)(i).
- (f) The *fault clearance time* of each *breaker fail protection system* or similar back-up *protection system* of a *Network Service Provider* must be such that a *short circuit fault* of any *fault type* that is cleared in that time would not damage any part of the *power system* (other than the faulted element) while the fault current is flowing or being interrupted.
- (g) A *Network Service Provider* must demonstrate to AEMO that each *fault clearance time* for a primary *protection system* that is longer than the relevant *system standard* set out in clause S5.1a.8 and is less than

10 seconds would not cause or require an *inter-regional* or *intra-regional power transfer capability* to be reduced.

- (h) A *Network Service Provider* must include in each *connection agreement* entered into after the *performance standards commencement date*:
 - (1) the *fault clearance times* for each *fault type* of each of its *protection systems* that could reasonably be expected to interrupt *supply* to or from the relevant *connection point*; and
 - (2) an agreement to not increase those *fault clearance times* without the prior written agreement of the other party.
- (i) *Network Service Providers* must coordinate and cooperate with *Network Users* to implement *breaker fail* protection for circuit breakers provided to isolate the *Network User's facility* from the *Network Service Provider's facilities*.
- (j) Where practicable and economic to achieve, investments should meet the *system standard* for *fault clearance times* as specified in clause S5.1a.8 for two phase to ground *short circuit faults*.
- (k) A primary *protection system* may clear faults other than *short circuit faults* slower than the relevant *fault clearance time*, provided that such faults would be cleared sufficiently promptly to not adversely impact on *power system security* compared with its operation for the corresponding *short circuit fault*. In the case of a fault within equipment at a station, the corresponding *short circuit fault* is to be taken as a two phase to ground *short circuit fault* at the external connections of the equipment.
- (l) *Protection systems* may rely on *breaker fail protection systems* or other back-up *protection systems* to completely clear faults of any *fault type* that:
 - (1) occur within a *substation* between a protection zone and a circuit breaker adjacent to that protection zone that is required to open to clear the fault (a **dead zone**); and
 - (2) remain connected through a power line or *transformer* after operation of a primary *protection system*,

provided that the relevant *Network Service Provider* assesses that the likelihood of a fault occurring within the dead zone is not greater than the likelihood of a fault occurring on *busbars*.
- (m) For the purposes of this clause S5.1.9, a *credible contingency event* includes any event that clause S5.1.2.1 requires a *Network Service Provider* to consider as a *credible contingency event*.
- (n) The provisions of clause S5.1.9(d) apply to *facilities* constructed or modified on or after the *performance standards commencement date*.

- (o) For *facilities* other than those referred to in clause S5.1.9(n), the requirement for primary *protection system* redundancy must be derived by the *Network Service Provider* from the existing capability of each *facility* on the *performance standards commencement date*.

S5.1.10 Load, generation and network control facilities

S5.1.10.1 General

Each *Network Service Provider* in consultation with *AEMO* must ensure that:

- (a) sufficient *load* is under the control of underfrequency relays or other *facilities* where required to minimise or reduce the risk that in the event of the sudden, unplanned simultaneous occurrence of multiple *contingency events*, the *power system frequency* moves outside the *extreme frequency excursion tolerance limits*;
- (b) where determined to be necessary, sufficient *load* is under the control of undervoltage relays to minimize or reduce the risk of voltage collapse on the occurrence of multiple *contingency events*; and
- (c) there is sufficient *load* under manual control either locally or from remotely located *control centres* to allow the *load shedding procedures* to be implemented on instruction from *AEMO* to enable *AEMO* to maintain *power system security*.

A *Network Service Provider* may require *load shedding* arrangements to be installed to cater for abnormal operating conditions including abnormal operating conditions in which *emergency frequency control schemes* are intended to operate.

Transmission Network Service Providers and *connected Distribution Network Service Providers* must cooperate to agree arrangements to implement *load shedding*. The arrangements may include the opening of circuits in either a *transmission* or *distribution network*.

The *Transmission Network Service Provider* must specify, in the *connection agreement*, control and monitoring requirements to be provided by a *Distribution Network Service Provider* for *load shedding facilities* including *emergency frequency control schemes*.

S5.1.10.1a Emergency frequency control schemes

- (a) A *Network Service Provider* must:
 - (1) cooperate with *AEMO* in the conduct of *power system frequency risk reviews* and provide to *AEMO* all information and assistance reasonably requested by *AEMO* in connection with *power system frequency risk reviews*; and

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- (2) provide to *AEMO* all information and assistance reasonably requested by *AEMO* for the development and review of *EFCS settings schedules*.
 - (b) Where a *protected event EFCS standard* has been determined for an *emergency frequency control scheme* applicable in respect of a *Network Service Provider's transmission or distribution system*, the *Network Service Provider* must:
 - (1) design, procure, commission, maintain, monitor, test, modify and report to *AEMO* in respect of, the *emergency frequency control scheme*;
 - (2) perform its obligations under subparagraph (1) so as to achieve the availability and operation of the scheme in accordance with the *protected event EFCS standard*; and
 - (3) coordinate with *AEMO* in relation to the monitoring and testing of the scheme once it is in operation.
 - (c) A *Network Service Provider* must use reasonable endeavours to achieve commissioning of a new or upgraded *emergency frequency control scheme* within the time contemplated by the relevant *power system frequency risk review* or, where applicable, *AEMO's* request to the *Reliability Panel* for declaration of a *non-credible contingency event* as a *protected event* and the decision of the *Reliability Panel* with respect to that request.
 - (d) For an *over frequency scheme*:
 - (1) a *Network Service Provider* must identify which elements of the scheme (if any) can be implemented by *facilities* provided by a *Generator* for the *Generator's generating unit* or by modification to the *facilities* of the *Generator* or by changes to the settings of *protection systems* or *control systems* for the *Generator's generating units*.
 - (2) Where those opportunities are identified, the *Network Service Provider* must notify the *Generator* concerned of the opportunity and must request the *Generator* to negotiate with the *Network Service Provider* to reach agreement on the modifications to be made and the other arrangements required by the *Network Service Provider* to comply with its obligations with respect to the scheme (including commissioning, testing, monitoring and future modification).
 - (3) If the *Generator* declines the request, or if the *Generator* agrees to the request but good faith negotiations do not result in agreement being reached in a reasonable time (having regard to the implementation timetable for the scheme), the *Network Service Provider* may make other arrangements to implement the relevant elements of the scheme.

- (4) If the *Generator* accepts the request, the *Generator* and the *Network Service Provider* must each negotiate in good faith with respect to the matters referred to above.
- (e) Nothing in paragraph (d) is intended to prevent the exercise of rights under a *connection agreement*.
- (f) Nothing in paragraph (d) is intended to constitute or require an *application to connect* for the purposes of rule 5.3 or rule 5.3A. If clause 5.3.9 applies in respect of alterations for an *over frequency scheme* the subject of negotiations under paragraph (d), the *Network Service Provider* cannot charge a fee under clause 5.3.9(e) for assessment of a submission in respect of those alterations.

S5.1.10.2 Distribution Network Service Providers

A *Distribution Network Service Provider* must:

- (a) provide, install, operate and maintain *facilities* for *load shedding* in respect of any *connection point* at which the maximum *load* exceeds 10MW in accordance with clause 4.3.5 of the *Rules*;
- (b) in accordance with the provisions of the relevant *connection agreement*, co-operate with the *Transmission Network Service Providers* in conducting periodic functional testing of the *facilities* and *emergency frequency control schemes*, which must not require *load* to be *disconnected*;
- (c) apply *frequency* settings to relays or other *facilities* as determined by *AEMO* in consultation with the *Network Service Provider*; and
- (d) apply undervoltage settings to relays as notified by the *Transmission Network Service Provider* in accordance with clause S5.1.10.3(b).

S5.1.10.3 Transmission Network Service Providers

Transmission Network Service Providers must:

- (a) conduct periodic functional tests of the *load shedding facilities* and *emergency frequency control schemes*; and
- (b) notify *Distribution Network Service Providers* regarding the settings of undervoltage *load shed* relays as determined by *AEMO* in consultation with the *Transmission Network Service Provider*.

S5.1.11 Automatic reclosure of transmission or distribution lines

Where *automatic reclose equipment* is provided on *transmission lines* or *distribution lines*, check or blocking *facilities* must be applied to the *automatic reclose equipment* in those circumstances where there is any possibility of the two ends of the *transmission line* or *distribution line* being *energised* from sources that are not in synchronism.

S5.1.12 Rating of transmission lines and equipment

For operational purposes each *Network Service Provider* must, on reasonable request, advise *AEMO* of the maximum current that may be permitted to flow (under conditions nominated by *AEMO*) through each *transmission line*, *distribution line* or other item of equipment that forms part of its *transmission system* or *distribution system*.

This maximum current is called a *current rating* of the *transmission line*, *distribution line* or item of equipment notwithstanding that it may be determined by equipment associated with its *connection* to the *power system* (including switchgear, droppers, current transformers and protection systems).

AEMO may request for a *transmission line*, *distribution line* or other item of equipment:

- (a) a continuous *current rating*, being the level of current that is permitted to flow in that item of equipment for an indefinite period; and
- (b) one or more short term *current ratings* for a period of time nominated by *AEMO* after consultation with the *Network Service Provider*, being the level of current that is permitted to flow in that item of equipment for that period of time if the current had been less than the corresponding continuous *current rating* for a reasonable prior period taking into account the thermal properties of the item of equipment.

The *Network Service Provider* may be required by *AEMO* to advise different *current ratings* to be applied under nominated conditions including, without limitation:

- (a) ambient weather conditions;
- (b) seasons and/or times of *day*;
- (c) ratios of the current during an emergency to the current prior to the emergency (taking into account pre-contingent loading history where applicable); and
- (d) period of loading at the nominated level.

A *Transmission Network Service Provider* is entitled to advise *AEMO* of short term *current ratings* which may apply for nominated periods of time to the relevant *transmission line* or item of equipment provided that these ratings do not materially affect the safety of the *transmission line* or item of equipment, or the safety of persons. Short-term ratings for *transmission lines* or items of equipment may be implemented by a methodology or algorithm in a format agreed with *AEMO*.

S5.1.13 Information to be provided

A *Network Service Provider* must, in response to a *connection* enquiry or an *application to connect* made in accordance with clause 5.3.2 of the *Rules*, provide

the *connection applicant* electrical design information relevant to the nominal point of *connection* in accordance with a relevant requirement of schedules 5.2, 5.3 or 5.3a.

Schedule 5.2 Conditions for Connection of Generators

S5.2.1 Outline of requirements

- (a) This schedule sets out details of additional requirements and conditions that *Generators* must satisfy as a condition of *connection* of a *generating system* to the *power system*.
- (b) This schedule does not apply to any *generating system* that is:
 - (1) subject to an exemption from registration under clause 2.2.1(c); or
 - (2) eligible for exemption under any guidelines issued under clause 2.2.1(c),
 and which is *connected* or intended for use in a manner the *Network Service Provider* considers is unlikely to cause a material degradation in the quality of *supply* to other *Network Users*.
- (c) This schedule also sets out the requirements and conditions which subject to clause 5.2.5 of the *Rules*, are obligations on *Generators*:
 - (1) to co-operate with the relevant *Network Service Provider* on technical matters when making a new *connection*; and
 - (2) to provide information to the *Network Service Provider* or *AEMO*.
- (d) The equipment associated with each *generating system* must be designed to withstand without damage the range of operating conditions which may arise consistent with the *system standards*.
- (e) *Generators* must comply with the *performance standards* and any attached terms or conditions of agreement agreed with the *Network Service Provider* or *AEMO* in accordance with a relevant provision of schedules 5.1a or 5.1.
- (f) This schedule does not set out arrangements by which a *Generator* may enter into an agreement or contract with *AEMO* to:
 - (1) provide additional services that are necessary to maintain *power system security*; or
 - (2) provide additional services to facilitate management of the *market*.
- (g) This schedule provides for *automatic access standards* and the determination of *negotiated access standards* which once determined, must be recorded together with the *automatic access standards* in a *connection agreement* and registered with *AEMO* as *performance standards*.

S5.2.2 Application of Settings

A *Generator* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.2 if the settings have been approved in writing by the relevant *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Generator* must not allow its *generating unit* to supply electricity to the *power system* without such prior approval.

If a *Generator* seeks approval from the *Network Service Provider* to apply or change a setting, then (except in the case of settings to be applied or changed by the *Generator* in connection with an *emergency frequency control scheme*) approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the *generating unit* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a *generating unit's control system* or *protection system* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or *AEMO* (as applicable) must consult with the relevant *Generator*, and the *Network Service Provider* may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting. The *Network Service Provider* must provide *AEMO* with a copy of its request to a *Generator* to apply a setting or to conduct a test.

A *Generator* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Generator* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Generator* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Generator* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Generator* its reasonable costs of changing the setting and conducting the tests as requested.

S5.2.3 Technical matters to be coordinated

- (a) A *Generator* and the relevant *Network Service Provider* must use all reasonable endeavours to agree upon relevant technical matters in respect of each new or altered *connection* of a *generating system* to a *network* including:

- (1) design at the *connection point*;
 - (2) physical layout adjacent to the *connection point*;
 - (3) primary protection and backup protection (clause S5.2.5);
 - (4) control characteristics (clause S5.2.5);
 - (5) communications *facilities* (clause S5.2.6);
 - (6) insulation co-ordination and lightning protection (paragraph (b));
 - (7) fault levels and fault clearance (clause S5.2.8);
 - (8) switching and *isolation* facilities (clause S5.2.8);
 - (9) interlocking and *synchronising* arrangements; and
 - (10) *metering installations*.
- (b) A *Generator* must ensure that in designing a *generating system's* electrical *plant*, including any *substation* for the *connection* of the *generating system* to the *network*, to operate at the same *nominal voltage* as at the *connection point*:
- (1) the *plant* complies with the relevant *Australian Standards* unless a provision of these *Rules* allows or requires otherwise;
 - (2) the earthing of the *plant* complies with the ENA EG1-2006: Substation Earthing Guide to reduce step and touch potentials to safe levels;
 - (3) the *plant* is capable of withstanding, without damage the *voltage* impulse levels specified in the *connection agreement*;
 - (4) the insulation levels of the *plant* are co-ordinated with the insulation levels of the *network* to which the *generating system* is *connected* as specified in the *connection agreement*; and
 - (5) safety provisions in respect of the *plant* comply with requirements applicable to the *participating jurisdiction* in which the *generating system* is located, as notified by the *Network Service Provider*.
- (c) If no relevant *Australian Standard* exists for the purposes of paragraph (b)(1), the *Generator* must agree with the *Network Service Provider* for the *Generator* to comply with another relevant standard.

S5.2.4 Provision of information

- (a) A *Generator* or person who is negotiating a *connection agreement* with a *Network Service Provider* must promptly on request by *AEMO* or the

Network Service Provider provide all data in relation to that *generating system* specified in schedule 5.5.

- (b) A *Generator*, or person required under the *Rules* to register as the *Generator* in respect of a *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more, by the earlier of:
- (1) the day on which an *application to connect* is made under clause 5.3.4(a);
 - (2) the day on which amendments to *performance standards* are submitted under rule 4.14(p) or clause 5.3.9(b);
 - (3) three months before commissioning of a *generating system* or planned alteration to a *generating system*; or
 - (4) 5 *business days* before commissioning of a *generating system* alteration that is repairing *plant* after a *plant* failure, if *plant* performance after the alteration will differ from performance prior to the *plant* failure,

must provide:

- (5) to AEMO and the relevant *Network Service Provider*(s) (including the relevant *Transmission Network Service Provider* in respect of an *embedded generating unit* and including the *Network Service Provider* for the parent connection point for the embedded network in respect of an embedded generating unit in an embedded network):
 - (i) information about the *protections systems* of the *generating system*;
 - (ii) information about the *control systems* of the *generating system* including:
 - (A) a set of functional block diagrams, including all functions between feedback signals and generating system output;
 - (B) the parameters of each functional block, including all settings, gains, time constants, delays, deadbands and limits;
 - (C) the characteristics of non-linear elements;
 - (D) encrypted models in a form suitable for the software simulation products nominated by AEMO in the *Power System Model Guidelines*;
- (6) to AEMO, the model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the *power system* simulation model in subparagraph (ii)(D) in an unencrypted form suitable for at least one of the software simulation products nominated

by *AEMO* in the *Power System Model Guidelines*, and in a form that would allow conversion for use with other software products nominated by *AEMO* in the *Power System Model Guidelines*;

(7) **[Deleted]**

(7A) to *AEMO* and the relevant *Network Service Provider(s)*, any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*; and

(8) to *AEMO* and the relevant *Network Service Providers* (including the relevant *Transmission Network Service Provider* in respect of an *embedded generating unit* and including the *Network Service Provider* for the parent connection point for the embedded network in respect of an embedded generating unit in an embedded network) a *releasable user guide*.

(b1) The information provided under paragraph (b) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider(s)* to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.

(c) The information provided under paragraph (b) must:

(1) encompass all *control systems* that respond to *voltage* or *frequency* disturbances on the *power system*, and which are either integral to the *generating units* or otherwise part of the *generating system*, including those applying to *reactive power* equipment that forms part of the *generating system*; and

(2) conform with the applicable models developed in accordance with the *Power System Model Guidelines*, or an alternative model agreed with *AEMO* to be necessary to adequately represent the *generating plant* to carry out load flow and dynamic simulations and (where applicable) specialised *power system* studies.

(d) The *Generator* must provide to *AEMO* information that updates the information provided under clause S5.2.4(b) and must provide to the relevant *Network Service Providers* information that updates the information provided under clause S5.2.4(b)(5):

(1) within 3 months after commissioning tests or other tests undertaken in accordance with clause 5.7.3 are completed;

(2) when the *Generator* becomes aware that the information is incomplete, inaccurate or out of date; or

(3) on request by *AEMO* or the relevant *Network Service Provider*, where *AEMO* or the relevant *Network Service Provider* considers that the information is incomplete, inaccurate or out of date.

- (d1) A *Generator* is only required to provide new information under clause S5.2.4(d) to the extent that it is different to the information previously provided under clause S5.2.4(b).
- (e) For the purposes of clause S5.2.4(e1), a *Connection Applicant* must be registered as an *Intending Participant* in accordance with rule 2.7.
- (e1) For the purposes of clause 5.3.2(f), the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of a proposed *connection* for a *generating system* includes:
 - (1) the highest expected single phase and three phase fault levels at the *connection point* with the *generating system* not *connected*;
 - (2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be *connected* into the existing *transmission system* or *distribution system*;
 - (3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* with the *generating system* not *connected*;
 - (4) technical information relevant to the *connection point* with the *generating system* not *synchronised* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion (for harmonics relevant to the *generating system*) and *voltage* unbalance;
 - (5) information relating to the performance of the *national grid* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*, including:
 - (i) a model of the *power system*, including relevant *considered projects* and the range of expected operating conditions, sufficient to carry out load flow and dynamic simulations; and
 - (ii) information on *inter-regional* and *intra-regional* power transfer capabilities and relevant *plant* ratings; and
 - (6) the *Network Service Provider's* expected *three phase fault level* at the *connection point* for the *generating system* following the *connection* of the *generating system*.
- (f) All information provided under this clause S5.2.4 must be treated as *confidential information*.

S5.2.5 Technical requirements**S5.2.5.1 Reactive power capability****Automatic access standard**

- (a) The *automatic access standard* is a *generating system* operating at:
- (1) any level of *active power* output; and
 - (2) any *voltage* at the *connection point* within the limits established under clause S5.1a.4 without a *contingency event*,

must be capable of supplying and absorbing continuously at its *connection point* an amount of *reactive power* of at least the amount equal to the product of the *rated active power* of the *generating system* and 0.395.

Minimum access standard

- (b) The *minimum access standard* is no capability is required to supply or absorb *reactive power* at the *connection point*.

Negotiated access standard

- (c) When negotiating a *negotiated access standard*, the *Generator*, the *Network Service Provider* and *AEMO*:
- (1) must, subject to any agreement under subparagraph (d)(4), ensure that the *reactive power capability* of the *generating system* is consistent with maintaining *power system security* and sufficient to ensure that all relevant *system standards* are met before and after *credible contingency events* under normal and planned *outage* operating conditions of the *power system*, taking into account existing *power system* conditions, *considered projects* and any other project for the *connection* of a *Network User* for which:
 - (i) there is an existing *connection agreement*; or
 - (ii) the *Network Service Provider* and *AEMO* reasonably consider the *Network User* will *connect* to the *power system*;
 - (2) may negotiate either a range of *reactive power* absorption and supply, or a range of *power factor*, at the *connection point*, within which the *plant* must be operated; and
 - (3) may negotiate a limit that describes how the *reactive power capability* varies as a function of *active power* output due to a design characteristic of the *plant*.
- (d) If the *generating system* is not capable of the level of performance established under paragraph (c)(1) the *Generator*, depending on what is reasonable in the circumstances, must:

- (1) pay compensation to the *Network Service Provider* for the provision of the deficit of *reactive power* (supply and absorption) from within the *network*;
 - (2) install additional equipment *connecting* at the *generating system's connection point* or another location, to provide the deficit of *reactive power* (supply and absorption), and such equipment is deemed to be part of the *generating system*;
 - (3) reach a commercial arrangement with a *Registered Participant* to provide the deficit of *reactive power* (supply and absorption); or
 - (4) if the inability to meet the performance level only occurs for particular operating conditions, agree to and document as part of the proposed *negotiated access standard*, operational arrangements by which the *plant* can achieve an agreed level of performance for those operating conditions.
- (e) The *Generator* may select one or more options referred to in paragraph (d).

General requirements

- (f) A *performance standard* must record the agreed value for *rated active power* and where relevant the method of determining the value.
- (g) A *performance standard* for consumption of *energy* by a *generating system* when not supplying or absorbing *reactive power* under an *ancillary services agreement* is to be established under clause S5.3.5 as if the *Generator* were a *Market Customer*.

S5.2.5.2 Quality of electricity generated

- (a) For the purpose of this clause S5.2.5.2 in respect of a *synchronous generating unit*, AS 1359.101 and IEC 60034-1 are *plant standards* for *harmonic voltage* distortion.

Automatic access standard

- (b) The *automatic access standard* is a *generating system* when generating and when not generating must not produce at any of its *connection points* for *generation*:
 - (1) *voltage* fluctuation greater than the limits allocated by the *Network Service Provider* under clause S5.1.5(a);
 - (2) *harmonic voltage* distortion greater than the emission limits specified by a *plant standard* under paragraph (a) or allocated by the *Network Service Provider* under clause S5.1.6(a); and
 - (3) *voltage* unbalance greater than the limits allocated by the *Network Service Provider* in accordance with clause S5.1.7(c).

Minimum access standard

- (c) The *minimum access standard* is a *generating system* when generating and when not generating must not produce at any of its *connection points* for *generation*:
- (1) *voltage* fluctuations greater than limits determined under clause S5.1.5(b);
 - (2) harmonic *voltage* distortion more than the lesser of the emission limits determined by the relevant *Network Service Provider* under clause S5.1.6(b) and specified by a *plant standard* under paragraph (a); and
 - (3) *voltage* unbalance more than limits determined under clause S5.1.7(c).

Negotiated access standard

- (d) A *negotiated access standard* negotiated under this clause S5.2.5.2 must not prevent the *Network Service Provider* meeting the *system standards* or contractual obligations to existing *Network Users*.

S5.2.5.3 Generating system response to frequency disturbances

- (a) For the purposes of this clause S5.2.5.3:

normal operating frequency band, **operational frequency tolerance band**, or **extreme frequency excursion tolerance limits** are references to the widest range specified for those terms for any condition (including an “island” condition) in the *frequency operating standards* that apply to the *region* in which the *generating unit* is located.

stabilisation time and **recovery time** mean the longest times allowable for the *frequency* of the *power system* to remain outside the operational frequency tolerance band and the normal operating frequency band, respectively, for any condition (including an “island” condition) in the *frequency operating standards* that apply to the *region* in which the *generating unit* is located.

transient frequency limit and **transient frequency time** mean the values of 47.5 Hz and 9 seconds respectively, or such other values determined by the *Reliability Panel*.

Automatic access standard

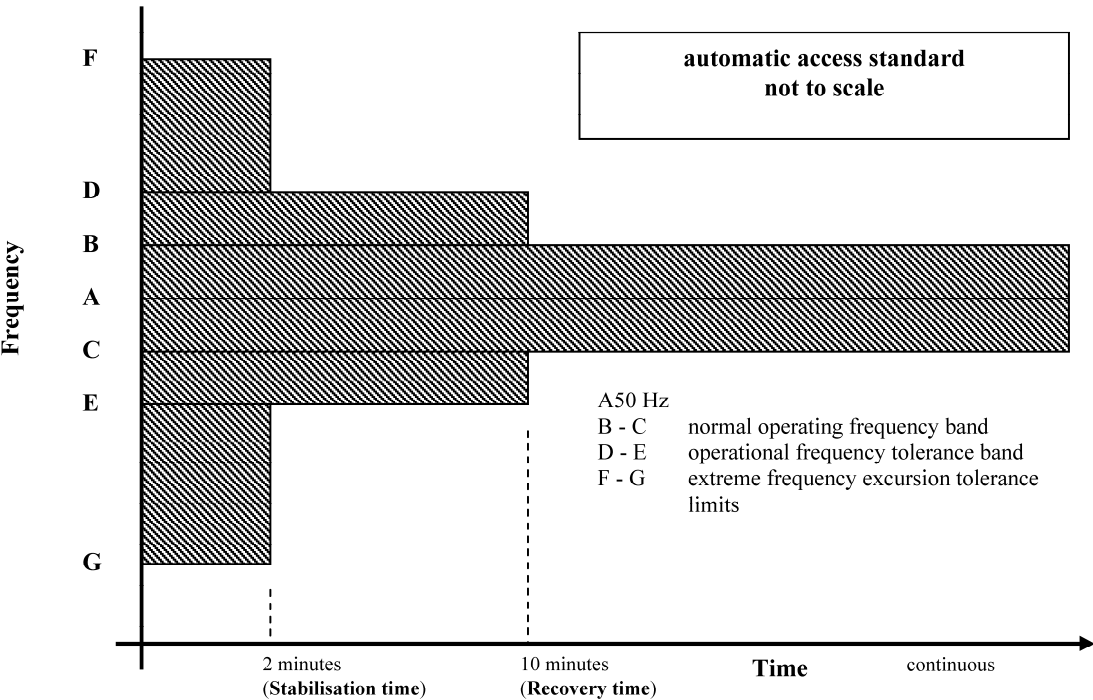
- (b) The *automatic access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* for *frequencies* in the following ranges:
- (1) the lower bound of the extreme frequency excursion tolerance limits to the lower bound of the operational frequency tolerance band for at least the stabilisation time;

- (2) the lower bound of the operational frequency tolerance band to the lower bound of the normal operating frequency band, for at least the recovery time including any time spent in the range under subparagraph (1);
- (3) the normal operating frequency band for an indefinite period;
- (4) the upper bound of the normal operating frequency band to the upper bound of the operational frequency tolerance band, for at least the recovery time including any time spent in the range under subparagraph (5); and
- (5) the upper bound of the operational frequency tolerance band to the upper bound of the extreme frequency excursion tolerance limits for at least the stabilisation time,

unless the rate of change of *frequency* is outside the range of $-4\text{ Hz to }4\text{ Hz}$ per second for more than 0.25 seconds, $-3\text{ Hz to }3\text{ Hz}$ per second for more than one second, or such other range as determined by the *Reliability Panel* from time to time.

Note:

The *automatic access standard* is illustrated in the following diagram. To the extent of any inconsistency between the diagram and paragraph (b), paragraph (b) prevails.



Minimum access standard

(c) The *minimum access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* for *frequencies* in the following ranges:

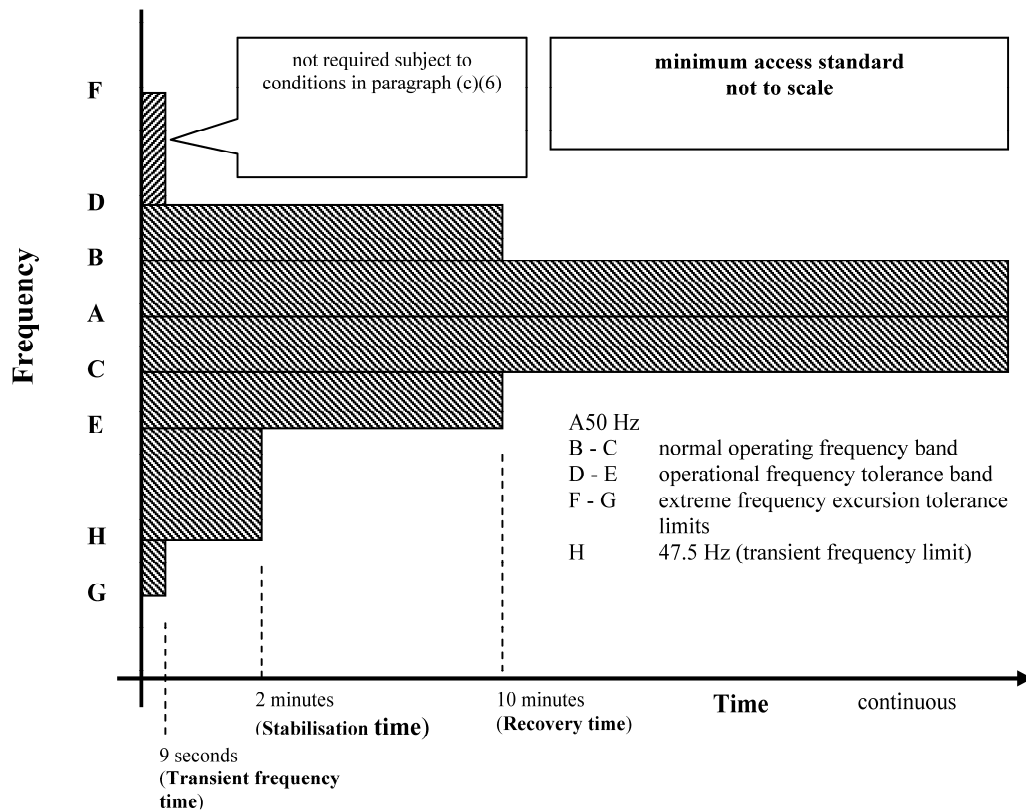
- (1) the lower bound of the extreme frequency excursion tolerance limits to the transient frequency limit for at least the transient frequency time;
- (2) the transient frequency limit to the lower bound of the operational frequency tolerance band for at least the stabilisation time;
- (3) the lower bound of the operational frequency tolerance band to the lower bound of the normal operating frequency band for at least the recovery time including any time spent in the ranges under subparagraphs (1) and (2);
- (4) the normal operating frequency band for an indefinite period;
- (5) the upper bound of the normal operating frequency band to the upper bound of the operational frequency tolerance band for at least the recovery time including any time spent in the ranges under subparagraph (6) unless the *generating system* has a *protection system* to trip a *generating unit* if the *frequency* exceeds a level agreed with AEMO; and
- (6) in respect of a *generating system*:
 - (i) of 30 MW or more; and
 - (ii) that does not have a *protection system* to trip the *generating unit* if the *frequency* exceeds a level agreed with AEMO,

the upper bound of the operational frequency tolerance band to the upper bound of the extreme frequency excursion tolerance limits (including an “island” condition) for at least the transient frequency time,

unless the rate of change of *frequency* is outside the range of -2 Hz to 2 Hz per second for more than 0.25 seconds, -1 Hz to 1 Hz per second for more than one second or such other range as determined by the *Reliability Panel* from time to time.

Note:

The *minimum access standard* is illustrated in the following diagram. To the extent of any inconsistency between the diagram and paragraph (c), paragraph (c) prevails.



Negotiated access standard

- (d) A *negotiated access standard* can be accepted by the *Network Service Provider* provided that AEMO and the *Network Service Provider* agree that the *frequency* would be unlikely to fall below the lower bound of the *operational frequency tolerance band* as a result of over-frequency tripping of *generating units*.

S5.2.5.4 Generating system response to voltage disturbances

Automatic access standard

- (a) The *automatic access standard* is a *generating system* and each of its *generating units* must be capable of *continuous uninterrupted operation* where a *power system* disturbance causes the *voltage* at the *connection point* to vary within the following ranges:
- (1) over 130% of *normal voltage* for a period of at least 0.02 seconds after T(ov);
 - (2) 125% to 130% of *normal voltage* for a period of at least 0.2 seconds after T(ov);
 - (3) 120% to 125% of *normal voltage* for a period of at least 2.0 seconds after T(ov);

- (4) 115% to 120% of *normal voltage* for a period of at least 20.0 seconds after T(ov);
- (5) 110% to 115% of *normal voltage* for a period of at least 20 minutes after T(ov);
- (6) 90% to 110% of *normal voltage* continuously;
- (7) 80% to 90% of *normal voltage* for a period of at least 10 seconds after T(uv); and
- (8) 70% to 80% of *normal voltage* for a period of at least 2 seconds after T(uv),

where T(ov) means a point in time when the *voltage* at the *connection point* first varied above 110% of *normal voltage* before returning to between 90% and 110% of *normal voltage*, and T(uv) means a point in time when the *voltage* at the *connection point* first varied below 90% of *normal voltage* before returning to between 90% and 110% of *normal voltage*.

Minimum access standard

- (b) The *minimum access standard* is a *generating system* including all operating *generating units* must be capable of *continuous uninterrupted operation* where a *power system* disturbance causes the *voltage* at the *connection point* to vary within the following ranges:
 - (1) 115% to 120% of *normal voltage* for a period of at least 0.1 seconds after T(ov);
 - (2) 110% to 115% of *normal voltage* for a period of at least 0.9 seconds after T(ov);
 - (3) 90% to 110% of *normal voltage* continuously, provided that the ratio of *voltage* to *frequency* (as measured at the *connection point* and expressed as a percentage of *normal voltage* and a percentage of 50 Hz) does not exceed:
 - (i) a value of 1.15 for more than 2 minutes; or
 - (ii) a value of 1.10 for more than 10 minutes;
 - (4) 80% to 90% of *normal voltage* for a period of at least 5 seconds after T(uv); and
 - (5) 70% to 80% of *normal voltage* for a period of at least 2 seconds after T(uv),

where T(ov) means a point in time when the *voltage* at the *connection point* first varied above 110% of *normal voltage* before returning to between 90% and 110% of *normal voltage*, and T(uv) means a point in time when the

voltage at the connection point first varied below 90% of normal voltage before returning to between 90% and 110% of normal voltage.

Negotiated access standard

- (c) In negotiating a *negotiated access standard*, a *generating system* and each of its operating *generating units* must be capable of *continuous uninterrupted operation* for the range of *voltages* specified in the *automatic access standard*, except where AEMO and the *Network Service Provider* agree that the total reduction of *generation* in the *power system* as a result of any *voltage* excursion within levels specified by the *automatic access standard* would not exceed 100 MW, or a greater limit based on what AEMO and the *Network Service Provider* both consider to be reasonable in the circumstances.
- (d) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.4, AEMO and the *Network Service Provider* must at a minimum, in addition to the requirements of clauses 5.3.4A(d1) and 5.3.4A(g) respectively, take into account:
 - (1) the expected performance of existing *networks* and *considered projects*; and
 - (2) the expected performance of existing *generating plant* and other relevant projects.
- (e) [Deleted]

General requirement

- (f) The *access standard* must include any operational arrangements necessary to ensure the *generating system* and each of its *generating units* will meet its agreed performance levels under abnormal *network* or *generating system* conditions.

S5.2.5.5 Generating system response to disturbances following contingency events

- (a) In this clause S5.2.5.5 a fault includes a fault of the relevant type having a metallic conducting path.

Automatic access standard

- (b) The *automatic access standard* is:
 - (1) for a *generating system* and each of its *generating units*, the requirements of paragraphs (c) and (d);
 - (2) for a *generating system* comprised solely of *synchronous generating units*, the requirements of paragraph (e);

- (3) for a *generating system* comprised solely of *asynchronous generating units*, the requirements of paragraphs (f) to (i); and
- (4) for a *generating system* comprised of *synchronous generating units* and *asynchronous generating units*:
 - (i) for that part of the *generating system* comprised of *synchronous generating units*, the requirements of paragraph (e); and
 - (ii) for that part of the *generating system* comprised of *asynchronous generating units*, the requirements of paragraphs (f) to (i).

All generating systems

- (c) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for any disturbance caused by:
 - (1) a *credible contingency event*;
 - (2) a three phase fault in a *transmission system* cleared by all relevant primary *protection systems*;
 - (3) a two phase to ground, phase to phase or phase to ground fault in a *transmission system* cleared in:
 - (i) the longest time expected to be taken for a relevant *breaker fail protection system* to clear the fault; or
 - (ii) if a *protection system* referred to in subparagraph (i) is not installed, the greater of the time specified in column 4 of Table S5.1a.2 (or if none is specified, 430 milliseconds) and the longest time expected to be taken for all relevant primary *protection systems* to clear the fault; or
 - (4) a three phase, two phase to ground, phase to phase or phase to ground fault in a *distribution network* cleared in:
 - (i) the longest time expected to be taken for the *breaker fail protection system* to clear the fault; or
 - (ii) if a *protection system* referred to in subparagraph (i) is not installed, the greater of 430 milliseconds and the longest time expected to be taken for all relevant primary *protection systems* to clear the fault,

provided that the event is not one that would *disconnect* the *generating unit* from the *power system* by removing *network elements* from service.

- (d) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for a series of up to 15 disturbances

within any five minute period caused by any combination of the events described in paragraph (c) where:

- (1) up to six of the disturbances cause the *voltage* at the *connection point* to drop below 50% of *normal voltage*;
- (2) in parts of the *network* where three-phase automatic reclosure is permitted, up to two of the disturbances are three phase faults, and otherwise, up to one three phase fault where *voltage* at the *connection point* drops below 50% of *normal voltage*;
- (3) up to one disturbance is cleared by a *breaker fail protection system* or similar back-up *protection system*;
- (4) up to one disturbance causes the *voltage* at the *connection point* to vary within the ranges under clause S5.2.5.4(a)(7) and (a)(8);
- (5) the minimum clearance from the end of one disturbance and commencement of the next disturbance may be zero milliseconds; and
- (6) all remaining disturbances are caused by faults other than three phase faults,

provided that none of the events would result in:

- (7) the islanding of the *generating system* or cause a material reduction in *power transfer capability* by removing *network elements* from service;
- (8) the cumulative time that *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1,800 milliseconds within any five minute period; or
- (9) the time integral, within any five minute period, of the difference between 90% of *normal voltage* and the *voltage* at the *connection point* when the *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1 pu second.

Synchronous generating systems

- (e) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *synchronous generating units*, in respect of the types of fault described in subparagraphs (c)(2) to (4), must supply to or absorb from the *network*:
 - (1) to assist the maintenance of *power system voltages* during the fault, capacitive reactive current of at least the greater of its pre-disturbance reactive current and 4% of the maximum continuous current of the *generating system* including all operating *synchronous generating units* (in the absence of a disturbance) for each 1% reduction (from the level existing just prior to the fault) of *connection point voltage* during the fault;

- (2) after clearance of the fault, *reactive power* sufficient to ensure that the *connection point voltage* is within the range for *continuous uninterrupted operation* under clause S5.2.5.4; and
- (3) from 100 milliseconds after clearance of the fault, *active power* of at least 95% of the level existing just prior to the fault.

Asynchronous generating systems

- (f) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *asynchronous generating units*, in respect of the types of fault described in subparagraphs (c)(2) to (4), must have *facilities* capable of supplying to or absorbing from the *network*:

- (1) to assist the maintenance of *power system voltages* during the fault:
 - (i) capacitive reactive current in addition to its pre-disturbance level of at least 4% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% reduction of *voltage* at the *connection point* below the relevant range in which a reactive current response must commence, as identified in subparagraph (g)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*; and
 - (ii) inductive reactive current in addition to its pre-disturbance level of at least 6% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% increase of *voltage* at the *connection point* above the relevant range in which a reactive current response must commence, as identified in subparagraph (g)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*,

during the disturbance and maintained until *connection point voltage* recovers to between 90% and 110% of *normal voltage*, or such other range agreed with the *Network Service Provider* and *AEMO*, except for *voltages* below the relevant threshold identified in paragraph (h); and

- (2) from 100 milliseconds after clearance of the fault, *active power* of at least 95% of the level existing just prior to the fault.
- (g) For the purpose of paragraph (f):
 - (1) the *generating system* must commence a response when the *voltage* is in an under-voltage range of 85% to 90% or an over-voltage range of 110% to 115% of *normal voltage*. These ranges may be varied with the agreement of the *Network Service Provider* and *AEMO* (provided

the magnitude of the range between the upper and lower bounds remains at $\Delta 5\%$); and

- (2) the reactive current response must have a *rise time* of no greater than 40 milliseconds and a *settling time* of no greater than 70 milliseconds and must be *adequately damped*.
- (h) Despite paragraph (f), a *generating system* is not required to provide a capacitive reactive current response in accordance with subparagraph (f)(1)(i) where:
- (1) the *generating system* is directly *connected* to the *power system* with no step-up or *connection transformer*; and
 - (2) *voltage* at the *connection point* is 5% or lower of *normal voltage*.
- (i) Subject to paragraph (h), despite the amount of reactive current injected or absorbed during *voltage* disturbances, and subject to thermal limitations and energy source availability, a *generating system* must make available at all times:
- (1) sufficient current to maintain rated apparent power of the *generating system* including all operating *generating units* (in the absence of a disturbance), for all *connection point voltages* above 115% (or otherwise, above the over-voltage range agreed in accordance with subparagraph (g)(1)); and
 - (2) the maximum continuous current of the *generating system* including all operating *generating units* (in the absence of a disturbance) for all *connection point voltages* below 85% (or otherwise, below the under-voltage range agreed in accordance with subparagraph (g)(1)),

except that AEMO and the *Network Service Provider* may agree limits on active current injection where required to maintain *power system security* and/or the quality of *supply* to other *Network Users*.

Minimum access standard

- (j) The *minimum access standard* is:
- (1) for a *generating system* and each of its *generating units*, the requirements of paragraphs (k) and (l);
 - (2) for a *generating system* comprised solely of *synchronous generating units*, the requirements of paragraph (m);
 - (3) for a *generating system* comprised solely of *asynchronous generating units*, the requirements of paragraphs (n) to (p); and
 - (4) for a *generating system* comprised of *synchronous generating units* and *asynchronous generating units*:

- (i) for that part of the *generating system* comprised of *synchronous generating units*, the requirements of paragraph (m); and
- (ii) for that part of the *generating system* comprised of *asynchronous generating units*, the requirements of paragraphs (n) to (p).

All generating systems

- (k) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for any disturbance caused by:

- (1) a *credible contingency event*; or
- (2) a single phase to ground, phase to phase or two phase to ground fault in a *transmission system* or *distribution network* cleared in the longest time expected to be taken for all relevant *primary protection systems* to clear the fault, unless *AEMO* and the *Network Service Provider* agree that the total reduction of *generation* in the *power system* due to that fault would not exceed 100 MW, or a greater limit based on what *AEMO* and the *Network Service Provider* both consider to be reasonable in the circumstances,

provided that the event is not one that would *disconnect* the *generating unit* from the *power system* by removing *network elements* from service.

- (l) A *generating system* and each of its *generating units* must remain in *continuous uninterrupted operation* for a series of up to six disturbances within any five minute period caused by any combination of the events described in paragraph (k) where:

- (1) up to three of the disturbances cause the *voltage* at the *connection point* to drop below 50% of *normal voltage*;
- (2) up to one disturbance causes the *voltage* at the *connection point* to vary within the ranges agreed by *AEMO* and the *Network Service Provider* under clause S5.2.5.4(a)(7), (a)(8), (b)(4) or (b)(5) (as appropriate);
- (3) the time difference between the clearance of one disturbance and commencement of the next disturbance exceeds 200 milliseconds;
- (4) no more than three of the disturbances occur within 30 seconds; and
- (5) all disturbances are caused by faults other than three phase faults,

provided that none of the events would result in:

- (6) the *islanding* of the *generating system* or cause a material reduction in *power transfer capability* by removing *network elements* from service;

- (7) the cumulative time that *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 1,000 milliseconds within any five minute period; or
- (8) the time integral, within any five minute period, of the difference between 90% of *normal voltage* and the *voltage* at the *connection point* when the *voltage* at the *connection point* is lower than 90% of *normal voltage* exceeding 0.5 pu second,

and there is a minimum of 30 minutes where no disturbances occur following a five minute period of multiple disturbances.

Synchronous generating systems

- (m) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control after clearance of the fault, a *generating system* comprised of *synchronous generating units*, in respect of the types of fault described in subparagraph (k)(2) must:
 - (1) deliver *active power* to the *network*, and supply or absorb leading or lagging *reactive power*, sufficient to ensure that the *connection point voltage* is within the range for *continuous uninterrupted operation* agreed under clause S5.2.5.4; and
 - (2) return to at least 95% of the pre-fault *active power* output, after clearance of the fault, within a period of time agreed by the *Connection Applicant*, *AEMO* and the *Network Service Provider*.

Asynchronous generating systems

- (n) Subject to any changed *power system* conditions or energy source availability beyond the *Generator's* reasonable control, a *generating system* comprised of *asynchronous generating units* must:
 - (1) for the types of fault described in subparagraph (k)(2), and to assist the maintenance of *power system voltages* during the fault, have *facilities* capable of supplying to or absorbing from the *network*:
 - (i) capacitive reactive current in addition to its pre-disturbance level of at least 2% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1% reduction of *voltage* at the *connection point* below the relevant range in which a reactive current response must commence, as identified in paragraph (o)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*; and
 - (ii) inductive reactive current in addition to its pre-disturbance level of at least 2% of the maximum continuous current of the *generating system* including all operating *asynchronous generating units* (in the absence of a disturbance) for each 1%

increase of *voltage* at the *connection point* above the relevant range in which a reactive current response must commence, as identified in paragraph (o)(1), with the *performance standards* to record the required response agreed with *AEMO* and the *Network Service Provider*,

during the disturbance and maintained until *connection point voltage* recovers to between 90% and 110% of *normal voltage*, or such other range agreed with the *Network Service Provider* and *AEMO*, except for *voltages* below the relevant threshold identified in paragraph (p); and

- (2) return to at least 95% of the pre-fault *active power* output, after clearance of the fault, within a period of time agreed by the *Connection Applicant*, *AEMO* and the *Network Service Provider*.
- (o) For the purpose of paragraph (n):
- (1) the *generating system* must commence a response when the *voltage* is in an under-voltage range of 80% to 90% or an over-voltage range of 110% to 120% of *normal voltage*. These ranges may be varied with the agreement of the *Network Service Provider* and *AEMO* (provided the magnitude of the range between the upper and lower bounds remains at $\Delta 10\%$);
 - (2) where *AEMO* and the *Network Service Provider* require the *generating system* to sustain a response duration of 2 seconds or less, the reactive current response must have a *rise time* of no greater than 40 milliseconds and a *settling time* of no greater than 70 milliseconds and must be *adequately damped*; and
 - (3) where *AEMO* and the *Network Service Provider* require the generating system to sustain a response duration of greater than 2 seconds, the reactive current *rise time* and *settling time* must be as soon as practicable and must be *adequately damped*.
- (p) Despite paragraph (n), a *generating system* is not required to provide a capacitive reactive current response in accordance with subparagraph (n)(1)(i) where:
- (1) *voltage* at the *connection point* is 15% or lower of *normal voltage*; or
 - (2) where the *generating system* is directly connected to the power system with no step-up or *connection transformer*, *voltage* at the *connection point* is 20% or lower of *normal voltage*.

Negotiated access standard

- (q) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.5, the *Network Service Provider* and *AEMO* must take into account, without limitation:

- (1) the expected performance of:
 - (i) existing *networks* and *considered projects*;
 - (ii) existing *generating plant* and other relevant projects; and
 - (iii) *control systems* and *protection systems*, including auxiliary systems and *automatic reclose equipment*; and
- (2) the expected range of *power system* operating conditions.
- (r) A proposed *negotiated access standard* may be accepted if the *connection* of the *plant* at the proposed access level would not cause other *generating plant* or *loads* to trip as a result of an event, when they would otherwise not have tripped for the same event.

General requirement

All generating systems

- (s) The *performance standard* must include any operational arrangements to ensure the *generating system* including all operating *generating units* will meet its agreed performance levels under abnormal *network* or *generating system* conditions.
- (t) When assessing multiple disturbances, a fault that is re-established following operation of *automatic reclose equipment* shall be counted as a separate disturbance.

Asynchronous generating systems

- (u) For the purpose of paragraphs (f) and (n):
 - (1) the reactive current contribution may be limited to the maximum continuous current of a *generating system*, including its operating *asynchronous generating units*;
 - (2) the reactive current contribution and *voltage* deviation described may be measured at a location other than the *connection point* (including within the relevant *generating system*) where agreed with *AEMO* and the *Network Service Provider*, in which case the level of injection and absorption will be assessed at that agreed location;
 - (3) the reactive current contribution required may be calculated using phase to phase, phase to ground or sequence components of *voltages*. The ratio of the negative sequence to positive sequence components of the reactive current contribution must be agreed with *AEMO* and the *Network Service Provider* for the types of disturbances listed in this clause S5.2.5.5; and
 - (4) the *performance standards* must record all conditions (which may include temperature) considered relevant by *AEMO* and the *Network*

Service Provider under which the reactive current response is required.

Synchronous generating systems and units

- (v) For a *generating system* comprised solely of *synchronous generating units*, the reactive current contribution may be limited to 250% of the maximum continuous current of the *generating system*.
- (w) For a *synchronous generating unit* within a *generating system* (other than a *generating system* described in paragraph (v)), the reactive current contribution may be limited to 250% of the maximum continuous current of that *synchronous generating unit*.

S5.2.5.6 Quality of electricity generated and continuous uninterrupted operation

Minimum access standard

The *minimum access standard* is a *generating system* including each of its operating *generating units* and *reactive plant*, must not *disconnect* from the *power system* as a result of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance conditions at the *connection point* within the levels specified in clauses S5.1a.5, S5.1a.6 and S5.1a.7.

S5.2.5.7 Partial load rejection

- (a) For the purposes of this clause S5.2.5.7 **minimum generation** means minimum *sent out generation* for continuous stable operation.
- (b) **[Deleted]**

Automatic access standard

- (c) The *automatic access standard* is a *generating system* must be capable of *continuous uninterrupted operation* during and following a *power system load* reduction of 30% from its pre-disturbance level or equivalent impact from separation of part of the *power system* in less than 10 seconds, provided that the *loading level* remains above minimum generation.

Minimum access standard

- (d) The *minimum access standard* is a *generating system* must be capable of *continuous uninterrupted operation* during and following a *power system load* reduction of 5% or equivalent impact from separation of part of the *power system* in less than 10 seconds provided that the *loading level* remains above minimum generation.

[Deleted]

- (e) **[Deleted]**
- (f) **[Deleted]**

General requirements

- (g) The agreed partial load rejection performance must be recorded in the *performance standards*.

S5.2.5.8 Protection of generating systems from power system disturbances**Minimum access standard**

- (a) The *minimum access standard* is:
- (1) subject to subparagraph (2) and paragraph (e), for a *generating system* or any of its *generating units* that is required by a *Generator* or *Network Service Provider* to be automatically *disconnected* from the *power system* in response to abnormal conditions arising from the *power system*, the relevant *protection system* or *control system* must not *disconnect* the *generating system* for:
 - (i) conditions for which it must remain in *continuous uninterrupted operation*; or
 - (ii) conditions it must withstand under the *Rules*; and
 - (2) a *generating system* with a *nameplate rating* of 30MW or more, or *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more, *connected* to a *transmission system* must have *facilities* to automatically and rapidly reduce its *generation*:
 - (i) by at least half, if the *frequency* at the *connection point* exceeds a level nominated by *AEMO* (not less than the upper limit of the *operational frequency tolerance band*) and the duration above this *frequency* exceeds a value nominated by *AEMO* where the reduction may be achieved:
 - (A) by reducing the output of the *generating system* within 3 seconds, and holding the output at the reduced level until the *frequency* returns to within the *normal operating frequency band*; or
 - (B) by disconnecting the *generating system* from the *power system* within 1 second; or
 - (ii) in proportion to the difference between the *frequency* at the *connection point* and a level nominated by *AEMO* (not less than the upper limit of the *operational frequency tolerance band*), such that the *generation* is reduced by at least half, within 3 seconds of the *frequency* reaching the upper limit of the *extreme frequency excursion tolerance limits*.

[Deleted]

- (b) [Deleted]

General requirements

- (c) AEMO or the *Network Service Provider* may require that an *access standard* include a requirement for the *generating system* to be automatically *disconnected* by a local or remote control scheme whenever the part of the *network* to which it is *connected* has been *disconnected* from the *national grid*, forming an island that *supplies* a *Customer*.
- (d) The *access standard* must include specification of conditions for which the *generating unit* or *generating system* must trip and must not trip.
- (e) Notwithstanding clauses S5.2.5.3, S5.2.5.4, S5.2.5.5, S5.2.5.6 and S5.2.5.7, a *generating system* may be automatically *disconnected* from the *power system* under any of the following conditions:
 - (1) in accordance with an *ancillary services agreement* between the *Generator* and AEMO;
 - (2) where a *load* that is not part of the *generating system* has the same *connection point* as the *generating system* and AEMO and the *Network Service Provider* agree that the *disconnection* would in effect be under-frequency *load shedding*;
 - (3) where the *generating system* is automatically *disconnected* under paragraph (a), clause S5.2.5.9 or by an *emergency frequency control scheme*;
 - (4) where the *generating system* is automatically *disconnected* under clause S5.2.5.10; or
 - (5) in accordance with an agreement between the *Generator* and a *Network Service Provider* (including an agreement in relation to an emergency control scheme under clause S5.1.8) to provide a service that AEMO agrees is necessary to maintain or restore *power system security* in the event of a specified *contingency event*.
- (f) The *Network Service Provider* is not liable for any loss or damage incurred by the *Generator* or any other person as a consequence of a fault on either the *power system*, or within the *Generator's facility*.

S5.2.5.9 Protection systems that impact on power system security**Automatic access standard**

- (a) The *automatic access standard* is:
 - (1) subject to clauses S5.1.9(k) and S5.1.9(l), primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element in a *generating system* and in protection zones that include the *connection point* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1);

- (2) each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications *facility* upon which that *protection system* depends) out of service; and
 - (3) *breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).
- (b) In relation to an *automatic access standard* under this clause S5.2.5.9, the *Generator* must provide redundancy in the primary *protection systems* under paragraph (a)(2) and provide *breaker fail protection systems* under paragraph (a)(3) if AEMO or the *Network Service Provider* consider that a lack of these *facilities* could result in:
- (1) a material adverse impact on *power system security* or quality of supply to other *Network Users*; or
 - (2) a reduction in *inter-regional* or *intra-regional power transfer capability*,
- through any mechanism including:
- (3) consequential tripping of, or damage to, other *network equipment* or *facilities* of other *Network Users*, that would have a *power system security* impact; or
 - (4) instability that would not be detected by other *protection systems* in the *network*.

Minimum access standard

- (c) The *minimum access standard* is:
- (1) subject to clauses S5.1.9(k) and S5.1.9(l), *protection systems* must be provided to *disconnect* from the *power system* any faulted element within a *generating system* and in protection zones that include the *connection point* within the applicable *fault clearance time* determined under clause S5.1.9(a)(2); and
 - (2) if a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault within that protection zone that is not cleared by the circuit breakers controlled by the primary *protection system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

[Deleted]

- (d) [Deleted]

General requirements

- (e) The *Network Service Provider* and the *Generator* must cooperate in the design and implementation of *protection systems* to comply with this clause S5.2.5.9, including cooperation on:
 - (1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;
 - (2) tripping of one party's circuit breakers by a *protection system* of the other party; and
 - (3) co-ordination of *protection system* settings to ensure inter-operation.
- (f) The *protection system* design referred to in paragraphs (a) and (c) must:
 - (1) be coordinated with other *protection systems*;
 - (2) avoid consequential *disconnection* of other *Network Users' facilities*; and
 - (3) take into account existing obligations of the *Network Service Provider* under *connection agreements* with other *Network Users*.

S5.2.5.10 Protection to trip plant for unstable operation**Automatic access standard**

- (a) The *automatic access standard* is a *generating system* must have:
 - (1) for its *synchronous generating units*, a *protection system* to *disconnect* it promptly when a condition that would lead to pole slipping is detected, to prevent pole slipping or other conditions where a *generating unit* causes *active power*, *reactive power* or *voltage* at the *connection point* to become unstable as assessed in accordance with the *power system* stability guidelines established under clause 4.3.4(h); and
 - (2) for its *asynchronous generating units*, a *protection system* to *disconnect* it promptly for conditions where the *active power*, *reactive power* or *voltage* at the *connection point* becomes unstable as assessed in accordance with the guidelines for *power system* stability established under clause 4.3.4(h).

Minimum access standard

- (b) The *minimum access standard* is a *generating system* must not cause a *voltage* disturbance at the *connection point* due to sustained unstable behaviour of more than the maximum level specified in Table 7 of *Australian Standard AS/NZS 61000.3.7:2001*.

Negotiated access standard

- (c) If the *Network Service Provider* and the *Generator* agree, a *protection system* may also trip any other part of the *generating system* to cease the instability.
- (d) Notwithstanding paragraph (c), a *protection system* must be provided in the *access standard* to trip the affected *generating unit* where:
 - (1) the *Network Service Provider* considers it necessary to prevent consequential tripping of, or damage to, other *generating units*, *network equipment* or other *Network Users' facilities*, or
 - (2) *AEMO* considers it necessary to prevent unstable operation having an adverse impact on *power system security*.

S5.2.5.11 Frequency control

- (a) For the purpose of this clause S5.2.5.11:

droop means, in relation to *frequency response mode*, the percentage change in *power system frequency* as measured at the *connection point*, divided by the percentage change in *power transfer* of the *generating system* expressed as a percentage of the maximum operating level of the *generating system*. Droop must be measured at *frequencies* that are outside the deadband and within the limits of *power transfer*.

maximum operating level means in relation to:

- (1) a *non-scheduled generating unit*, the maximum *sent out generation* consistent with its *nameplate rating*;
- (2) a *scheduled generating unit* or *semi-scheduled generating unit*, the maximum *generation* to which it may be *dispatched* and as provided to *AEMO* in the most recent *bid and offer validation data*;
- (3) a *non-scheduled generating system*, the combined maximum *sent out generation* consistent with the *nameplate ratings* of its in-service *generating units*; and
- (4) a *scheduled generating system* or *semi-scheduled generating system*, the combined maximum *generation* to which its in-service *generating units* may be *dispatched* and as provided to *AEMO* in the most recent *bid and offer validation data*.

minimum operating level means in relation to:

- (1) a *non-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation;
- (2) a *scheduled generating unit* or *semi-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation;

- (3) a *non-scheduled generating system*, the combined *minimum operating level* of its in-service *generating units*; and
- (4) a *scheduled generating system* or *semi-scheduled generating system*, the combined *minimum sent out generation* of its in-service *generating units*.

Automatic access standard

(b) The *automatic access standard* is:

- (1) a *generating system's power transfer* to the *power system* must not:
 - (i) increase in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; or
 - (ii) decrease in response to a fall in the *frequency* of the *power system* as measured at the *connection point*; and
- (2) a *generating system* must be capable of operating in *frequency response mode* such that it automatically provides a proportional:
 - (i) decrease in *power transfer* to the *power system* in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; and
 - (ii) increase in *power transfer* to the *power system* in response to a fall in the *frequency* of the *power system* as measured at the *connection point*,

sufficiently rapidly and sustained for a sufficient period for the *Generator* to be in a position to offer measurable amounts of all *market ancillary services* for the provision of *power system frequency control*.

Minimum access standard

(c) The *minimum access standard* is:

- (1) for a *generating system* under relatively stable input energy, *power transfer* to the *power system* must not:
 - (i) increase in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; and
 - (ii) decrease more than 2% per Hz in response to a fall in the *frequency* of the *power system* as measured at the *connection point*; and
- (2) a *generating system* must be capable of operating in *frequency response mode* such that, subject to energy source availability, it automatically provides:

- (i) a decrease in *power transfer* to the *power system* in response to a rise in the *frequency* of the *power system* as measured at the *connection point*; or
- (ii) an increase in *power transfer* to the *power system* in response to a fall in the *frequency* of the *power system* as measured at the *connection point*,

where the change in *active power* is either proportional or otherwise as agreed with AEMO and the *Network Service Provider*.

[Deleted]

(d) **[Deleted]**

(e) **[Deleted]**

(f) **[Deleted]**

General requirements

- (g) Each *control system* used to satisfy this clause S5.2.5.11 must be *adequately damped*.
- (h) The amount of a relevant *market ancillary service* for which the *plant* may be registered must not exceed the amount that would be consistent with the *performance standard* registered in respect of this requirement.
- (i) For the purposes of subparagraph (b)(2), and with respect to a *negotiated access standard* proposed for the technical requirements relevant to this clause S5.2.5.11:
 - (1) the change in *power transfer* to the *power system* must occur with no delay beyond that required for stable operation, or inherent in the *plant* controls, once the *frequency* of the *power system* as measured at the *connection point* leaves a deadband around 50 Hz;
 - (2) a *generating system* must be capable of setting the deadband and droop within the following ranges:
 - (i) the deadband referred to in subparagraph (1) must be set within the range of 0 to ± 1.0 Hz. Different deadband settings may be applied for a rise or fall in the *frequency* of the *power system* as measured at the *connection point*; and
 - (ii) the droop must be set within the range of 2% to 10%, or such other settings as agreed with the *Network Service Provider* and AEMO;
 - (3) nothing in subparagraph (b)(2) is taken to require a *generating system* to operate below its minimum operating level in response to a rise in the *frequency* of the *power system* as measured at the *connection*

point, or above its maximum operating level in response to a fall in the *frequency* of the *power system* as measured at the *connection point*;

- (4) a *generating system* is required to operate in *frequency response mode* only when it is enabled for the provision of a relevant *market ancillary service*; and
- (5) the *performance standards* must record:
 - (i) agreed values for maximum operating level and minimum operating level, and where relevant the method of determining the values, and the values for a *generating system* must take into account its in-service *generating units*; and
 - (ii) for the purpose of subparagraph (b)(2), or a *negotiated access standard* offering measureable amounts of *market ancillary services* under this clause S5.2.5.11, the *market ancillary services*, including the performance parameters and requirements that apply to each such *market ancillary service*.

S5.2.5.12 Impact on network capability

Automatic access standard

- (a) The *automatic access standard* is a *generating system* must have *plant capabilities* and *control systems* that are sufficient so that when *connected* it does not reduce any *inter-regional* or *intra-regional power transfer capability* below the level that would apply if the *generating system* were not *connected*.

Minimum access standard

- (b) The *minimum access standard* is a *generating system* must have *plant capabilities*, *control systems* and operational arrangements sufficient to ensure there is no reduction in:
 - (1) the ability to *supply Customer load* as a result of a reduction in *power transfer capability*; and
 - (2) *power transfer capabilities* into a region by more than the combined *sent out generation* of its *generating units*.

Negotiated access standard

- (c) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.5.12, the *Network Service Provider* and *AEMO* must take into account:
 - (1) the expected performance of:
 - (i) existing *networks* and *considered projects*;
 - (ii) existing *generating plant* and other relevant projects; and

- (iii) *control systems* and *protection systems*, including *automatic reclose equipment*; and
- (2) the expected range of *power system* operating conditions.
- (d) The *negotiated access standard* must include:
 - (1) *control systems* to minimise any reduction in *power transfer capabilities*; and
 - (2) operational arrangements, including curtailment of the *generating system's* output if necessary to ensure that the *generating plant* is operated in a way that meets at least the *minimum access standard* under abnormal *network* and *generating system* conditions, so that *power system security* can be maintained.
- (e) A *negotiated access standard* under this clause S5.2.5.12 must detail the *plant capabilities*, *control systems* and operational arrangements that will be maintained by the *Generator*, notwithstanding that change to the *power system*, but not changes to the *generating system*, may reduce the efficacy of the *plant capabilities*, *control systems* and operational arrangements over time.
- (f) **[Deleted]**

General requirement

- (g) If a *Network Service Provider* considers that *power transfer capabilities* of its *network* would be increased through provision of additional *control system facilities* to a *generating system* (such as a *power system* stabiliser), the *Network Service Provider* and the *Generator* may negotiate for the provision of such additional *control system facilities* as a commercial arrangement.

S5.2.5.13 Voltage and reactive power control

- (a) For the purpose of this clause S5.2.5.13:

static excitation system means in relation to a *synchronous generating unit*, an *excitation control system* that does not use rotating machinery to produce the field current.

Automatic access standard

- (b) The *automatic access standard* is:
 - (1) a *generating system* must have *plant capabilities* and *control systems* sufficient to ensure that:
 - (i) *power system* oscillations, for the frequencies of oscillation of the *generating unit* against any other *generating unit*, are *adequately damped*;

- (ii) operation of the *generating system* does not degrade the damping of any critical mode of oscillation of the *power system*; and
 - (iii) operation of the *generating system* does not cause instability (including hunting of *tap-changing transformer control systems*) that would adversely impact other *Registered Participants*;
- (2) a *control system* must have:
 - (i) for the purposes of disturbance monitoring and testing, permanently installed and operational, monitoring and recording *facilities* for key variables including each input and output; and
 - (ii) *facilities* for testing the *control system* sufficient to establish its dynamic operational characteristics;
- (2A) a *generating system* must have *facilities* with a *control system* to regulate *voltage*, *reactive power* and *power factor*, with the ability to:
 - (i) operate in any control mode; and
 - (ii) switch between control modes,as shown in the manufacturer's and/or design specifications of the relevant equipment and demonstrated to the reasonable satisfaction of the *Network Service Provider* and *AEMO*;
- (2B) a *generating system* must have a *voltage control system* that:
 - (i) regulates *voltage* at the *connection point* or another agreed location in the *power system* (including within the *generating system*) to within 0.5% of the setpoint, where that setpoint may be adjusted to incorporate any *voltage* droop or reactive current compensation agreed with *AEMO* and the *Network Service Provider*;
 - (ii) regulates *voltage* in a manner that helps to support *network voltages* during faults and does not prevent the *Network Service Provider* from achieving the requirements of clauses S5.1a.3 and S5.1a.4;
 - (iii) allows the *voltage* setpoint to be continuously controllable in the range of at least 95% to 105% of the target *voltage* (as determined by the *Network Service Provider* in accordance with clause S5.1.4(c) and recorded in the *connection agreement* in accordance with clause S5.1.4) at the *connection point* or agreed location on the *power system*, without reliance on a *tap-changing transformer* and subject to the *reactive power* capability agreed with *AEMO* and the *Network Service Provider* under clause S5.2.5.1; and

- (iv) has limiting devices to ensure that a *voltage* disturbance does not cause a *generating unit* to trip at the limits of its operating capability;
- (3) a synchronous *generating system* must have an *excitation control system* that:
 - (i) **[Deleted]**
 - (ii) can operate the stator continuously at 105% of *nominal voltage* with *rated active power* output;
 - (iii) **[Deleted]**
 - (iv) **[Deleted]**
 - (v) **[Deleted]**
 - (vi) has an excitation ceiling *voltage* of at least:
 - (A) for a static excitation system, 2.3 times; or
 - (B) for other *excitation control systems*, 1.5 times,

the excitation required to achieve *generation* at the *nameplate rating* for *rated power factor*, *rated speed* and *nominal voltage*;
 - (vii) has settling *times* for a step change of *voltage* setpoint or *voltage* at the location agreed under subparagraph (2B)(i) of:
 - (A) generated *voltage* less than 2.5 seconds for a 5% *voltage* disturbance with the *generating unit* not *synchronised*;
 - (B) *active power*, *reactive power* and *voltage* less than 5.0 seconds for a 5% *voltage* disturbance with the *generating unit synchronised*, from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and
 - (C) in respect of each limiting device, *active power*, *reactive power* and *voltage* less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit synchronised*, when operating into a limiting device from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate;
 - (viii) can increase field *voltage* from *rated field voltage* to the excitation ceiling *voltage* in less than:
 - (A) 0.05 second for a static excitation system; or
 - (B) 0.5 second for other *excitation control systems*; and

- (ix) has a *power system* stabiliser with sufficient flexibility to enable damping performance to be maximised, with characteristics as described in paragraph (c);
- (4) a *generating system*, other than one comprised of *synchronous generating units*, must have a *voltage control system* that:
 - (i) **[Deleted]**
 - (ii) **[Deleted]**
 - (iii) **[Deleted]**
 - (iv) **[Deleted]**
 - (v) with the *generating system connected* to the *power system*, has settling times for *active power*, *reactive power* and *voltage* due to a step change of *voltage* setpoint or *voltage* at the location agreed under clause subparagraph (2B)(i), of less than:
 - (A) 5.0 seconds for a 5% *voltage* disturbance with the *generating system connected* to the *power system*, from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and
 - (B) 7.5 seconds for a 5% *voltage* disturbance with the *generating system connected* to the *power system*, when operating into any limiting device from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate;
 - (vi) has *reactive power* rise time, for a 5% step change in the *voltage* setpoint, of less than 2 seconds; and
 - (vii) has a power oscillation damping capability with sufficient flexibility to enable damping performance to be maximised:
 - (A) with characteristics as described in paragraph (c); or
 - (B) where *AEMO* has published characteristics for a *generating system* other than one comprised of *synchronous generating units*, following consultation in accordance with the *Rules consultation procedures*, with characteristics as published by *AEMO*.
- (c) A *power system* stabiliser provided under paragraph (b) must have:
 - (1) for a *synchronous generating unit*, measurements of rotor speed and *active power* output of the *generating unit* as inputs, and otherwise, measurements of *power system frequency* and *active power* output of the *generating unit* as inputs;

- (2) two washout filters for each input, with ability to bypass one of them if necessary;
 - (3) sufficient (and not less than two) lead-lag transfer function blocks (or equivalent number of complex poles and zeros) with adjustable gain and time-constants, to compensate fully for the phase lags due to the *generating plant*;
 - (4) an output limiter, which for a *synchronous generating unit* is continually adjustable over the range of -10% to +10% of stator voltage;
 - (5) monitoring and recording *facilities* for key variables including inputs, output and the inputs to the lead-lag transfer function blocks; and
 - (6) *facilities* to permit testing of the *power system* stabiliser in isolation from the *power system* by injection of test signals, sufficient to establish the transfer function of the *power system* stabiliser.
- (c1) A reactive power or power factor control system provided under paragraph (b)(2A) must:
- (1) regulate *reactive power* or *power factor* (as applicable) at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within:
 - (i) for a *generating system* operating in *reactive power* mode, 2% of the rating (in MVA) of the *generating system* (expressed in MVar); or
 - (ii) for a *generating system* operating in *power factor* mode, a *power factor* equivalent to 2% of the rating (in MVA) of the *generating system* (expressed in MVar);
 - (2) allow the *reactive power* or *power factor* setpoint to be continuously controllable across the *reactive power* capability range established under clause S5.2.5.1; and
 - (3) with the *generating system* connected to the *power system*, and for a step change in setpoint of at least 50% of the *reactive power* capability agreed with AEMO and the *Network Service Provider* under clause S5.2.5.1, or a 5% *voltage* disturbance at the location agreed under subparagraph (1):
 - (i) have *settling times* for *active power*, *reactive power* and *voltage* of less than 5.0 seconds from an operating point where the *voltage* disturbance would not cause any limiting device to operate; and
 - (ii) have *settling times* for *active power*, *reactive power* and *voltage* of less than 7.5 seconds when operating into any limiting device

from an operating point where a *voltage* disturbance of 2.5% would just cause the limiting device to operate.

The *Network Service Provider* may determine whether to use a setpoint step test or a 5% *voltage* disturbance test for the purposes of this subparagraph (c1)(3).

Minimum access standard

(d) The *minimum access standard* is:

- (1) a *generating system* must have *plant capabilities* and *control systems*, including, if appropriate, a *power system* stabiliser, sufficient to ensure that:
 - (i) *power system* oscillations, for the frequencies of oscillation of the *generating unit* against any other *generating unit*, are *adequately damped*;
 - (ii) operation of the *generating unit* does not degrade:
 - (A) any mode of oscillation that is within 0.3 nepers per second of being unstable, by more than 0.01 nepers per second; and
 - (B) any other mode of oscillation to within 0.29 nepers per second of being unstable; and
 - (iii) operation of the *generating unit* does not cause instability (including hunting of *tap-changing transformer control systems*) that would adversely impact other *Registered Participants*;
- (2) a *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more must have *facilities* for testing its *control systems* sufficient to establish their dynamic operational characteristics;
- (2A) a *generating system* must have *facilities* with a *control system* to regulate:
 - (i) *voltage*; or
 - (ii) either of *reactive power* or *power factor* with the agreement of *AEMO* and the *Network Service Provider*;
- (2B) a *voltage control system* for a *generating system* must:
 - (i) regulate *voltage* at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within 2% of the setpoint, where that setpoint may be adjusted to incorporate any *voltage* droop or reactive current

- compensation agreed with *AEMO* and the *Network Service Provider*; and
- (ii) allow the *voltage* setpoint to be controllable in the range of at least 98% to 102% of the target *voltage* (as determined by the *Network Service Provider* in accordance with clause S5.1.4(c) and recorded in the *connection agreement* in accordance with clause S5.1.4) at the *connection point* or the agreed location, subject to the *reactive power* capability agreed with *AEMO* and the *Network Service Provider* under clause S5.2.5.1;
- (3) a *generating system's reactive power* or *power factor control system* must:
- (i) regulate *reactive power* or *power factor* (as applicable) at the *connection point* or another agreed location in the *power system* (including within the *generating system*), to within:
 - (A) for a *generating system* operating in *reactive power* mode, 5% of the rating (in MVA) of the *generating system* (expressed in MVar); or
 - (B) for a *generating system* operating in *power factor* mode, a *power factor* equivalent to 5% of the rating (in MVA) of the *generating system* (expressed in MVar); and
 - (ii) allow the *reactive power* or *power factor* setpoint to be continuously controllable across the *reactive power* capability range established under clause S5.2.5.1;
- (4) a synchronous *generating system* with a *nameplate rating* of 30 MW or more, with an *excitation control system* required to regulate *voltage* under subparagraph (d)(2A)(i) must:
- (i) **[Deleted]**
 - (ii) have excitation ceiling *voltage* of at least 1.5 times the excitation required to achieve *generation* at the *nameplate rating* for rated *power factor*, rated speed and *nominal voltage*;
 - (iii) subject to co-ordination under paragraph (i), have a *settling time* of less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit* synchronised, from an operating point where such a *voltage* disturbance would not cause any limiting device to operate; and
 - (iv) have over and under excitation limiting devices sufficient to ensure that a *voltage* disturbance does not cause the *generating unit* to trip at the limits of its operating capability; and

- (5) a *generating system* comprised of *asynchronous generating units* with a *nameplate rating* of 30 MW or more, with a *voltage control system* required to regulate *voltage* under subparagraph (d)(2A)(i) must:

- (i) **[Deleted]**
- (ii) subject to co-ordination under paragraph (i), have a *settling time* less than 7.5 seconds for a 5% *voltage* disturbance with the *generating unit* electrically connected to the *power system* from an operating point where such a *voltage* disturbance would not cause any limiting device to operate; and
- (iii) have limiting devices to ensure that a *voltage* disturbance would not cause the *generating unit* to trip at the limits of its operating capability.

Negotiated access standard

- (e) **[Deleted]**
- (f) The *negotiated access standard* proposed by the *Generator* under clause 5.3.4A(b1) must be the highest level that the *generating system* can reasonably achieve, including by installation of additional dynamic *reactive power* equipment, and through optimising its *control systems*.
- (g) **[Deleted]**

General requirements

- (g1) For the purposes of subparagraph (b)(2A), the *Network Service Provider* and *AEMO* will nominate one or more control modes to be implemented when the *generating system* is commissioned, and may require additional control modes to be commissioned after *connection* if the *Network Service Provider* or *AEMO* reasonably considers such additional modes to be necessary to ensure *power system security* or quality of *supply*. Where a *generating system* has been commissioned for more than one control mode, the *Generator*, *Network Service Provider* and *AEMO* must agree on a procedure for switching between control modes. The initial operating mode, other available modes and the procedure for switching between modes must be recorded as part of the *performance standard*.
- (h) A limiting device provided under paragraphs (b) and (d) must:
 - (1) not detract from the performance of any power system stabiliser or power oscillation damping capability; and
 - (2) be co-ordinated with all *protection systems*.
- (i) The *Network Service Provider* may require that the design and operation of the *control systems* of a *generating unit* or *generating system* be coordinated with the existing *voltage control systems* of the *Network Service Provider* and of other *Network Users*, in order to avoid or manage interactions that

would adversely impact on the *Network Service Provider* and other *Network Users*.

- (j) Any requirements imposed by the *Network Service Provider* under paragraph (i) must be recorded in the *performance standard*.
- (k) The assessment of impact of the *generating units* on *power system* stability and damping of *power system* oscillations shall be in accordance with the guidelines for *power system* stability established under clause 4.3.4(h).

S5.2.5.14 Active power control

- (a) The *automatic access standard* is a *generating system* must have an *active power control system* capable of:
 - (1) for a *scheduled generating unit* or a *scheduled generating system*:
 - (i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*;
 - (ii) ramping its *active power* output linearly from one level of *dispatch* to another; and
 - (iii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required);
 - (2) subject to energy source availability, for a *non-scheduled generating unit* or *non-scheduled generating system*:
 - (i) automatically reducing or increasing its *active power* output within 5 minutes, at a constant rate, to or below the level specified in an instruction electronically issued by a *control centre*, subject to subparagraph (iii);
 - (ii) automatically limiting its *active power* output, to below the level specified in subparagraph (i); and
 - (iii) not changing its *active power* output within 5 minutes by more than the raise and lower amounts specified in an instruction electronically issued by a *control centre*; and
 - (3) subject to energy source availability, for a *semi-scheduled generating unit* or a *semi-scheduled generating system*:
 - (i) automatically reducing or increasing its *active power* output within 5 minutes at a constant rate, to or below the level specified in an instruction electronically issued by a *control centre*;

- (ii) automatically limiting its *active power* output, to or below the level specified in subparagraph (i);
- (iii) not changing its *active power* output within 5 minutes by more than the raise and lower amounts specified in an instruction electronically issued by a *control centre*;
- (iv) ramping its *active power* output linearly from one level of *dispatch* to another; and
- (v) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required).

Minimum access standard

- (b) The *minimum access standard* is a *generating system* must have an *active power control system* capable of:
 - (1) for a *scheduled generating unit* or a *scheduled generating system*:
 - (i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*; and
 - (ii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every four seconds (or such other period specified by *AEMO* as required);
 - (2) for a *non-scheduled generating system*:
 - (i) reducing its *active power* output, within 5 minutes, to or below the level required to manage *network* flows that is specified in a verbal instruction issued by the *control centre*;
 - (ii) limiting its *active power* output, to or below the level specified in subparagraph (i); and
 - (iii) subject to energy source availability, ensuring that the change of *active power* output in a 5 minute period does not exceed a value agreed with *AEMO* and the *Network Service Provider*; and
 - (3) subject to energy source availability, for a *semi-scheduled generating unit* or a *semi-scheduled generating system*:
 - (i) maintaining and changing its *active power* output in accordance with its *dispatch instructions*;
 - (ii) not changing its *active power* output within five minutes by more than the rise and lower amounts specified in an instruction electronically issued by a *control centre*; and

- (iii) receiving and automatically responding to signals delivered from the *automatic generation control system*, as updated at a rate of once every 4 seconds (or such other period specified by *AEMO* as required).

Negotiated access standard

- (c) A *negotiated access standard* may provide that if the number or frequency of verbal instructions becomes difficult for a *control centre* to manage, *AEMO* may require the *Generator* to upgrade its *facilities* to receive electronic instructions and fully implement them within 5 minutes.
- (d) The *negotiated access standard* must document to *AEMO's* satisfaction any operational arrangements necessary to manage *network* flows that may include a requirement for the *generating system* to be operated in a manner that prevents its output changing within 5 minutes by more than an amount specified by a *control centre*.
- (e) **[Deleted]**

General requirements

- (f) Each *control system* used to satisfy the requirements of paragraphs (a) and (b) must be *adequately damped*.

S5.2.6 Monitoring and control requirements

S5.2.6.1 Remote Monitoring

Automatic access standard

- (a) The *automatic access standard* is a:
 - (1) *scheduled generating unit*;
 - (2) *scheduled generating system*;
 - (3) *non-scheduled generating unit*;
 - (4) *non-scheduled generating system*;
 - (5) *semi-scheduled generating unit*; or
 - (6) *semi-scheduled generating system*,

must have *remote monitoring equipment* and *remote control equipment* to transmit to, and receive from, *AEMO's control centres* in real time in accordance with rule 4.11 the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions set out in Chapters 3 and 4.

- (b) The remote monitoring quantities referred to under paragraph (a) that *AEMO* may request include:

- (1) in respect of a *generating system* of a type referred to in subparagraphs (a)(1) to (6):
 - (i) the status of all switching devices that carry the *generation*;
 - (ii) *tap-changing transformer* tap position(s) and *voltages*;
 - (iii) *active power* and *reactive power* aggregated for groups of identical *generating units*;
 - (iv) either the number of identical *generating units* operating or the operating status of each non-identical *generating unit*;
 - (v) *active power* and *reactive power* for the *generating system*; and
 - (vi) *voltage control system* setpoint and mode (as applicable);
- (2) in respect of a *generating unit* with a *nameplate rating* of 30 MW or more, current, *voltage*, *active power* and *reactive power* in respect of *generating unit* stators or power conversion systems (as applicable);
- (3) in respect of an auxiliary supply system with a capacity of 30 MW or more associated with a *generating unit* or *generating system*, *active power* and *reactive power*;
- (4) in respect of *reactive power* equipment that is part of a *generating system* but not part of a particular *generating unit*, its *reactive power*;
- (5) in respect of a *semi-scheduled generating system*, all data specified as mandatory in the relevant *energy conversion model* applicable to that type of *semi-scheduled generating system*;
- (6) in respect of a *scheduled generating system* or *semi-scheduled generating system*:
 - (i) maximum *active power* limit;
 - (ii) minimum *active power* limit;
 - (iii) maximum *active power* raise *ramp rate*; and
 - (iv) maximum *active power* lower *ramp rate*;
- (7) in respect of a run-back scheme agreed with the *Network Service Provider*:
 - (i) run-back scheme status; and
 - (ii) *active power*, *reactive power* or other control limit, as applicable;
- (8) the mode of operation of the *generating unit*, turbine control limits, or other information required to reasonably predict the *active power*

response of the *generating system* to a change in *power system frequency* at the *connection point*; and

- (9) any other quantity that *AEMO* reasonably requires to discharge its *market* and *power system security* functions as set out in Chapters 3 and 4.
- (b1) The remote control quantities referred to under paragraph (a) that *AEMO* may request include:
 - (1) in respect of a *generating system*:
 - (i) *voltage control* setpoint; and
 - (ii) *voltage control* mode (where applicable);
 - (2) in respect of a *scheduled generating system* or *semi-scheduled generating system*, the *automatic generation control system* signal; and
 - (3) in respect of a *non-scheduled generating system*, to the extent required to manage *network* flows:
 - (i) *active power* limit; and
 - (ii) *active power* ramp limit.

Minimum access standard

- (c) The *minimum access standard* is a:
 - (1) *scheduled generating unit*;
 - (2) *scheduled generating system*;
 - (3) *non-scheduled generating system*;
 - (4) *semi-scheduled generating unit*; or
 - (5) *semi-scheduled generating system*,

must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time in accordance with rule 4.11 the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions set out in Chapters 3 and 4.
- (d) The quantities referred to under paragraph (c) that *AEMO* may request include:
 - (1) the *active power* output of the *generating unit* or *generating system* (as applicable);

- (2) if *connected* to a *transmission system*, the *reactive power* output of the *generating unit* or *generating system* (as applicable); and
- (3) if a *semi-scheduled generating system*, all data specified as mandatory in the relevant *energy conversion model* applicable to that type of *semi-scheduled generating system*.

S5.2.6.2 Communications equipment

Automatic access standard

- (a) The *automatic access standard* is a *Generator* must:
 - (1) provide and maintain two separate telephone *facilities* using independent telecommunications service providers, for the purposes of *operational communications* between the *Generator's* responsible operator under clause 4.11.3(a) and *AEMO's control centre*; and
 - (2) provide electricity supplies for *remote monitoring equipment* and *remote control equipment* installed in relation to its *generating system* capable of keeping such equipment available for at least 3 hours following total loss of *supply* at the *connection point* for the relevant *generating unit*.

Minimum access standard

- (b) The *minimum access standard* is a *Generator* must:
 - (1) provide and maintain a telephone facility for the purposes of *operational communications* between the *Generator's* responsible operator under clause 4.11.3(a) and *AEMO's control centre*; and
 - (2) provide electricity supplies for *remote monitoring equipment* and *remote control equipment* installed in relation to its *generating system* capable of keeping such equipment available for at least 1 hour following total loss of *supply* at the *connection point* for the relevant *generating unit*.

Negotiated access standard

- (c) A *negotiated access standard* must include, where the *Network Service Provider* or *AEMO* reasonably require, a back-up telephone facility be independent of commercial telephone service providers, and the *Network Service Provider* must provide and maintain the separate facility on a cost-recovery basis only through the charge for *connection*.
- (d) A *negotiated access standard* must include that a *Generator* must provide communications paths (with appropriate redundancy) from the *remote monitoring equipment* or *remote control equipment* installed for each of its *generating systems* as appropriate, to an interface for communication purposes in a location reasonably acceptable to the *Network Service Provider* at the relevant *generation facility*.

- (e) Communications systems between the interface for communication purposes under paragraph (d) and the *control centre* must be the responsibility of the *Network Service Provider* unless otherwise agreed by the *Generator* and the *Network Service Provider*.
- (f) A *negotiated access standard* must include that the *Generator* provide accommodation and secure power supplies for communications *facilities* provided by the *Network Service Provider* under this clause S5.2.6.2.

S5.2.7 Power station auxiliary supplies

In cases where a *generating system* takes its auxiliary supplies via a *connection point* through which its *generation* is not transferred to the *network*, the *access standards* must be established under clause S5.3.5 as if the *Generator* were a *Market Customer*.

S5.2.8 Fault current

Automatic access standard

- (a) The *automatic access standard* is:
 - (1) the contribution of the *generating system* to the fault current on the *connecting network* through its *connection point* must not exceed the contribution level that will ensure that the total fault current can be safely interrupted by the circuit breakers of the *connecting network* and safely carried by the *connecting network* for the duration of the applicable *breaker fail protection system fault clearance times*, as specified for the relevant *connection point* by the *Network Service Provider*;
 - (2) a *generating system's connected plant* must be capable of withstanding fault current through the *connection point* up to the higher of:
 - (i) the level specified in clause S5.2.4(e1)(1) ; and
 - (ii) the highest level of current at the *connection point* that can be safely interrupted by the circuit breakers of the *connecting network* and safely carried by the *connecting network* for the duration of the applicable *breaker fail protection system fault clearance times*, as specified by the *Network Service Provider*; and
 - (3) a circuit breaker provided to isolate a *generating unit* or *generating system* from the *network* must be capable of breaking, without damage or restrike, the maximum fault currents that could reasonably be expected to flow through the circuit breaker for any fault in the *network* or in the *generating unit* or *generating system*, as specified in the *connection agreement*.

Minimum access standard

- (b) The *minimum access standard* is:
- (1) the *generating system* does not need to limit fault current contribution;
 - (2) a *generating system's connected plant* must be capable of withstanding fault current through the *connection point* up to the level specified in clause S5.2.4(e1)(1) ; and
 - (3) a circuit breaker provided to isolate a *generating unit* or *generating system* from the *network* must be capable of breaking, without damage or restrike, the maximum fault currents that could reasonably be expected to flow through the circuit breaker for any fault in the *network* or in the *generating unit* or *generating system*, as specified in the *connection agreement*.

Negotiated access standard

- (c) In negotiating a *negotiated access standard*, the *Network Service Provider* must consider alternative *network* configurations in the determination of the applicable fault current level and must prefer those options that maintain an equivalent level of service to other *Network Users* and which, in the opinion of the *Generator*, impose the least obligation on the *Generator*.
- (d) In carrying out assessments of proposed *negotiated access standards* under this clause S5.2.8, the *Network Service Provider* must take into account, without limitation:
- (1) the expected performance of existing *networks* and *considered projects*;
 - (2) the expected performance of existing *generating plant* and other relevant projects; and
 - (3) the expected range of *power system* operating conditions.

Schedule 5.3 Conditions for Connection of Customers**S5.3.1a Introduction to the schedule**

- (a) This schedule applies to the following classes of *Network User*:
- (1) a *First-Tier Customer* in respect of its *first-tier load*;
 - (2) a *Second-Tier Customer* in respect of its *second-tier load*;
 - (3) a *Market Customer* in respect of its *market load*;
 - (4) a *Non-Registered Customer* in respect of *supply* it takes from a *network*; ~~and~~

- (5) a *Distribution Network Service Provider* in respect of its *distribution network*.
- (b) For the purposes of this schedule 5.3 the term ***Network Service Provider*** must be interpreted to mean the *Network Service Provider* with whom the *Connection Applicant* has sought, or is seeking, a *connection* in accordance with clause 5.3.2 of the *Rules* or in the case of a connection to an embedded network, the Embedded Network Service Provider for the embedded network.
- (c) All *Network Users* must comply with the requirements for the establishment of *performance standards* in accordance with provisions contained in schedule 5.1a for *system standards* or schedule 5.1 for *Network Service Providers* (other than Embedded Network Service Providers) and this schedule 5.3 for *Customers*.
- (d) If the *Connection Applicant* is a *Registered Participant* in relation to the proposed *connection*, the *Network Service Provider* may include as terms and conditions of the *connection agreement* any provision of this schedule that is expressed as an obligation on a *Network User*. If the *Connection Applicant* is not a *Registered Participant* in relation to the proposed *connection*, the *Network Service Provider* must include as terms and conditions of the *connection agreement*:
 - (1) each provision of this schedule that is expressed as an obligation on a *Network User*; and
 - (2) each agreed *performance standard* and an obligation to comply with it.
- (e) The purpose of this schedule is to:
 - (1) describe the information that must be exchanged for the *connection enquiry* and *application to connect* processes described in rule 5.3 of the *Rules*;
 - (2) establish the *automatic access standards* and *minimum access standards* that will apply to the process of negotiating access standards under clause 5.3.4A of the *Rules*; and
 - (3) establish obligations to apply prudent design standards for the *plant* to be *connected*.

S5.3.1 Information

- (a) Before a *Network User* connects any new or additional equipment to a *network*, the *Network User* must submit the following kinds of information to the *Network Service Provider*:
 - (1) a single line diagram with the protection details;

- (2) *metering system* design details for any metering equipment being provided by the *Network User*;
 - (3) a general arrangement locating all the equipment on the site;
 - (4) a general arrangement for each new or altered *substation* showing all exits and the position of all electrical equipment;
 - (5) type test certificates for all new switchgear and *transformers*, including measurement *transformers* to be used for *metering* purposes in accordance with Chapter 7 of the *Rules*;
 - (6) earthing details;
 - (7) the proposed methods of earthing cables and other equipment to comply with the regulations of the relevant *participating jurisdiction*;
 - (8) *plant* and earth grid test certificates from approved test authorities;
 - (9) a secondary injection and trip test certificate on all circuit breakers;
 - (10) certification that all new equipment has been inspected before being *connected* to the *supply*; and
 - (11) operational arrangements.
- (a1) Before a *Network User* connects any new or additional equipment to a *network*, the *Network User* must submit:
- (1) to *AEMO* and the relevant *Network Service Provider(s)*, information about the *protection systems* of the equipment;
 - (2) to *AEMO* and the relevant *Network Service Provider(s)*, information about the *control systems* of the equipment including:
 - (i) a set of functional block diagrams, including all functions between feedback signals and output;
 - (ii) the parameters of each functional block, including all settings, gains, time constants, delays, deadbands and limits;
 - (iii) the characteristics of non-linear elements;
 - (iv) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;
 - (3) to *AEMO* and the relevant *Network Service Provider(s)*, any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;
 - (4) to *AEMO*, model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the model in

subparagraph (2)(iv) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines* and in a form that would allow conversion for use with other software simulation products nominated by *AEMO* in the *Power System Model Guidelines*.

- (a2) The information provided under paragraph (a1) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider(s)* to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.
- (a3) Notwithstanding paragraph (a1), *AEMO* may exempt a *Network User* or class of *Network Users* from the requirement to provide some or all of the information specified in paragraph (a1), and must do so in accordance with the circumstances set out in the *Power System Model Guidelines*.
- (a4) All information provided to *AEMO* and the relevant *Network Service Provider(s)* under paragraph (a1) or pursuant to paragraph (a3) must be treated as *confidential information* by those recipients.
- (b) For the purposes of clause 5.3.2(f) of the *Rules*, the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of the proposed *connection* includes:
 - (1) the highest expected single phase and three phase fault levels at the *connection point* without the proposed *connection*;
 - (2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be connected into the existing *transmission system* or *distribution system*;
 - (3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* without the proposed *connection*;
 - (4) technical information relevant to the *connection point* without the proposed *connection* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion and *voltage* unbalance; and
 - (5) any other information or data not being *confidential information* relating to the performance of the *Network Service Provider's facilities* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*;

except where the *Connection Applicant* agrees the *Network Service Provider* may provide alternative or less detailed technical information in satisfaction of this clause S5.3.1.(b).

S5.3.2 Design standards

A *Network User* must ensure that:

- (a) the electrical *plant* in its *facility* complies with the relevant *Australian Standards* as applicable at the time of first installation of that electrical *plant* in the *facility*;
- (b) circuit breakers provided to isolate the *Network User's facilities* from the *Network Service Provider's facilities* are capable of breaking, without damage or restrike, fault currents nominated by the *Network Service Provider* in the relevant *connection agreement*; and
- (c) new equipment including circuit breakers provided to isolate the *Network User's facilities* from the *Network Service Provider's facilities* is capable of withstanding, without damage, power *frequency voltages* and impulse levels nominated by the *Network Service Provider* to apply at the *connection point* in accordance with the relevant provisions of the *system standards* and recorded in the relevant *connection agreement*.

S5.3.3 Protection systems and settings

A *Network User* must ensure that all *connections* to the *network* are protected by protection devices which effectively and safely *disconnect* any faulty circuit automatically within a time period specified by the *Network Service Provider* in accordance with the following provisions:

- (a) The *automatic access standard* is:
 - (1) Primary *protection systems* must be provided to *disconnect* any faulted element from the *power system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1), but subject to clauses S5.1.9(k) and S5.1.9(l).
 - (2) Each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications facility upon which that *protection system* depends) out of service.
 - (3) *Breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).
- (b) The *minimum access standard* is:
 - (1) Primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element within their respective protection zones within the applicable *fault clearance time* determined under clause S5.1.9(a)(2), but subject to clauses S5.1.9(k) and S5.1.9(l).
 - (2) If a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault

within that protection zone that is not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

- (c) The *Network Service Provider* and the *Network User* must cooperate in the design and implementation of *protection systems* to comply with this clause, including cooperation with regard to:
 - (1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;
 - (2) tripping of one party's circuit breakers by a *protection system* of the other party; and
 - (3) co-ordination of *protection system* settings to ensure inter-operation.

Before the *Network User's* installation is *connected* to the *Network Service Provider's transmission or distribution system* the *Network User's protection system* must be tested and the *Network User* must submit the appropriate test certificate to the *Network Service Provider*.

The application of settings of the protection scheme must be undertaken in accordance with clause S5.3.4.

S5.3.4 Settings of protection and control systems

A *Network User* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.3 if the settings have been approved in writing by the *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Network User* must not allow its *plant* to take *supply* of electricity from the *power system* without such prior approval.

If a *Network User* seeks approval from the *Network Service Provider* to apply or change a setting, approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that the changed setting would cause the *plant* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, *AEMO*, reasonably determines that a setting of a *control system* or *protection system* of the *plant* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or *AEMO* (as applicable) must consult with the *Network User*, and the *Network Service Provider* may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting.

A *Network User* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Network User* must, on request, provide both *AEMO* and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Network User* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Network User* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Network User* its reasonable costs of changing the setting and conducting the tests as requested.

S5.3.5 Power factor requirements

Automatic access standard: For loads equal to or greater than 30 percent of the *maximum demand* at the *connection point* the *power factors* for *Network Users* and for *distribution networks connected* to another *transmission network* or *distribution network* are shown in Table S5.3.1:

Table S5.3.1

Permissible Range	
Supply Voltage (nominal)	Power Factor Range
> 400 kV	0.98 lagging to unity
250 kV - 400 kV	0.96 lagging to unity
50 kV - 250 kV	0.95 lagging to unity
1 kV < 50 kV	0.90 lagging to 0.90 leading

For load less than 30 percent of the *maximum demand* at the *connection point* a *Network Service Provider* may accept a *power factor* outside the range stipulated in Table S5.3.1 provided this does not cause the *system standards* to be violated.

Minimum access standard: A *Network Service Provider* may permit a lower lagging or leading *power factor* where the *Network Service Provider* is advised by *AEMO* that this will not detrimentally affect *power system security* or reduce *intra-regional* or *inter-regional power transfer capability*.

General:

If the *power factor* falls outside the relevant *performance standard* over any critical loading period nominated by the *Network Service Provider*, the *Network User* must, where required by the *Network Service Provider* in order to maintain satisfactory *voltage levels* at the *connection point* or to restore *intra-regional* or *inter-regional power transfer capability*, take action to ensure that the *power*

factor falls within range as soon as reasonably practicable. This may be achieved by installing additional *reactive plant* or reaching a commercial agreement with the *Network Service Provider* to install, operate and maintain equivalent *reactive plant* as part of the *connection assets* or by alternative commercial arrangements with another party.

A *Registered Participant* who installs *shunt capacitors* to comply with *power factor* requirements must comply with the *Network Service Provider's* reasonable requirements to ensure that the design does not severely attenuate audio *frequency* signals used for *load* control or operations, or adversely impact on harmonic *voltage* levels at the *connection point*.

S5.3.6 Balancing of load currents

A *Network Service Provider* may require a *connected Registered Participant's load* to be balanced across all phases in order to maintain the negative sequence *voltage* at each *connection point* at less than or equal to the limits set out in Table S5.1a.1 of the *system standards* for the applicable nominal *supply voltage* level.

Automatic access standard: A *Network User* must ensure that:

- (a) for *connections* at 30 kV or higher *voltage*, the current in any phase is not greater than 102 percent or less than 98 percent of the average of the currents in the three phases; and
- (b) for *connections* at *voltages* less than 30 kV, that the current in any phase is not greater than 105 percent or less than 95 percent of the average of the currents in the three phases.

Minimum access standard: Where agreed with the relevant *Network Service Provider* and subject to any specific conditions imposed, a *Network User* may cause current unbalance greater than that specified in the *automatic access standard* provided the *Network User* does not cause the limits specified in clause S5.1a.7 to be exceeded at any point in the *network*.

General:

The limit to *load* current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

Where these requirements cannot be met the *Registered Participant* may enter into a commercial arrangement with the *Network Service Provider* for the installation of equipment to correct the phase unbalance. Such equipment must be considered as part of the *connection assets* for the *Registered Participant*.

The limit to *load* current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

S5.3.7 Voltage fluctuations

- (a) *Automatic access standard:* The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(a).
- (b) *Minimum access standard:* The *voltage* fluctuations caused by variations in *loading level* at the *connection point*, including those arising from *energisation*, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(b).

The *voltage* fluctuation emission limits and any specified conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3.8 Harmonics and voltage notching

- (a) *Automatic access standard:* The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(a).
- (b) *Minimum access standard:* The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(b).

The harmonic *voltage* distortion emission limits and any special conditions must be included in the *connection agreement*, and is subject to verification of compliance by the *Network Service Provider*.

S5.3.9 Design requirements for Network Users' substations

A *Network User* must comply with the following requirements applicable to the design, station layout and choice of equipment for a *substation*:

- (a) safety provisions must comply with requirements applicable to the *participating jurisdiction* notified by the *Network Service Provider*;
- (b) where required by the *Network Service Provider*, appropriate interfaces and accommodation must be incorporated for communication *facilities*, remote monitoring and control and protection of *plant* which is to be installed in the *substation*;
- (c) a *substation* must be capable of continuous uninterrupted operation with the levels of *voltage*, harmonics, unbalance and *voltage* fluctuation specified in the *system standards* as modified in accordance with the relevant provisions of schedule 5.1;

- (d) earthing of primary *plant* in the *substation* must be in accordance with the Electricity Supply Association of Australia Safe Earthing Guide and must reduce step and touch potentials to safe levels;
- (e) *synchronisation facilities* or reclose blocking must be provided if a *generating unit* is *connected* through the *substation*;
- (f) secure electricity supplies of adequate capacity must be provided for *plant* performing communication, monitoring, control and protection functions;
- (g) *plant* must be tested to ensure that the *substation* complies with the approved design and specifications as included in a *connection agreement*;
- (h) the protection equipment required would normally include protection schemes for individual items of *plant*, back-up arrangements, auxiliary DC supplies and instrumentation *transformers*; and
- (i) insulation levels of *plant* in the *substation* must co-ordinate with the insulation levels of the *network* to which the *substation* is *connected* as nominated in the *connection agreement*.

S5.3.10 Load shedding facilities

Network Users who are *Market Customers* and who have expected peak demands in excess of 10MW must provide automatic *interruptible load* in accordance with clause 4.3.5 of the *Rules*.

Load shedding procedures may be applied by AEMO, or *EFCS settings schedules* may be determined, in accordance with the provisions of clause 4.3.2 of the *Rules* for the shedding of all *loads* including *sensitive loads*.

Schedule 5.3a Conditions for connection of Market Network Services

S5.3a.1a Introduction to the schedule

This schedule sets out obligations of *Market Network Service Providers* who *connect* to either a *transmission network* or a *distribution network*. It represents the requirements to be met for access to a *network*. Particular provisions may be varied by the *Network Service Provider* under the provisions of the *Rules* for the application of *minimum access standards* and *automatic access standards*.

This schedule includes specific provisions for the determination of *automatic access standards* and *negotiated access standards* which, once determined, must be recorded together with the *automatic access standards* in a *connection agreement* and registered with AEMO as *performance standards*.

In this schedule, the term ***Network Service Provider*** applies only to the *Network Service Provider* with whom the *Market Network Service Provider* has lodged, or is considering lodging, an *application to connect*.

- (a) The schedule includes, in respect of each *market network service*, provisions regarding the capability to:
 - (1) automatically control the transfer of real power at the *connection point* for any given set of system conditions within the limits permitted under the *Rules*;
 - (2) respond to control requirements under expected normal and abnormal conditions;
 - (3) comply with general requirements to meet quality of *supply* obligations in accordance with clauses S5.3a.9, S5.3a.10 and S5.3a.11 and to maintain security of *supply* to other *Registered Participants*; and
 - (4) automatically *disconnect* itself when necessary to prevent any damage to the *market network service facilities* or threat to *power system security*.
- (b) This schedule also sets out the requirements and conditions, which (subject to clause 5.2.3 of the *Rules*) are obligations of *Market Network Service Providers* to:
 - (1) co--operate with the relevant *Network Service Provider* on technical matters when making a new *connection*;
 - (2) provide information to the *Network Service Provider* or *AEMO*; and
 - (3) observe and apply the relevant provisions of the *system standards* contained in schedule 5.1a in relation to the planning, design and operation of its *market network service facilities*.
- (c) This schedule does not set out arrangements by which a *Market Network Service Provider* may enter into an agreement or contract with *AEMO* to:
 - (1) provide additional services that are necessary to maintain *power system security*; or
 - (2) provide additional service to facilitate management of the *market*.

S5.3a.1 Provision of Information

- (a) Before a *Market Network Service Provider* connects any new or additional equipment to a *network*, the *Market Network Service Provider* must submit the following kinds of information to the *Network Service Provider*:
 - (1) a single line diagram with the protection details;
 - (2) *metering system* design details for any metering equipment being provided by the *Market Network Service Provider*;
 - (3) a general arrangement locating all relevant equipment on the site;

- (4) a general arrangement for each new or altered *substation* showing all exits and the position of all electrical equipment;
 - (5) type test certificates for all new switchgear and *transformers*, including measurement *transformers* to be used for *metering* purposes in accordance with Chapter 7 of the *Rules*;
 - (6) earthing details;
 - (7) the proposed methods of earthing cables and other equipment to comply with the regulations of the relevant *participating jurisdiction*;
 - (8) *plant* and earth grid test certificates from approved test authorities;
 - (9) a secondary injection and trip test certificate on all circuit breakers;
 - (10) certification that all new equipment has been inspected before being *connected* to the *supply*; and
 - (11) operational arrangements.
- (a1) Before a *Market Network Service Provider* connects any new or additional equipment to a *network*, the *Market Network Service Provider* must submit:
- (1) to *AEMO* and the relevant *Network Service Provider(s)*, information about the *protection systems* of the equipment;
 - (2) to *AEMO* and the relevant *Network Service Provider(s)*, information about the *control systems* of the equipment including:
 - (i) a set of functional block diagrams, including all functions between feedback signals and output;
 - (ii) the parameters of each functional block, including all settings, gains, time constraints, delays, deadbands and limits;
 - (iii) the characteristics of non-linear elements;
 - (iv) encrypted models in a form suitable for the software simulation products nominated by *AEMO* in the *Power System Model Guidelines*;
 - (3) to *AEMO* and the relevant *Network Service Provider(s)*, any other information specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;
 - (4) to *AEMO*, model source code (in the circumstances required by the *Power System Model Guidelines*) associated with the model in subparagraph (2)(iv) in an unencrypted form suitable for at least one of the software simulation products nominated by *AEMO* in the *Power System Model Guidelines* and in a form that would allow conversion

for use with other software simulation products nominated by *AEMO* in the *Power System Model Guidelines*.

- (a2) The information provided under paragraph (a1) must contain sufficient detail for *AEMO* and the relevant *Network Service Provider(s)* to perform *power system* simulation studies in accordance with the requirements and circumstances specified in the *Power System Model Guidelines*.
- (a3) All information provided to *AEMO* and the relevant *Network Service Provider(s)* under paragraph (a1) must be treated as *confidential information* by those recipients.
- (b) For the purposes of clause 5.3.2(f) of the *Rules*, the technical information that a *Network Service Provider* must, if requested, provide to a *Connection Applicant* in respect of the proposed *connection* of a *market network service facility* includes:
 - (1) the highest expected single phase and three phase fault levels at the *connection point* without the proposed *connection*;
 - (2) the clearing times of the existing *protection systems* that would clear a fault at the location at which the new *connection* would be connected into the existing *transmission system* or *distribution system*;
 - (3) the expected limits of *voltage* fluctuation, harmonic *voltage* distortion and *voltage* unbalance at the *connection point* without the proposed *connection*;
 - (4) technical information relevant to the *connection point* without the proposed *connection* including equivalent source impedance information, sufficient to estimate fault levels, *voltage* fluctuations, harmonic *voltage* distortion and *voltage* unbalance; and
 - (5) any other information or data not being *confidential information* relating to the performance of the *Network Service Provider's facilities* that is reasonably necessary for the *Connection Applicant* to prepare an *application to connect*;

except where the *Connection Applicant* agrees the *Network Service Provider* may provide alternative or less detailed technical information in satisfaction of this clause S5.3a.1(b).

S5.3a.2 Application of settings

A *Market Network Service Provider* must only apply settings to a *control system* or a *protection system* that are necessary to comply with performance requirements of this schedule 5.3a if the settings have been approved in writing by the *Network Service Provider* and, if the requirement is one that would involve *AEMO* under clause 5.3.4A(c) of the *Rules*, also by *AEMO*. A *Market Network Service Provider* must not allow its *market network service facilities* to take electricity from the *power system* without such prior approval.

If a *Market Network Service Provider* seeks approval from the *Network Service Provider* to apply or change a setting, approval must not be withheld unless the *Network Service Provider* or, if the requirement is one that would involve AEMO under clause 5.3.4A(c) of the *Rules*, AEMO, reasonably determines that the changed setting would cause the *market network service facilities* to not comply with the relevant *performance standard* or cause an *inter-regional* or *intra-regional power transfer capability* to be reduced.

If the *Network Service Provider* or, if the requirement is one that would involve AEMO under clause 5.3.4A(c) of the *Rules*, AEMO, reasonably determines that a setting of a *market network service facility's control system* or *protection system* needs to change to comply with the relevant *performance standard* or to maintain or restore an *inter-regional* or *intra-regional power transfer capability*, the *Network Service Provider* or AEMO (as applicable) must consult with the *Market Network Service Provider*, and may request in writing that a setting be applied in accordance with the determination.

The *Network Service Provider* may also request a test to verify the performance of the relevant *plant* with the new setting. The *Network Service Provider* must provide AEMO with a copy of its request to a *Market Network Service Provider* to apply a setting or to conduct a test.

A *Market Network Service Provider* who receives such a request must arrange for the notified setting to be applied as requested and for a test to be conducted as requested. After the test, the *Market Network Service Provider* must, on request, provide both AEMO and the *Network Service Provider* with a report of a requested test, including evidence of its success or failure. Such a report of a test is *confidential information*.

A *Market Network Service Provider* must not change a setting requested by the *Network Service Provider* without its prior written agreement. If the *Network Service Provider* requires a *Market Network Service Provider* to change a setting within 18 months of a previous request, the *Network Service Provider* must pay the *Market Network Service Provider* its reasonable costs of changing the setting and conducting the tests as requested.

S5.3a.3 Technical matters to be co-ordinated

A *Market Network Service Provider* and the relevant *Network Service Provider* must use all reasonable endeavours to agree upon the following matters in respect of each new or altered *connection* of a *market network service facility* to a *network*:

- (a) design at the *connection point*;
- (b) physical layout adjacent to the *connection point*;
- (c) primary protection and backup protection (clause S5.3a.6);
- (d) control characteristics (clause S5.3a.4);

- (e) communications and alarms (clause S5.3a.4);
- (f) insulation co-ordination and lightning protection;
- (g) fault levels and *fault clearance times*;
- (h) switching and *isolation facilities*;
- (i) interlocking arrangements; and
- (j) *metering installations* as described in Chapter 7 of the *Rules*.

S5.3a.4 Monitoring and control requirements

S5.3a.4.1 Remote Monitoring

- (a) *Automatic access standard*:
 - (1) Each *market network service facility* must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time, the quantities that *AEMO* reasonably requires to discharge its *market* and *power system security* functions as set out in Chapters 3 and 4 of the *Rules* respectively.
 - (2) The quantities may include such data as current, *voltage*, *active power*, *reactive power*, operational limits and critical temperatures in respect of *connection points* and power conversion systems.
- (b) *Minimum access standard*:
 - (1) Each *market network service facility* must have *remote monitoring equipment* to transmit to *AEMO's control centres* in real time:
 - (A) *connection point active power* flow, *reactive power* flow and *voltage*;
 - (B) *active power*, *reactive power* and *voltage* for AC power lines, *transformers* and *busbars*, and *power* and *voltage* (or alternatively current) for DC power lines; and
 - (C) the status of circuit breakers.
- (c) **[Deleted]**

S5.3a.4.2 [Deleted]

S5.3a.4.3 Communications equipment

A Market Network Service Provider must provide electricity *supplies* for *remote monitoring equipment* and *remote control equipment* installed in relation to its *market network service facilities* capable of keeping such equipment available for

at least three hours following total loss of *supply* at the *connection point* for the relevant *market network service facility*.

A *Market Network Service Provider* must provide communications paths (with appropriate redundancy) from the *remote monitoring equipment* or *remote control equipment* installed at any of its *market network service facilities* to a interface for communication purposes in a location reasonably acceptable to the *Network Service Provider* at the relevant *connection point*. Communications systems between this interface for communication purposes and the *control centre* are the responsibility of the *Network Service Provider* unless otherwise agreed by the *Market Network Service Provider* and the *Network Service Provider*.

Telecommunications between *Network Service Providers* and *Market Network Service Providers* for *operational communications* must be established in accordance with the requirements set down below.

(a) **Primary Speech Facility**

The relevant *Network Service Provider* must provide and maintain equipment by means of which routine and emergency control telephone calls may be established between the *Market Network Service Provider's* responsible Engineer/Operator and AEMO.

The *facilities* to be provided, including the interface requirement between the *Network Service Provider's* equipment and the *Market Network Service Provider's* equipment, must be specified by the *Network Service Provider*.

The costs of the equipment must be recovered by the *Network Service Provider* only through the charge for *connection*.

(b) **Back-up Speech Facility**

Where the *Network Service Provider* or AEMO reasonably determines that a back-up speech *facility* to the primary *facility* is required, the *Network Service Provider* must provide and maintain a separate telephone link or radio installation on a cost-recovery basis only through the charge for *connection*.

The *Network Service Provider* is responsible for radio system planning and for obtaining all necessary radio licences.

S5.3a.5 Design standards

A *Market Network Service Provider* must ensure that:

- (a) the electrical *plant* in its *facility* complies with the relevant *Australian Standards* as applicable at the time of first installation of that electrical *plant* in the *facility*;
- (b) circuit breakers provided to isolate the *Market Network Service Provider's facilities* from the *Network Service Provider's facilities* are capable of

breaking, without damage or restrike, fault currents nominated by the *Network Service Provider* in the relevant *connection agreement*; and

- (c) all new equipment including circuit breakers provided to isolate the *Market Network Service Provider's facilities* from the *Network Service Provider's facilities* is capable of withstanding, without damage, power frequency voltages and impulse levels nominated by the *Network Service Provider* in accordance with the relevant provisions of the *system standards* and recorded in the relevant *connection agreement*.

S5.3a.6 Protection systems and settings

A *Market Network Service Provider* must ensure that all *connections* to the *network* are protected by protection devices which effectively and safely *disconnect* any faulty circuit automatically within a time period specified by the *Network Service Provider* in accordance with the following provisions:

- (a) The *automatic access standard* is:
 - (1) Primary *protection systems* must be provided to *disconnect* any faulted element from the *power system* within the applicable *fault clearance time* determined under clause S5.1.9(a)(1), but subject to clauses S5.1.9(k) and S5.1.9(l).
 - (2) Each primary *protection system* must have sufficient redundancy to ensure that a faulted element within its protection zone is *disconnected* from the *power system* within the applicable *fault clearance time* with any single protection element (including any communications facility upon which that *protection system* depends) out of service.
 - (3) *Breaker fail protection systems* must be provided to clear faults that are not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(1).
- (b) The *minimum access standard* is:
 - (1) Primary *protection systems* must be provided to *disconnect* from the *power system* any faulted element within their respective protection zones within the applicable *fault clearance time* determined under clause S5.1.9(a)(2), but subject to clauses S5.1.9(k) and S5.1.9(l).
 - (2) If a *fault clearance time* determined under clause S5.1.9(a)(2) for a protection zone is less than 10 seconds, a *breaker fail protection system* must be provided to clear from the *power system* any fault within that protection zone that is not cleared by the circuit breakers controlled by the primary *protection system*, within the applicable *fault clearance time* determined under clause S5.1.9(a)(3).

- (c) The *Network Service Provider* and the *Market Network Service Provider* must cooperate in the design and implementation of *protection systems* to comply with this clause, including cooperation with regard to:
- (1) the use of *current transformer* and *voltage transformer* secondary circuits (or equivalent) of one party by the *protection system* of the other;
 - (2) tripping of one party's circuit breakers by a *protection system* of the other party; and
 - (3) co-ordination of *protection system* settings to ensure inter-operation.

The *Market Network Service Provider* must ensure that the protection settings of its protective equipment grade with the *Network Service Provider's transmission system* or *distribution system* protection settings. Similarly the grading requirements of fuses must be co-ordinated with the *Network Service Provider*. The *Market Network Service Provider* must provide details of the protection scheme implemented by the *Market Network Service Provider* to the *Network Service Provider* and must liaise with the *Network Service Provider* when determining gradings and settings.

The application of settings of the protection scheme must be undertaken in accordance with clause S5.3a.2.

Before the *Market Network Service Provider's* installation is *connected* to the *Network Service Provider's transmission or distribution system* the *Market Network Service Provider's protection system* must be tested and the *Market Network Service Provider* must submit the appropriate test certificate to the *Network Service Provider*.

S5.3a.7 [Deleted]

S5.3a.8 Reactive power capability

Subject to the access standards stated in this clause S5.3a.8, if additional *reactive support* is required as a result of the *connection* or operation of the *network elements* which provide a *market network service* then the requisite *reactive support* must be supplied or paid for by the *Market Network Service Provider*.

Additional reactive support is required if, at rated power output as measured at the *connection point* of the *market network service* the *market network service* has a lagging power factor of less than 0.9 or a leading power factor of less than 0.95.

Automatic access standard: For power export, at rated power output and target *network voltage* as determined in accordance with clause S5.1a.4 of the *system standards* when measured at the *connection point* of the *market network service*, the *market network service* must be capable of operation in the range from a lagging power factor of 0.9 to a leading power factor of 0.95. For power import, the power factor must satisfy the requirements of clause S5.3.5 of schedule 5.3.

Minimum access standard: With the agreement of AEMO and the *Network Service Provider*, a power factor capability less than that defined by the *automatic access standard* may be provided if the requirements of the *system standards* are satisfied under all operating conditions of the *market network service*.

S5.3a.9 Balancing of load currents

A *Network Service Provider* may require a *Market Network Service Provider's* power transfer to be balanced at a *connection point* in order to maintain the negative sequence voltage at each connection point at less than or equal to the limits set out in Table S5.1a.1 of the *system standards* for the applicable nominal supply voltage level.

Automatic access standard: A *Market Network Service Provider* must ensure that for connections at 11kV or higher voltage, the current in any phase drawn by its equipment from the *Network Service Provider's* network is not greater than 102 percent or less than 98 percent of the average of the currents in the three phases.

Minimum access standard: Where agreed with the relevant *Network Service Provider* and subject to any specific conditions imposed, a *Market Network Service Provider* may cause current unbalance greater than that specified in the *automatic access standard* provided the *Market Network Service Provider* does not cause the limits specified in clause S5.1a.7 of the *system standards* to be exceeded at any point in the *network*.

Where these requirements cannot be met the *Market Network Service Provider* may enter into a commercial arrangement with the *Network Service Provider* for the installation of equipment to correct the phase unbalance. Such equipment must be considered as part of the *connection assets* for the *Market Network Service Provider*.

The limit to power transfer current unbalance must be included in the *connection agreement* and is subject to verification of compliance by the *Network Service Provider*.

S5.3a.10 Voltage fluctuations

- (a) *Automatic access standard:* The voltage fluctuations caused by variations in loading level at the *connection point*, including those arising from energisation, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(a).
- (b) *Minimum access standard:* The voltage fluctuations caused by variations in loading level at the *connection point*, including those arising from energisation, de-energisation or other operation of *plant*, must not exceed the limits determined under clause S5.1.5(b).

The voltage fluctuation emission limits and any specified conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3a.11 Harmonics and voltage notching

- (a) *Automatic access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(a).
- (b) *Minimum access standard*: The harmonic *voltage* distortion caused by non-linearity, commutation of power electronic equipment, harmonic resonance and other effects within the *plant*, must not exceed the limits determined under clause S5.1.6(b).

A *Market Network Service Provider* must ensure that all of its *plant connected to a transmission network or distribution network* is capable of withstanding the effects of harmonic levels produced by that *plant* plus those imposed from the *network*.

The harmonic *voltage* distortion emission limits and any special conditions must be included in the *connection agreement*, and are subject to verification of compliance by the *Network Service Provider*.

S5.3a.12 Design requirements for Market Network Service Providers' substations

A *Market Network Service Provider* must comply with the following requirements applicable to the design, station layout and choice of equipment for a *substation*:

- (a) safety provisions must comply with requirements applicable to the *participating jurisdiction* notified by the *Network Service Provider*;
- (b) where required by the *Network Service Provider*, appropriate interfaces and accommodation must be incorporated for communication *facilities*, remote monitoring and control and protection of *plant* which is to be installed in the *substation*;
- (c) a *substation* must be capable of continuous uninterrupted operation with the levels of *voltage*, harmonics, unbalance and *voltage* fluctuation specified in the *system standards* as modified in accordance with the relevant provisions of schedule 5.1;
- (d) earthing of primary *plant* in the *substation* must be in accordance with the Electricity Supply Association of Australia Safe Earthing Guide and must reduce step and touch potentials to safe levels;
- (e) *synchronisation facilities* or reclose blocking must be provided if necessary;
- (f) secure electricity supplies of adequate capacity must be provided for *plant* performing communication, monitoring, control and protection functions;
- (g) *plant* must be tested to ensure that the *substation* complies with the approved design and specifications as included in a *connection agreement*;

- (h) the protection equipment required would normally include protection schemes for individual items of *plant*, back-up arrangements, auxiliary DC supplies and instrumentation *transformers*; and
- (i) insulation levels of *plant* in the *substation* must co-ordinate with the insulation levels of the *network* to which the *substation* is *connected* as nominated in the *connection agreement*.

S5.3a.13 Market network service response to disturbances in the power system

- (a) Each *market network service* must be capable of continuous uninterrupted operation during the occurrence of:
 - (1) *power system frequency* within the *frequency operating standards*; or
 - (2) the range of *voltage* variation conditions permitted by the *system standards*.
- (b) The equipment associated with each *market network service* must be designed to withstand without damage or reduction in life expectancy the harmonic distortion and *voltage* unbalance conditions determined to apply in accordance with the provisions of schedule 5.1, clauses S5.1.6 and S5.1.7, respectively, at the *connection point*.

S5.3a.14 Protection of market network services from power system disturbances

- (a) *Minimum access standard*: If a *Connection Applicant* requires that its *market network service facility* be automatically *disconnected* from the *power system* in response to abnormal conditions arising from the *power system*, the relevant *protection system* or *control system* must not *disconnect* the *facility* for conditions under which it must continuously operate or must withstand under a provision of the *Rules*.
- (b) There is no *automatic access standard* for this technical requirement.
- (c) For the purposes of this clause S5.3a.14, the abnormal conditions include:
 - (1) *frequency* outside the *extreme frequency excursion tolerance limits*;
 - (2) sustained and uncontrollable DC current beyond a short term *current rating* for the period assigned to that rating;
 - (3) DC *voltage* above the *voltage* maximum rating or sustained below any lower limit for stable operation;
 - (4) *voltage* to *frequency* ratio beyond a *transformer* magnetic flux based *voltage* to *frequency* rating;
 - (5) sustained *voltage* fluctuations at the *connection point* beyond the level determined under clause S5.1.5(a);

- (6) sustained harmonic *voltage* distortion at the *connection point* beyond the level determined under clause S5.1.6(a);
 - (7) sustained negative phase sequence *voltage* at the *connection point* beyond the level determined under clause S5.1.7(a); and
 - (8) any similar condition agreed between the *Market Network Service Provider* and *AEMO* after consultation with each relevant *Network Service Provider*.
- (d) **[Deleted]**
- (e) The *Network Service Provider* is not liable for any loss or damage incurred by the *Market Network Service Provider* or any other person as a consequence of a fault on either the *power system*, or within the *Market Network Service Provider's facility*.

Schedule 5.4 Information to be Provided with Preliminary Enquiry

The following items of information are required to be submitted with a preliminary enquiry for *connection* or modification of an existing *connection*:

- (a) Type of *plant* – (eg. gas turbine *generating unit*; rolling mill, etc.).
- (b) Preferred site location – (listing any alternatives in order of preference as well).
- (c) Maximum power *generation* or demand of whole *plant* – (maximum MW and/or MVA, or average over 15 minutes or similar).
- (d) Expected *energy* production or consumption (MWh per month).
- (e) *Plant* type and configuration – (eg. number and type of *generating units* or number of separate production lines).
- (f) Nature of any disturbing *load* (size of disturbing component MW/MVA_r, duty cycle, nature of power electronic *plant* which may produce harmonic distortion).
- (g) Technology of proposed *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc).
- (h) When *plant* is to be in service – (eg. estimated date for each *generating unit*).
- (i) Name and address of enquirer, and, if relevant, of the party for whom the enquirer is acting.
- (j) Other information may be requested by the *Network Service Provider*, such as amount and timing of power required during construction or any auxiliary power requirements.

Schedule 5.4A Preliminary Response

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.3A.7(a), the following information must be included in the preliminary response:

- (a) relevant technical information about the *Distribution Network Service Provider's distribution network*, including guidance on how the *Connection Applicant* may meet the following requirements if it were to proceed to prepare an *application to connect*:
 - (1) primary protection and backup protection;
 - (2) other protection and control requirements applicable to *embedded generating units* and associated *plant*;
 - (3) *remote monitoring equipment* and control communications *facilities*;
 - (4) insulation co-ordination and lightning protection;
 - (5) existing maximum and minimum fault levels and *fault clearance times* of relevant local zone substations;
 - (6) switching and *isolation* facilities;
 - (7) interlocking and *synchronising* arrangements;
 - (8) *metering installations*; and
 - (9) remedy or avoid an *adverse system strength impact* caused by the *connection*;
- (b) if not otherwise provided in accordance with paragraph (a), to the extent the *Distribution Network Service Provider* holds technical information necessary to prepare an *application to connect*, that information;
- (c) information relevant to each technical requirement of the proposed *plant* as relevant to:
 - (1) the *automatic access standards*;
 - (2) any relevant *minimum access standards*;
 - (3) any applicable *plant standards*; and
 - (4) the *normal voltage* level, if it is expected to change from the *nominal voltage* level;
- (d) the identity of other parties that the *Distribution Network Service Provider* considers;

- (1) will need to be involved in planning to make the *connection* or must be involved under clause 5.3A.10(c); and
 - (2) must be paid for *transmission services* or *distribution services*;
- (e) whether it will be necessary for any of the parties identified in subparagraph (d) to enter into an agreement with the *Connection Applicant* in respect of the provision of *connection services* or other *transmission services* or *distribution services* or both, to the *Connection Applicant*;
 - (f) where relevant the *Distribution Network Service Provider* is to identify whether any service required to establish a *connection* is *contestable* in the relevant *participating jurisdiction*;
 - (g) worked examples of *connection service* charges relevant to the enquiry and an explanation of the factors on which the charges depend;
 - (h) information regarding the *Distribution Network Service Provider* and its *network*, system limitations for sub-transmission lines and zone substations and other information relevant to constraints on the *network* as such information is relevant to the *application to connect*;
 - (i) an indication of whether *network augmentation* may be required and if required, what work the *network augmentation* may involve;
 - (i1) an indication of whether the new *connection* is expected in the reasonable opinion of a *Network Service Provider* to have an *adverse system strength impact*;
 - (j) a hyperlink to the *Distribution Network Service Provider's* information pack;
 - (k) the contact details for the relevant point of contact within the *Distribution Network Service Provider* managing the *connection* enquiry;
 - (l) the *Distribution Network Service Provider's* response to the objectives of the *connection* sought as included by the *Connection Applicant* in its enquiry under clause 5.3A.5(c)(1);
 - (m) a description of the process for the provision of the detailed response, including the further information to be provided by the *Connection Applicant* and analysis to be undertaken by the *Distribution Network Service Provider* as part of the preparation of the detailed response;
 - (n) an overview of any available options for *connection* to the *Distribution Network Service Provider's network*, as relevant to an enquiry lodged, at more than one *connection point* in a *network*, including:
 - (1) example single line diagram and relevant *protection systems* and *control systems* used by existing *connection* arrangements;
 - (2) a description of the characteristics of supply; and

- (3) an indication of the likely impact on terms and conditions of *connection*,

as relevant to each optional differing *connection point*;
- (o) a statement of further information required from the *Connection Applicant* for the preparation of the detailed response, including:
 - (1) details of the *Connection Applicant's connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be *connected*, consistent with the requirements advised in accordance with paragraphs (a) to (c); and
 - (2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;
 - (3) the *Connection Applicant's* proposal for any *system strength remediation scheme*;
- (p) an estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated;
- (q) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response;
- (r) an estimate of the application fee which is payable on submitting an *application to connect*; and
- (s) any additional information relevant to the enquiry.

Schedule 5.4B Detailed Response to Enquiry

For the purposes of clause 5.3A.8(g), the following information must be included in the detailed response:

- (a) the contact details for the relevant point of contact within the *Distribution Network Service Provider* who will manage the *application to connect*;
- (b) written details of each technical requirement relevant to the proposed *plant* as relevant to the:
 - (1) *automatic access standards*;
 - (2) *minimum access standards*;
 - (3) any applicable *plant standards*; and
 - (4) *normal voltage* level, if that is to change from the *nominal voltage* level;

- (c) details of the *connection* requirements based on the *Connection Applicant's* specifications of the *facility* to be *connected*;
- (d) details of the level and standard of service of *power transfer capability* that the *Distribution Network Service Provider*, with reasonable endeavours, considers the *network* provides at the location of the *connection point* or *connection points*, if options have been made available under clause S5.4A(n);
- (e) *negotiated access standards* that will require *AEMO's* involvement in accordance with clause 5.3.4A(c);
- (e1) written details of:
 - (1) the minimum *three phase fault level* at the *connection point*; and
 - (2) the results of the *Network Service Provider's* preliminary assessment of the impact of the new *connection* undertaken in accordance with the *system strength impact assessment guidelines* and clause 5.3.4B;
- (f) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection* requirements and the type, rating and location of the *facility* to be *connected*. The list provided under this paragraph (f) will generally be in the nature of the information set out in schedule 5.5 but may be varied by the *Distribution Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility* to be *connected*;
- (g) commercial information to be supplied by the *Connection Applicant* to allow a *Network Service Provider* (as is relevant) to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rules 6.21 and 6A.28;
- (h) so far as is relevant, and in relation to services that the *Distribution Network Service Provider* intends to provide, an itemised estimate of *connection* costs including:
 - (1) *connection services* charges;
 - (2) costs associated with the proposed *metering* requirements for the *connection*;
 - (3) costs of any *network extension*;
 - (4) details of *augmentation* required to provide the *connection* and associated costs;
 - (5) details of the interface equipment required to provide the *connection* and associated costs;
 - (6) details of any ongoing operation and maintenance costs and charges to be undertaken by the *Distribution Network Service Provider*; and

- (7) other incidental costs and their basis of calculation;
- (i) an explanation of the factors affecting each component of the itemised estimate of *connection* costs and the further information that will be taken into account by the *Distribution Network Service Provider* in preparing the final itemised statement of *connection* costs to be provided under clause 5.3.6(b2)(1);
- (j) using reasonable endeavours, all risks and obligations in respect of the proposed *connection* associated with planning and environmental laws not contained in the *Rules*;
- (k) a draft *connection agreement* that contains the proposed terms and conditions for *connection* to the *network* including those of the kind set out in schedule 5.6 and:
 - (1) an explanation of the terms and conditions in the *connection agreement* that need to be finalised; and
 - (2) if relevant, further information necessary from the *Connection Applicant* to finalise the *connection agreement*;
- (l) a description of the process for lodging the *application to connect*, including:
 - (1) the options open to the *Connection Applicant* in submitting an *application to connect* in accordance with clause 5.3A.9;
 - (2) the further analysis to be undertaken by the *Distribution Network Service Provider* as part of the *Distribution Network Service Provider's* assessment of the *application to connect*;
 - (3) further information required from the *Connection Applicant* for the *Distribution Network Service Provider* to assess the *application to connect*; and
 - (4) an outline of proposed milestones (and their timeframes) for *connection* and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld;
- (m) the application fee payable when submitting an *application to connect*;
- (n) whether the *Distribution Network Service Provider* agrees to the detailed response remaining valid for a specified period of time to allow the *Connection Applicant* to lodge an *application to connect* within that time; and
- (o) any additional information relevant to the *application to connect*.

Schedule 5.5 Technical Details to Support Application for Connection and Connection Agreement

S5.5.1 Introduction to the schedule

Various sections of the *Rules* require that *Registered Participants* submit technical data to the *Network Service Provider*. This schedule lists the range of data which may be required. The actual data required will be advised by the *Network Service Provider*, and will form part of the technical specification in the *connection agreement*. These data will also be made available to *AEMO* and to other *Network Service Providers* by the *Network Service Provider* at the appropriate time.

S5.5.2 Categories of data

Data is coded in categories, according to the stage at which it is available in the build-up of data during the process of forming a *connection* or obtaining access to a *network*, with data acquired at each stage being carried forward, or enhanced in subsequent stages, eg. by testing.

The *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet* identify for each type of data, its category in terms of clause S5.5.2.

Codes:

S = Standard Planning Data;

D = Detailed Planning Data;

R = Registered Data (R1 pre-connection, R2 post-connection)

Preliminary system planning data

Preliminary system planning data is required for submission with the *application to connect*, to allow the *Network Service Provider* to prepare an offer of terms and conditions for a *connection agreement* and to assess the requirement for, and effect of, *network augmentation* or *extension* options. Such data is normally limited to the items denoted as Standard Planning Data (S) in the *Power System Model Guidelines*, *Power System Design Data Sheet*, *Power System Setting Data Sheet* and in schedules 5.5.3 to 5.5.5.

The *Network Service Provider* may, in cases where there is reasonable doubt as to the viability of a proposal, require the submission of other data before making an offer to *connect* or to amend a *connection agreement*.

Registered system planning data

Registered system planning data is the class of data which will be included in the *connection agreement* signed by both parties. It consists of the preliminary system planning data plus those items denoted in the attached schedules as Detailed Planning Data (D). The latter must be submitted by the *Registered Participant* in time for inclusion in the *connection agreement*.

Registered data

Registered Data consists of data validated and agreed between the *Network Service Provider* and the *Registered Participant*, such data being:

- (a) prior to actual *connection* and provision of access, data derived from manufacturers' data, detailed design calculations, works or site tests etc. (R1); and
- (b) after connection, data derived from on-system testing (R2).

All of the data will, from this stage, be categorised and referred to as Registered Data; but for convenience the schedules omit placing a higher ranked code next to items which are expected to already be valid at an earlier stage.

S5.5.3 Review, change and supply of data

Data will be subject to review at reasonable intervals to ensure its continued accuracy and relevance. The *Network Service Provider* must initiate this review. A *Registered Participant* may *change* any data item at a time other than when that item would normally be reviewed or updated by submission to the *Network Service Provider* of the revised data, together with authentication documents, eg. test reports.

The *Network Service Provider* must supply data relating to its system to other *Network Service Providers* for planning purposes and to other *Registered Participants* and *AEMO* as specified in the various sections of the *Rules*, including through the *statement of opportunities*.

S5.5.4 Data Requirements

Schedules 5.5.3 to 5.5.5 cover the following data areas:

- (a) schedule 5.5.3 - Network Plant Technical Data. This comprises fixed electrical parameters.
- (b) schedule 5.5.4 - Plant and Apparatus Setting Data. This comprises settings which can be varied by agreement or by direction of the *Network Service Provider* or *AEMO*.
- (c) schedule 5.5.5 - *Load Characteristics*. This comprises the estimated design parameters of *loads*.

The documents and schedules applicable to each class of *Registered Participant* are as follows:

- (a) *Generators*: the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;
- (b) *Customers* and *Network Service Providers*: schedules 5.5.3, 5.5.4 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*;

- (c) *Customers*: schedule 5.5.5 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*; and
- (d) *Market Network Service Providers*: schedules 5.5.3 and 5.5.4 and the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*.

S5.5.5 Asynchronous generating unit data

A *Generator* that connects a generating system, that is an *asynchronous generating unit*, must be given exemption from complying with those parts of the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Design Data Sheet* that are determined by the *Network Service Provider* to be not relevant to such *generating systems*, but must comply with those parts of schedules 5.5.3, 5.5.4, and 5.5.5 that are relevant to such *generating systems*, as determined by the *Network Service Provider*.

S5.5.6 Generating units smaller than 30MW data

A *Generator* that connects a generating unit smaller than 30 MW or generating units totalling less than 30 MW to a connection point to a distribution network must submit registered system planning data and registered data to AEMO and the relevant *Network Service Provider* in accordance with the requirements specified in the *Power System Model Guidelines*, *Power System Design Data Sheet* and *Power System Setting Data Sheet*.

Codes:

S = Standard Planning Data

D = Detailed Planning Data

R = Registered Data (R1 pre-connection, R2 post-connection)

S5.5.7 Power System Design Data Sheet, Power System Setting Data Sheet and Power System Model Guidelines

- (a) AEMO must, subject to paragraphs (b) and (c), develop, publish and maintain, in accordance with the *Rules consultation procedures*:
 - (1) a *Power System Design Data Sheet* describing, for relevant plant technologies, plant design parameters including plant configurations, impedances, time constants, non-linearities, ratings and capabilities to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5;
 - (2) a *Power System Setting Data Sheet* describing, for relevant power systems and control system technologies, the protection system and control system functions and their settings, including configurations, gains, time constants, delays, deadbands, non-linearities and limits to

be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5; and

- (3) *Power System Model Guidelines* describing, for relevant *power system* technologies at the *transmission system* and *distribution system* level, *AEMO's* requirements when developing mathematical models for *plant*, including the impact of their *control systems* and *protection systems* on *power system security* to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.5(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1 and this schedule 5.5.
- (b) When developing, *publishing* and maintaining the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet* under paragraph (a), *AEMO* must have regard to the purpose of the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, which is to:
- (1) allow *plant* and equipment to be mathematically modelled by *AEMO* with sufficient accuracy to permit:
 - (i) the *power system* operating limits for ensuring *power system security* to be quantified with the lowest practical safety margins;
 - (ii) the assessment of proposed *negotiated access standards*;
 - (iii) settings of *control systems* and *protection systems* of *plant* and *networks* to be assessed and quantified for maximum practical performance of the *power system*; and
 - (iv) the efficient procurement of *system restart ancillary services* and *network support and control ancillary services*; and
 - (2) identify for each type of data its category in terms of clause S5.5.2.
- (b1) The *Power System Model Guidelines* must specify:
- (1) the information, including the types of models, that:
 - (i) *Generators* must provide under clause 5.2.5(d), clause 5.2.5(e), clause 5.3.9(b)(2), clause S5.2.4 and clause S5.5.6;
 - (ii) *Network Service Providers* must provide under clause 4.3.4(o), clause 5.2.3(j) and clause 5.2.3(k);
 - (iii) *Network Users* must provide under clause 5.2.4(c), clause 5.2.4(d) and clause S5.3.1(a1);
 - (iv) *Market Network Service Providers* must provide under clause 5.2.3A(a), clause 5.2.3A(b) and clause S5.3a.1(a1);

- (v) prospective *NSCAS* tenderers must provide under clause 3.11.5(b)(5); and
 - (vi) prospective *SRAS Providers* must provide under clause 3.11.9(g);
 - (2) the model accuracy requirements that are applicable to each type of model provided, as well as the types of *generating systems* and *plant* and equipment that the model accuracy requirements apply to;
 - (3) when information to which the *Power System Model Guidelines* relates must be provided;
 - (4) a process to be followed in circumstances where a person is unable to provide information required to be provided under clauses 3.11.5(b)(5), 3.11.9(g), 4.3.4(o), 5.2.3(j), 5.2.3(k), 5.2.3A(a), 5.2.3A(b), 5.2.4(c), 5.2.4(d), 5.2.5(d), 5.2.4(e), 5.3.9(b)(2), S5.2.4, S5.3.1, S5.3a.1, S5.5.6, schedule 5.5 or as otherwise required by the *Power System Model Guidelines*, *Power System Design Data Sheet* or *Power System Setting Data Sheet*;
 - (5) guidance on the factors that *AEMO* will take into account when determining the circumstances under which *AEMO* will request information to be provided, including the *power system* conditions that necessitate the usage of a certain type of model in order to achieve the desired level of accuracy;
 - (6) the format in which information must be provided and any material *AEMO* requires to assess the accuracy of information provided to it; and
 - (7) the circumstances in which model source code is required to be provided.
- (c) In developing and amending the *Power System Model Guidelines*, the *Power System Design Data Sheet* and the *Power System Setting Data Sheet*, *AEMO* must:
- (1) have regard to the reasonable costs of efficient compliance by *Registered Participants* with those guidelines and data sheets compared to the likely benefits from the use of the information provided under the guidelines and data sheets;
 - (2) have regard to any requirements to protect the intellectual property and confidential information of third parties, including where those third parties are not *Registered Participants*; and
 - (3) have regard to *Distribution Network Service Providers*' and *Transmission Network Service Providers*' requirements for data and modelling information that is reasonably necessary for the relevant provider to fulfil its obligations under the *Rules* or *jurisdictional electricity legislation*.

- (d) *AEMO* may amend the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet* from time to time.
- (e) Any person may submit a written request (with reasons) for *AEMO* to amend the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet* from time to time.
- (f) In developing and amending the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet*, *AEMO* must, subject to paragraph (g), consult with *Registered Participants* and such other persons who, in *AEMO*'s reasonable opinion have, or have identified themselves as having, an interest in the *Power System Model Guidelines*, in accordance with the *Rules consultation procedures*.
- (g) *AEMO* is not required to comply with the *Rules consultation procedures* when making minor or administrative amendments to the *Power System Model Guidelines*, the *Power System Design Data Sheet* or the *Power System Setting Data Sheet*.
- (h) *AEMO* may at the conclusion of the *Rules consultation procedures* under paragraph (f) or otherwise under paragraph (g), amend the relevant data sheet or guidelines (if necessary).

Schedule 5.5.1 [Deleted]**Schedule 5.5.2 [Deleted]****Schedule 5.5.3 Network and plant technical data of equipment at or near connection point**

Data Description	Units	Data Category
Voltage Rating		
<i>Nominal voltage</i>	kV	S, D
<i>Highest voltage</i>	kV	D
Insulation Co-ordination		
Rated lightning impulse withstand <i>voltage</i>	kVp	D
Rated short duration power <i>frequency</i> withstand <i>voltage</i>	kV	D
Rated Currents		

Data Description	Units	Data Category
Circuit maximum current	kA	S, D
Rated Short Time Withstand Current	kA for seconds	D
Ambient conditions under which above current applies	Text	S,D

Earthing

System Earthing Method	Text	S, D
Earth grid rated current	kA for seconds	D

Insulation Pollution Performance

Minimum total creepage	mm	D
Pollution level	Level of IEC 815	D

Controls

Remote control and data transmission arrangements	Text	D
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Metering Provided by Customer

Measurement <i>transformer</i> ratios:		D
<i>Current transformers</i>	A/A	D
<i>Voltage transformers</i>	V/kV	D
Measurement <i>Transformer</i> Test Certification details	Text	R1

Network Configuration

Operation Diagrams showing the electrical circuits	Single line	S, D, R1
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Data Description	Units	Data Category
of the existing and proposed main <i>facilities</i> within the <i>Registered Participant's</i> ownership including <i>busbar</i> arrangements, phasing arrangements, earthing arrangements, switching <i>facilities</i> and operating <i>voltages</i> .	Diagrams	

Network Impedance

For each item of <i>plant</i> :	% on 100 MVA base	S, D, R1
details of the positive, negative and zero sequence series and shunt impedance, including mutual coupling between physically adjacent elements.		

Short Circuit Infeed to the Network

Maximum generator 3-phase short circuit infeed including infeeds from <i>generating units connected</i> to the <i>Registered Participant's</i> system, calculated by method of AS 3851 (1991).	kA symmetrical	S, D, R1
The total infeed at the instant of fault (including contribution of induction motors).	kA	D, R1
Minimum zero sequence impedance of <i>Registered Participant's network</i> at <i>connection point</i> .	% on 100 MVA base	D, R1
Minimum negative sequence impedance of <i>Registered Participant's network</i> at <i>connection point</i> .	% on 100 MVA base	D, R1

Load Transfer Capability:

Where a *load*, or group of *loads*, may be fed from alternative *connection points*:

<i>Load</i> normally taken from <i>connection point X</i>	MW	D, R1
<i>Load</i> normally taken from <i>connection point Y</i>	MW	D, R1
Arrangements for transfer under planned or fault <i>outage</i> conditions	Text	D

Data Description	Units	Data Category
Circuits Connecting Embedded Generating Units to the Network:		

For all *generating units*, all connecting lines/cables, *transformers* etc.

Series Resistance	% on 100 MVA base	D, R
Series Reactance	% on 100 MVA base	D, R
Shunt Susceptance	% on 100 MVA base	D, R
Normal and short-time emergency ratings	MVA	D,R

Technical Details of *generating units* and *generating systems* as per the *Power System Design Data Sheet*, *Power System Setting Data Sheet* and the *Power System Model Guidelines* where such details are not *confidential information*

Transformers at connection points:

Saturation curve	Diagram	R
Equipment associated with DC Links		
Number of poles	MVA	D,R
Converters per station	Quantity	D,R
Reactive Power consumption of converters	MCAr	D,R
Location and Rating of A.C. Filters	MVAr	D,R
Location and Rating of Shunt Capacitors	MVAr	D,R
Location and Rating of Smoothing <i>Reactor</i>	MVAr	D,R
Location and Rating of DC Filter	MVAr	D,R

Schedule 5.5.4 Network Plant and Apparatus Setting Data

Data Description	Units	Data Category
Protection Data for Protection relevant to Connection Point:		

Data Description	Units	Data Category
Reach of all protections on <i>transmission lines</i> , or cables	ohms or % on 100 MVA base	S, D
Number of protections on each item	Text	S, D
Total fault clearing times for near and remote faults	ms	S, D, R1
Line reclosure sequence details	Text	S, D, R1

Tap Change Control Data:

Time delay settings of all <i>transformer</i> tap changers.	Seconds	D, R1
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Reactive Compensation:

Location and Rating of individual <i>shunt reactors</i>	MVAr	D, R1
Location and Rating of individual <i>shunt capacitor banks</i>	MVAr	D, R1
<i>Capacitor bank</i> capacitance	microfarads	D
Inductance of switching <i>reactor</i> (if fitted)	millihenries	D
Resistance of capacitor plus <i>reactor</i>	Ohms	D
Details of special controls (e.g. Point-on-wave switching)	Text	D

For each shunt reactor or capacitor bank:

Method of switching	Text	S
Details of automatic control logic such that operating characteristics can be determined	Text	D, R1

FACTS Installation:

Data sufficient to enable static and dynamic performance of the installation to be modelled	Text, diagrams	S, D, R1
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Data Description	Units control settings	Data Category
Transmission line flow control device	Text,	D
Details of the operation of the control device under normal operation conditions (including startup and shutdown of the line) and during a fault (close up and remote)	diagrams	
Models for the control device and transmission line appropriate for load flow, small signal stability and transient stability analysis	Text, diagrams	D
Capability of the line flow control device	KA, MVA, MW	D
Details of the rate of change of flow capability of the control device	Text	D
Details of the capability of the control device to provide frequency and voltage control	Text	D
Description of possible failure modes of control device	Text	D
Details of performance of the control device under disturbance conditions including changes in AC frequency, variations in AC system voltages and AC system waveform distortion.	Text	D
For DC control devices, contribution to the AC system short circuit level	KA, MVA	D

Short circuit ratio

The lowest short circuit ratio at the *connection point* for which the *generating system*, including its *control systems*: (i) will be commissioned to maintain stable operation; and (ii) has the design capability to maintain stable operation.

Numeric ratio S, D, R1

For the purposes of the above, “short circuit ratio” is the synchronous *three phase fault level* (expressed in MVA) at the *connection point* divided by the rated output of the *generating system* (expressed in MW or MVA).

Schedule 5.5.5 Load Characteristics at Connection Point

Data Description	Units	Data Category
For all Types of Load		
Type of <i>Load</i>	Text	S
eg controlled rectifiers or large motor drives		
For Fluctuating Loads		
Cyclic variation of <i>active power</i> over period	Graph	S
	MW/time	
Cyclic variation of <i>reactive power</i> over period	Graph	S
	MVAr/time	
Maximum rate of change of <i>active power</i>	MW/s	S
Maximum rate of change of <i>reactive power</i>	MVAr/s	S
Shortest Repetitive time interval between fluctuations in active and <i>reactive power</i> reviewed annually	s	S
Largest Step Change:		
In <i>active power</i>	MW	S
In <i>reactive power</i>	MVAr	S

Schedule 5.6 Terms and Conditions of Connection agreements and network operating agreements**Part A Connection agreements**

The *connection agreements* must contain the specific conditions that have been agreed to for *connection* and access to the *transmission* or *distribution network*, including but not limited to:

- (a) details of the *connection point* including the *distribution network* coupling points where appropriate;
- (b) *metering* arrangements and adjustments for losses where the point of *metering* is significantly different to the *connection point*;
- (c) authorised demand which may be taken or supplied at the *connection point* (under specified conditions);
- (c1) details of each *access standard* agreed between the *Network Service Provider* and the *Registered Participant* and all related conditions of agreement resulting from the application of any access provisions contained in schedule 5.1 for *Network Service Providers*, or schedule 5.2 for *Generators*, or schedule 5.3 for *Customers*, or schedule 5.3a for *Market Network Service Providers*;
- (c2) details of any *system strength remediation scheme* agreed, determined or modified in accordance with clause 5.3.4B and associated terms and conditions;
- (c3) details of any *system strength connection works*;
- (d) *connection service charges*;
- (e) payment conditions;
- (f) duration and termination conditions of the *connection agreement*;
- (g) terms, conditions and *constraints* that have been agreed to for *connection* to the *network* to protect the legitimate interest of the *Network Service Providers* including rights to *disconnect* the *Registered Participant* for breach of commercial undertakings;
- (h) details of any agreed standards of *reliability* of *transmission service* or *distribution service* at the *connection points* or within the *network*;
- (i) testing intervals for *protection systems* associated with the *connection point*;
- (j) agreed protocols for maintenance co-ordination;
- (k) where an expected *load*, to be connected to a *network*, has a *peak load* requirement in excess 10 MW, the provision, installation, operation and maintenance of automatic *load* shedding facilities for 60 percent of the *load* at anytime;
- (l) terms and conditions of access to the *metering installation* for the *Metering Provider* and access to *metering installations* type 4A, 5 and 6 for the *Metering Data Provider*;
- (m) the arrangements for the provision of services relating to *non-contestable IUSA components* (if applicable);

- (n) the functional specifications for the *contestable IUSA components*; and
- (o) if the *Connection Applicant* has obtained services related to a *contestable IUSA components* other than from the *Primary Transmission Network Service Provider* and intends to transfer ownership of some or all of those components to the *Primary Transmission Network Service Provider*, arrangements for the transfer of ownership of those components upon energisation of the *identified user shared asset* to the *Primary Transmission Network Service Provider* (if applicable) and how any defects liabilities will be managed.

The *connection agreements* may include other technical, commercial and legal conditions governing works required for the *connection* or *extension* to the *network* which the parties have negotiated and agreed to. The circumstances under which the terms of the *connection agreement* would require renegotiation may also be included.

Part B Network Operating Agreements

A *network operating agreement* between the *Primary Transmission Network Service Provider* and the owner of *contestable IUSA components* must include provisions relating to:

- (a) agreed boundaries and physical connection obligations and interface between the *identified user shared asset* and the *transmission network*;
- (b) conditions to transfer operational control of the asset to the *Primary Transmission Network Service Provider*;
- (c) the standard of care to apply to the *Primary Transmission Network Service Provider* in providing operation and maintenance services;
- (d) insurance obligations;
- (e) termination, events of default and force majeure regime;
- (f) liability and indemnity; and
- (g) defect warranties.

Part C Connection statements

The statement referred to in clause 5.3C.1(c) must contain the technical terms and conditions for access to the *embedded network*, including but not limited to:

- (a) details of the *connection point* including the *distribution network coupling points* where appropriate;
- (b) *metering* arrangements and adjustments for losses where the point of *metering* is significantly different to the *connection point*;

- (c) authorised demand which may be taken or supplied at the *connection point* (under specified conditions);
- (d) details of each *access standard* and all related conditions resulting from the application of schedule 5.2 for *Generators*, or schedule 5.3 for *Customers*;
- (e) details of any *system strength remediation scheme* agreed, determined or modified in accordance with clause 5.3.4B and associated terms and conditions;
- (f) details of any *system strength connection works*;
- (g) testing intervals for *protection systems* associated with the *connection point*;
- (h) agreed protocols for maintenance co-ordination;
- (i) where an expected *load*, to be connected to a *network*, has a *peak load* requirement in excess 10 MW, the provision, installation, operation and maintenance of automatic *load* shedding facilities for 60 percent of the *load* at any time; and
- (j) terms and conditions of access to the *metering installation* for the *Metering Provider* and access to *metering installations* type 4A, 5 and 6 for the *Metering Data Provider*.

Schedule 5.7 **Annual Forecast Information for Planning Purposes**

This schedule sets out the information in respect of each *connection point* that must be provided to the relevant *Network Service Provider* by each *Registered Participant* that has a *connection point* to a *transmission network* of that *Network Service Provider*.

Data Description	Units	Time Scale	Data Category
At each <i>connection point</i> to a <i>transmission network</i> , a forecast of:			
Annual Maximum <i>Active power</i> - Winter	MW	years 1-10	Annual
Coincident <i>Reactive Power</i> - Winter	MVAr	years 1-10	Annual
Annual Maximum <i>Active power</i> - Summer	MW	years 1-10	Annual

Data Description	Units	Time Scale	Data Category
Coincident <i>Reactive Power</i> - Summer	MVAr	years 1-10	Annual
Forecast <i>load</i> diversity between each <i>connection point</i> to the <i>network</i> (winter and summer)	%	years 1-5	Annual

Load Profiles:

The following forecast daily *profiles* of *connection point* half-hourly average active and reactive *loads* are required, net of all *generating plant*:

<i>Day of the peak summer and winter MW peak load at connection point</i>	MW and MVAr	years 1-5	Annual
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<i>Day of network peak summer and winter MW load (as specified)</i>	MW and MVAr	years 1-5	Annual
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Data Description	Units	Time Scale	Data Category
Each July, October, January, April under average conditions representing:			
(a) weekdays	MW and MVAr	years 1-5	Annual
(b) Saturdays	MW and MVAr	years 1-5	Annual
(c) Sundays/holidays	MW and MVAr	years 1-5	Annual

Data Description	Units	Time Scale	Data Category
Day of the <i>network</i> minimum demand (as specified)	MW and MVA _r	years 1-5	Annual
Undispatched <i>generation</i> :			
For each <i>connection point</i> to the <i>network</i> the following information is required:			
No. of <i>generating units</i>	No.	years 1-5	Annual
Capacity of each <i>generating unit</i>	MW (sent out)	years 1-5	Annual
Daily/Seasonal Operating characteristics	Text	years 1-5	Annual
Expected output at time of peak <i>network</i> Winter load (as specified)	MW	years 1-5	Annual
Expected output at time of peak <i>network</i> Summer load (as specified)	MW	years 1-5	Annual

Schedule 5.8 Distribution Annual Planning Report

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.13.2(c), the following information must be included in a *Distribution Annual Planning Report*:

- (a) information regarding the *Distribution Network Service Provider* and its *network*, including:
 - (1) a description of its *network*;
 - (2) a description of its operating environment;

- (3) the number and types of its distribution assets;
 - (4) methodologies used in preparing the *Distribution Annual Planning Report*, including methodologies used to identify system limitations and any assumptions applied; and
 - (5) analysis and explanation of any aspects of forecasts and information provided in the *Distribution Annual Planning Report* that have changed significantly from previous forecasts and information provided in the preceding year;
- (b) forecasts for the forward planning period, including at least:
- (1) a description of the forecasting methodology used, sources of input information, and the assumptions applied;
 - (2) *load* forecasts:
 - (i) at the transmission-distribution connection points;
 - (ii) for sub-transmission lines; and
 - (iii) for zone substations,including, where applicable, for each item specified above:
 - (iv) total capacity;
 - (v) firm delivery capacity for summer periods and winter periods;
 - (vi) *peak load* (summer or winter and an estimate of the number of hours per year that 95% of *peak load* is expected to be reached);
 - (vii) *power factor* at time of *peak load*;
 - (viii) load transfer capacities; and
 - (ix) generation capacity of known *embedded generating units*;
 - (3) forecasts of future transmission-distribution connection points (and any associated *connection assets*), sub-transmission lines and zone substations, including for each future transmission-distribution connection point and zone substation:
 - (i) location;
 - (ii) future *loading level*; and
 - (iii) proposed commissioning time (estimate of month and year);
 - (4) forecasts of the *Distribution Network Service Provider's* performance against any reliability targets in a *service target performance incentive scheme*; and

- (5) a description of any factors that may have a material impact on its *network*, including factors affecting;
 - (i) fault levels;
 - (ii) *voltage* levels;
 - (iii) other *power system security* requirements;
 - (iv) the quality of *supply* to other *Network Users* (where relevant); and
 - (v) ageing and potentially unreliable assets;
- (b1) for all *network* asset retirements, and for all *network* asset de-ratings that would result in a system limitation, that are planned over the forward planning period, the following information in sufficient detail relative to the size or significance of the asset:
 - (1) a description of the *network* asset, including location;
 - (2) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is necessary or prudent for the *network* asset to be retired or de-rated, taking into account factors such as the condition of the *network* asset;
 - (3) the date from which the *Distribution Network Service Provider* proposes that the *network* asset will be retired or de-rated; and
 - (4) if the date to retire or de-rate the *network* asset has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred;
- (b2) for the purposes of subparagraph (b1), where two or more *network* assets are:
 - (1) of the same type;
 - (2) to be retired or de-rated across more than one location;
 - (3) to be retired or de-rated in the same calendar year; and
 - (4) each expected to have a replacement cost less than \$200,000 (as varied by a cost threshold determination),

those assets can be reported together by setting out in the *Distribution Annual Planning Report*:

- (5) a description of the *network* assets, including a summarised description of their locations;
- (6) the reasons, including methodologies and assumptions used by the *Distribution Network Service Provider*, for deciding that it is

- necessary or prudent for the *network* assets to be retired or de-rated, taking into account factors such as the condition of the *network* assets;
- (7) the date from which the *Distribution Network Service Provider* proposes that the *network* assets will be retired or de-rated; and
 - (8) if the calendar year to retire or de-rate the *network* assets has changed since the previous *Distribution Annual Planning Report*, an explanation of why this has occurred;
- (c) information on system limitations for sub-transmission lines and zone substations, including at least:
- (1) estimates of the location and timing (month(s) and year) of the system limitation;
 - (2) analysis of any potential for load transfer capacity between *supply* points that may decrease the impact of the system limitation or defer the requirement for investment;
 - (3) impact of the system limitation, if any, on the capacity at transmission-distribution connection points;
 - (4) a brief discussion of the types of potential solutions that may address the system limitation in the forward planning period, if a solution is required; and
 - (5) where an estimated reduction in forecast *load* would defer a forecast system limitation for a period of at least 12 months, include:
 - (i) an estimate of the month and year in which a system limitation is forecast to occur as required under subparagraph (1);
 - (ii) the relevant *connection points* at which the estimated reduction in forecast *load* may occur; and
 - (iii) the estimated reduction in forecast *load* in MW or improvements in *power factor* needed to defer the forecast system limitation;
- (d) for any primary distribution feeders for which a *Distribution Network Service Provider* has prepared forecasts of *maximum demands* under clause 5.13.1(d)(1)(iii) and which are currently experiencing an overload, or are forecast to experience an overload in the next two years the *Distribution Network Service Provider* must set out:
- (1) the location of the primary distribution feeder;
 - (2) the extent to which load exceeds, or is forecast to exceed, 100% (or lower utilisation factor, as appropriate) of the normal cyclic rating under normal conditions (in summer periods or winter periods);

- (3) the types of potential solutions that may address the overload or forecast overload; and
 - (4) where an estimated reduction in forecast *load* would defer a forecast overload for a period of 12 months, include:
 - (i) estimate of the month and year in which the overload is forecast to occur;
 - (ii) a summary of the location of relevant *connection points* at which the estimated reduction in forecast *load* would defer the overload;
 - (iii) the estimated reduction in forecast *load* in MW needed to defer the forecast system limitation;
- (e) a high-level summary of each RIT-D project for which the *regulatory investment test for distribution* has been completed in the preceding year or is in progress, including:
 - (1) if the *regulatory investment test for distribution* is in progress, the current stage in the process;
 - (2) a brief description of the *identified need*;
 - (3) a list of the credible options assessed or being assessed (to the extent reasonably practicable);
 - (4) if the *regulatory investment test for distribution* has been completed a brief description of the conclusion, including:
 - (i) the net economic benefit of each credible option;
 - (ii) the estimated capital cost of the preferred option; and
 - (iii) the estimated construction timetable and commissioning date (where relevant) of the preferred option; and
 - (5) any impacts on *Network Users*, including any potential material impacts on *connection charges* and *distribution use of system charges* that have been estimated;
- (f) for each identified system limitation which a *Distribution Network Service Provider* has determined will require a *regulatory investment test for distribution*, provide an estimate of the month and year when the test is expected to commence;
- (g) a summary of all committed investments to be carried out within the forward planning period with an estimated capital cost of \$2 million or more (as varied by a cost threshold determination) that are to address an urgent and unforeseen *network* issue as described in clause 5.17.3(a)(1), including:

- (1) a brief description of the investment, including its purpose, its location, the estimated capital cost of the investment and an estimate of the date (month and year) the investment is expected to become operational;
 - (2) a brief description of the alternative options considered by the *Distribution Network Service Provider* in deciding on the preferred investment, including an explanation of the ranking of these options to the committed project. Alternative options could include, but are not limited to, *generation* options, demand side options, and options involving other *distribution* or *transmission networks*;
- (h) the results of any joint planning undertaken with a *Transmission Network Service Provider* in the preceding year, including:
 - (1) a summary of the process and methodology used by the *Distribution Network Service Provider* and relevant *Transmission Network Service Providers* to undertake joint planning;
 - (2) a brief description of any investments that have been planned through this process, including the estimated capital costs of the investment and an estimate of the timing (month and year) of the investment; and
 - (3) where additional information on the investments may be obtained;
- (i) the results of any joint planning undertaken with other *Distribution Network Service Providers* in the preceding year, including:
 - (1) a summary of the process and methodology used by the *Distribution Network Service Providers* to undertake joint planning;
 - (2) a brief description of any investments that have been planned through this process, including the estimated capital cost of the investment and an estimate of the timing (month and year) of the investment; and
 - (3) where additional information on the investments may be obtained;
- (j) information on the performance of the *Distribution Network Service Provider's network*, including:
 - (1) a summary description of reliability measures and standards in *applicable regulatory instruments*;
 - (2) a summary description of the quality of *supply* standards that apply, including the relevant codes, standards and guidelines;
 - (3) a summary description of the performance of the *distribution network* against the measures and standards described under subparagraphs (1) and (2) for the preceding year;

- (4) where the measures and standards described under subparagraphs (1) and (2) were not met in the preceding year, information on the corrective action taken or planned;
 - (5) a summary description of the *Distribution Network Service Provider's* processes to ensure compliance with the measures and standards described under subparagraphs (1) and (2); and
 - (6) an outline of the information contained in the *Distribution Network Service Provider's* most recent submission to the AER under the *service target performance incentive scheme*;
- (k) information on the *Distribution Network Service Provider's* asset management approach, including:
 - (1) a summary of any asset management strategy employed by the *Distribution Network Service Provider*;
 - (1A) an explanation of how the *Distribution Network Service Provider* takes into account the cost of *distribution losses* when developing and implementing its asset management and investment strategy;
 - (2) a summary of any issues that may impact on the system limitations identified in the *Distribution Annual Planning Report* that has been identified through carrying out asset management; and
 - (3) information about where further information on the asset management strategy and methodology adopted by the *Distribution Network Service Provider* may be obtained;
- (l) information on the *Distribution Network Service Provider's* demand management activities, including:
 - (1) a qualitative summary of:
 - (i) *non-network options* that have been considered in the past year, including *generation* from *embedded generating units*;
 - (ii) key issues arising from *applications to connect embedded generating units* received in the past year;
 - (iii) actions taken to promote non-network proposals in the preceding year, including *generation* from *embedded generating units*; and
 - (iv) the *Distribution Network Service Provider's* plans for demand management and *generation* from *embedded generating units* over the forward planning period;
 - (2) a quantitative summary of:
 - (i) *connection* enquiries received under clause 5.3A.5;

- (ii) *applications to connect* received under clause 5.3A.9; and
- (iii) the average time taken to complete *applications to connect*;
- (m) information on the *Distribution Network Service Provider's* investments in information technology and communication systems which occurred in the preceding year, and planned investments in information technology and communication systems related to management of *network* assets in the forward planning period; and
- (n) a regional development plan consisting of a map of the *Distribution Network Service Provider's network* as a whole, or maps by regions, in accordance with the *Distribution Network Service Provider's* planning methodology or as required under any *regulatory obligation or requirement*, identifying:
 - (1) sub-transmission lines, zone substations and transmission-distribution connection points; and
 - (2) any system limitations that have been forecast to occur in the forward planning period, including, where they have been identified, overloaded primary distribution feeders.

Schedule 5.9 Demand side engagement document (clause 5.13.1(h))

Note

The local definitions in clause 5.10.2 apply to this schedule.

For the purposes of clause 5.13.1(h), the following information must be included in a *Distribution Network Service Provider's* demand side engagement document:

- (a) a description of how the *Distribution Network Service Provider* will investigate, develop, assess and report on potential *non-network options*;
- (b) a description of the *Distribution Network Service Provider's* process to engage and consult with potential non-network providers to determine their level of interest and ability to participate in the development process for potential *non-network options*;
- (c) an outline of the process followed by the *Distribution Network Service Provider* when negotiating with non-network providers to further develop a potential *non-network option*;
- (d) an outline of the information a non-network provider is to include in a *non-network* proposal, including, where possible, an example of a best practice non-network proposal;
- (e) an outline of the criteria that will be applied by the *Distribution Network Service Provider* in evaluating non-network proposals;

- (f) an outline of the principles that the *Distribution Network Service Provider* considers in developing the payment levels for *non-network options*;
- (g) a reference to any applicable incentive payment schemes for the implementation of *non-network options* and whether any specific criteria is applied by the *Distribution Network Service Provider* in its application and assessment of the scheme;
- (h) the methodology to be used for determining *avoided Customer TUOS charges*, in accordance with clauses 5.4AA and 5.5; and;
- (i) a summary of the factors the *Distribution Network Service Provider* takes into account when negotiating *connection agreements* with *Embedded Generators*;
- (j) the process used, and a summary of any specific regulatory requirements, for setting charges and the terms and conditions of *connection agreements* for *embedded generating units*;
- (k) the process for lodging an *application to connect* for an *embedded generating unit* and the factors taken into account by the *Distribution Network Service Provider* when assessing such applications;
- (l) worked examples to support the description of how the *Distribution Network Service Provider* will assess potential *non-network options* in accordance with paragraph (a);
- (m) a hyperlink to any relevant, publicly available information produced by the *Distribution Network Service Provider*;
- (n) a description of how parties may be listed on the demand side engagement register; and
- (o) the *Distribution Network Service Provider's* contact details.

Schedule 5.10 Information requirements for Primary Transmission Network Service Providers (clause 5.2A.5)

Information	Via website or direct enquiry	Additional fee ¹	Comments
Technical specification			
Generic interface works	Website	No	Typical standards and layouts must be published. This

¹ This refers to the right for the *Primary Transmission Network Service Providers* to charge an additional fee for the provision of this information to the *connection* enquiry under clause 5.3.2(g) and the *connection* application fee under clause 5.3.4.(b)(2).

Information	Via website or direct enquiry	Additional fee ¹	Comments
Generic substation layouts	Website	No	<p>information:</p> <p>(a) may be generic but should provide a high level overview of the components of a <i>connection</i>; and</p> <p>(b) must provide <i>Connection Applicants</i> with a high level understanding of what a <i>connection</i> consists of.</p> <p><i>Primary Transmission Network Service Providers</i> must provide the design standards which are specific to their <i>network</i>.</p>
Typical overhead line structures	Website	No	
Typical underground cable arrangements	Website	No	
Typical primary plant	Website	No	
Design standards	Website	No	
Typical secondary systems	Website	No	
Detailed technical requirements for a particular <i>connection</i>	Direct enquiry	No	<p>Functional specification to describe the requirements that must be met by the detailed design.</p> <p>The functional specifications must include:</p> <p>(a) description of any proposed <i>augmentation</i>; and</p> <p>(b) references to typical plant including primary and secondary equipment so that the detailed design will interface to the existing <i>network</i> and be able to be adopted by the <i>Primary Transmission Network Service Provider</i>.</p>
Operation and maintenance			

Information	Via website or direct enquiry	Additional fee ¹	Comments
Typical operation and maintenance scheduling	Website	No	Operation and maintenance intervals for specific items of <i>plant</i> used regularly by the <i>Primary Transmission Network Service Provider</i> must be published. These are routine activities irrespective of whether assets are unregulated or regulated and should be in line with <i>good electricity industry practice</i> .
Timescales			
Easement acquisition (site specific)	Direct enquiry	Yes	Site specific timescales may be discussed and negotiated on a project by project basis as part of the <i>connection enquiry / connection application</i> process if the <i>Connection Applicant</i> requests it at their election.
Commission- ing (generic)	Website	No	Generic timescales must be published.
Commission- ing (site specific)	Direct enquiry	Yes	Site specific timescales may be provided as part of the <i>connection enquiry / connection application</i> process if the <i>Connection Applicant</i> requests it at their election.
Legal			
Standard connection agreements	Website	No	Standard forms of these agreements and deeds to be published.
Standard network operating agreement	Website	No	The standard form construction agreement must cover the construction of any interface works.
Standard interface works	Website	No	The standard form <i>connection agreement</i> must cover the

Information	Via website or direct enquiry	Additional fee ¹	Comments
construction agreements			<i>connection</i> of the asset to the <i>transmission</i> network.
Standard relocation deeds	Website	No	The standard form <i>network operating agreement</i> must cover those aspects referred to in clause 5.2.7(b).
Environment- al approvals (generic)	Website	No	Standard forms or lists of required approvals must be published.
Environment- al approvals (site specific)	Direct enquiry	Yes	Site specific information may be provided as part of the <i>connection enquiry</i> / <i>connection application</i> process if <i>Connection Applicant</i> requests it at their election.
Development approvals (generic)	Website	No	
Development approvals (site specific)	Direct enquiry	Yes	
Financial			
Amount and terms and conditions of the connection application charge ²	Website	No	A guide to the structure of the application fee under clause 5.3.4, and the terms and conditions under which the charge is paid, must be published.
Relocation of existing assets	Direct enquiry	Yes	Specific information about relocation of existing assets may be provided by the <i>Primary Transmission Network Service Provider</i> , if the <i>Connection Applicant</i> requests it at their election. The <i>Connection Applicant</i> would be required to pay for any costs associated with the

² For clarification, information about the structure, terms and conditions of the charge should be made available free of charge on the *Primary Transmission Network Service Provider's* website, but the *Connection Applicant* would still be required to pay the *connection* application fee under clause 5.3.4(b)(2).

Information	Via website or direct enquiry	Additional fee ¹	Comments
			relocation of assets.

Schedule 5.11 Negotiating principles for negotiated transmission services (clause 5.2A.6)

- 1 The price for a *negotiated transmission service* should be based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Methodology* for the relevant *Transmission Network Service Provider*.
- 2 Subject to paragraphs (3) and (4), the price for a *negotiated transmission service* should be at least equal to the avoided cost of providing it but no more than the cost of providing it on a stand-alone basis.
- 3 If the *negotiated transmission service* is the provision of a *shared transmission service* that:
 - (1) exceeds the *network* performance requirements (if any) which that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*; or
 - (2) exceeds the *network* performance requirements set out in schedules 5.1a and 5.1,

then the differential between the price for that service and the price for the *shared transmission service* which meets (but does not exceed) the *network* performance requirements under any *jurisdictional electricity legislation* or as set out in schedules 5.1a and 5.1 (as the case may be) should reflect the increase in the *Transmission Network Service Provider's* incremental cost of providing that service.
- 4 If the *negotiated transmission service* is the provision of a *shared transmission service* that does not meet (and does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1, the differential between the price for that service and the price for the *shared transmission service* which meets (but does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1 should reflect the amount of the *Transmission Network Service Provider's* avoided cost of providing that service.
- 5 The price for a *negotiated transmission service* must be the same for all *Transmission Network Users* unless there is a material difference in the costs of providing the *negotiated transmission service* to different *Transmission Network Users* or classes of *Transmission Network Users*.
- 6 The price for a *negotiated transmission service* should be subject to adjustment over time to the extent that the assets used to provide that service

are subsequently used to provide services to another person, in which case such adjustment should reflect the extent to which the costs of that asset is being recovered through charges to that other person.

- 7 The price for a *negotiated transmission service* should be such as to enable the *Transmission Network Service Provider* to recover the efficient costs of complying with all *regulatory obligations or requirements* associated with the provision of the *negotiated transmission service*.
- 8 The *terms and conditions of access* for a *negotiated transmission service* should be fair and reasonable and consistent with the safe and reliable operation of the *power system* in accordance with the *Rules* (for these purposes, the price for a *negotiated transmission service* is to be treated as being fair and reasonable if it complies with principles (1) to (7) of this schedule 5.11).
- 9 The *terms and conditions of access* for a *negotiated transmission service* (including, in particular, any exclusions and limitations of liability and indemnities) must not be unreasonably onerous taking into account the allocation of risk between the *Transmission Network Service Provider* and the other party, the price for the *negotiated transmission service* and the costs to the *Transmission Network Service Provider* of providing the *negotiated transmission service*.
- 10 The *terms and conditions of access* for a *negotiated transmission service* should be provided in a manner that does not adversely affect the safe and reliable operation of the *power system* in accordance with the *Rules*.
- 11 The *Connection Applicant* should only be required to pay the costs directly incurred as a result of its *connection*, including its share of costs associated with an *identified user shared asset*.
- 12 Subsequent connections to an *identified user shared asset* by other *connecting* parties should not adversely affect the *negotiated transmission services* provided to the original *identified user group* for that *identified user shared asset*.
- 13 Subject to principle 11, future *Connection Applicants* should pay for a proportion of the costs paid by the *identified user groups* for *negotiated transmission services*. The proportion of costs will be calculated with respect to:
 - (1) the relative capacity of the *Connection Applicant's generating plant*;
or
 - (2) the relative number of bays; or
 - (3) respective bays,with the applicable cost sharing methodology determined as appropriate by the nature of the *negotiated transmission services*.

Schedule 5.12 Negotiating principles for large DCA services

- 1 Principles 2 -7 of schedule 5.11 apply in relation to *connection* and access to *large DCA services*, except a reference to a *negotiated transmission service* and a *Transmission Network Service Provider* will be taken to be a reference to a *large DCA service* and a *Dedicated Connection Asset Service Provider* respectively.
- 2 An applicant for *large DCA services* should pay for the cost of any enlargement or increase in capacity of (an “**upgrade**”), or alterations to, an existing *large dedicated connection asset* required to provide it with *large DCA services*, including the moving of metering and other related equipment, necessary for the applicant’s *connection* to the *large dedicated connection asset*.
- 3 The *connection* of an applicant to an existing *large dedicated connection asset* and access to *large DCA services* must not adversely affect the *access standards*, including *performance standards* and *power transfer capability* of an existing connecting party at the time of the access application by the applicant.
- 4 The *connection* of an applicant to an existing *large dedicated connection asset* and access to *large DCA services* must not adversely affect contractual obligations of an existing connecting party to the *large dedicated connection asset* with the relevant *Dedicated Connection Asset Service Provider*.
- 5 An applicant must compensate the *Dedicated Connection Asset Service Provider* (and any existing connecting party) for any lost revenue incurred during an upgrade of, or alterations to, an existing *large dedicated connection asset* and metering and other related equipment moves to provide for the *connection* and operation of the applicant’s *facilities* and access to *large DCA services*.
- 6 The *connection* of an applicant to a *large dedicated connection asset* and access to *large DCA services* must not:
 - (a) prevent an existing connecting party at the time of the applicant’s access application from obtaining a sufficient amount of *large DCA services* to be able to meet that person’s reasonably anticipated requirements, measured at the time of the access application by the applicant;
 - (b) result in the applicant becoming the owner (or one of the owners) of any part of the existing *large dedicated connection asset* or upgrade of that asset without the consent of the existing owner;
 - (c) require an existing connecting party or the owner of the *large dedicated connection asset* to bear all or some of the costs of an upgrade of the *large dedicated connection asset* or maintaining an upgrade;

- (d) require an existing connecting party to the *large dedicated connection asset* to bear all or some of the costs of an interconnection to the *large dedicated connection asset* or maintaining an interconnection.

CHAPTER 5A

Chapter 5A Electricity connection for retail customers

Part A Preliminary

5A.A.1 Definitions

In this Chapter:

basic connection service

means a *connection service* related to a *connection* (or a proposed *connection*) between a *distribution system* and a *retail customer's* premises (excluding a ~~*non-registered embedded generator's*~~ *non-registered embedded generator's* premises) in the following circumstances:

- (a) either:
 - (1) the *retail customer* is typical of a significant class of *retail customers* who have sought, or are likely to seek, the service; or
 - (2) the *retail customer* is, or proposes to become, a *micro embedded generator*; and
- (b) the provision of the service involves minimal or no *augmentation* of the *distribution network*; and
- (c) a *model standing offer* has been approved by the AER for providing that service as a *basic connection service* or in the case of an embedded network, the Embedded Network Service Provider has adopted a model standing offer for that service under clause 5A.B.2(a1)(1).

basic micro EG connection service

means a *basic connection service* for a *retail customer* who is a *micro embedded generator*.

confidential information

means, in relation to a *Registered Participant*, *AEMO* or a *connection applicant*, information which is or has been provided to that *Registered Participant*, *AEMO* or *connection applicant* under or in connection with the *Rules* and which is stated under the *Rules*, or by *AEMO*, the *AER* or the *AEMC*, to be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

connection

means a physical link between a *distribution system* and a *retail customer's* premises to allow the flow of electricity.

connection alteration

means an alteration to an existing *connection* including an addition, upgrade, *extension*, expansion, *augmentation* or any other kind of alteration.

connection applicant

means an applicant for a *connection service* of 1 of the following categories:

- (a) *retail customer*;

- (b) *retailer* or other person acting on behalf of a *retail customer*;
- (c) *real estate developer*.

connection application

means an application under clause 5A.D.3.

connection charge

means a charge imposed by a *Distribution Network Service Provider* for a *connection service*.

connection charge guidelines

- see clause 5A.E.3.

connection charge principles

- see clause 5A.E.1.

connection contract

means a contract formed by the making and acceptance of a *connection offer*.

connection offer

means an offer by a *Distribution Network Service Provider* to enter into a *connection contract* with:

- (a) a *retail customer*; or
- (b) a *real estate developer*.

connection policy

except in the case of an *Embedded Network Service Provider* means a document, approved as a *connection policy* by the AER under clause 5A.E.3A~~Chapter 6, Part E~~, setting out the circumstances in which *connection charges* are payable and the basis for determining the amount of such charges.

in the case of an *Embedded Network Service Provider*, means the *embedded network connection policy* made by the AER (see clause 5A.E.3B).

connection service

means either or both of the following:

- (a) a service relating to a *new connection* for premises;
- (b) a service relating to a *connection alteration* for premises,

but, to avoid doubt, does not include a service of providing, installing or maintaining a *metering installation* for premises.

contestable

– a service is *contestable* if the laws of the *participating jurisdiction* in which the service is to be provided permit the service to be provided by more than one supplier as a *contestable* service or on a competitive basis.

customer connection contract

- see section 67 of the *NERL*.

embedded generator

means a person that owns, controls or operates an *embedded generating unit*.

embedded network connection policy

means the *embedded network connection policy* made by the AER under clause 5A.E.3B.

enquiry

means a preliminary *enquiry* under clause 5A.D.2.

micro EG connection

means a *connection* between an *embedded generating unit* and a *distribution network* of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters).

micro embedded generator

means a *retail customer* who operates, or proposes to operate, an *embedded generating unit* for which a *micro EG connection* is appropriate.

model standing offer

means a document approved by the AER as a *model standing offer* to provide *basic connection services* (see clause 5A.B.3) or as a *model standing offer* to provide *standard connection services* (see clause 5A.B.5).

in the case of an *Embedded Network Service Provider*, includes a *model standing offer* published by the AER in the *embedded network connection policy* and adopted by the *Embedded Network Service Provider* as a *model standing offer* to provide *basic connection services* (or a class or subclass of *basic connection services*) for its *embedded network* (see clause 5A.B.8).

negotiated connection contract

– see clause 5A.C.1.

new connection

means a *connection* established or to be established, in accordance with this Chapter and applicable *energy laws*, where there is no existing *connection*.

non-registered embedded generator

means an *embedded generator* that is neither a *micro embedded generator* nor a *Registered Participant*.

parent network connection service

means a *connection service* provided in relation to the *parent connection point* of an *embedded network* or any other *embedded network* through which the *embedded network* is *connected* and which is or would be required to provide a *connection service* sought in an application for a *connection service* in relation to the *embedded network*

premises connection assets

means the components of a *distribution system* used to provide *connection services*.

real estate developer

means a person who carries out a *real estate development*.

real estate development

means the commercial development of land including its development in 1 or more of the following ways:

- (a) subdivision;
- (b) the construction of commercial or industrial premises (or both);
- (c) the construction of multiple new residential premises.

retail customer

includes a non-registered *embedded generator* and a *micro embedded generator*.

standard connection service

means a *connection service* (other than a *basic connection service*) for a particular class (or sub-class) of *connection applicant* and for which a *model standing offer* has been approved by the AER.

supply service

means a service (other than a *connection service*) relating to the *supply* of electricity.

5A.A.1A Application of this Chapter to Embedded Network Service Providers and off-market retailers

- (a) Except where expressly provided otherwise in this Chapter, this Chapter applies to an *Embedded Network Service Provider* as if a reference to a *Distribution Network Service Provider* were a reference to an *Embedded Network Service Provider*.
- (b) In this Chapter, a reference to a *Registered Participant* includes a reference to an *off-market retailer*.

Note

Clause 6.1.5 in Chapter 6 applies in relation to *distribution use of system charges* of an *Embedded Network Service Provider*.

5A.A.2 Application of this Chapter

- (a) This Chapter does not apply to, or in relation to, a *connection applicant* that is a *Registered Participant* or an *Intending Participant* unless the *Registered Participant* or *Intending Participant* is acting as the agent of a *retail customer*.
- (b) Where a *non-registered embedded generator* wishing to *connect* an *embedded generating unit* to a *Distribution Network Service Provider's network*:
 - (1) falls within a particular class (or subclass) of *connection applicant* for which that *Distribution Network Service Provider* provides a *standard connection service*, this Chapter will apply;

- (2) does not fall within a particular class (or subclass) of *connection applicant* for which that *Distribution Network Service Provider* provides a *standard connection service* and is not seeking to connect to an embedded network, paragraph (c) will apply.
- (c) A *non-registered embedded generator* that meets the requirements in paragraph (b)(2) may elect to seek *connection* of the relevant *embedded generating unit* under rule 5.3A instead of this Chapter. A non-registered embedded generator seeking to connect to an embedded network is not entitled to elect to seek connection under rule 5.3A.
- (d) Any election made by a *non-registered embedded generator* under paragraph (c) must be:
 - (1) made before an *enquiry* is made or if no *enquiry* is made, before a *connection application* is lodged with the relevant *Distribution Network Service Provider*;
 - (2) in writing; and
 - (3) delivered to the relevant *Distribution Network Service Provider* at the same time as lodging an *enquiry* under clause 5.3A.5.
- (e) For the avoidance of doubt, clause 5A.C.1(a)(2) is still applicable when a *non-registered embedded generator* meets the requirements in paragraph (b)(1).
- (f) For the avoidance of doubt, Chapter 5 (and not this Chapter 5A) applies where an Embedded Network Service Provider or person required to become an Embedded Network Service Provider is seeking to connect its embedded network to the embedded network of another Embedded Network Service Provider.

5A.A.3 Small Generation Aggregator deemed to be agent of a retail customer

A *Market Small Generation Aggregator* is deemed to be the agent of a *retail customer*, where there is an agreement between the *Market Small Generation Aggregator* and the *retail customer* relating to the *retail customer's small generating unit* under which the *Market Small Generation Aggregator* is financially responsible for the *market connection point* at which the *small generating unit* is connected to the *national grid*.

Part B Standardised offers to provide basic and standard connection services

Division 1 Basic connection services

5A.B.1 Obligation to have model standing offer to provide basic connection services

- (a) Subject to paragraph (b), a *Distribution Network Service Provider* must have a *model standing offer* to provide *basic connection services* to *retail customers*.
- (b) *Basic connection services* are of 2 classes:

- (1) *basic connection services* for retail customers who are not embedded generators; and
- (2) *basic connection services* for retail customers who are micro embedded generators.

Note

Basic connection services are not available to non-registered embedded ~~generator~~*generators*.

- (c) A *model standing offer* may relate to each class of *basic connection services* (or a subclass for which there is significant demand) within the area served by the relevant *distribution network*.

5A.B.2 Proposed model standing offer for basic connection services

- (a) A *Distribution Network Service Provider* (other than an *Embedded Network Service Provider*) must submit for the AER's approval a proposed *model standing offer* to provide *basic connection services* for each class (or subclass) of *basic connection services* on specified terms and conditions.

(a1) An *Embedded Network Service Provider* must, for each class (or subclass) of *basic connection services* in relation to its *embedded network*:

- (1) in accordance with clause 5A.B.8, adopt a *model standing offer* applicable to the class (or subclass) published by the AER in the *embedded network connection policy*; or
- (2) in the circumstances provided for under clause 5A.B.8, submit for the AER's approval a proposed *model standing offer* to provide *basic connection services* for the class (or subclass) of *basic connection services* on specified terms and conditions.

- (b) The terms and conditions of ~~the a~~ proposed *model standing offer* must cover:

- (1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and
- (2) timeframes for commencing and completing the work; and
- (3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
- (4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and
- (5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):
 - (i) the cost of any necessary *extension* to the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;

- (ii) **[Deleted]**
- (iii) the cost of any other relevant *premises connection assets*;
- (iv) the costs of common components of minor variations from the standard specifications;
- (v) any other incidental costs; and
- (6) the manner in which *connection charges* are to be paid by the *retail customer*; and
- (7) if the service is a *basic micro EG connection service*, the particular requirements with regard to the export of electricity into the *distribution system* including:
 - (i) the special requirements for *metering* and other equipment for the export of electricity; and
 - (ii) the required qualification for installers of relevant equipment (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
 - (iii) the special safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which they are imposed) to be complied with by the provider of a *contestable service* or the *retail customer* (or both);
 - (iv) the *DER generation information* that the *Distribution Network Service Provider* requires.

5A.B.3 Approval of terms and conditions of model standing offer to provide basic connection services

- (a) The *AER* may approve a proposed *model standing offer* to provide *basic connection services* of a particular class (or subclass) on specified terms and conditions if satisfied that:
 - (1) the services are likely to be sought by:
 - (i) a significant number of *retail customers* in the area served by the *distribution network* (excluding *embedded generators*); or
 - (ii) *micro embedded generators*; and
 - (2) the *connection charges* are consistent with the *Distribution Network Service Provider's* distribution determination including the *connection policy*; and
 - (3) the terms and conditions are fair and reasonable; and
 - (4) the terms and conditions comply with applicable requirements of the *energy laws*.
- (b) In deciding whether to approve a proposed *model standing offer* to provide *basic connection services* on specified terms and conditions, the *AER* must have regard to:
 - (1) the *national electricity objective*; and

- (2) the basis on which the *Distribution Network Service Provider* has provided the relevant services in the past; and
- (3) the geographical characteristics of the area served by the relevant *distribution network*.
- (c) If the *AER* does not approve a proposed *model standing offer* to provide *basic connection services* of a particular class on specified terms and conditions:
 - (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* must re-submit the proposed *model standing offer* with appropriate amendments as soon as reasonably practicable.
- (d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *basic connection services*.

Division 2 Standard connection services

5A.B.4 Standard connection services

- (a) A *Distribution Network Service Provider* ([other than an Embedded Network Service Provider](#)) may submit for the *AER*'s approval a proposed *model standing offer* to provide *standard connection services* on specified terms and conditions.
- (b) Different sets of terms and conditions may be submitted under this *rule* for different classes of *connection services* or different classes of *retail customer*.
- (c) The terms and conditions must cover:
 - (1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and
 - (1a) the DER *generation information* that the *Distribution Network Service Provider* requires.
 - (2) timeframes for commencing and completing the work; and
 - (3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
 - (4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and
 - (5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):
 - (i) the cost of *premises connection assets* to which the *connection charges* relate;

- (ii) the cost of any necessary *augmentation* of the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;
- (iii) the costs of common components of minor variations from the standard specifications;
- (iv) any other incidental costs; and
- (6) the manner in which *connection charges* are to be paid by the *retail customer*.

5A.B.5 Approval of model standing offer to provide standard connection services

- (a) The *AER* may approve a proposed *model standing offer* to provide a particular class of *standard connection services* on specified terms and conditions if satisfied that:
 - (1) the terms and conditions are fair and reasonable; and
 - (2) the *connection charges* are consistent with the *Distribution Network Service Provider's* distribution determination including the *connection policy*; and
 - (3) the terms and conditions comply with applicable requirements of the *energy laws*.
- (b) In deciding whether to approve the proposed *model standing offer*, the *AER* must have regard to the *national electricity objective*.
- (c) If the *AER* does not approve a proposed *model standing offer* to provide *standard connection services*:
 - (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* may re-submit the proposed *model standing offer* with appropriate amendments.
- (d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *standard connection services*.

Division 3 Miscellaneous

5A.B.6 Amendment etc of model standing offer

- (a) A *Distribution Network Service Provider* may submit, for the *AER's* approval, a proposal:
 - (1) for the amendment or substitution of a *model standing offer* to provide *basic connection services* (other than a model standing offer adopted by an Embedded Network Service Provider under clause 5A.B.2(a1)(1)); or
 - (2) for the amendment, substitution or revocation of a *model standing offer* to provide *standard connection services*.

- (b) In deciding whether to approve a proposal submitted for its approval under this clause, the *AER* must, so far as relevant, apply the same principles and have regard to the same matters as are relevant to the approval of a proposed *model standing offer* to provide *basic connection services* or *standard connection services*.
- (c) The amendment, substitution or revocation of a *model standing offer* takes effect on the date of the *AER*'s approval or a later date fixed by the *AER* in its approval.
- (d) If the *AER* does not approve a proposal submitted under paragraph (a):
 - (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* may re-submit the proposal with appropriate amendments.
- (e) The amendment, substitution or revocation of a *model standing offer* does not affect the validity or effect of:
 - (1) a *connection offer* made before the amendment, substitution or revocation takes effect; or
 - (2) a *connection contract* formed on the basis of such an offer.
- (f) The *AER* must deal expeditiously with a proposal for the amendment, substitution or revocation of a *model standing offer*.
- (g) If the *AER*, after making a distribution determination, considers that an existing *model standing offer* to provide *basic connection services* or *standard connection services* may be inconsistent with the *Distribution Network Service Provider's* distribution determination (including the *connection policy*), the *AER* may require the *Distribution Network Service Provider* to submit a proposal under paragraph (a) to bring the *model standing offer* into consistency with the distribution determination.

5A.B.7 Publication of model standing offers

A *Distribution Network Service Provider* must publish, on its website, each of its *model standing offers* to provide *basic connection services* or *standard connection services*.

5A.B.8 Adoption of AER model standing offers

- (a) Subject to paragraph (b), an *Embedded Network Service Provider* must, by giving notice to the *AER* containing information specified by the *AER*, adopt as the *model standing offer* for a class (or subclass) of *basic connection services* in relation to its *embedded network* an applicable *model standing offer* published by the *AER* in the *embedded network connection policy*, as amended by the *AER* from time to time and subject to alterations, omissions or additions permitted or required by the *embedded network connection policy*.
- (b) An *Embedded Network Service Provider* may submit to the *AER* for approval under clause 5A.B.2(a1)(2) a proposed *model standing offer* for a class (or subclass) of *basic connection services* only where, in the circumstances

applicable to the *embedded network*, alterations, omissions or additions are required to a *model standing offer* published by the AER in the *embedded network connection policy* (other than those permitted or required by the *embedded network connection policy*) in order for proposed *model standing offer* to satisfy the principles in clauses 5A.B.3(a)(3) and (4).

- (c) An *Embedded Network Service Provider* submitting a proposed *model standing offer* under paragraph (b) must include an explanation of:
 - (1) the alterations, omissions or additions proposed by the *Embedded Network Service Provider* in order to satisfy the principles in clauses 5A.B.3(a)(3) and (4); and
 - (2) the circumstances applicable to the *embedded network* that the alterations, omissions or additions are intended to address.
- (d) Clause 5A.B.3 (excluding clause 5A.B.3(a)) applies to the approval of a proposed *model standing offer* submitted under paragraph (b).
- (e) An *Embedded Network Service Provider* may by further notice to the AER under paragraph (a), replace a *model standing offer* adopted by it with a *model standing offer* adopted in accordance with paragraph (a) or with a *model standing offer* approved by the AER following submission in accordance with paragraph (b).
- (f) An *Embedded Network Service Provider* who wishes to amend a *model standing offer* approved after submission under paragraph (b) must submit the proposal for approval under clause 5A.B.6 and must include the information required under paragraph (c).

Part C Negotiated connection

5A.C.1 Negotiation of connection

- (a) A *connection applicant* and a *Distribution Network Service Provider* may negotiate a *connection contract* (a **negotiated connection contract**):
 - (1) where the *connection service* sought by the *connection applicant* is neither a *basic connection service* nor a *standard connection service*; or
 - (2) where the *connection service* sought by the *connection applicant* is a *basic connection service* or a *standard connection service* but the *connection applicant* elects to negotiate the terms and conditions on which the *connection service* is to be provided.
- (b) The negotiations may, if the *connection applicant* elects, extend to *supply services* available from the *Distribution Network Service Provider*.
- (c) This Part sets out the requirements for negotiation referred to in the *NERL*.
- (d) When reading this Part in the context of the *NERL*:
 - (1) a reference to a *connection applicant* in this Part corresponds to a reference to a *customer* in the *NERL*; and
 - (2) a reference to a *Distribution Network Service Provider* in this Part corresponds to a reference to a distributor in the *NERL*; and

- (3) this Part will be read subject to any further adaptations and modifications necessary to give effect to the intentment of the *NERL*.
- (e) If, but for this paragraph, a contract negotiable under this Part, or parts or aspects of such a contract, would also be negotiable under Chapter 6, this Part applies to the exclusion of the relevant provisions of Chapter 6.
- (f) Where a *connection applicant* is seeking a *connection service* in an *embedded network*, the *Embedded Network Service Provider* must notify the *Distribution Network Service Provider* with whom it has a *connection agreement* regarding the impact of the *connection service* on fault levels, line reclosure protocols, and stability aspects.

5A.C.2 Process of negotiation

- (a) Subject to paragraph (b), a *Distribution Network Service Provider* and a *connection applicant* for a negotiated *connection contract* must negotiate in accordance with the negotiation framework set out in clause 5A.C.3.
- (b) In the case of an *Embedded Network Service Provider* and a *connection applicant* seeking a *connection service* in an *embedded network*:
 - (1) the *Embedded Network Service Provider* must tell the *connection applicant* as soon as practicable if the *Embedded Network Service Provider* reasonably considers that a *parent network connection service* will be required; and
 - (2) except where, in accordance with clause 5A.E.3B(e) and the *connection policy* the *connection applicant* cannot be required to make a capital contribution towards the cost of *augmentation*, the *Embedded Network Service Provider* may require the *connection applicant* to:
 - (i) pay as part of the *connection charges* the costs directly and reasonably incurred by the *Embedded Network Service Provider* in respect of a *parent network connection service*; and
 - (ii) provide a prepayment or financial guarantee of the costs before the *Embedded Network Service Provider* processes the *application to connect* or engages in negotiations in accordance with the *negotiation framework*, and until that is provided, the *Embedded Network Service Provider* is not required by this Chapter to process the *application* or engage in negotiations.

5A.C.3 Negotiation framework

- (a) The following rules (collectively described as the **negotiation framework**) govern negotiations between a *Distribution Network Service Provider* and a *connection applicant*:
 - (1) each party must negotiate in good faith.
 - (1a) the *connection applicant* must, at the request of the *Distribution Network Service Provider*, provide the *Distribution Network Service Provider* with the *DER generation information*.

- (2) the *connection applicant* must, at the request of the *Distribution Network Service Provider*, provide the *Distribution Network Service Provider* with information it reasonably requires in order to negotiate on an informed basis and in the case of a connection service in an embedded network, enable the Embedded Network Service Provider to apply if required for a parent network connection service.

Note

The information might (for example) include estimates of average and *maximum demand* for electricity to be *supplied* through the *connection*.

- (3) the *Distribution Network Service Provider* must provide the *connection applicant* with information the *connection applicant* reasonably requires in order to negotiate on an informed basis including;
- (i) an estimate of the amount to be charged by the *Distribution Network Service Provider* for assessment of the application and the making of a connection offer for a negotiated *connection contract*; and
 - (ii) an estimate of *connection charges*; and
 - (iii) a statement of the basis on which *connection charges* are calculated; and
 - (iv) if the *connection applicant* has elected to extend the negotiations to *supply services*— an estimate of any applicable charges for *supply services* and a statement of the basis of their calculation.

Note

The *Distribution Network Service Provider* might, according to the circumstances of a particular case, need to provide further information to ensure the *connection applicant* is properly informed – for example, information about:

- technical and safety requirements;
 - the types of *connection* that are technically feasible;
 - *network capacity* at the proposed *connection point*;
 - possible strategies to reduce the cost of the *connection*.
- (4) the *Distribution Network Service Provider* may consult with other users of the *distribution network* who may be adversely affected by the proposed *new connection* or *connection alteration* and in the case of connection services in an embedded network, may consult with the Distribution Network Service Provider.
- (5) in assessing the application, the *Distribution Network Service Provider* must determine:
- (i) the technical requirements for the proposed *new connection* or *connection alteration*; and
 - (ii) the extent and costs of any necessary *augmentation* of the *distribution system* and in the case of connection services in an embedded network, of any necessary parent network connection services; and

- (iii) any consequent *change* in charges for *distribution use of system* services; and
 - (iv) any possible material effect of the proposed *new connection* or *connection alteration* on the *network power transfer capability* of the *distribution network* to which the *new connection* or *connection alteration* is proposed to be made and any other *distribution network* that might be affected by the proposed *new connection* or *connection alteration*.
- (6) the *Distribution Network Service Provider* must make reasonable endeavours to make a *connection offer* that complies with the *connection applicant's* reasonable requirements.

Example

Reasonable requirements as to the location of the proposed *connection point* or the level and standard of the *distribution network's power transfer capability*.

- (7) the *Distribution Network Service Provider* must comply with its *connection policy*.
- (b) The following supplementary rules apply:
- (1) if a *Distribution Network Service Provider* requires information from a *connection applicant* in addition to the information provided in the application, a request for the additional information under paragraphs (a)(1a) or (a)(2) must (if practicable) be made within 20 *business days* after the *Distribution Network Service Provider* receives the relevant application;
 - (2) the *Distribution Network Service Provider* must provide the information required under paragraph (a)(3) as soon as practicable after the *Distribution Network Service Provider* receives the *connection applicant's* application or, if the *Distribution Network Service Provider* requests additional information under paragraph (a)(2), as soon as practicable after the *Distribution Network Service Provider* receives the relevant information.
- (c) Each party to the negotiations must maintain the confidentiality of *confidential information* disclosed by the other party in the course of the negotiations unless disclosure of the information is authorised:
- (1) by the party to whom the duty of confidentiality is owed; or
 - (2) under:
 - (i) the Law or the Rules; or
 - (ii) any other law.
- (d) An *Embedded Network Service Provider* may disclose *confidential information* of a *connection applicant* to the extent required for the *Embedded Network Service Provider* to apply for a *parent network connection service* and negotiations with the relevant *Distribution Network Service Provider*.

5A.C.4 Fee to cover cost of negotiation

- (a) A *Distribution Network Service Provider* may charge a *connection applicant* for a negotiated *connection contract* a reasonable fee to cover expenses directly and reasonably incurred by the *Distribution Network Service Provider* in assessing the applicant's application and making a *connection offer*.
- (b) A fee charged under paragraph (a) is recoverable as a debt (whether or not the *connection applicant* accepts the *connection offer*).

Part D Application for connection service**Division 1 Information****5A.D.1 Publication of information**

- (a) A *Distribution Network Service Provider* must publish on its website the following:
 - (1) an application form for a *new connection* or a *connection alteration*; and
 - (2) a description of how an application for a *new connection* or a *connection alteration* is to be made (including a statement of the information required for the application); and
 - (3) a description of the *Distribution Network Service Provider's basic connection services* and *standard connection services* and the classes (or subclasses) of *retail customer* to which they apply. If the *Distribution Network Service Provider* does not provide *standard connection services* for all or some *non-registered embedded generators*~~*non-registered embedded generators*~~, a clear statement to this effect must also be included in the description; and
 - (4) an explanation of the *connection applicant's* right to negotiate with the *Distribution Network Service Provider* for a negotiated *connection contract* and a description of the negotiation process; and
 - (5) the requirements for an expedited *connection*; and
 - (6) the basis for calculation of *connection charges*; and
 - (7) except for an *Embedded Network Service Provider*, information set out in clause 5.3A.3(b)(1)(vii), (2)-(7) as such information relates to the connection of embedded generating units by a non-registered embedded generator; and
 - (8) in the case of an *Embedded Network Service Provider*, contact details for the local embedded network retailer for its embedded network and information about customers' rights to choose a retailer other than the local embedded network retailer.
- (b) To the extent a *Distribution Network Service Provider* has provided the information required under paragraph (a)(7) by including that information in its information pack published under clause 5.3A.3(a)(3), it will be taken to have complied with paragraph (a)(7).

5A.D.1A Register of completed embedded generation projects

- (a) For the purposes of this clause 5A.D.1A:

completed non-registered embedded generation projects means all *embedded generating units*, operated or controlled by a *non-registered embedded generator* ~~*non-registered embedded generator*~~ that are *connected* to the *Distribution Network Service Provider's network*.

DAPR date means:

(1) subject to paragraph (2), the DAPR date as ~~has the same meaning as defined~~ in clause 5.13.2; and

(2) in the case of an *Embedded Network Service Provider*, 31 December.

- (b) In relation to completed non-registered embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:
- (1) technology of *generating unit* (e.g. *synchronous generating unit*, *induction generator*, *photovoltaic array*, etc) and its make and model;
 - (2) maximum power generation capacity of all *embedded generating units* comprised in the relevant *generating system*;
 - (3) contribution to fault levels;
 - (4) the size and rating of the relevant *transformer*;
 - (5) a single line diagram of the *connection* arrangement;
 - (6) *protection systems* and communication systems;
 - (7) *voltage control*, *power factor control* and/or *reactive power capability* (where relevant); and
 - (8) details specific to the location of a *facility connected to the network* that are relevant to any of the details in subparagraphs (1)-(7).
- (c) The *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register, unless disclosure of the information is authorised:
- (1) by the party to whom the duty of confidentiality is owed; or
 - (2) under:
 - (i) the *National Electricity Law* or the *Rules*; or
 - (ii) any other law.
- (d) The *Distribution Network Service Provider* must:
- (1) by the DAPR date each year, include in the register the details contained in paragraph (b) for all completed non-registered embedded generation projects since the date the register referred to in paragraph (b) is established; and
 - (2) in the fifth year after the establishment of the register, and in each year thereafter, update the register by the DAPR date with details of all completed non-registered embedded generation projects in the 5 year period preceding the DAPR date.

- (e) To the extent a *Distribution Network Service Provider* includes the information required under paragraphs (b) and (d) in its register established under clause 5.4.5, it will be taken to have complied with paragraphs (b) and (d).
- (f) An *Embedded Network Service Provider* is only required to publish a register under paragraph (b) and maintain the register under paragraph (d) if it has one or more completed non-registered embedded generation projects connected to its embedded network.

Division 2 Preliminary enquiry

5A.D.2 Preliminary enquiry

- (a) A *Distribution Network Service Provider* must, within 5 business days after receiving an *enquiry* about a *connection service* (or some other period agreed between the *Distribution Network Service Provider* and the enquirer), provide the enquirer with the information required to make an informed application.
- (b) The information must include:
 - (1) a description of the *Distribution Network Service Provider's* basic and *standard connection services* and the terms and conditions of the *model standing offers* to provide such services (including possible costs); and
 - (2) a description of the process, including a statement of the information required, for submission of a *connection application* including an application for an expedited *connection*; and
 - (3) a statement of possible site inspection charges; and
 - (4) a statement of a *connection applicant's* right to negotiate the terms of a *connection contract* and a description of the relevant process (including the types of possible costs and expenses); and
 - (5) an indication of whether any aspects of the proposed *connection* are likely to be *contestable*; and
 - (6) any additional information reasonably required by the enquirer.
- (c) A *Distribution Network Service Provider* that publishes any of the above information on its website complies with its obligation to disclose information under this clause if it refers the enquirer to the relevant part of the website.

Exception:

If the enquirer asks for a written reply to the *enquiry* or asks for specific advice about the enquirer's particular situation, the *Distribution Network Service Provider* must reply to the *enquiry* as soon as reasonably practicable and in writing if requested.

- (d) If an *enquiry* is made to a *Distribution Network Service Provider* about a *connection* within the area of another *Distribution Network Service Provider*, the *Distribution Network Service Provider*:

- (1) must inform the enquirer of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and
- (2) on doing so, is released from further obligations in relation to the *enquiry*.

Division 3 Applications

5A.D.3 Application process

- (a) An application for a *connection service* must be in the appropriate form determined by the *Distribution Network Service Provider*.
- (b) An application for a *connection service* may be made by:
 - (1) a *retail customer* for whom the *connection service* is sought; or
 - (2) a *retailer* or other person acting on behalf of a *retail customer*; or
 - (3) a *real estate developer* who seeks *connection services* for premises comprised in a *real estate development*.
- (c) If an application for a *connection service* has been made in error to the wrong *Distribution Network Service Provider*, that *Distribution Network Service Provider*:
 - (1) must inform the *connection applicant* of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and
 - (2) on doing so, is released from further obligations in relation to the application.
- (d) If an application is incomplete in a *material* respect, the *Distribution Network Service Provider* must advise the applicant of the deficiency and may require the *connection applicant* to complete the application and re-submit it.
- (e) If the *Distribution Network Service Provider* reasonably requires additional information to assess the application, it may require the *connection applicant* to provide the necessary information.
- (f) The *Distribution Network Service Provider* must, within 10 *business days* after receipt of a complete application for a *connection service* or if the *connection applicant* is required to provide additional information under paragraph (e), within 10 *business days* after receipt of the information, (or some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*):
 - (1) subject to any statements made on its website under clause 5A.D.1(a)(3), advise the *connection applicant* whether the proposed *connection service* is a *basic connection service*, a *standard connection service* or neither; and
 - (2) if;
 - (i) the *connection service* is neither a *basic connection service* nor a *standard connection service*; or

- (ii) the *connection applicant* elects to have a negotiated *connection contract* even though the proposed *connection service* is a basic or *standard connection service*;

advise the *connection applicant* of the negotiated *connection* process and of possible costs and expenses related to the negotiations.

- (g) A single application may relate to multiple *connection services* of the same or different kinds.

5A.D.4 Site inspection

If a *Distribution Network Service Provider* reasonably needs to make a site inspection in order to determine the nature of a *connection service* sought by a *connection applicant*, the *Distribution Network Service Provider* may charge its reasonable expenses to the *connection applicant* and recover those expenses as a debt.

Part E Connection charges

5A.E.1 Connection charge principles

- (a) This clause states the *connection charge principles* [for distribution systems other than embedded networks](#).

Note

[For embedded networks, refer to clause 5A.E.3B.](#)

- (b) A *retail customer* (other than a *non-registered embedded generator* or a *real estate developer*) who applies for a *connection service* for which an *augmentation* is required cannot be required to make a capital contribution towards the cost of the *augmentation* (insofar as it involves more than an *extension*) if:

- (1) the application is for a *basic connection service*; or
- (2) a relevant threshold set in the *Distribution Network Service Provider's connection policy* is not exceeded.

Note

In general, the intention is to exclude deep system *augmentation* charges for *retail customers*.

- (c) Subject to paragraph (b), in determining *connection charges* in accordance with its *connection policy*, a *Distribution Network Service Provider* [\(other than an Embedded Network Service Provider\)](#) must apply the following principles:

- (1) if an *extension* to the *distribution network* is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *extension* necessary to provide the service;
- (2) if *augmentation* of *premises connection assets* at the *retail customer's connection point* is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* of *premises*

- connection assets* at the *connection point* necessary to provide the service;
- (3) if *augmentation* of the *distribution system* is necessary in order to provide a *standard connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* necessary to provide the service;
 - (4) if *augmentation* of the *distribution system* is necessary in order to provide a *connection service* under a negotiated *connection contract*, *connection charges* for the service may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the service and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load growth*;
 - (5) despite subparagraphs (1) to (4) if *augmentation* of the *distribution system* is necessary in order to provide, on the application of a *real estate developer*, *connection services* for premises comprised in a *real estate development*, *connection charges* for the services may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the services and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load growth*;
 - (6) however, a capital contribution may only be required in the circumstances described in subparagraphs (1) to (5) if provision for the costs has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*.
- (d) If:
- (1) a *connection asset* ceases, within 7 years after its construction or installation, to be dedicated to the exclusive use of the *retail customer* occupying particular premises; and
 - (2) the *retail customer* is entitled, in accordance with the *connection charge guidelines*, to a refund of *connection charges*;
- the *Distribution Network Service Provider* must make the refund, and may recover the amount of the refund, by way of a *connection charge*, from the new users of the asset.
- (e) For the purposes of paragraph (d), a person is taken to be a new user of a *connection asset* if the asset comes to be used to provide a *connection* to that person's premises
 - (f) For the purposes of this clause capital contribution includes a prepayment or financial guarantee.

5A.E.2 Itemised statement of connection charges

A *connection offer* must be accompanied by a schedule containing an itemised statement of *connection* costs including (so far as relevant) the following:

- (a) applicable *connection charges*;
- (b) cost of *network extension*;
- (c) details of upstream *augmentation* required to provide the *connection service* and associated cost;
- (d) any other incidental costs and the basis of their calculation including, if relevant, costs of minor deviation from the standard specification for a *basic connection service* or a *standard connection service* (as the case may require).

5A.E.3 Connection charge guidelines

- (a) The *AER* must develop and *publish* guidelines (***connection charge guidelines***) for the development of *connection policies* by *Distribution Network Service Providers* other than *Embedded Network Service Providers*.

Note

For *embedded networks*, refer to clause 5A.E.3B.

- (b) The purpose of the guidelines is to ensure that *connection charges*:
 - (1) are reasonable, taking into account the efficient costs of providing the *connection services* arising from the *new connection* or *connection alteration* and the revenue a prudent operator in the circumstances of the relevant *Distribution Network Service Provider* would require to provide those *connection services*; and
 - (2) provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the *connection services*; and
 - (3) limit cross-subsidisation of *connection* costs between different classes (or subclasses) of *retail customer*; and
 - (4) if the *connection services* are *contestable* – are competitively neutral.
- (c) The guidelines must:
 - (1) describe the method for determining charges for *premises connection assets*; and
 - (2) describe the circumstances (or how to determine the circumstances) under which a *Distribution Network Service Provider* may receive a capital contribution, prepayment or financial guarantee from a *retail customer* or *real estate developer* for the provision of a *connection service*; and
 - (3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and
 - (4) establish principles for fixing a threshold (based on capacity or any other measure the *AER* thinks fit) below which *retail customers* (not being a *non-registered embedded generator* or a *real estate developer*) are exempt from any requirement to pay *connection charges* (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an *augmentation* (other than an *extension*) to the *distribution network* necessary to make the *connection*; and

- (5) describe the methods for calculating the *augmentation* component for the *connection assets* and, if the *augmentation* consists of or includes an *extension*, the *extension* component of a *connection charge*; and
 - (6) describe the method for calculating:
 - (i) the amount of a refund of *connection charges* for a *connection asset* when an *extension* asset originally installed to *connect* the premises of a single *retail customer* is used, within 7 years of its installation, to *connect* other premises and thus comes to be used for the benefit of 2 or more *retail customers*; and
 - (ii) the threshold below which the refund is not payable; and
 - (7) describe the treatment of *augmentation* assets.
- (d) The principles for establishing an exemption under paragraph (c)(4) must ensure that the exemption only operates in the following circumstances:
- (1) the *connection* is a low voltage *connection*; and
 - (2) the *connection* would not normally require *augmentation* of the *network* beyond the *extension* to the *distribution network* necessary to make the *connection*; and
 - (3) the *connection* is not expected to increase the *load* on the *distribution network* beyond a level the *Distribution Network Service Provider* could reasonably be expected to cope with in the ordinary course of managing the *distribution network*.
- (e) In developing the guidelines, the *AER* must have regard to:
- (1) historical and geographical differences between *networks*; and
 - (2) inter-jurisdictional differences related to regulatory control mechanisms, classification of services and other relevant matters; and
 - (3) the circumstances in which *connection services* may be provided by persons other than *Distribution Network Service Providers* (and are therefore *contestable*).
- (f) In developing guidelines dealing with the method for calculating the amount of a refund of *connection charges* paid before a *connection asset* becomes a shared asset, the *AER* must have regard to:
- (1) the *Distribution Network Service Provider's* obligation to make the refund; and
 - (2) future projections of *distribution network* expansion and usage and any consequent effect on the *Distribution Network Service Provider's* capacity to finance the acquisition of *augmentation* assets out of increased revenue; and
 - (3) the fact that the *Distribution Network Service Provider's* obligation to make the refund will expire after 7 years.
- (g) In developing guidelines under this clause, the *AER* must act in accordance with the *distribution consultation procedures*.

5A.E.3A Preparation of, and requirements for, connection policy

(a) A Distribution Network Service Provider (other than an Embedded Network Service Provider) must prepare a document (its proposed connection policy) setting out the circumstances in which it may require a retail customer or real estate developer to pay a connection charge, for the provision of a connection service under this Chapter.

(b) The proposed connection policy:

(1) must be consistent with:

- (i) the connection charge principles; and
- (ii) the connection charge guidelines; and

(2) must specify:

- (i) the categories of persons that may be required to pay a connection charge and the circumstances in which such a requirement may be imposed; and
- (ii) the aspects of a connection service for which a connection charge may be made; and

Example

The Distribution Network Service Provider might (for example) make separate connection charges for the provision of a distribution connection asset and for making a necessary extension to, or other augmentation of, the distribution network.

- (iii) the basis on which connection charges are determined; and
- (iv) the manner in which connection charges are to be paid (or equivalent consideration is to be given); and

Examples

The payment (or equivalent consideration) might take the form of a capital contribution, prepayment or financial guarantee.

- (v) a threshold (based on capacity or any other measure identified in the connection charge guidelines) below which a retail customer (not being a non-registered embedded generator or a real estate developer) will not be liable for a connection charge for an augmentation other than an extension.

5A.E.3B Embedded network connection policy

(a) The AER must develop and publish and may amend an embedded network connection policy that sets out for embedded networks:

- (1) the circumstances in which connection charges are payable and the basis for determining the amount of such charges and other relevant matters determined by the AER in accordance with this clause; and
- (2) one or more forms of model standing offer that may be adopted by an Embedded Network Service Provider under clause 5A.B.8.

(b) In developing and amending the embedded network connection policy, the AER must comply with the Rules consultation procedures.

- (c) The *embedded network connection policy* must:
- (1) in specifying the circumstances in which *connection charges* are payable to an *Embedded Network Service Provider*, include:
 - (i) the categories of persons that may be required to pay a *connection charge* and the circumstances in which such a requirement may be imposed;
 - (ii) the aspects of a *connection service* for which a *connection charge* may be made; and
 - (iii) a threshold (based on capacity or any other measure identified in the *embedded network connection policy*) below which a *retail customer* (not being a *non-registered embedded generator* or a *real estate developer*) will not be liable for a *connection charge* for an *augmentation* other than an *extension*, which must be set in a manner consistent with the applicable principles in the *connection charge guidelines*;
 - (2) in setting out the basis for determining *connection charges*:
 - (i) give effect to the principles in paragraphs (d) and (e); and
 - (ii) subject to subparagraph (i), be consistent with the *connection charge principles* in clause 5A.E.1(c);
 - (3) set out the manner in which *connection charges* are to be paid (or equivalent consideration is to be given);
 - (4) include a scheme for refunds of *connection charges* consistent with clauses 5A.E.1(d) and (e) and clause 5A.E.3(c)(6); and
 - (5) in setting out one or more forms of *model standing offer* to provide *basic connection services* for an *embedded network*:
 - (i) provide guidance on the circumstances in which each form of *model standing offer* may be used; and
 - (ii) specify the permitted alterations, omissions or additions that may be made by the *Embedded Network Service Provider* to the form of *model standing offer* if it is adopted under clause 5A.B.8.
- (d) *Connection charges* for the provision of *connection services* for an *embedded network* must:
- (1) be reasonable, taking into account the efficient costs of providing the *connection services* arising from the *new connection* or *connection alteration* and the revenue a prudent operator in the circumstances of the *Local Network Service Provider* for the *embedded network* would require to provide those *connection services*; and
 - (2) provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the *connection services*; and
 - (3) limit cross-subsidisation of *connection costs* between different classes (or subclasses) of *retail customer*; and
 - (4) if the *connection services* are *contestable* – be competitively neutral.

(e) A retail customer (other than a non-registered embedded generator or a real estate developer) who applies for a connection service for which an augmentation is required (whether on the embedded network or another network to or through which the embedded network is connected) cannot be required to make a capital contribution towards the cost of the augmentation (insofar as it involves more than an extension) if:

- (1) the application is for a basic connection service; or
- (2) a relevant threshold set in the embedded network connection policy is not exceeded.

Note

In general, the intention is to exclude deep system augmentation charges for retail customers.

(f) In developing the embedded network connection policy, the AER must have regard to the following:

- (1) the connection charge guidelines, to the extent applicable to embedded networks;
- (2) the principles in clauses 5A.E.3(d) and (f), to the extent applicable to embedded networks;
- (3) historical and geographical differences between embedded networks and differences between the customers they serve; and
- (4) the circumstances in which connection services may be provided by persons other than Embedded Network Service Providers (and are therefore contestable).

(g) The embedded network connection policy may be made so as to vary according to the persons, times, places or circumstances in which the policy applies.

(h) For the purposes of this clause capital contribution includes a prepayment or financial guarantee.

(i) An Embedded Network Service Provider must comply with the embedded network connection policy in relation to connection charges for a connection service for its embedded network.

Note

The AEMC recommends that paragraph (i) be classified as a civil penalty provision.

5A.E.4 Payment of connection charges

(a) *Connection charges payable in respect of a connection service must be paid to the Distribution Network Service Provider by the retail customer's -retailer unless:*

- (1) *the retailer did not apply for the connection service and the Distribution Network Service Provider has notified the retail customer that the retail customer must pay the connection charge directly; or*
- (2) *the retail customer asks to pay the connection charge directly and the Distribution Network Service Provider agrees; or*

- (3) the *Distribution Network Service Provider* and the *retailer* agree that the *Distribution Network Service Provider* is to recover the *connection charge* from the *retail customer*.
- (b) If the *retail customer* pays, or is required to pay, a *connection charge* directly to a *Distribution Network Service Provider* under paragraph (a), the *Distribution Network Service Provider* must not recover that charge from the *retail customer's -retailer*.
- (c) The *Distribution Network Service Provider* must separately identify each *connection charge* on the statement or invoice to the *retailer*.

Note

Rule 25 of the *National Energy Retail Rules* requires the listing of *connection charges* that are passed through by a *retailer* to a retail customer in the customer's bill.

Part F Formation and integration of connection contracts

Division 1 Offer and acceptance – basic and standard connection services

5A.F.1 Distribution Network Service Provider's response to application

- (a) If the *connection service* sought by a *connection applicant* is a *basic connection service* or a *standard connection service* (and the applicant does not elect to apply for a negotiated *connection contract*), the *Distribution Network Service Provider* must make a *connection offer* to the applicant within:
 - (1) 10 *business days* after receiving a properly completed application for the service and the additional information (if any) reasonably required under clause 5A.D.3(e); or
 - (2) some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*.
- (b) The *connection offer* must be in accordance with the relevant *model standing offer* and must include:
 - (1) the date of the offer; and
 - (2) details of the *connection service* to be provided; and
 - (3) a statement of the *connection charges* payable by the *connection applicant*.

5A.F.2 Acceptance of connection offer

- (a) A *connection offer* to provide a *basic connection service* or *standard connection service* remains open for acceptance for 45 *business days* from the date of the offer and, if not accepted within that period, lapses unless the period for acceptance is extended by agreement between the *connection applicant* and the *Distribution Network Service Provider*.
- (b) This clause does not apply if the *connection application* is for an expedited *connection*.

5A.F.3 Offer and acceptance—application for expedited connection

- (a) If:
- (1) a *connection applicant* requests an expedited *connection* in the *connection application*; and
 - (2) the *Distribution Network Service Provider* is satisfied that the *connection application* is for a *basic connection service* or *standard connection service* that falls within the terms of the relevant *model standing offer*; and
 - (3) the *connection applicant* indicates in the *connection application* that a *connection offer* in terms of the relevant *model standing offer* would be acceptable to the applicant,

the *Distribution Network Service Provider* is taken to have made, and the *connection applicant* is taken to have accepted, a *connection offer* in terms of the relevant *model standing offer* on the date the *Distribution Network Service Provider* receives the application.

- (b) If a *connection applicant* applies for an expedited *connection* but the *Distribution Network Service Provider* does not agree that an offer in terms of any *model standing offer* is appropriate, the *Distribution Network Service Provider* must notify the *connection applicant* accordingly and draw the applicant's attention to the provisions of these *Rules* dealing with negotiated *connection*.

Division 2 Offer and acceptance – negotiated connection**5A.F.4 Negotiated connection offer**

- (a) A *Distribution Network Service Provider* must use its best endeavours to make a negotiated *connection offer* to the *connection applicant* within 65 *business days* after the date of the application for *connection* (but the *time* taken by the applicant to provide information reasonably sought by the *Distribution Network Service Provider* under clause 5A.C.3(a)(2) will not be counted).
- (b) A negotiated *connection offer*:
- (1) must be in the form of an offer to enter into a contract in specified terms; and
 - (2) must comply with the minimum requirements set out in Schedule 5A.1.
- (c) If the *connection applicant* elected to extend the negotiations to *supply services*, the *connection offer* must contain terms and conditions relating to the *supply services*.
- (d) A negotiated *connection offer* must not include a *connection charge* that is inconsistent with the *Distribution Network Service Provider's connection policy*.
- (e) A negotiated *connection offer* remains open for acceptance for 20 *business days* from the date of the offer and then lapses unless the period for

acceptance is extended by agreement between the *Distribution Network Service Provider* and the *connection applicant*.

Division 3 Formation of contract

5A.F.5 Acceptance of connection offer

- (a) If a *connection offer* to provide a *connection service* is accepted, the terms and conditions of the *connection offer*:
 - (1) become terms and conditions of a *connection contract* formed between the *Distribution Network Service Provider* and the *connection applicant*; and
 - (2) subject to rule 5A.F.6, are enforceable accordingly.
- (b) The *Distribution Network Service Provider* must, at the request of a *connection applicant*, provide a copy of:
 - (1) the contract formed under paragraph (a); or
 - (2) if that contract has been integrated with, and forms part of, a *customer connection contract* arising under the *NERL*—the integrated contract.

Division 4 Contractual performance

5A.F.6 Carrying out connection work

- (a) A *Distribution Network Service Provider* must use its best endeavours to ensure that *connection work* is carried out within the applicable *time limits* fixed by the relevant provisions of the *connection contract*.
- (b) However, a *Distribution Network Service Provider* is not obliged to commence or continue with *connection work* if the *connection applicant* fails to comply with conditions that are to be complied with by the *connection applicant*.

Examples

The *connection applicant* fails to pay *connection charges*.

The *connection applicant* fails to comply with technical or safety requirements.

The *connection applicant* fails to complete work that is to be carried out on the *connection applicant's* premises.

The *connection applicant* fails to comply with the *Distribution Network Service Provider's* reasonable request to allow the *Distribution Network Service Provider* safe and unhindered access to the applicant's premises.

5A.F.7 Retailer required for energisation where new connection

A *Distribution Network Service Provider* is not required to *energise* a *new connection* unless a request to *energise* the *new connection* is submitted by a *retailer*, or the *Distribution Network Service Provider* is otherwise satisfied that there is a relevant contract with a *retailer* in relation to the premises.

Part G Dispute resolution between Distribution Network Service Providers and customers

5A.G.1 Relevant disputes

- (a) In this Part:
- customer** means:
- (a) a *retail customer*; or
 - (b) a *real estate developer*.
- relevant dispute** means:
- (1) a dispute between a *Distribution Network Service Provider* and a customer about:
 - (i) the terms and conditions on which a *basic connection service* or a *standard connection service* is to be provided; or
 - (ii) the proposed or actual terms and conditions of a negotiated *connection contract*; or
 - (2) a dispute between a *Distribution Network Service Provider* and a customer about *connection charges*.
- (b) A relevant dispute is an access dispute for the purposes of section 2A of the Law.

5A.G.2 Determination of dispute

- (a) In determining a relevant dispute, the *AER* must (so far as applicable) give effect to:
- (1) the relevant *connection policy*; and
 - (2) a relevant *model standing offer* to provide a basic or *standard connection service*; and
 - (3) this Chapter and any other *applicable regulatory instrument*.
- (b) In determining a relevant dispute, the *AER* may also:
- (1) have regard to other matters the *AER* considers relevant; and
 - (2) hear evidence or receive submissions from the *Distribution Network Service Provider* and the customer; and
 - (3) if the dispute relates to a negotiated *connection contract* – have regard to the negotiation framework set out in clause 5A.C.3.

5A.G.3 Termination of proceedings

- (a) If the *AER* considers that a relevant dispute could be effectively resolved by some means other than an access determination, the *AER* may give the parties to the dispute notice of the alternative means of resolving the dispute.

Example

The *AER* might give such a notice if of the opinion that a particular dispute could be dealt with more efficiently, and with less expense, by a jurisdictional ombudsman.

- (b) The giving of such a notice is a specified dispute termination circumstance for the purposes of section 131(3) of the Law.

Note

It follows that the *AER* may exercise its power to terminate the dispute without making an access determination (See section 131(1)(d) of the Law).

SCHEDULE 5A.1 – Minimum content requirements for connection contract

Part A Connection offer not involving embedded generation

- (a) A *connection offer* must contain:
- (1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and
 - (2) details of the *connection point*, the maximum capacity of the *connection*, and the *connection assets* required at the *connection point*; and
 - (3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and
 - (4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and
 - (5) an undertaking to complete the work required to establish the *connection* within a specified *time frame*; and
 - (6) a requirement that the *retail customer* have appropriate metering installed ; and
 - (7) the relevant technical and safety obligations to be met by the *retail customer* relating to the installation; and
 - (8) the *retail customer's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and
 - (9) the *retail customer's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and
 - (10) details of the *retail customer's* monetary obligations including billing arrangements and any security to be provided by the *retail customer*; and
 - (11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *retail customer*; and
 - (12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *retail customer*; and
 - (13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *retail customer*.
- (b) A *connection offer* that relates to *supply services* must also deal with:

- (1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and
- (2) warranties and limitations on the *Distribution Network Service Provider's* liability; and
- (3) *disconnection* and reconnection; and
- (4) reporting and correction of faults; and
- (5) dispute resolution; and
- (6) ongoing *customer* obligations; and
- (7) termination of the *connection contract*.

Part B Connection offer involving embedded generation

- (a) A *connection offer* to a person who operates, or proposes to operate, an *embedded generating unit* (the **embedded generator**) must contain:
 - (1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and
 - (2) details of the *connection point*, the maximum capacity of the *connection* to import and export electricity, and the *embedded generator's* installation required at the *connection point*; and
 - (2a) details of the *DER generation information* required to be provided to the *Distribution Network Service Provider* by the *embedded generator*;
 - (3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and
 - (4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and
 - (5) an undertaking to complete the work required to establish the *connection* within a specified *time frame*; and
 - (6) a requirement that the *embedded generator* have appropriate *metering* installed; and
 - (7) the relevant technical and safety obligations to be met by the *embedded generator* relating to the installation; and
 - (8) the *embedded generator's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and
 - (9) the *embedded generator's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and
 - (10) details of the *embedded generator's* monetary obligations including billing arrangements and any security to be provided by the *embedded generator*; and
 - (11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *embedded generator*; and

- (12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *embedded generator*; and
 - (13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *embedded generator*.
- (b) A *connection contract* that relates to *supply services* must also deal with:
- (1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and
 - (2) warranties and limitations on the *Distribution Network Service Provider's* liability; and
 - (3) *disconnection* and reconnection; and
 - (4) reporting and correction of faults; and
 - (5) dispute resolution; and
 - (6) ongoing obligations of the *Distribution Network Service Provider* and the *embedded generator*; and
 - (7) termination of the *connection contract*.

CHAPTER 6

6. Economic Regulation of Distribution Services

Part A Introduction

6.1 Introduction to Chapter 6

6.1.1 AER's regulatory responsibility

The *AER* is responsible, in accordance with this Chapter, for the economic regulation of *distribution services* provided by means of, or in connection with, *distribution systems* that form part of the *national grid*.

6.1.1A [Deleted]

6.1.2 Structure of this Chapter

- (a) This Chapter deals with the classification and economic regulation of *distribution services*.
- (b) It is divided into parts as follows:
 - (1) this Part is introductory;
 - (2) Part B confers power on the *AER* to classify *distribution services*, to determine the forms of control for *distribution services*, and to make distribution determinations;
 - (3) Part C sets out the building block approach to the regulation of services classified as *standard control services*;
 - (4) Part D regulates the prices that may be charged by *Distribution Network Service Providers* for the provision of services classified as *negotiated distribution services*;
 - (4A) Part DA deals with the preparation of, requirements for and approval of, *connection policies*;
 - (5) Part E sets out the procedure and approach for the making of a distribution determination;
 - (6) Part F regulates cost allocation;
 - (7) Part G contains the distribution consultation procedures;
 - (8) Part H deals with ring-fencing;
 - (9) Part I deals with *tariff classes* and tariffs;
 - (10) Part J deals with billing and settlements;
 - (11) Part K deals with prudential requirements, prepayments and capital contributions;
 - (12) Part L deals with dispute resolution;
 - (13) Part M deals with the disclosure of *transmission* and *distribution* charges;
 - (14) Part N provides for services provided by, or in connection with, *dual function assets* to be the subject of distribution determinations; and

- (15) Part O sets out the requirements to prepare *annual benchmarking reports*.

6.1.3 Access to direct control services and negotiated distribution services

- (a) Subject to and in accordance with the *Rules*:
- (1) a person (a ***Service Applicant***) may apply to a *Distribution Network Service Provider* for provision of *direct control services* or *negotiated distribution services*;
 - (2) a *Distribution Network Service Provider* must provide *direct control services* or *negotiated distribution services* (as the case may be) on *terms and conditions of access* as determined under Chapters 4, 5, this Chapter 6 and Chapter 7 of the *Rules*.
- (b) The *terms and conditions of access* are:
- (1) in relation to *negotiated distribution services*:
 - (i) the price of those services (including, if relevant, *access charges*); and
 - (ii) other terms and conditions for the provision of those services;
 - (2) in relation to *direct control services*:
 - (i) the price of those services under the *approved pricing proposal*; and
 - (ii) other terms and conditions for the provision of those services.

6.1.4 Prohibition of DUOS charges for the export of energy

- (a) A *Distribution Network Service Provider* must not charge a *Distribution Network User* *distribution use of system charges* for the export of electricity generated by the user into the *distribution network*.
- (b) This does not, however, preclude charges for the provision of *connection services*.

6.1.5 DUOS for embedded networks

- (a) An *Embedded Network Service Provider* must not charge a *Distribution Network User* *distribution use of system charges* for the conveyance of electricity in an *embedded network* unless:
- (1) the *Distribution Network User* is a large customer or a large corporate entity; and
 - (2) the *Distribution Network Service Provider* and *Distribution Network User* have entered into an agreement providing for the payment of those charges by the *Distribution Network User*.
- (b) An *Embedded Network Service Provider* must not charge a *Distribution Network User* *distribution use of system charges* for the export of electricity generated by the user into the *embedded network*.

- (c) Paragraph (a) does not preclude *distribution use of system* charges payable by a *retailer* in respect of a *Distribution Network User* having a *connection point* with the *embedded network*.
- (d) Neither paragraph (a) nor (b) precludes charges for the provision of *connection services*.
- (e) In this clause 6.1.5, the term *Distribution Network User* includes an *embedded generator* and a *retail customer* within the meaning of Chapter 5A.

Part B Classification of Distribution Services and Distribution Determinations

6.2 Classification

6.2.1 Classification of distribution services

- (a) The AER may classify a *distribution service* to be provided by a *Distribution Network Service Provider* as:
 - (1) a *direct control service*; or
 - (2) a *negotiated distribution service*.

Note

If the AER decides against classifying a *distribution service*, the service is, subject to Chapter 5A, not regulated under the *Rules*.

- (b) The AER may group *distribution services* together for the purpose of classification and, if it does so, a single classification made for the group applies to each service comprised in the group as if it had been separately classified.
- (c) The AER must, in classifying a *distribution service* or *distribution services*, have regard to:
 - (1) the form of regulation factors; and
 - (2) the form of regulation (if any) previously applicable to the relevant service or services and, in particular, any previous classification under the present system of classification or under the previous regulatory system (as the case requires); and
 - (3) the desirability of consistency in the form of regulation for similar services (both within and beyond the relevant jurisdiction); and
 - (4) any other relevant factor.
- (d) **[Deleted]**
- (e) If the *Rules*, however, require that a particular classification be assigned to a *distribution service* of a specified kind, a *distribution service* of the relevant kind is to be classified in accordance with that requirement.

6.2.2 Classification of direct control services as standard control services or alternative control services

- (a) *Direct control services* are to be further divided into 2 subclasses:

- (1) *standard control services*; and
- (2) *alternative control services*.
- (b) The *AER* may group *direct control services* together for the purpose of classification and, if it does so, a single classification made for the group applies to each service comprised in the group as if it had been separately classified.
- (c) The *AER* must, in classifying a *direct control service* as a *standard control service* or an *alternative control service*, have regard to:
 - (1) the potential for development of competition in the relevant market and how the classification might influence that potential; and
 - (2) the possible effects of the classification on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and
 - (3) the regulatory approach (if any) applicable to the relevant service immediately before the commencement of the distribution determination for which the classification is made; and
 - (4) the desirability of a consistent regulatory approach to similar services (both within and beyond the relevant jurisdiction); and
 - (5) the extent the costs of providing the relevant service are directly attributable to the person to whom the service is provided; and

Example:

In circumstances where a service is provided to a small number of identifiable customers on a discretionary or infrequent basis, and costs can be directly attributed to those customers, it may be more appropriate to classify the service as an alternative control service than as a standard control service.

- (6) any other relevant factor.
- (d) **[Deleted]**
- (e) If the *Rules*, however, require that a *direct control service* of a specified kind be classified either as a *standard control service* or as an *alternative control service*, a *direct control service* of the relevant kind is to be classified in accordance with that requirement.

6.2.3 Term for which classification operates

A classification forms part of a distribution determination and operates for the *regulatory control period* for which the distribution determination is made.

Note:

The classification is to be reviewed in the course of the making of the next distribution determination, and (subject to these Rules) a reclassification may be made for the purposes of that determination.

6.2.3A Distribution Service Classification Guidelines

- (a) The *AER* must, in accordance with the *distribution consultation procedures*, develop, maintain and *publish* guidelines (the *Distribution Service Classification Guidelines*) that set out the approach the *AER* proposes to take when classifying *distribution services* as:

- (1) *direct control services* or *negotiated distribution services* under clause 6.2.1(a); and
 - (2) *standard control services* or *alternative control services* under clause 6.2.2(a).
- (b) The *Distribution Service Classification Guidelines* must set out an explanation of the AER's proposed approach (including worked examples) to:
- (1) determining whether to classify a *distribution service*;
 - (2) applying the factors set out in:
 - (i) clause 6.2.1(c), when classifying *distribution services* as *direct control services* or *negotiated distribution services*; and
 - (ii) clause 6.2.2(c), when classifying *direct control services* as *standard control services* or *alternative control services*; and
 - (3) distinguishing between *distribution services* (including, but not limited to, those that are classified as *direct control services*) and the operating and capital inputs that are used to provide such services.
- (c) Nothing prevents the AER from *publishing* the *Distribution Service Classification Guidelines* in the same document as another guideline *published* under this Chapter.

6.2.4 Duty of AER to make distribution determinations

- (a) The AER must make a distribution determination for each *Distribution Network Service Provider*.
- (b) When the AER makes a distribution determination it must follow the process set out in Part E.
- (c) If more than one *distribution system* is owned, controlled or operated by a *Distribution Network Service Provider*, then, unless the AER otherwise determines, a separate distribution determination is to be made for each *distribution system*.
- (d) If 2 or more parts of the same *distribution system* were separately regulated at the commencement of this Chapter, then, unless the AER otherwise determines, a separate distribution determination is to be made for each of those parts of the *distribution system*.

6.2.5 Control mechanisms for direct control services

- (a) A distribution determination is to impose controls over the prices of *direct control services*, the revenue to be derived from *direct control services* or both.
- (b) The control mechanism may consist of:
 - (1) a schedule of fixed prices;
 - (2) caps on the prices of individual services;
 - (3) caps on the revenue to be derived from a particular combination of services;
 - (4) tariff basket price control;

- (5) revenue yield control; or
- (6) a combination of any of the above.
- (c) In deciding on a control mechanism for *standard control services*, the *AER* must have regard to:
 - (1) the need for efficient tariff structures; and
 - (2) the possible effects of the control mechanism on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and
 - (3) the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination; and
 - (4) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and
 - (5) any other relevant factor.
- (d) In deciding on a control mechanism for *alternative control services*, the *AER* must have regard to:
 - (1) the potential for development of competition in the relevant market and how the control mechanism might influence that potential; and
 - (2) the possible effects of the control mechanism on administrative costs of the *AER*, the *Distribution Network Service Provider* and users or potential users; and
 - (3) the regulatory arrangements (if any) applicable to the relevant service immediately before the commencement of the distribution determination; and
 - (4) the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and
 - (5) any other relevant factor.

6.2.6 Basis of control mechanisms for direct control services

- (a) For *standard control services*, the control mechanism must be of the prospective CPI minus X form, or some incentive-based variant of the prospective CPI minus X form, in accordance with Part C.
- (b) For *alternative control services*, the control mechanism must have a basis stated in the distribution determination.
- (c) The control mechanism for *alternative control services* may (but need not) utilise elements of Part C (with or without modification).

Examples:

The control mechanism might be based on the building block approach.

The distribution determination might provide for the application of clause 6.6.1 to pass through events with necessary adaptations and specified modifications.

6.2.7 Negotiated distribution services

Negotiated distribution services are regulated in accordance with Part D.

6.2.8 Guidelines

- (a) The *AER*:
 - (1) must make and *publish* the *Shared Asset Guidelines*, the *Capital Expenditure Incentive Guidelines*, the *Rate of Return Guidelines*, the *Expenditure Forecast Assessment Guidelines*, the *Distribution Confidentiality Guidelines*, the *Distribution Service Classification Guidelines*, the *Asset Exemption Guidelines* and the *Cost Allocation Guidelines* in accordance with these *Rules*; and
 - (2) may, in accordance with the *distribution consultation procedures*, make and *publish* guidelines as to any other matters relevant to this Chapter.
- (b) A guideline may relate to a specified *Distribution Network Service Provider* or *Distribution Network Service Providers* of a specified class.
- (c) Except as otherwise provided in this Chapter, a guideline is not mandatory (and so does not bind the *AER* or anyone else) but, if the *AER*:
 - (1) makes a distribution determination that is not in accordance with the guideline, the *AER* must state, in its reasons for the distribution determination, the reasons for departing from the guideline;
 - (2) makes a decision in respect of an *asset exemption* under clause 6.4B.1(a)(3) or (4) that is not made in accordance with the *Asset Exemption Guidelines*, the *AER* must state, in its reasons for that decision, the reasons for departing from that guideline; and
 - (3) makes a *framework and approach paper* that is not in accordance with the *Distribution Service Classification Guidelines*, the *AER* must state, in the relevant *framework and approach paper*, the reasons for departing from that guideline.
- (d) If a guideline indicates that there may be a change of regulatory approach in future distribution determinations, the guideline should also (if practicable) indicate how transitional issues are to be dealt with.
- (e) Subject to paragraph (f), the *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace a guideline.
- (f) The *AER* may make administrative or minor amendments to any guideline without complying with the *distribution consultation procedures*.
- (g) This clause 6.2.8 does not apply to the *Distribution Ring-Fencing Guidelines* or the *Distribution Reliability Measures Guidelines*.

Part C Building Block Determinations for standard control services

6.3 Building block determinations

6.3.1 Introduction

- (a) A *building block determination* is a component of a distribution determination.
- (b) The procedure and approach for the making of a *building block determination* is contained in Part E of this Chapter and involves the submission of a *building block proposal* to the AER by the *Distribution Network Service Provider*.
- (c) The *building block proposal*:
 - (1) must be prepared in accordance with the *post-tax revenue model* and other relevant requirements of this Part;
 - (2) must comply with the requirements of, and must contain or be accompanied by the information required by, any relevant *regulatory information instrument*; and
 - (3) must be prepared in accordance with Schedule 6.1.

6.3.2 Contents of building block determination

- (a) A *building block determination* for a *Distribution Network Service Provider* is to specify, for a *regulatory control period*, the following matters:
 - (1) the *Distribution Network Service Provider's annual revenue requirement* for each *regulatory year* of the *regulatory control period*;
 - (2) appropriate methods for the indexation of the regulatory asset base;
 - (3) how any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* is to apply to the *Distribution Network Service Provider*;
 - (4) the commencement and length of the *regulatory control period*; and
 - (5) any other amounts, values or inputs on which the *building block determination* is based (differentiating between those contained in, or inferred from, the *Distribution Network Service Provider's building block proposal* and those based on the AER's own estimates or assumptions).
- (b) A *regulatory control period* must be not less than 5 *regulatory years*.

6.4 Post-tax revenue model

6.4.1 Preparation, publication and amendment of post-tax revenue model

- (a) The AER must, in accordance with the *distribution consultation procedures*, prepare and *publish a post-tax revenue model*.

- (b) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace the *post-tax revenue model*.
- (c) The *AER* must develop and *publish* the first *post-tax revenue model* within 6 months after the commencement of this clause and there must be such a model in force at all times after that date.

6.4.2 Contents of post-tax revenue model

- (a) The *post-tax revenue model* must set out the manner in which the *Distribution Network Service Provider's annual revenue requirement* for each *regulatory year* of a *regulatory control period* is to be calculated.
- (b) The contents of the *post-tax revenue model* must include (but are not limited to):
 - (1) a method that the *AER* determines is likely to result in the best estimates of expected inflation; and
 - (2) the timing assumptions and associated discount rates that are to apply in relation to the calculation of the building blocks referred to in clause 6.4.3; and
 - (3) the manner in which working capital is to be treated; and
 - (4) the manner in which the estimated cost of corporate income tax is to be calculated.

6.4.3 Building block approach

(a) Building blocks generally

The *annual revenue requirement* for a *Distribution Network Service Provider* for each *regulatory year* of a *regulatory control period* must be determined using a building block approach, under which the building blocks are:

- (1) indexation of the regulatory asset base – see paragraph (b)(1);
- (2) a return on capital for that year – see paragraph (b)(2);
- (3) the depreciation for that year – see paragraph (b)(3);
- (4) the estimated cost of corporate income tax of the *Distribution Network Service Provider* for that year – see paragraph (b)(4);
- (5) the revenue increments or decrements (if any) for that year arising from the application of any *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* – see subparagraph (b)(5);
- (6) the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous *regulatory control period* – see paragraph (b)(6);
- (6A) the revenue decrements (if any) for that year arising from the use of assets that provide *standard control services* to provide certain other services – see subparagraph (b)(6A); and

(7) the forecast operating expenditure for that year – see paragraph (b)(7).

(b) **Details of the building blocks**

For the purposes of paragraph (a):

- (1) for indexation of the regulatory asset base:
 - (i) the regulatory asset base is calculated in accordance with clause 6.5.1 and schedule 6.2; and
 - (ii) the building block comprises a negative adjustment equal to the amount referred to in clause S6.2.3(c)(4) for that year; and
- (2) the return on capital is calculated in accordance with clause 6.5.2;
- (3) the depreciation is calculated in accordance with clause 6.5.5;
- (4) the estimated cost of corporate income tax is determined in accordance with clause 6.5.3;
- (5) the revenue increments or decrements referred to in subparagraph (a)(5) are those that arise as a result of the operation of an applicable *efficiency benefit sharing scheme, capital expenditure sharing scheme, service target performance incentive scheme, demand management incentive scheme, demand management innovation allowance mechanism* or *small-scale incentive scheme* as referred to in clauses 6.5.8, 6.5.8A, 6.6.2, 6.6.3, 6.6.3A and 6.6.4;
- (6) the other revenue increments or decrements referred to in paragraph (a)(6) are those that are to be carried forward to the current *regulatory control period* as a result of the application of a control mechanism in the previous *regulatory control period* and are apportioned to the relevant year under the distribution determination for the current *regulatory control period*;
- (6A) the revenue decrements (if any) referred to in paragraph (a)(6A) are those that are determined by the AER under clause 6.4.4 as a result of assets that provide *standard control services* being used to provide:
 - (i) *distribution services* that are not classified under clause 6.2.1; or
 - (ii) services that are neither *distribution services* nor services that are provided by means of, or in connection with, *dual function assets*; and
- (7) the forecast operating expenditure for the year is the forecast operating expenditure as accepted or substituted by the AER in accordance with clause 6.5.6.

6.4.4 Shared assets

- (a) Where an asset is used to provide both *standard control services* and either:
 - (1) *distribution services* that are not classified under clause 6.2.1; or
 - (2) services that are neither:
 - (i) *distribution services*; nor

- (ii) services that are provided by means of, or in connection with, *dual function assets* that are owned, operated or controlled by the *Distribution Network Service Provider*,

the AER may, in a distribution determination for a *regulatory control period*, reduce the *annual revenue requirement* for that *Distribution Network Service Provider* for a *regulatory year* in that *regulatory control period* by such amount as it considers reasonable to reflect such part of the costs of that asset as the *Distribution Network Service Provider* is recovering through charging for the provision of a service referred to in subparagraph (1) or (2).

- (b) In making a decision under paragraph (a), the AER must have regard to the *shared asset principles* and the *Shared Asset Guidelines*.
- (c) The *shared asset principles* are as follows:
 - (1) the *Distribution Network Service Provider* should be encouraged to use assets that provide *standard control services* for the provision of other kinds of services where that use is efficient and does not materially prejudice the provision of those services;
 - (2) a shared asset cost reduction should not be dependent on the *Distribution Network Service Provider* deriving a positive commercial outcome from the use of the asset other than for *standard control services*;
 - (3) a shared asset cost reduction should be applied where the use of the asset other than for *standard control services* is material;
 - (4) regard should be had to the manner in which costs have been recovered or revenues reduced in respect of the relevant asset in the past and the reasons for adopting that manner of recovery or reduction;
 - (5) a shared asset cost reduction should be compatible with the *Cost Allocation Principles* and *Cost Allocation Method*; and
 - (6) any reduction effected under paragraph (a) should be compatible with other incentives provided under the *Rules*.
- (d) The AER must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (the *Shared Asset Guidelines*) that set out the approach the AER proposes to take in applying the *shared asset principles* (which may include a methodology that the AER proposes to use to determine reductions for the purposes of paragraph (a)).
- (e) There must be *Shared Asset Guidelines* in force at all times after the date on which the AER first *publishes* the *Shared Asset Guidelines* under these *Rules*.

6.4.5 Expenditure Forecast Assessment Guidelines

- (a) The AER must, in accordance with the *distribution consultation procedures*, develop and *publish* guidelines (the *Expenditure Forecast Assessment Guidelines*) that specify the approach the AER proposes to use to assess the forecasts of operating expenditure and capital expenditure that form part of *Distribution Network Service Providers' regulatory proposals* and the information the AER requires for the purposes of that assessment.

- (b) There must be *Expenditure Forecast Assessment Guidelines* in force at all times after the date on which the AER first publishes the *Expenditure Forecast Assessment Guidelines* under these Rules.

6.4A Capital expenditure incentive mechanisms

- (a) The *capital expenditure incentive objective* is to ensure that, where the value of a regulatory asset base is subject to adjustment in accordance with the Rules, then the only capital expenditure that is included in an adjustment that increases the value of that regulatory asset base is capital expenditure that reasonably reflects the *capital expenditure criteria*.
- (b) The AER must, in accordance with the *distribution consultation procedures*, make and publish guidelines (the *Capital Expenditure Incentive Guidelines*) that set out:
 - (1) any *capital expenditure sharing schemes* developed by the AER in accordance with clause 6.5.8A, and how the AER has taken into account the *capital expenditure sharing scheme principles* in developing those schemes;
 - (2) the manner in which it proposes to make determinations under clause S6.2.2A(a) if the *overspending requirement* is satisfied;
 - (3) the manner in which it proposes to determine whether depreciation for establishing a regulatory asset base as at the commencement of a *regulatory control period* is to be based on actual or forecast capital expenditure;
 - (4) the manner in which it proposes to make determinations under clause S6.2.2A(i) if the *margin requirement* is satisfied; and
 - (5) the manner in which it proposes to make determinations under clause S6.2.2A(j) if the *capitalisation requirement* is satisfied; and
 - (6) how each scheme and proposal referred to in subparagraphs (1) to (5), and all of them taken together, are consistent with the *capital expenditure incentive objective*.
- (c) There must be *Capital Expenditure Incentive Guidelines* in force at all times after the date on which the AER first publishes the *Capital Expenditure Incentive Guidelines* under these Rules.

6.4B Asset exemptions

6.4B.1 Asset exemption decisions and Asset Exemption Guidelines

- (a) The AER may, following receipt of an *exemption application* and in accordance with this Chapter, approve:
 - (1) for the purpose of clause 6.5.7(c)(2), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider's* forecast of required capital expenditure;
 - (2) for the purpose of clause 6.6A.1(b1), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider's proposed contingent capital expenditure* for a *proposed contingent project*;

- (3) for the purpose of clause 6.6.1(d2), the inclusion of *expenditure for a restricted asset* in a *Distribution Network Service Provider's positive pass through amount* for a *positive change event*; and
 - (4) for the purpose of clause 6.6.5(f1), the inclusion of *expenditure for a restricted asset* in the *Distribution Network Service Provider's* proposed capital expenditure,

(each being an *asset exemption*).
- (b) In considering whether to approve an *asset exemption*, the AER must have regard to:
 - (1) the likely impacts on the development of competition in markets for energy related services if the *Distribution Network Service Provider* invests in the assets the subject of the *asset exemption*; and
 - (2) the *Asset Exemption Guidelines*.
- (c) The AER must, in accordance with the *distribution consultation procedures*, develop, maintain and *publish* guidelines (the *Asset Exemption Guidelines*) that set out:
 - (1) the approach the AER proposes to take when determining whether to grant an *asset exemption*; and
 - (2) the information the AER requires from a *Distribution Network Service Provider* (in addition to that set out in clause 6.4B.2(c)(1) to (4)) in order to assess a request for an *asset exemption*.
- (d) Nothing prevents the AER from *publishing* the *Asset Exemption Guidelines* in the same document as another guideline *published* under this Chapter.

6.4B.2 Exemption applications

- (a) A *Distribution Network Service Provider* may request an *asset exemption* from the AER in respect of a specific asset or class of asset by submitting a written request in accordance with this Chapter (an *exemption application*).
- (b) A *Distribution Network Service Provider* must have regard to the *Asset Exemption Guidelines* when preparing and submitting an *exemption application*.
- (c) An *exemption application* must include:
 - (1) details of the type of *asset exemption* which is being sought by the *Distribution Network Service Provider* under clause 6.4B.1(a);
 - (2) a description of the asset or class of asset in respect of which the proposed *asset exemption* would apply, including the location and anticipated or known cost of the proposed asset or class of asset;
 - (3) details of the *standard control services* that would be provided by the asset or class of asset in respect of which the proposed *asset exemption* would apply;
 - (4) the likely impacts on the development of competition in markets for energy related services if the *Distribution Network Service Provider* invests in the assets the subject of the *asset exemption*; and

- (5) any additional information that must be submitted by a *Distribution Network Service Provider* under the *Asset Exemption Guidelines*.

6.5 Matters relevant to the making of building block determinations

6.5.1 Regulatory asset base

Nature of regulatory asset base

- (a) The regulatory asset base for a *distribution system* owned, controlled or operated by a *Distribution Network Service Provider* is the value of those assets that are used by the *Distribution Network Service Provider* to provide *standard control services*, but only to the extent that they are used to provide such services.

Preparation, publication and amendment of model for rolling forward regulatory asset base

- (b) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* a model for the roll forward of the regulatory asset base for *distribution systems*, referred to as the *roll forward model*.
- (c) The *AER* may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace the *roll forward model*.
- (d) The *AER* must develop and *publish* the first *roll forward model* within 6 months after the commencement of this clause, and there must be such a model available at all times after that date.

Contents of roll forward model

- (e) The *roll forward model* must set out the method for determining the roll forward of the regulatory asset base for *distribution systems*:
- (1) from the immediately preceding *regulatory control period* to the beginning of the first year of the subsequent *regulatory control period*, so as to establish the value of the regulatory asset base as at the beginning of the first *regulatory year* of that subsequent *regulatory control period*; and
 - (2) from one *regulatory year* in a *regulatory control period* to a subsequent *regulatory year* in that same *regulatory control period*, so as to establish the value of the regulatory asset base as at the beginning of that subsequent *regulatory year*;

under which:

- (3) the roll forward of the regulatory asset base from the immediately preceding *regulatory control period* to the beginning of the first *regulatory year* of a subsequent *regulatory control period* entails the value of the first mentioned regulatory asset base being adjusted for actual inflation, consistently with the method used for the indexation of the control mechanism (or control mechanisms) for *standard control services* during the preceding *regulatory control period*.

Other provisions relating to regulatory asset base

- (f) Other provisions relating to regulatory asset bases are set out in schedule 6.2.

6.5.2 Return on capital**Calculation of return on capital**

- (a) The return on capital for each *regulatory year* must be calculated by applying a rate of return for the relevant *Distribution Network Service Provider* for that *regulatory year* that is determined in accordance with this clause 6.5.2 (the *allowed rate of return*) to the value of the regulatory asset base for the relevant *distribution system* as at the beginning of that *regulatory year* (as established in accordance with clause 6.5.1 and schedule 6.2).

Allowed rate of return

- (b) The *allowed rate of return* is to be determined such that it achieves the *allowed rate of return objective*.
- (c) The *allowed rate of return objective* is that the rate of return for a *Distribution Network Service Provider* is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the *Distribution Network Service Provider* in respect of the provision of *standard control services* (the *allowed rate of return objective*).
- (d) Subject to paragraph (b), the *allowed rate of return* for a *regulatory year* must be:
- (1) a weighted average of the return on equity for the *regulatory control period* in which that *regulatory year* occurs (as estimated under paragraph (f)) and the return on debt for that *regulatory year* (as estimated under paragraph (h)); and
 - (2) determined on a nominal vanilla basis that is consistent with the estimate of the value of imputation credits referred to in clause 6.5.3.
- (e) In determining the *allowed rate of return*, regard must be had to:
- (1) relevant estimation methods, financial models, market data and other evidence;
 - (2) the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and
 - (3) any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

Return on equity

- (f) The return on equity for a *regulatory control period* must be estimated such that it contributes to the achievement of the *allowed rate of return objective*.
- (g) In estimating the return on equity under paragraph (f), regard must be had to the prevailing conditions in the market for equity funds.

Return on debt

- (h) The return on debt for a *regulatory year* must be estimated such that it contributes to the achievement of the *allowed rate of return objective*.
- (i) The return on debt may be estimated using a methodology which results in either:
 - (1) the return on debt for each *regulatory year* in the *regulatory control period* being the same; or
 - (2) the return on debt (and consequently the *allowed rate of return*) being, or potentially being, different for different *regulatory years* in the *regulatory control period*.
- (j) Subject to paragraph (h), the methodology adopted to estimate the return on debt may, without limitation, be designed to result in the return on debt reflecting:
 - (1) the return that would be required by debt investors in a benchmark efficient entity if it raised debt at the time or shortly before the making of the distribution determination for the *regulatory control period*;
 - (2) the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of a *regulatory year* in the *regulatory control period*; or
 - (3) some combination of the returns referred to in subparagraphs (1) and (2).
- (k) In estimating the return on debt under paragraph (h), regard must be had to the following factors:
 - (1) the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity referred to in the *allowed rate of return objective*;
 - (2) the interrelationship between the return on equity and the return on debt;
 - (3) the incentives that the return on debt may provide in relation to capital expenditure over the *regulatory control period*, including as to the timing of any capital expenditure; and
 - (4) any impacts (including in relation to the costs of servicing debt across *regulatory control periods*) on a benchmark efficient entity referred to in the *allowed rate of return objective* that could arise as a result of changing the methodology that is used to estimate the return on debt from one *regulatory control period* to the next.
- (l) If the return on debt is to be estimated using a methodology of the type referred to in paragraph (i)(2) then a resulting change to the *Distribution Network Service Provider's annual revenue requirement* must be effected through the automatic application of a formula that is specified in the distribution determination.

Rate of Return Guidelines

- (m) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (the *Rate of Return Guidelines*).
- (n) The *Rate of Return Guidelines* must set out:
 - (1) the methodologies that the *AER* proposes to use in estimating the *allowed rate of return*, including how those methodologies are proposed to result in the determination of a return on equity and a return on debt in a way that is consistent the *allowed rate of return objective*; and
 - (2) the estimation methods, financial models, market data and other evidence the *AER* proposes to take into account in estimating the return on equity, the return on debt and the value of imputation credits referred to in clause 6.5.3.
- (o) There must be *Rate of Return Guidelines* in force at all times after the date on which the *AER* first publishes the *Rate of Return Guidelines* under these *Rules*.
- (p) The *AER* must, in accordance with the *distribution consultation procedures*, review the *Rate of Return Guidelines*:
 - (1) at intervals not exceeding five years for the first interval and three years for all subsequent intervals, with the first interval starting from the date that the first *Rate of Return Guidelines* are *published* under these *Rules*; and
 - (2) at the same time as it reviews the *Rate of Return Guidelines* made under clause 6A.6.2.
- (q) For the avoidance of doubt, nothing prevents the *AER* from *publishing* the *Rate of Return Guidelines* made under this clause 6.5.2 in the same document as the *Rate of Return Guidelines* made under clause 6A.6.2.

6.5.3 Estimated cost of corporate income tax

The estimated cost of corporate income tax of a *Distribution Network Service Provider* for each *regulatory year* (ETC_t) must be estimated in accordance with the following formula:

$$ETC_t = (ETI_t \times r_t) (1 - \gamma)$$

where:

ETI_t is an estimate of the taxable income for that *regulatory year* that would be earned by a benchmark efficient entity as a result of the provision of *standard control services* if such an entity, rather than the *Distribution Network Service Provider*, operated the business of the *Distribution Network Service Provider*, such estimate being determined in accordance with the *post-tax revenue model*;

r_t is the expected statutory income tax rate for that *regulatory year* as determined by the *AER*; and

γ is the value of imputation credits.

6.5.4 [Deleted]**6.5.5 Depreciation**

- (a) The depreciation for each *regulatory year*:
 - (1) must be calculated on the value of the assets as included in the regulatory asset base, as at the beginning of that *regulatory year*, for the relevant *distribution system*; and
 - (2) must be calculated:
 - (i) providing such depreciation schedules conform with the requirements set out in paragraph (b), using the depreciation schedules for each asset or category of assets that are nominated in the relevant *Distribution Network Service Provider's building block proposal*; or
 - (ii) to the extent the depreciation schedules nominated in the *Distribution Network Service Provider's building block proposal* do not so conform, using the depreciation schedules determined for that purpose by the *AER*.
- (b) The depreciation schedules referred to in paragraph (a) must conform to the following requirements:
 - (1) the schedules must depreciate using a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets;
 - (2) the sum of the real value of the depreciation that is attributable to any asset or category of assets over the economic life of that asset or category of assets (such real value being calculated as at the time the value of that asset or category of assets was first included in the regulatory asset base for the relevant *distribution system*) must be equivalent to the value at which that asset or category of assets was first included in the regulatory asset base for the relevant *distribution system*;
 - (3) the economic life of the relevant assets and the depreciation methods and rates underpinning the calculation of depreciation for a given *regulatory control period* must be consistent with those determined for the same assets on a prospective basis in the distribution determination for that period.

6.5.6 Forecast operating expenditure

- (a) A *building block proposal* must include the total forecast operating expenditure for the relevant *regulatory control period* which the *Distribution Network Service Provider* considers is required in order to achieve each of the following (the *operating expenditure objectives*):
 - (1) meet or manage the expected demand for *standard control services* over that period;
 - (2) comply with all applicable *regulatory obligations or requirements* associated with the provision of *standard control services*;

- (3) to the extent that there is no applicable *regulatory obligation or requirement* in relation to:
 - (i) the quality, reliability or security of supply of *standard control services*; or
 - (ii) the reliability or security of the *distribution system* through the supply of *standard control services*,to the relevant extent:
 - (iii) maintain the quality, reliability and security of supply of *standard control services*; and
 - (iv) maintain the reliability and security of the *distribution system* through the supply of *standard control services*; and
- (4) maintain the safety of the *distribution system* through the supply of *standard control services*.
- (b) The forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* must:
 - (1) comply with the requirements of any relevant *regulatory information instrument*;
 - (2) be for expenditure that is properly allocated to *standard control services* in accordance with the principles and policies set out in the *Cost Allocation Method* for the *Distribution Network Service Provider*; and
 - (3) include both:
 - (i) the total of the forecast operating expenditure for the relevant *regulatory control period*; and
 - (ii) the forecast operating expenditure for each *regulatory year* of the relevant *regulatory control period*.
- (c) The *AER* must accept the forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if the *AER* is satisfied that the total of the forecast operating expenditure for the *regulatory control period* reasonably reflects each of the following (the *operating expenditure criteria*):
 - (1) the efficient costs of achieving the *operating expenditure objectives*; and
 - (2) the costs that a prudent operator would require to achieve the *operating expenditure objectives*; and
 - (3) a realistic expectation of the demand forecast and cost inputs required to achieve the *operating expenditure objectives*.
- (d) If the *AER* is not satisfied as referred to in paragraph (c), it must not accept the forecast of required operating expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal*.

- (e) In deciding whether or not the *AER* is satisfied as referred to in paragraph (c), the *AER* must have regard to the following (the *operating expenditure factors*):
- (1) [Deleted]
 - (2) [Deleted]
 - (3) [Deleted]
 - (4) the most recent *annual benchmarking report* that has been *published* under rule 6.27 and the benchmark operating expenditure that would be incurred by an efficient *Distribution Network Service Provider* over the relevant *regulatory control period*;
 - (5) the actual and expected operating expenditure of the *Distribution Network Service Provider* during any preceding *regulatory control periods*;
 - (5A) the extent to which the operating expenditure forecast includes expenditure to address the concerns of electricity consumers as identified by the *Distribution Network Service Provider* in the course of its engagement with electricity consumers;
 - (6) the relative prices of operating and capital inputs;
 - (7) the substitution possibilities between operating and capital expenditure;
 - (8) whether the operating expenditure forecast is consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8 or 6.6.2 to 6.6.4;
 - (9) the extent the operating expenditure forecast is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;
 - (9A) whether the operating expenditure forecast includes an amount relating to a project that should more appropriately be included as a *contingent project* under clause 6.6A.1(b);
 - (10) the extent the *Distribution Network Service Provider* has considered, and made provision for, efficient and prudent *non-network options* ; and
 - (11) any relevant final project assessment report (as defined in clause 5.10.2) *published* under clause 5.17.4(o), (p) or (s);
 - (12) any other factor the *AER* considers relevant and which the *AER* has notified the *Distribution Network Service Provider* in writing, prior to the submission of its revised *regulatory proposal* under clause 6.10.3, is an *operating expenditure factor*.

6.5.7 Forecast capital expenditure

- (a) A *building block proposal* must include the total forecast capital expenditure for the relevant *regulatory control period* which the *Distribution Network Service Provider* considers is required in order to achieve each of the following (the *capital expenditure objectives*):

- (1) meet or manage the expected demand for *standard control services* over that period;
 - (2) comply with all applicable *regulatory obligations or requirements* associated with the provision of *standard control services*;
 - (3) to the extent that there is no applicable *regulatory obligation or requirement* in relation to:
 - (i) the quality, reliability or security of supply of *standard control services*; or
 - (ii) the reliability or security of the *distribution system* through the supply of *standard control services*,
 to the relevant extent:
 - (iii) maintain the quality, reliability and security of supply of *standard control services*; and
 - (iv) maintain the reliability and security of the *distribution system* through the supply of *standard control services*; and
 - (4) maintain the safety of the *distribution system* through the supply of *standard control services*.
- (b) The forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* must:
- (1) comply with the requirements of any relevant *regulatory information instrument*;
 - (2) be for expenditure that is properly allocated to *standard control services* in accordance with the principles and policies set out in the *Cost Allocation Method* for the *Distribution Network Service Provider*;
 - (3) include both:
 - (i) the total of the forecast capital expenditure for the relevant *regulatory control period*; and
 - (ii) the forecast capital expenditure for each *regulatory year* of the relevant *regulatory control period*; and
 - (4) identify any forecast capital expenditure for the relevant *regulatory control period* that is for an option that has satisfied the *regulatory investment test for transmission* or the *regulatory investment test for distribution* (as the case may be); and
 - (5) not include *expenditure for a restricted asset*, unless:
 - (i) to the extent that any such expenditure includes an amount of unspent capital expenditure for a *contingent project* in accordance with paragraph (g), an *asset exemption* has been granted by the AER under clause 6.4B.1(a)(2) in respect of that asset or that class of asset for that *contingent project*;
 - (ii) to the extent that any such expenditure relates to a *positive pass through amount*, an *asset exemption* has been granted by the AER

- under clause 6.4B.1(a)(3) in respect of that asset or that class of asset for that *positive pass through amount*; or
- (iii) otherwise, the *Distribution Network Service Provider* has submitted an *exemption application* with the *regulatory proposal* requesting an *asset exemption* under clause 6.4B.1(a)(1) for the *regulatory control period* in respect of that asset or class of asset.
- (c) The *AER* must:
- (1) subject to subparagraph (c)(2), accept the forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if the *AER* is satisfied that the total of the forecast capital expenditure for the *regulatory control period* reasonably reflects each of the following (the *capital expenditure criteria*):
 - (i) the efficient costs of achieving the *capital expenditure objectives*;
 - (ii) the costs that a prudent operator would require to achieve the *capital expenditure objectives*; and
 - (iii) a realistic expectation of the demand forecast and cost inputs required to achieve the *capital expenditure objectives*.
 - (2) not accept the forecast of required capital expenditure of a *Distribution Network Service Provider* that is included in a *building block proposal* if that forecast includes *expenditure for a restricted asset*, unless:
 - (i) to the extent that any such expenditure includes an amount of unspent capital expenditure for a *contingent project* in accordance with paragraph (g), an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(2) in respect of that asset or that class of asset for that *contingent project*;
 - (ii) to the extent that any such expenditure relates to a *positive pass through amount*, an *asset exemption* has been granted by the *AER* under clause 6.4B.1(a)(3) in respect of that asset or that class of asset for that *positive pass through amount*; or
 - (iii) otherwise:
 - (A) that *Distribution Network Service Provider* has requested an *asset exemption* under subparagraph (b)(5) in respect of that asset or that class of asset; and
 - (B) the *AER* has granted that *asset exemption*.
- (d) If the *AER* is not satisfied as referred to in paragraph (c), it must not accept the forecast of required capital expenditure of a *Distribution Network Service Provider*.
- (e) In deciding whether or not the *AER* is satisfied as referred to in paragraph (c), the *AER* must have regard to the following (the *capital expenditure factors*):
- (1) **[Deleted]**
 - (2) **[Deleted]**
 - (3) **[Deleted]**

- (4) the most recent *annual benchmarking report* that has been *published* under rule 6.27 and the benchmark capital expenditure that would be incurred by an efficient *Distribution Network Service Provider* over the relevant *regulatory control period*;
- (5) the actual and expected capital expenditure of the *Distribution Network Service Provider* during any preceding *regulatory control periods*;
- (5A) the extent to which the capital expenditure forecast includes expenditure to address the concerns of electricity consumers as identified by the *Distribution Network Service Provider* in the course of its engagement with electricity consumers;
- (6) the relative prices of operating and capital inputs;
- (7) the substitution possibilities between operating and capital expenditure;
- (8) whether the capital expenditure forecast is consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8A or 6.6.2 to 6.6.4;
- (9) the extent the capital expenditure forecast is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;
- (9A) whether the capital expenditure forecast includes an amount relating to a project that should more appropriately be included as a *contingent project* under clause 6.6A.1(b);
- (10) the extent the *Distribution Network Service Provider* has considered, and made provision for, efficient and prudent *non-network options* ;
- (11) any relevant final project assessment report (as defined in clause 5.10.2) *published* under clause 5.17.4(o), (p) or (s); and
- (12) any other factor the *AER* considers relevant and which the *AER* has notified the *Distribution Network Service Provider* in writing, prior to the submission of its revised *regulatory proposal* under clause 6.10.3, is a *capital expenditure factor*.

Forecast capital expenditure and contingent projects

- (f) Paragraphs (g) - (j) apply where:
 - (1) in a *regulatory control period* (the **first regulatory control period**), the *AER* determines under clause 6.6A.2(e)(1)(iii) that the likely completion date for a *contingent project* is a date which occurs in the immediately following *regulatory control period* (the **second regulatory control period**); and
 - (2) there is an unspent amount of capital expenditure for that *contingent project* under paragraph (g).
- (g) Subject to paragraphs (ga) and (j), a *Distribution Network Service Provider's regulatory proposal* for the second *regulatory control period* must include in the forecast of required capital expenditure referred to in paragraph (a) an amount of any unspent capital expenditure for each *contingent project* as described in subparagraph (f)(2), that equals the difference (if any) between:

- (1) the total capital expenditure for that *contingent project*, as determined by the *AER* in the first *regulatory control period* under clause 6.6A.2(e)(1)(ii); and
 - (2) the total of the capital expenditure actually incurred (or estimated capital expenditure for any part of the first *regulatory control period* for which actual capital expenditure is not available) in the first *regulatory control period* for that *contingent project*.
- (ga) For the purposes of calculating any unspent capital expenditure in accordance with paragraph (g), the total or estimate of capital expenditure referred to in subparagraph (g)(2) must not include *expenditure for a restricted asset*, unless:
- (1) the *Distribution Network Service Provider* has submitted an *exemption application* under clause 6.6A.1(a1) for the previous *regulatory control period*, which requested an *asset exemption* under clause 6.4B.1(a)(2) in respect of that asset or class of asset for that *contingent project*; and
 - (2) the *AER* has granted that *asset exemption*.
- (h) The *AER* must include in any forecast capital expenditure for the second *regulatory control period* which is accepted in accordance with paragraph (c) or substituted in accordance with clause 6.12.1(3)(ii) (as the case may be) the amount of any unspent capital expenditure calculated in accordance with paragraph (g).
- (i) Without limiting the requirement in paragraph (h), in deciding whether or not to accept the forecast of required capital expenditure of a *Distribution Network Service Provider* for the second *regulatory control period* in accordance with this clause 6.5.7, the *AER* must not:
- (1) assess the reasonableness of the amount of unspent capital expenditure for a *contingent project* referred to in paragraph (g) or the remaining period to which the *contingent project* applies;
 - (2) assess the reasonableness of the timing of the unspent capital expenditure within the remaining period for a *contingent project* referred to in paragraph (g) except as part of the assessment of the total forecast capital expenditure under paragraph (c); or
 - (3) take into account any amount which represents for a *contingent project* referred to in paragraph (g) the difference between:
 - (i) the amount representing the sum of the forecast capital expenditure for that *contingent project* for each year of the immediately preceding *regulatory control period* referred to in clause 6.6A.2(e)(1)(i); and
 - (ii) the total capital expenditure actually incurred (or estimated capital expenditure for any part of the preceding *regulatory control period* for which actual capital expenditure is not available) in the immediately preceding *regulatory control period* for that *contingent project*.
- (j) A *regulatory proposal* in respect of the second *regulatory control period* must not include in the forecast of required capital expenditure referred to in

paragraph (a) any capital expenditure for a *contingent project* for the first *regulatory control period*:

- (1) to the extent that the capital expenditure was included in the amount of capital expenditure for that *contingent project* as determined in the first *regulatory control period* under clause 6.6A.2(e)(1)(i); and
- (2) the capital expenditure actually incurred (or estimated capital expenditure for any part of the first *regulatory control period* for which actual capital expenditure is not available) in the first *regulatory control period* for that *contingent project* exceeded the capital expenditure referred to in subparagraph (1).

6.5.8 Efficiency benefit sharing scheme

- (a) The AER must, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*efficiency benefit sharing scheme*) that provide for a fair sharing between *Distribution Network Service Providers* and *Distribution Network Users* of:
 - (1) the efficiency gains derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being less than; and
 - (2) the efficiency losses derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being more than,

the forecast operating expenditure accepted or substituted by the AER for that *regulatory control period*.
- (b) An *efficiency benefit sharing scheme* may (but is not required to) be developed to cover efficiency gains and losses related to *distribution losses*.
- (c) In developing and implementing an *efficiency benefit sharing scheme*, the AER must have regard to:
 - (1) the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for *Distribution Network Service Providers*;
 - (2) the need to provide *Distribution Network Service Providers* with a continuous incentive, so far as is consistent with economic efficiency, to reduce operating expenditure ;
 - (3) the desirability of both rewarding *Distribution Network Service Providers* for efficiency gains and penalising *Distribution Network Service Providers* for efficiency losses;
 - (4) any incentives that *Distribution Network Service Providers* may have to capitalise expenditure; and
 - (5) the possible effects of the scheme on incentives for the implementation of *non-network options*.
- (d) The AER may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace an *efficiency benefit sharing scheme*.

6.5.8A Capital expenditure sharing scheme

- (a) A *capital expenditure sharing scheme* is a scheme that provides *Distribution Network Service Providers* with an incentive to undertake efficient capital expenditure during a *regulatory control period*.
- (b) If the AER develops a *capital expenditure sharing scheme* in accordance with this clause, the *capital expenditure sharing scheme* must be consistent with the *capital expenditure incentive objective*.
- (c) In developing a *capital expenditure sharing scheme*, the AER must take into account the following principles (the *capital expenditure sharing scheme principles*):
 - (1) *Distribution Network Service Providers* should be rewarded or penalised for improvements or declines in efficiency of capital expenditure; and
 - (2) the rewards and penalties should be commensurate with the efficiencies or inefficiencies in capital expenditure, but a reward for efficient capital expenditure need not correspond in amount to a penalty for the same amount of inefficient capital expenditure.
- (d) In developing a *capital expenditure sharing scheme*, the AER must also take into account:
 - (1) the interaction of the scheme with other incentives that *Distribution Network Service Providers* may have in relation to undertaking efficient operating or capital expenditure; and
 - (2) the *capital expenditure objectives* and, if relevant, the *operating expenditure objectives*.
- (e) In deciding:
 - (1) whether to apply a *capital expenditure sharing scheme* to a *Distribution Network Service Provider* for a *regulatory control period*; and
 - (2) the nature and details of any *capital expenditure sharing scheme* that is to apply to a *Distribution Network Service Provider* for a *regulatory control period*,
 the AER must:
 - (3) make that decision in a manner that contributes to the achievement of the *capital expenditure incentive objective*; and
 - (4) take into account:
 - (i) both the *capital expenditure sharing scheme principles*, and the matters referred to in paragraph (d), as they apply to the *Distribution Network Service Provider*; and
 - (ii) the circumstances of the *Distribution Network Service Provider*.

6.5.9 The X factor

- (a) A *building block determination* is to include the X factor for each control mechanism for each *regulatory year* of the *regulatory control period*.
- (b) The X factor:

- (1) must be set by the *AER* with regard to the *Distribution Network Service Provider's total revenue requirement* for the *regulatory control period*; and
- (2) must be such as to minimise, as far as reasonably possible, variance between expected revenue for the last *regulatory year* of the *regulatory control period* and the *annual revenue requirement* for that last *regulatory year*; and
- (3) must conform with whichever of the following requirements is applicable:
 - (i) if the control mechanism relates generally to *standard control services* – the X factor must be designed to equalise (in terms of net present value) the revenue to be earned by the *Distribution Network Service Provider* from the provision of *standard control services* over the *regulatory control period* with the provider's *total revenue requirement* for the *regulatory control period*;
 - (ii) if there are separate control mechanisms for different *standard control services* – the X factor for each control mechanism must be designed to equalise (in terms of net present value) the revenue to be earned by the *Distribution Network Service Provider* from the provision of *standard control services* to which the control mechanism relates over the *regulatory control period* with the portion of the provider's *total revenue requirement* for the *regulatory control period* attributable to those services.
- (c) There may be different X factors:
 - (1) for different *regulatory years* of the *regulatory control period*; and
 - (2) if there are 2 or more control mechanisms – for each control mechanism.

6.5.10 Pass through events

- (a) A *building block proposal* may include a proposal as to the events that should be defined as *pass through events* under clause 6.6.1(a1)(5) having regard to the *nominated pass through event considerations*.
- (b) In determining whether to accept the pass through events nominated by a *Distribution Network Service Provider* in its *building block proposal* under paragraph (a), the *AER* must take into account the *nominated pass through event considerations*.

6.6 Adjustments after making of building block determination.

6.6.1 Cost pass through

- (a1) Any of the following is a *pass through event* for a distribution determination:
 - (1) a *regulatory change event*;
 - (2) a *service standard event*;
 - (3) a *tax change event*;

- (4) a *retailer insolvency event*; and
 - (5) any other event specified in a distribution determination as a *pass through event* for the determination.
- (a) If a *positive change event* occurs, a *Distribution Network Service Provider* may seek the approval of the AER to pass through to *Distribution Network Users* a *positive pass through amount*.
 - (b) If a *negative change event* occurs, the AER may require the *Distribution Network Service Provider* to pass through to *Distribution Network Users* a *negative pass through amount* as determined by the AER under paragraph (g).

Positive pass through

- (c) To seek the approval of the AER to pass through a *positive pass through amount*, a *Distribution Network Service Provider* must submit to the AER, within 90 *business days* of the relevant *positive change event* occurring, a written statement which specifies:
 - (1) the details of the *positive change event*;
 - (2) the date on which the *positive change event* occurred;
 - (3) the *eligible pass through amount* in respect of that *positive change event*;
 - (4) the *positive pass through amount* the *Distribution Network Service Provider* proposes in relation to the *positive change event*;
 - (5) the amount of the *positive pass through amount* that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred;
 - (6) evidence:
 - (i) of the actual and likely increase in costs referred to in subparagraph (3);
 - (ii) that such costs occur solely as a consequence of the *positive change event*; and
 - (iii) in relation to a *retailer insolvency event*, of :
 - (A) the amount to which the *Distribution Network Service Provider* is entitled under any relevant *credit support*;
 - (B) the maximum amount of *credit support* (if any) that the *Distribution Network Service Provider* was entitled to request the *retailer* to provide under the *credit support rules*; and
 - (C) any amount that the *Distribution Network Service Provider* is likely to receive on a winding-up of the *retailer*; and
 - (7) such other information as may be required under any relevant *regulatory information instrument*.
- (c1) The *positive pass through amount* proposed by the *Distribution Network Service Provider* under subparagraph (c)(4) must not, in whole or in part, be

in respect of *expenditure for a restricted asset*, unless the *Distribution Network Service Provider* has submitted an *exemption application* with the statement under paragraph (c), which requests an *asset exemption* under clause 6.4B.1(a)(3) in respect of that asset or class of asset for the *positive pass through amount*.

- (d) If the *AER* determines that a *positive change event* has occurred in respect of a statement under paragraph (c), the *AER* must:
 - (1) determine:
 - (i) the *approved pass through amount*; and
 - (ii) the amount of that *approved pass through amount* that should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred,

taking into account the matters referred to in paragraph (j); and
 - (2) determine whether or not to grant the *asset exemption* requested under paragraph (c1).
- (d1) The *AER* must *publish*:
 - (1) the reasons for its determination under subparagraph (d)(2); and
 - (2) any content required under clause 6.2.8(c)(2),

at the same time as making its determination under subparagraph (d)(1).
- (d2) The *AER* must not determine an *approved pass through amount* that is, in whole or in part, in respect of *expenditure for a restricted asset*, unless:
 - (1) the *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (c1) in respect of that asset or that class of asset for the *positive pass through amount*; and
 - (2) the *AER* has granted that *asset exemption* under subparagraph (d)(2).
- (e) Subject to paragraph (k1), if the *AER* does not make the determinations referred to in paragraph (d) within 40 *business days* from the later of the date it receives the *Distribution Network Service Provider's* statement and accompanying evidence under paragraph (c), and the date it receives any additional information required under paragraph (e1), then, on the expiry of that period, the *AER* is taken to have determined that:
 - (1) the *positive pass through amount* as proposed in the *Distribution Network Service Provider's* statement under paragraph (c) is the *approved pass through amount* in respect of that *positive change event*;
 - (2) the amount of that *positive pass through amount* that the *Distribution Network Service Provider* proposes in its statement under paragraph(c) should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *positive change event* occurred, is the amount that should be so passed through in each such *regulatory year*; and
 - (3) the *asset exemption* requested under paragraph (c1) is granted.

- (e1) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a determination under paragraph (d) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Negative pass through

- (f) A *Distribution Network Service Provider* must submit to the *AER*, within 90 *business days* of becoming aware of the occurrence of a *negative change event* for the *Distribution Network Service Provider*, a written statement which specifies:
- (1) the details of the *negative change event* concerned;
 - (2) the date the *negative change event* occurred;
 - (3) the costs in the provision of *direct control services* that the *Distribution Network Service Provider* has saved and is likely to save as a result of the *negative change event* until:
 - (i) unless subparagraph (ii) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
 - (ii) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of those cost savings – the end of the *regulatory control period* following that in which the *negative change event* occurred;
 - (4) the aggregate amount of those saved costs that the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users*;
 - (5) the amount of the costs referred to in subparagraph (4) the *Distribution Network Service Provider* proposes should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *negative change event* occurred; and
 - (6) such other information as may be required under any relevant *regulatory information instrument*.
- (f1) If the occurrence of the *negative change event* is not notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f) then, as soon as is reasonably practicable and before making a determination referred to in paragraph (g), the *AER* must notify the *Distribution Network Service Provider* of the occurrence of that *negative change event*.
- (g) If a *negative change event* occurs (whether or not the occurrence of that *negative change event* is notified by the *Distribution Network Service Provider* to the *AER* under paragraph (f)) and the *AER* determines to impose a requirement on the provider in relation to that *negative change event* as described in paragraph (b), the *AER* must determine:
- (1) the *required pass through amount*; and
 - (2) taking into account the matters referred to in paragraph (j):

- (i) how much of that *required pass through amount* should be passed through to *Distribution Network Users* (the "*negative pass through amount*"); and
 - (ii) the amount of that *negative pass through amount* that should be passed through to *Distribution Network Users* in the *regulatory year* in which, and each *regulatory year* after that in which, the *negative change event* occurred.
- (g1) Subject to paragraph (k1), if the AER does not make the determinations referred to in paragraph (g) within 40 *business days* from:
 - (1) where the *Distribution Network Service Provider* notifies the AER of the occurrence of the *negative change event* under paragraph (f) - the later of the date the AER receives the *Distribution Network Service Provider's* statement under paragraph (f) and the date the AER receives any information required by the AER under paragraph (h); or
 - (2) where the *Distribution Network Service Provider* does not notify the AER of the occurrence of the *negative change event* under paragraph (f) – the later of the date the AER notifies the *Distribution Network Service Provider* under paragraph (g1) and the date the AER receives any information required by the AER under paragraph (h),
 then the AER is taken to have determined that the *required pass through amount* is zero.
- (h) A *Distribution Network Service Provider* must provide the AER with such information as the AER requires for the purpose of making a determination under paragraph (g) within the time specified by the AER in a notice provided to the *Distribution Network Service Provider* by the AER for that purpose.

Consultation

- (i) Before making a determination under paragraph (d) or (g), the AER may consult with the relevant *Distribution Network Service Provider* and such other persons as the AER considers appropriate, on any matters arising out of the relevant *pass through event* the AER considers appropriate.

Relevant factors

- (j) In making a determination under paragraph (d) or (g) in respect of a *Distribution Network Service Provider*, the AER must take into account:
 - (1) the matters and proposals set out in any statement given to the AER by the *Distribution Network Service Provider* under paragraph (c) or (f); and
 - (2) in the case of a *positive change event*, the increase in costs in the provision of *direct control services* that, as a result of the *positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur until:
 - (i) unless subparagraph(ii) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or
 - (ii) if the distribution determination for the *regulatory control period* following that in which the *positive change event* occurred does

not make any allowance for the recovery of that increase in costs – the end of the *regulatory control period* following that in which the *positive change event* occurred;

- (2A) in the case of a *negative change event*, the costs in the provision of *direct control services* that, as a result of the *negative change event*, the *Distribution Network Service Provider* has saved and is likely to save until:
 - (i) unless subparagraph(ii) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
 - (ii) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of those cost savings to *Distribution Network Users* – the end of the *regulatory control period* following that in which the *negative change event* occurred;
- (3) in the case of a *positive change event*, the efficiency of the *Distribution Network Service Provider's* decisions and actions in relation to the risk of the *positive change event*, including whether the *Distribution Network Service Provider* has failed to take any action that could reasonably be taken to reduce the magnitude of the *eligible pass through amount* in respect of that *positive change event* and whether the *Distribution Network Service Provider* has taken or omitted to take any action where such action or omission has increased the magnitude of the amount in respect of that *positive change event*;
- (4) the time cost of money based on the *allowed rate of return* for the *Distribution Network Service Provider* for the *regulatory control period* in which the *pass through event* occurred;
- (5) the need to ensure that the *Distribution Network Service Provider* only recovers any actual or likely increment in costs under this paragraph (j) to the extent that such increment is solely as a consequence of a *pass through event*;
- (6) in the case of a *tax change event*, any change in the way another *tax* is calculated, or the removal or imposition of another *tax*, which, in the *AER's* opinion, is complementary to the *tax change event* concerned;
- (7) whether the costs of the *pass through event* have already been factored into the calculation of the *Distribution Network Service Provider's* annual revenue requirement for the *regulatory control period* in which the *pass through event* occurred or will be factored into the calculation of the *Distribution Network Service Provider's* annual revenue requirement for a subsequent *regulatory control period*;
- (7A) the extent to which the costs that the *Distribution Network Service Provider* has incurred and is likely to incur are the subject of a previous determination made by the *AER* under this clause 6.6.1; and
- (8) any other factors that the *AER* considers relevant.

Extension of time limits

- (k) The *AER* must, by written notice to a *Distribution Network Service Provider*, extend a time limit fixed in paragraph (c) or (f) if the *AER* is satisfied that the difficulty of assessing or quantifying the effect of the relevant *pass through event* justifies the extension.
- (k1) If the *AER* is satisfied that the making of a determination under paragraph (d) or (g) involves issues of such complexity or difficulty that the time limit fixed in paragraph (e) or (g1) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension not later than 10 *business days* before the expiry of that time limit.
- (k2) If the *AER* extends a time limit under paragraph (k1), it must make available on its website a notice of that extension as soon as is reasonably practicable.
- (k3) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a determination under paragraph (d) or (g) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.
- (k4) Subject to paragraph (k6), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a determination under paragraph (d) or (g), it requires information that it anticipates will be made publicly available by a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.
- (k5) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (k3) or (k4), it must:
 - (1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has commenced;
 - (2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (k3) or (k4), as the case may be, has ended; and
 - (3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.
- (k6) Paragraphs (k3) and (k4) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in paragraphs (e) or (g1).

Retailer insolvency event

- (l) For the purposes of calculating the *eligible pass through amount* in relation to a *positive change event* which is a *retailer insolvency event*, the increase in costs is the *retailer insolvency costs* excluding:

- (i) any amount recovered or recoverable from a *retailer* or a guarantor of a *retailer* under any relevant *credit support*; and
 - (ii) amounts that the *Distribution Network Service Provider* is likely to receive on a winding-up of the *retailer*; and
 - (iii) any costs that are recoverable under a *RoLR cost recovery scheme distributor payment determination*.
- (m) The amount the *AER* determines should be passed through to *Distribution Network Users* in respect of a *retailer insolvency event* must be taken to be a cost that can be passed through and not a revenue impact of the event.

6.6.1A Reporting on jurisdictional schemes

- (a) If during a *regulatory control period*:
- (1) a scheme becomes a *jurisdictional scheme*; or
 - (2) a *Distribution Network Service Provider* first becomes subject to *jurisdictional scheme obligations* under a *jurisdictional scheme*; and
 - (3) the relevant *jurisdictional scheme* is not an *approved jurisdictional scheme*,
- then a *Distribution Network Service Provider* may request the *AER* to determine how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *jurisdictional scheme amounts* in respect of that scheme for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts.
- (b) To make a request under paragraph (a), a *Distribution Network Service Provider* must submit to the *AER*, as soon as practicable after the event referred to in subparagraph (a)(1) or (2), a written statement which specifies:
- (1) the name of the relevant *jurisdictional scheme*;
 - (2) the date of the event referred to in subparagraph (a)(1) or (2);
 - (3) details of how the *Distribution Network Service Provider* proposes to:
 - (i) estimate the *jurisdictional scheme amounts* for the relevant *jurisdictional scheme* for the purposes of clause 6.18.7A(b);
 - (ii) carry out any adjustments to *jurisdictional scheme amounts* for the relevant *jurisdictional scheme* for the purposes of clause 6.18.7A(b); and
 - (iii) report to the *AER* on the recovery process under clause 6.18.7A (a) to (c).
- (c) The *AER* must as soon as practicable after receiving a statement under paragraph (b), *publish* the statement.
- (d) Before making a determination under paragraph (e), the *AER* may consult with the relevant *Distribution Network Service Provider* and such other persons as the *AER* considers appropriate, on any matters arising out of the statement the *AER* considers appropriate.

- (e) Within 60 *business days* of receiving the statement under paragraph (b), the AER must make a determination on how the *Distribution Network Service Provider* is to report to the AER on its recovery of *jurisdictional scheme amounts* for the relevant *jurisdictional scheme* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts.
- (f) If the AER does not make the determination referred to in paragraph (e) within 60 *business days* of receiving the statement under paragraph (b) then, on expiry of that period, the AER is taken to have approved the process proposed in the *Distribution Network Service Provider's* statement.

6.6.2 Service target performance incentive scheme

- (a) The AER must, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*service target performance incentive scheme*) to provide incentives (which may include targets) for *Distribution Network Service Providers* to maintain and improve performance.
- (b) In developing and implementing a *service target performance incentive scheme*, the AER:
 - (1) must consult with the authorities responsible for the administration of relevant *jurisdictional electricity legislation*; and
 - (2) must ensure that service standards and service targets (including guaranteed service levels) set by the scheme do not put at risk the *Distribution Network Service Provider's* ability to comply with relevant service standards and service targets (including guaranteed service levels) as specified in *jurisdictional electricity legislation*; and

Note:

A *service target performance incentive scheme* operates concurrently with any average or minimum service standards and guaranteed service level schemes that apply to the *Distribution Network Service Provider* under *jurisdictional electricity legislation*.

- (3) must take into account:
 - (i) the need to ensure that benefits to electricity consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for *Distribution Network Service Providers*; and
 - (ii) any *regulatory obligation or requirement* to which the *Distribution Network Service Provider* is subject; and
 - (iii) the past performance of the *distribution network*; and
 - (iv) any other incentives available to the *Distribution Network Service Provider* under the *Rules* or a relevant distribution determination; and
 - (v) the need to ensure that the incentives are sufficient to offset any financial incentives the *Distribution Network Service Provider* may have to reduce costs at the expense of service levels; and

- (vi) the willingness of the customer or end user to pay for improved performance in the delivery of services; and
- (vii) the possible effects of the scheme on incentives for the implementation of *non-network options*; and
- (4) must have regard to the *Distribution Reliability Measures Guidelines*.
- (c) The AER may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace any scheme that is developed and published under this clause.

Note:

A *Distribution Network Service Provider* is not precluded from entering into a contract with a third party (such as a network support service provider) under which the benefits of a *service target performance incentive scheme* are passed on to the third party, or the third party is required to indemnify the provider for penalties to which the provider becomes liable under the scheme.

6.6.3 Demand management incentive scheme

- (a) The AER must develop a *demand management incentive scheme* consistent with the *demand management incentive scheme objective*.
- (b) The objective of the *demand management incentive scheme* is to provide *Distribution Network Service Providers* with an incentive to undertake efficient expenditure on relevant *non-network options* relating to demand management (the *demand management incentive scheme objective*).
- (c) In developing, and applying, any *demand management incentive scheme*, the AER must take into account the following:
 - (1) the scheme should be applied in a manner that contributes to the achievement of the *demand management incentive scheme objective*;
 - (2) the scheme should reward *Distribution Network Service Providers* for implementing relevant *non-network options* that deliver net cost savings to *retail customers*;
 - (3) the scheme should balance the incentives between expenditure on *network options* and *non-network options* relating to demand management. In doing so, the AER may take into account the net economic benefits delivered to all those who produce, consume and transport electricity in the *market* associated with implementing relevant *non-network options*;
 - (4) the level of the incentive:
 - (i) should be reasonable, considering the long term benefit to *retail customers*;
 - (ii) should not include costs that are otherwise recoverable from any another source, including under a relevant distribution determination; and
 - (iii) may vary by *Distribution Network Service Provider* and over time;

- (5) penalties should not be imposed on *Distribution Network Service Providers* under any scheme;
- (6) the incentives should not be limited by the length of a *regulatory control period*, if such limitations would not contribute to the achievement of the *demand management incentive scheme objective*; and
- (7) the possible interaction between the scheme and:
 - (i) any other incentives available to the *Distribution Network Service Provider* in relation to undertaking efficient expenditure on, or implementation of, relevant *non-network options*;
 - (ii) particular control mechanisms and their effect on a *Distribution Network Service Provider's* available incentives referred to in sub-paragraph (i); and
 - (iii) meeting any *regulatory obligation or requirement*.
- (d) The *AER*:
 - (1) must develop and *publish* the scheme; and
 - (2) may, from time to time, amend or replace the scheme developed and *published* under this clause,
 in accordance with the *distribution consultation procedures*.

6.6.3A Demand management innovation allowance mechanism

- (a) The *AER* must develop a *demand management innovation allowance mechanism* consistent with the *demand management innovation allowance objective*.
- (b) The objective of the *demand management innovation allowance mechanism* is to provide *Distribution Network Service Providers* with funding for research and development in demand management projects that have the potential to reduce long term *network costs* (the *demand management innovation allowance objective*).
- (c) In developing and applying any *demand management innovation allowance mechanism*, the *AER* must take into account the following:
 - (1) the mechanism should be applied in a manner that contributes to the achievement of the *demand management innovation allowance objective*;
 - (2) demand management projects, the subject of the allowance, should:
 - (i) have the potential to deliver ongoing reductions in demand or peak demand; and
 - (ii) be innovative and not be otherwise efficient and prudent *non-network options* that a *Distribution Network Service Providers* should have provided for in its *regulatory proposal*;
 - (3) the level of the allowance:
 - (i) should be reasonable, considering the long term benefit to *retail customers*;

- (ii) should only provide funding that is not available from any another source, including under a relevant distribution determination; and
 - (iii) may vary by *Distribution Network Service Provider* and over time;
- (4) the allowance may fund demand management projects which occur over a period longer than a *regulatory control period*.
- (d) Any mechanism developed and applied by the AER must require *Distribution Network Service Providers* to *publish* reports on the nature and results of demand management projects the subject of the allowance.
- (e) The AER:
 - (1) must develop and *publish* the mechanism; and
 - (2) may, from time to time, amend or replace any mechanism developed and *published* under this clause,
 in accordance with the *distribution consultation procedures*.

6.6.4 Small-scale incentive scheme

- (a) The AER may, in accordance with the *distribution consultation procedures*, develop and *publish* an incentive scheme or schemes (*small-scale incentive scheme*) that provides *Distribution Network Service Providers* with incentives to provide *standard control services* in a manner that contributes to the achievement of the *national electricity objective*.
- (b) In developing and applying a *small-scale incentive scheme*, the AER must have regard to the following matters:
 - (1) *Distribution Network Service Providers* should be rewarded or penalised for efficiency gains or losses in respect of their *distribution systems*;
 - (2) the rewards and penalties should be commensurate with the efficiency gains or efficiency losses in respect of a *distribution system*, but a reward for efficiency gains need not correspond in amount to a penalty for efficiency losses;
 - (3) the benefits to electricity consumers that are likely to result from efficiency gains in respect of a *distribution system* should warrant the rewards provided under the scheme, and the detriments to electricity consumers that are likely to result from efficiency losses in respect of a *distribution system* should warrant the penalties provided under the scheme;
 - (4) the interaction of the scheme with other incentives that *Distribution Network Service Providers* may have under the *Rules*; and
 - (5) the *capital expenditure objectives* and the *operating expenditure objectives*.
- (c) The AER may, from time to time and in accordance with the *distribution consultation procedures*, amend or replace any *small-scale incentive scheme*.

- (d) Where the AER applies a *small-scale incentive scheme* to a *Distribution Network Service Provider* for a *regulatory control period*:
 - (1) the aggregate rewards or penalties for a *regulatory year* in that *regulatory control period* that are provided or imposed under that scheme and any other *small-scale incentive schemes* that apply to that *Distribution Network Service Provider* must not exceed 0.5% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year* unless the *Distribution Network Service Provider* consents to the contrary, in which case that aggregate must not exceed 1% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year*; and
 - (2) the *small-scale incentive scheme* must cease to provide rewards or impose penalties in respect of a *regulatory year* after the expiry of such a period as is determined by the AER, being a period that is not more than two *regulatory control periods* after the commencement of that scheme.
- (e) Notwithstanding anything else contained in this clause, the AER may require a *Distribution Network Service Provider* to participate in a trial of a *small-scale incentive scheme* under which, for the duration of that trial, the *Distribution Network Service Provider* is not required to bear any penalty and is not entitled to earn any reward.

6.6.5 Reopening of distribution determination for capital expenditure

- (a) Subject to paragraph (b), a *Distribution Network Service Provider* may, during a *regulatory control period*, apply to the AER to revoke and substitute a distribution determination that applies to it where:
 - (1) an event that is beyond the reasonable control of the *Distribution Network Service Provider* has occurred during that *regulatory control period* and the occurrence of that event during that period (or of an event of a similar kind) could not reasonably have been foreseen by the *Distribution Network Service Provider* at the time of the making of the distribution determination ('**the event**');
 - (i) no forecast capital expenditure was accepted or substituted by the AER for that period under clauses 6.5.7(c) or 6.12.1(3)(ii) (as the case may be) in relation to the event that has occurred;
 - (2) the *Distribution Network Service Provider* proposes to undertake capital expenditure to rectify the adverse consequences of the event;
 - (3) the total of the capital expenditure required during the *regulatory control period* to rectify the adverse consequences of the event:
 - (i) exceeds 5% of the value of the regulatory asset base for the relevant *Distribution Network Service Provider* for the first year of the relevant *regulatory control period*;
 - (ii) is such that, if undertaken, it is reasonably likely (in the absence of any other reduction in capital expenditure) to result in the total actual capital expenditure for that *regulatory control period* exceeding the total of the forecast capital expenditure for that

regulatory control period as accepted or substituted by the *AER* in accordance with clauses 6.5.7(c) or 6.12.1(3)(ii) (as the case may be);

- (5) the *Distribution Network Service Provider* can demonstrate that it is not able to reduce capital expenditure in other areas to avoid the consequence referred to in subparagraph (a)(4)(ii) without materially adversely affecting the *reliability* and security of the relevant *distribution system*;
- (6) a failure to rectify the adverse consequences of the event would be likely to materially adversely affect the *reliability* and security of the relevant *distribution system*; and
- (7) the event is not a *pass through event* or a *contingent project*.

In this paragraph (a), a reference to an event includes a series of events or a state of affairs, which may include a greater than anticipated increase in demand.

- (b) An application referred to in paragraph (a) must not be made within 90 *business days* prior to the end of a *regulatory year*.
- (b1) The capital expenditure that the *Distribution Network Service Provider* proposes to undertake for the purposes of subparagraph (a)(3) must not include *expenditure for a restricted asset*, unless that *Distribution Network Service Provider* has submitted an *exemption application* with the application referred to in paragraph (a), which requests an *asset exemption* under clause 6.4B.1(a)(4) for the *regulatory control period* in respect of that asset or class of asset.
- (c) Following its receipt of an application made in accordance with paragraphs (a) and (b) and an *exemption application* (if any) made in accordance with paragraph (b1), the *AER* must:
 - (1) consult with the *Distribution Network Service Provider* and such other persons as it considers appropriate in relation to the applications; and
 - (2) make its decision on the application made in accordance with paragraphs (a) and (b) and the *exemption application* (if any) within 40 *business days* from the later of the date the *AER* receives the applications and the date the *AER* receives any information required by the *AER* under paragraph (g).
- (c1) The *AER* must *publish*:
 - (1) the reasons for its decision on the *exemption application* under subparagraph (c)(2); and
 - (2) any content required under clause 6.2.8(c)(2),
 at the same time as making its decision on the application made under paragraph (a).
- (d) The *AER* must, and must only, revoke a distribution determination following an application made in accordance with paragraphs (a) and (b) if the *AER* is satisfied of each of the matters referred to in paragraph (a).

- (e) If the *AER* revokes a distribution determination under paragraph (d), the *AER* must make a new distribution determination in substitution for the revoked determination to apply for the remainder of the *regulatory control period* for which the revoked determination was to apply.
- (f) The substituted distribution determination must only vary from the revoked distribution determination to the extent necessary:
 - (1) to adjust the forecast capital expenditure for that *regulatory control period* to accommodate the amount of such additional capital expenditure as the *AER* determines is appropriate (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.7(c)); and
 - (2) to reflect the effect of any resultant increase in forecast capital expenditure on:
 - (i) the forecast operating expenditure for the remainder of the *regulatory control period*;
 - (ii) the *annual revenue requirement* for each *regulatory year* in the remainder of the *regulatory control period*; and
 - (iii) the *X factor* for each of the remaining *regulatory years* of the *regulatory control period*.
- (f1) The *AER* must not include an adjustment for additional expenditure under subparagraph (f)(1) that includes *expenditure for a restricted asset*, unless:
 - (1) the *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (b1) for the *regulatory control period* in respect of that asset or that class of asset; and
 - (2) the *AER* has granted that *asset exemption* under paragraph (c).
- (g) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a decision on an application made by that *Distribution Network Service Provider* under paragraph (a) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Extension of time limit

- (h) If the *AER* is satisfied that the revocation and substitution of a distribution determination under paragraphs (d) and (e) involves issues of such complexity or difficulty that the time limit fixed in subparagraph (c)(2) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided that it gives written notice to the *Distribution Network Service Provider* of that extension not later than 10 *business days* before the expiry of that time limit.
- (i) If the *AER* extends the time limit under paragraph (h), it must make available on its website a notice of that extension as soon as is reasonably practicable.
- (j) Subject to paragraph (11), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a decision on an application made by the

Distribution Network Service Provider under paragraph (a) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.

- (k) Subject to paragraph (11), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a), it requires information that it anticipates will be made publicly available by a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.
- (l) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (j) or (k), it must:
 - (1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (j) or (k), as the case may be, has commenced;
 - (2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (j) or (k), as the case may be, has ended; and
 - (3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.
- (11) Paragraphs (j) and (k) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in subparagraph (c)(2).

Revocation and substitution of distribution determination

- (m) If the *AER* revokes and substitutes a distribution determination under paragraph (e), that revocation and substitution must take effect from the commencement of the next *regulatory year*.

6.6A Contingent Projects

6.6A.1 Acceptance of a contingent project in a distribution determination

- (a) Subject to paragraph (a1), a *regulatory proposal* may include *proposed contingent capital expenditure*, which the *Distribution Network Service Provider* considers is reasonably required for the purpose of undertaking a *proposed contingent project*.
- (a1) *Proposed contingent capital expenditure* that is included in a *regulatory proposal* of a *Distribution Network Service Provider* must not include *expenditure for a restricted asset*, unless that *Distribution Network Service Provider* has submitted an *exemption application* with the *regulatory proposal*, which requests an *asset exemption* under clause 6.4B.1(a)(2) in respect of that asset or class of asset for the *contingent project*.
- (b) Subject to paragraph (b1), the *AER* must determine that a *proposed contingent project* is a *contingent project* if the *AER* is satisfied that:

- (1) the *proposed contingent project* is reasonably required to be undertaken in order to achieve any of the *capital expenditure objectives*;
 - (2) the *proposed contingent capital expenditure*:
 - (i) is not otherwise provided for (either in part or in whole) in the total of the forecast capital expenditure for the relevant *regulatory control period* which is accepted in accordance with clause 6.5.7(c) or substituted in accordance with clause 6.12.1(3)(ii) (as the case may be);
 - (ii) reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*, in the context of the *proposed contingent project* as described in the *regulatory proposal*; and
 - (iii) exceeds either \$30 million or 5% of the value of the *annual revenue requirement* for the relevant *Distribution Network Service Provider* for the first year of the relevant *regulatory control period*, whichever is the larger amount;
 - (3) the *proposed contingent project* and the *proposed contingent capital expenditure*, as described or set out in the *regulatory proposal*, and the information provided in relation to these matters, complies with the relevant requirements of any relevant *regulatory information instrument*; and
 - (4) the *trigger events* in relation to the *proposed contingent project* which are proposed by the *Distribution Network Service Provider* in its *regulatory proposal* are appropriate.
- (b1) The *AER* must not determine that a *proposed contingent project* is a *contingent project* if the *proposed contingent capital expenditure* for that *proposed contingent project* includes *expenditure for a restricted asset*, unless:
- (1) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under paragraph (a1) in respect of that asset or that class of asset; and
 - (2) the *AER* has granted that *asset exemption*.
- (c) In determining whether a *trigger event* in relation to a *proposed contingent project* is appropriate for the purposes of subparagraph (b)(4), the *AER* must have regard to the need for a *trigger event*:
- (1) to be reasonably specific and capable of objective verification;
 - (2) to be a condition or event, which, if it occurs, makes the undertaking of the *proposed contingent project* reasonably necessary in order to achieve any of the *capital expenditure objectives*;
 - (3) to be a condition or event that generates increased costs or categories of costs that relate to a specific location rather than a condition or event that affects the *distribution network* as a whole;

- (4) to be described in such terms that the occurrence of that event or condition is all that is required for the distribution determination to be amended under clause 6.6A.2; and
- (5) to be an event or condition, the occurrence of which is probable during the *regulatory control period*, but the inclusion of capital expenditure in relation to it under clause 6.5.7 is not appropriate because:
 - (i) it is not sufficiently certain that the event or condition will occur during the *regulatory control period* or if it may occur after that *regulatory control period* or not at all; or
 - (ii) subject to the requirement to satisfy subparagraph (b)(2)(iii), the costs associated with the event or condition are not sufficiently certain.

6.6A.2 Amendment of distribution determination for contingent project

- (a) Subject to paragraph (b), a *Distribution Network Service Provider* may, during a *regulatory control period*, apply to the AER to amend a distribution determination that applies to that *Distribution Network Service Provider* where a *trigger event* for a *contingent project* in relation to that distribution determination has occurred.
- (b) Subject to paragraph (b1), an application referred to in paragraph (a):
 - (1) must not be made within 90 *business days* prior to the end of a *regulatory year*;
 - (2) subject to subparagraph (1), must be made as soon as practicable after the occurrence of the *trigger event*;
 - (3) must contain the following information:
 - (i) an explanation that substantiates the occurrence of the *trigger event*;
 - (ii) a forecast of the total capital expenditure for the *contingent project*;
 - (iii) a forecast of the capital and incremental operating expenditure, for each remaining *regulatory year* which the *Distribution Network Service Provider* considers is reasonably required for the purpose of undertaking the *contingent project*;
 - (iv) how the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii);
 - (v) the intended date for commencing the *contingent project* (which must be during the *regulatory control period*);
 - (vi) the anticipated date for completing the *contingent project* (which may be after the end of the *regulatory control period*);
 - (vii) an estimate of the incremental revenue which the *Distribution Network Service Provider* considers is likely to be required to be earned in each remaining *regulatory year* of the *regulatory*

- control period* as a result of the *contingent project* being undertaken as described in subparagraph (iii); and
- (4) the estimate referred to in subparagraph (3)(vii) must be calculated:
 - (i) in accordance with the requirements of the *post-tax revenue model* referred to in clause 6.4.1;
 - (ii) in accordance with the requirements of the *roll forward model* referred to in clause 6.5.1(b);
 - (iii) using the *allowed rate of return* for that *Distribution Network Service Provider* for the *regulatory control period* as determined in accordance with clause 6.5.2;
 - (iv) in accordance with the requirements for depreciation referred to in clause 6.5.5; and
 - (v) on the basis of the capital expenditure and incremental operating expenditure referred to in subparagraph (3)(iii).
 - (b1) The forecast total capital expenditure referred to in subparagraph (b)(3) must not include *expenditure for a restricted asset*, unless:
 - (1) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under clause 6.6A.1(a1) for that asset or class of asset in respect of the *contingent project*; and
 - (2) the *AER* has granted that *asset exemption*.
 - (c) As soon as practicable after its receipt of an application made in accordance with paragraphs (a) and (b), the *AER* must *publish* the application, together with an invitation for written submissions on the application.
 - (d) The *AER* must consider any written submissions made under paragraph (c) and must make its decision on the application within 40 *business days* from the later of the date the *AER* receives the application and the date the *AER* receives any information required by the *AER* under paragraph (i). In doing so the *AER* may also take into account such other information as it considers appropriate, including any analysis (such as benchmarking) that is undertaken by it for that purpose.
 - (e) Subject to paragraph (e1), if the *AER* is satisfied that the *trigger event* has occurred, and that the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii), it must:
 - (1) determine:
 - (i) the amount of capital and incremental operating expenditure, for each remaining *regulatory year*, which the *AER* considers is reasonably required for the purpose of undertaking the *contingent project*;
 - (ii) the total capital expenditure which the *AER* considers is reasonably required for the purpose of undertaking the *contingent project*;

- (iii) the likely commencement and completion dates for the *contingent project*; and
 - (iv) the incremental revenue which is likely to be required by the *Distribution Network Service Provider* in each remaining *regulatory year* as a result of the *contingent project* being undertaken as described in subparagraphs (i) and (ii), such estimate being calculated in accordance with subparagraph (2);
- (2) calculate the estimate referred to in subparagraph (1)(iv):
 - (i) on the basis of the capital expenditure and incremental operating expenditure referred to in subparagraph (1)(i); and
 - (ii) otherwise in accordance with subparagraph (b)(4); and
- (3) amend the distribution determination in accordance with paragraph (h).
- (e1) The capital expenditure referred to in subparagraph (e)(1) must not include *expenditure for a restricted asset*, unless:
 - (1) the relevant *Distribution Network Service Provider* requested an *asset exemption* under clause 6.6A.1(a1) for that asset or class of asset in respect of the *contingent project*; and
 - (2) the *AER* granted that *asset exemption*.
- (f) In making the determinations referred to in subparagraph (e)(1), the *AER* must accept the relevant amounts and dates, contained in the *Distribution Network Service Provider's* application, as referred to in subparagraph (b)(3)(ii) to (vii), if the *AER* is satisfied that:
 - (1) the forecast of the total capital expenditure for the *contingent project* meets the threshold as referred to in clause 6.6A.1(b)(2)(iii) and complies with paragraph (b1);
 - (2) the amounts of forecast capital expenditure and incremental operating expenditure reasonably reflect the *capital expenditure criteria* and the *operating expenditure criteria*, taking into account the *capital expenditure factors* and the *operating expenditure factors* respectively, in the context of the *contingent project*;
 - (3) the estimates of incremental revenue are reasonable; and
 - (4) the dates are reasonable.
- (g) In making the determinations referred to in subparagraph (e)(1) and paragraph (f), the *AER* must have regard to:
 - (1) the information included in or accompanying the application;
 - (2) submissions received in the course of consulting on the application;
 - (3) such analysis as is undertaken by or for the *AER*;
 - (4) the expenditure that would be incurred in respect of a *contingent project* by an efficient and prudent *Distribution Network Service Provider* in the circumstances of the *Distribution Network Service Provider*;

- (5) the actual and expected capital expenditure of the *Distribution Network Service Provider* for *contingent projects* during any preceding *regulatory control periods*;
 - (6) the extent to which the forecast capital expenditure for the *contingent project* is referable to arrangements with a person other than the *Distribution Network Service Provider* that, in the opinion of the *AER*, do not reflect arm's length terms;
 - (7) the relative prices of operating and capital inputs in relation to the *contingent project*;
 - (8) the substitution possibilities between operating and capital expenditure in relation to the *contingent project*; and
 - (9) whether the capital and operating expenditure forecasts for the *contingent project* are consistent with any incentive scheme or schemes that apply to the *Distribution Network Service Provider* under clauses 6.5.8, 6.5.8A or 6.6.2 to 6.6.4.
- (h) Amendments to a distribution determination referred to in subparagraph (e)(3) must only vary the determination to the extent necessary:
- (1) to adjust the forecast capital expenditure for that *regulatory control period* to accommodate the amount of capital expenditure determined under subparagraph (e)(1)(i) (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.7(c));
 - (2) to adjust the forecast operating expenditure for that *regulatory control period* to accommodate the amount of incremental operating expenditure determined under subparagraph (e)(1)(i) (in which case the amount of that adjustment will be taken to be accepted by the *AER* under clause 6.5.6(c));
 - (3) to reflect the effect of any resultant increase in forecast capital and operating expenditure on:
 - (i) the *annual revenue requirement* for each *regulatory year* in the remainder of the *regulatory control period*; and
 - (ii) the *X factor* for each *regulatory year* in the remainder of the *regulatory control period*.
- (i) A *Distribution Network Service Provider* must provide the *AER* with such additional information as the *AER* requires for the purpose of making a decision on an application made by that *Distribution Network Service Provider* under paragraph (a) within the time specified by the *AER* in a notice provided to the *Distribution Network Service Provider* by the *AER* for that purpose.

Extension of time limit

- (j) If the *AER* is satisfied that amending a distribution determination under subparagraphs (e)(3) and (h) involves issues of such complexity or difficulty that the time limit fixed in paragraph (d) should be extended, the *AER* may extend that time limit by a further period of up to 60 *business days*, provided

that it gives written notice to the *Distribution Network Service Provider* of that extension no later than 10 *business days* before the expiry of that time limit.

- (k) If the *AER* extends the time limit under paragraph (j), it must make available on its website a notice of that extension as soon as is reasonably practicable.
- (l) Subject to paragraph (n1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that it requires information from an *Authority* in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a) then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when the *AER* receives that information from that *Authority* is to be disregarded.
- (m) Subject to paragraph (n1), if the *AER* gives a written notice to the *Distribution Network Service Provider* stating that, in order to make a decision on an application made by the *Distribution Network Service Provider* under paragraph (a), it requires information from a judicial body or royal commission then, for the purpose of calculating elapsed time, the period between when the *AER* gives that notice to the *Distribution Network Service Provider* and when that information is made publicly available is to be disregarded.
- (n) Where the *AER* gives a notice to the *Distribution Network Service Provider* under paragraph (l) or (m), it must:
 - (1) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (l) or (m), as the case may be, has commenced;
 - (2) as soon as is reasonably practicable make available on its website a notice stating when the period referred to in paragraph (l) or (m), as the case may be, has ended; and
 - (3) if the information specified in that notice is required from an *Authority*, promptly request that information from the relevant *Authority*.
- (n1) Paragraphs (l) and (m) do not apply if the *AER* gives the notice specified in those paragraphs to the *Distribution Network Service Provider* later than 10 *business days* before the expiry of the time limit fixed in paragraph (d).

Amendment of distribution determination

- (o) If the *AER* amends a distribution determination under paragraph (h), that amendment must take effect from the commencement of the next *regulatory year*.

Part D Negotiated distribution services

6.7 Negotiated distribution services

6.7.1 Principles relating to access to negotiated distribution services

The following principles constitute the *Negotiated Distribution Service Principles*:

- (1) the price for a *negotiated distribution service* should be based on the costs incurred in providing that service, determined in accordance with the principles and policies set out in the *Cost Allocation Method* for the relevant *Distribution Network Service Provider*;
- (2) subject to subparagraphs (3) and (4), the price for a *negotiated distribution service* should be at least equal to the cost that would be avoided by not providing the service but no more than the cost of providing it on a stand alone basis;
- (3) if the *negotiated distribution service* is the provision of a *shared distribution service* that:
 - (i) exceeds the *network* performance requirements (if any) which that *shared distribution service* is required to meet under any *jurisdictional electricity legislation*; or
 - (ii) exceeds the *network* performance requirements set out in schedules 5.1a and 5.1,

then the differential between the price for that service and the price for the *shared distribution service* which meets (but does not exceed) the *network* performance requirements under any *jurisdictional electricity legislation* or as set out in schedules 5.1a and 5.1 (as the case may be) should reflect the increase in the *Distribution Network Service Provider's* incremental cost of providing that service;

- (4) if the *negotiated distribution service* is the provision of a *shared distribution service* that does not meet (and does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1, the differential between the price for that service and the price for the *shared distribution service* which meets (but does not exceed) the *network* performance requirements set out in schedules 5.1a and 5.1 should reflect the cost the *Distribution Network Service Provider* would avoid by not providing that service;
- (5) the price for a *negotiated distribution service* must be the same for all *Distribution Network Users* unless there is a material difference in the costs of providing the *negotiated distribution service* to different *Distribution Network Users* or classes of *Distribution Network Users*;
- (6) the price for a *negotiated distribution service* should be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person, in which case the adjustment should reflect the extent to which the costs of that asset are being recovered through charges to that other person;
- (7) the price for a *negotiated distribution service* should be such as to enable the *Distribution Network Service Provider* to recover the efficient costs of complying with all *regulatory obligations or requirements* associated with the provision of the *negotiated distribution service*;
- (8) any *access charges*:
 - (A) in respect of providing *distribution network user access* to *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c) should be based

- on the costs reasonably incurred by the *Distribution Network Service Provider* in providing that access and, in the case of compensation referred to in clauses 5.3AA(f)(4)(ii) and (iii), on the revenue that is likely to be foregone and the costs that are likely to be incurred by a person referred to in those provisions where an event referred to in those provisions occurs; and
- (B) for the *declared transmission system* of an *adoptive jurisdiction*, in respect of providing *transmission network user access* to *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c), should be based on the costs reasonably incurred by the *Distribution Network Service Provider* in providing that access and, in the case of compensation referred to in clauses 5.4A(h) - (j) (as preserved under clause 11.98.8(a)(2)), on the revenue that is likely to be foregone and the costs that are likely to be incurred by a person referred to in those provisions where an event referred to in those provisions occurs;
- (9) the *terms and conditions of access* for a *negotiated distribution service* should be fair and reasonable and consistent with the safe and reliable operation of the *power system* in accordance with the *Rules* (for these purposes, the price for a *negotiated distribution service* is to be treated as being fair and reasonable if it complies with principles (1) to (7) of this clause);
- (10) the *terms and conditions of access* for a *negotiated distribution service* (including, in particular, any exclusions and limitations of liability and indemnities) must not be unreasonably onerous taking into account the allocation of risk between the *Distribution Network Service Provider* and the other party, the price for the *negotiated distribution service* and the costs to the *Distribution Network Service Provider* of providing the *negotiated distribution service*;
- (11) the *terms and conditions of access* for a *negotiated distribution service* should take into account the need for the service to be provided in a manner that does not adversely affect the safe and reliable operation of the *power system* in accordance with the *Rules*.

6.7.2 Determination of terms and conditions of access for negotiated distribution services

- (a) A *Distribution Network Service Provider* must comply with:
- (1) the provider's *negotiating framework*; and
 - (2) the provider's *Negotiated Distribution Service Criteria*,
- when the provider is negotiating the *terms and conditions of access* to *negotiated distribution services*.
- (b) The *Distribution Network Service Provider* must also comply with any other applicable requirements of the *Rules*, including the requirements of:
- (1) rules 5.3, 5.3A and 5.3AA, when negotiating for the provision of *connection services* and the associated *connection service* charges in respect of the provision of *negotiated distribution services* which

would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c);

- (2) rules 5.3 and 5.3A, when negotiating for the provision of *connection services* and the associated *connection service charges* in respect of the provision of *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c);
- (3) rule 5.3AA, when negotiating the *use of system services charges* and *access charges* to be paid to or by a *Distribution Network User* in respect of the provision of *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c); and
- (4) for the *declared transmission system* of an *adoptive jurisdiction*, rule 5.4A (as preserved under clause 11.98.8(a)(2)), when negotiating the *use of system services charges* and *access charges* to be paid to or by a *Distribution Network User* in respect of the provision of *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c).

6.7.3 Negotiating framework determination

The determination specifying requirements relating to the *negotiating framework* forming part of a distribution determination for a *Distribution Network Service Provider* is to set out requirements that are to be complied with in respect of the preparation, replacement, application or operation of its *negotiating framework*.

6.7.4 Negotiated Distribution Service Criteria determination

- (a) The determination by the AER specifying the *Negotiated Distribution Service Criteria* forming part of a distribution determination for a *Distribution Network Service Provider* is to set out the criteria that are to be applied:
 - (1) by the provider in negotiating *terms and conditions of access* including:
 - (i) the prices that are to be charged for the provision of *negotiated distribution services* by the provider for the relevant *regulatory control period*; or
 - (ii) any *access charges* which are negotiated by the provider during that *regulatory control period*; and
 - (2) by the AER in resolving an access dispute about *terms and conditions of access* including:
 - (i) the price that is to be charged for the provision of a *negotiated distribution service* by the provider; or
 - (ii) any *access charges* that are to be paid to or by the provider.
- (b) The *Negotiated Distribution Service Criteria* must give effect to and be consistent with the *Negotiated Distribution Service Principles* set out in clause 6.7.1.

6.7.5 Preparation of and requirements for negotiating framework for negotiated distribution services

- (a) A *Distribution Network Service Provider* must prepare a document (the *negotiating framework*) setting out the procedure to be followed during negotiations between that provider and any person (the *Service Applicant* or applicant) who wishes to receive a *negotiated distribution service* from the provider, as to the *terms and conditions of access* for the provision of the service.
- (b) The *negotiating framework* for a *Distribution Network Service Provider* must comply with and be consistent with:

- (1) the applicable requirements of the relevant distribution determination; and

Note:

See clause 6.7.3.

- (2) paragraph (c), which sets out the minimum requirements for a *negotiating framework*.
- (c) The *negotiating framework* for a *Distribution Network Service Provider* must specify:

- (1) a requirement for the provider and a *Service Applicant* to negotiate in good faith the *terms and conditions of access* to a *negotiated distribution service*; and
- (2) a requirement for the provider to provide all such commercial information a *Service Applicant* may reasonably require to enable that applicant to engage in effective negotiation with the provider for the provision of the *negotiated distribution service*, including the cost information described in subparagraph (3); and
- (3) a requirement for the provider:
 - (i) to identify and inform a *Service Applicant* of the reasonable costs and/or the increase or decrease in costs (as appropriate) of providing the *negotiated distribution service*; and
 - (ii) to demonstrate to a *Service Applicant* that the charges for providing the *negotiated distribution service* reflect those costs and/or the cost increment or decrement (as appropriate); and
 - (iii) to have appropriate arrangements for assessment and review of the charges and the basis on which they are made; and

Note:

If (for example) a charge, or an element of a charge, is based on a customer's actual or assumed *maximum demand*, the assessment and review arrangements should allow for a change to the basis of the charge so that it more closely reflects the customer's *load* profile where a reduction or increase in *maximum demand* has been demonstrated.

- (4) a requirement for a *Service Applicant* to provide all commercial information the provider may reasonably require to enable the provider to engage in effective negotiation with that applicant for the provision of the *negotiated distribution service*; and

- (5) a requirement that negotiations with a *Service Applicant* for the provision of the *negotiated distribution service* be commenced and finalised within specified periods and a requirement that each party to the negotiations must make reasonable endeavours to adhere to the specified time limits; and
 - (6) a process for dispute resolution which provides that all disputes as to the *terms and conditions of access* for the provision of *negotiated distribution services* are to be dealt with in accordance with the relevant provisions of the Law and the *Rules* for dispute resolution; and
 - (7) the arrangements for payment by a *Service Applicant* of the provider's reasonable direct expenses incurred in processing the application to provide the *negotiated distribution service*; and
 - (8) a requirement that the *Distribution Network Service Provider* determine the potential impact on other *Distribution Network Users* of the provision of the *negotiated distribution service*; and
 - (9) a requirement that the *Distribution Network Service Provider* must notify and consult with any affected *Distribution Network Users* and ensure that the provision of *negotiated distribution services* does not result in non-compliance with obligations in relation to other *Distribution Network Users* under the *Rules*; and
 - (10) a requirement that the *Distribution Network Service Provider* publish the results of negotiations on its website.
- (d) Notwithstanding the foregoing, the *negotiating framework* must not be inconsistent with any of the requirements of:
- (1) rules 5.3, 5.3A and 5.3AA insofar as the *negotiating framework* applies to *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c); and
 - (2) rules 5.3 and 5.3A and, for the *declared transmission system* of an *adoptive jurisdiction*, rule 5.4A (as preserved under clause 11.98.8(a)(2)) insofar as the *negotiating framework* applies to *negotiated distribution services* which would have been treated as *negotiated transmission services* were it not for the operation of clause 6.24.2(c),
- and any other relevant provisions of this Chapter 6 and, in the event of any inconsistency, those requirements prevail.
- (e) Each *Distribution Network Service Provider* and *Service Applicant* who is negotiating for the provision of a *negotiated distribution service* by the provider must comply with the requirements of the *negotiating framework* in accordance with its terms.

6.7.6 Confidential information

- (a) Commercial information to be provided to a *Service Applicant* in accordance with clause 6.7.5(c)(2):
 - (1) does not include *confidential information* provided to the *Distribution Network Service Provider* by another person; and

- (2) may be provided subject to a condition that the *Service Applicant* must not provide any part of that commercial information to any other person without the consent of the *Distribution Network Service Provider*.
- (b) Commercial information to be provided to a *Distribution Network Service Provider* in accordance with clause 6.7.5(c)(4):
 - (1) does not include *confidential information* provided to a *Service Applicant* by another person; and
 - (2) may be provided subject to a condition that the provider must not provide any part of that commercial information to any other person without the consent of the *Service Applicant*.

Part DA Connection policies

6.7A Connection policy requirements

Chapter 5A ~~This Rule~~ deals with the preparation of, requirements for and approval of *connection policies*.

~~6.7A.1 Preparation of, and requirements for, connection policy~~

- ~~(a) A *Distribution Network Service Provider* must prepare a document (its proposed *connection policy*) setting out the circumstances in which it may require a *retail customer* or *real estate developer* to pay a *connection charge*, for the provision of a *connection service* under Chapter 5A.~~
- ~~(b) The proposed *connection policy*:~~
 - ~~(1) must be consistent with:~~
 - ~~(i) the *connection charge principles*; and~~
 - ~~(ii) the *connection charge guidelines*; and~~
 - ~~(2) must specify:~~
 - ~~(i) the categories of persons that may be required to pay a *connection charge* and the circumstances in which such a requirement may be imposed; and~~
 - ~~(ii) the aspects of a *connection service* for which a *connection charge* may be made; and~~

Example

~~The *Distribution Network Service Provider* might (for example) make separate *connection charges* for the provision of a *distribution connection asset* and for making a necessary *extension* to, or other *augmentation* of, the *distribution network*.~~

- ~~(iii) the basis on which *connection charges* are determined; and~~
- ~~(iv) the manner in which *connection charges* are to be paid (or equivalent consideration is to be given); and~~

Examples

~~The payment (or equivalent consideration) might take the form of a capital contribution, prepayment or financial guarantee.~~

~~(v) a threshold (based on capacity or any other measure identified in the connection charge guidelines) below which a retail customer (not being a non-registered embedded generator or a real estate developer) will not be liable for a connection charge for an augmentation other than an extension.~~

Part E Regulatory proposal and proposed tariff structure statement

6.8 Regulatory proposal and proposed tariff structure statement

6.8.1 AER's framework and approach paper

(a) The AER must make and *publish* a document (a *framework and approach paper*) that applies in respect of a distribution determination for a matter listed in paragraph (b) in accordance with this clause if:

- (1) there is no *framework and approach paper* that applies in respect of that distribution determination for that matter; or
- (2) there is a *framework and approach paper* that would apply in respect of that distribution determination for that matter, but the AER has *published* a notice under paragraph (c)(3) stating that it will make an amended or replacement *framework and approach paper* with respect to that matter.

(b) A *framework and approach paper* that applies in respect of a distribution determination must set out:

- (1) the AER's decision (together with its reasons for the decision), for the purposes of the forthcoming distribution determination, on the following matters:
 - (i) the form (or forms) of the control mechanisms; and
 - (ii) as to whether or not Part J of Chapter 6A is to be applied to determine the pricing of *transmission standard control services* provided by any *dual function assets* owned, controlled or operated by the *Distribution Network Service Provider*; and

Note:

See clause 6.25(b).

- (2) the AER's proposed approach (together with its reasons for the proposed approach), in the forthcoming distribution determination, to the following matters:
 - (i) the classification of *distribution services* under this Chapter;
 - (ii) the formulae that give effect to the control mechanisms referred to in subparagraph (1)(i);
 - (iii) the application to the *Distribution Network Service Provider* of any *service target performance incentive scheme*;
 - (iv) the application to the *Distribution Network Service Provider* of any *efficiency benefit sharing scheme*;

- (v) the application to the *Distribution Network Service Provider* of any *capital expenditure sharing scheme*;
 - (vi) the application to the *Distribution Network Service Provider* of any *demand management incentive scheme* or *demand management innovation allowance mechanism*;
 - (vii) the application to the *Distribution Network Service Provider* of any *small-scale incentive scheme*;
 - (viii) the application to the *Distribution Network Service Provider* of the *Expenditure Forecast Assessment Guidelines*;
 - (ix) whether depreciation for establishing the regulatory asset base for the relevant *distribution system* as at the commencement of the following *regulatory control period* is to be based on actual or forecast capital expenditure in accordance with clause S6.2.2B; and
- (3) any content required under clause 6.2.8(c)(3).
- (c) If there is a *framework and approach paper* that would apply in respect of the distribution determination for a matter listed in paragraph (b) then:
 - (1) no later than 32 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *Distribution Network Service Provider* may request the *AER* in writing to make an amended or replacement *framework and approach paper* in respect of a matter. The request must specify the *Distribution Network Service Provider's* reasons for making that request;
 - (2) no later than 31 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *AER* must *publish* a notice inviting submissions on whether it is necessary or desirable to amend or replace that *framework and approach paper* in so far as it relates to a matter (other than any matter specified in a request from the *Distribution Network Service Provider* under subparagraph (1)); and
 - (3) no later than 30 months before the end of the *regulatory control period* that precedes that for which the distribution determination is to be made, the *AER* must make and *publish* a notice that:
 - (i) states that it will make an amended or replacement *framework and approach paper* in respect of the matters specified in a request from the *Distribution Network Service Provider* under subparagraph (1) (if any);
 - (ii) if subparagraph (i) applies, is accompanied by a copy of the request from the *Distribution Network Service Provider* under subparagraph (1); and
 - (iii) states whether it will make an amended or replacement *framework and approach paper* in respect of any matter other than any matters referred to in subparagraph (i) above and, if so, the reasons why it considers that it is necessary or desirable to

make an amended or replacement *framework and approach paper* in respect of that matter.

- (d) In making the decision referred to in paragraph (c)(3)(iii), the *AER* must have regard to any submissions made in response to the invitation under paragraph (c)(2).
- (e) Where paragraph (a) applies then, at least 23 months before the end of the current *regulatory control period*, the *AER* must, after consulting with the relevant *Distribution Network Service Provider* and other persons as the *AER* considers appropriate, make, amend or replace the *framework and approach paper*, as the case may be, and:
 - (1) give a copy of it to the relevant *Distribution Network Service Provider*; and
 - (2) *publish* it,
 as soon as is reasonably practicable.
- (f) Subject to clauses 6.12.3 and 6.25(d), a *framework and approach paper* is not binding on the *AER* or a *Distribution Network Service Provider*.
- (g) The *AER* may make and *publish* a *framework and approach paper* that applies in respect of a distribution determination for a matter that is not listed in paragraph (b) and, if it does so, this clause 6.8.1 applies as if that matter were listed in paragraph (b).

6.8.1A Notification of approach to forecasting expenditure

- (a) A *Distribution Network Service Provider* must inform the *AER* of the methodology it proposes to use to prepare the forecasts of operating expenditure and capital expenditure that form part of its *regulatory proposal*.
- (b) A *Distribution Network Service Provider* must submit the information referred to in paragraph (a):
 - (1) at least 24 months before the expiry of a distribution determination that applies to the *Distribution Network Service Provider*; or
 - (2) if no distribution determination applies to the *Distribution Network Service Provider*, within 3 months after being required to do so by the *AER*.

6.8.2 Submission of regulatory proposal, tariff structure statement and exemption application

- (a) A *Distribution Network Service Provider* must, whenever required to do so under paragraph (b), submit to the *AER* a *regulatory proposal* and a proposed *tariff structure statement* related to the *distribution services* provided by means of, or in connection with, the *Distribution Network Service Provider's* *distribution system*.
- (a1) A *Distribution Network Service Provider* must submit to the *AER* any *exemption application* for an *asset exemption* under clause 6.4B.1(a)(1) or 6.4B.1(a)(2) for the *regulatory control period* at the same time as submitting the relevant *regulatory proposal* under paragraph (a).

- (b) A *regulatory proposal*, a proposed *tariff structure statement* and, if required under paragraph (a1), an *exemption application* must be submitted:
 - (1) at least 17 months before the expiry of a distribution determination that applies to the *Distribution Network Service Provider*; or
 - (2) if no distribution determination applies to the *Distribution Network Service Provider*, within 3 months after being required to do so by the *AER*.
- (c) A *regulatory proposal* must include (but need not be limited to) the following elements:
 - (1) a classification proposal:
 - (i) showing how the *distribution services* to be provided by the *Distribution Network Service Provider* should, in the *Distribution Network Service Provider's* opinion, be classified under this Chapter; and
 - (ii) if the proposed classification differs from the classification suggested in the relevant *framework and approach paper* – including the reasons for the difference;
 - (2) for *direct control services* classified under the proposal as *standard control services* – a *building block proposal*;
 - (3) for *direct control services* classified under the proposal as *alternative control services* – a demonstration of the application of the control mechanism, as set out in the *framework and approach paper*, and the necessary supporting information;
 - (4) **[Deleted]**.
 - (5) for services classified under the proposal as *negotiated distribution services* – the proposed *negotiating framework*;
 - (5A) the proposed *connection policy*;
 - (6) an identification of any parts of the *regulatory proposal* the *Distribution Network Service Provider* claims to be confidential and wants suppressed from publication on that ground in accordance with the *Distribution Confidentiality Guidelines*; and

Note:

Additional information that must be included in a *regulatory proposal* is referred to in clause 6.3.1(c) and Schedule 6.1.

 - (7) a description (with supporting materials) of how the proposed *tariff structure statement* complies with the *pricing principles for direct control services* including:
 - (i) a description of where there has been any departure from the pricing principles set out in paragraphs 6.18.5(e) to (g); and
 - (ii) an explanation of how that departure complies with clause 6.18.5(c).- (c1) The *regulatory proposal* must be accompanied by an overview paper which includes each of the following matters:

- (1) a summary of the *regulatory proposal* the purpose of which is to explain the *regulatory proposal* in reasonably plain language to electricity consumers;
 - (2) a description of how the *Distribution Network Service Provider* has engaged with electricity consumers in developing the *regulatory proposal* and has sought to address any relevant concerns identified as a result of that engagement;
 - (3) a description of the key risks and benefits of the *regulatory proposal* for electricity consumers; and
 - (4) a comparison of the *Distribution Network Service Provider's* proposed *total revenue requirement* with its *total revenue requirement* for the current *regulatory control period* and an explanation for any material differences between the two amounts;
- (c1a) The overview paper must also include a description of how the *Distribution Network Service Provider* has engaged with *retail customers* and *retailers* in developing the proposed *tariff structure statement* and has sought to address any relevant concerns identified as a result of that engagement.
- (c2) The *regulatory proposal* must be accompanied by information required by the *Expenditure Forecast Assessment Guidelines* as set out in the *framework and approach paper*.
- (d) The *regulatory proposal* must comply with the requirements of, and must contain or be accompanied by the information required by any relevant *regulatory information instrument*.
- (d1) The proposed *tariff structure statement* must be accompanied by an *indicative pricing schedule*.
- (d2) The proposed *tariff structure statement* must comply with the *pricing principles for direct control services*.
- (e) If more than one *distribution system* is owned, controlled or operated by a *Distribution Network Service Provider*, then, unless the AER otherwise determines, a separate *regulatory proposal* and a separate *tariff structure statement* are to be submitted for each *distribution system*.
- (f) If, at the commencement of this Chapter, different parts of the same *distribution system* were separately regulated, then, unless the AER otherwise determines, a separate *regulatory proposal* and a separate *tariff structure statement* are to be submitted for each part as if it were a separate *distribution system*.

6.9 Preliminary examination and consultation

6.9.1 Preliminary examination

- (a) If the AER considers that:
- (1) a *regulatory proposal* submitted by a *Distribution Network Service Provider*;
 - (2) a proposed *tariff structure statement* submitted by a *Distribution Network Service Provider*;

- (3) any *exemption application* submitted with the *regulatory proposal*; or
- (4) any information accompanying such a *regulatory proposal*, proposed *tariff structure statement* or *exemption application*,

does not comply, in any respect, with a requirement of the Law or the *Rules*, the AER may notify the *Distribution Network Service Provider* that it requires resubmission of the relevant *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or accompanying information.

- (b) The notice must be given as soon as practicable and must state why, and in what respects, the AER considers the *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) to be non-compliant.

6.9.2 Resubmission of proposal

- (a) A *Distribution Network Service Provider* must, within 20 *business days* after receiving a notice under clause 6.9.1, resubmit its *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) in an amended form that complies with the relevant requirements set out in the notice.
- (b) A *Distribution Network Service Provider* may only make changes to its *regulatory proposal*, proposed *tariff structure statement*, *exemption application* or the accompanying information (as the case may be) to address the deficiencies identified in the notice.

6.9.2A Confidential information

If the *Distribution Network Service Provider* has identified any part of the *regulatory proposal* as submitted or resubmitted to the AER (as the case may be) under this Part to be confidential, the AER must, as soon as is reasonably practicable, include on its website a notice that sets out:

- (a) the fact that the *regulatory proposal* contains information over which a claim of confidentiality has been made;
- (b) the proportion of material in the *regulatory proposal* that is subject to any claim of confidentiality compared to that which is not subject to any such claim; and
- (c) the comparative proportion of material in the *regulatory proposal* that is subject to any claim of confidentiality compared to that which is subject to claims of confidentiality in the *regulatory proposals* of other *Distribution Network Service Providers*.

6.9.3 Consultation

- (a) Subject to the provisions of the Law and the *Rules* about the disclosure of *confidential information*, the AER must *publish*:
 - (1) a *regulatory proposal*;
 - (2) a proposed *tariff structure statement*;
 - (3) an *exemption application* (if any); and

- (4) any information accompanying such a *regulatory proposal*, *proposed tariff structure statement* or *exemption application*,

submitted or resubmitted to it (as the case may be) by the *Distribution Network Service Provider* under clause 6.8.2 or 6.9.2, together with:

- (5) the *AER's* proposed *Negotiated Distribution Service Criteria* for the *Distribution Network Service Provider*; and
- (6) an invitation for written submissions on the documents and information referred to in sub-paragraphs (1) to (5),

after the *AER* decides that the *regulatory proposal*, *proposed tariff structure statement*, *exemption application* (if any) and accompanying information comply (or that there is sufficient compliance) with the requirements of the Law and the *Rules*.

- (b) The *AER* must *publish*:

- (1) an issues paper not more than 40 *business days* after the submission, under clause 6.8.2, of the documents and information, but not any resubmitted documents or information, referred to in sub-paragraphs (a)(1) to (a)(4);
- (2) an invitation for written submissions on the issues paper; and
- (3) an invitation to attend a public forum on the issues paper.

- (b1) The issues paper referred to in paragraph (b) must identify preliminary issues, whether or not arising out of the documents and information referred to in sub-paragraphs (a)(1) to (a)(4), that the *AER* considers are likely to be relevant to its assessment of those documents or that information (however, nothing in this clause is to be taken as precluding the *AER* from considering other issues in making a distribution determination for the *Distribution Network Service Provider*).

- (b2) The *AER* must hold a public forum on the issues paper not more than 10 *business days* after the *publication* of the issues paper.

- (c) Any person may make a written submission to the *AER* on the documents and information referred to in sub-paragraphs (a)(1) to (a)(5) or the issues paper within the time specified in the invitations referred to in paragraphs (a)(6) and (b), which in each case must be not earlier than 30 *business days* after the *publication* of the issues paper.

6.10 Draft distribution determination and further consultation

6.10.1 Making of draft distribution determination

- (a) The *AER* must make a draft distribution determination in relation to the *Distribution Network Service Provider*.
- (b) In making a draft distribution determination in relation to the *Distribution Network Service Provider*, and subject to clause 6.14, the *AER* must have regard to each of the following:
 - (1) the information included in or accompanying the *regulatory proposal*, the proposed *tariff structure statement* and the *exemption application*;

- (2) written submissions on the issues paper received under clause 6.9.3 and on the documents and information referred to in sub-paragraphs 6.9.3(a)(1) to 6.9.3(a)(5); and
- (3) any analysis undertaken by or for the *AER* that is *published* prior to the making of the draft distribution determination or as part of the draft distribution determination.

6.10.2 Publication of draft determination and consultation

- (a) The *AER* must, as soon as practicable after the relevant date referred to in clause 6.8.2(b), *publish*:
 - (1) the draft distribution determination;
 - (2) notice of the making of the draft distribution determination;
 - (3) the *AER's* reasons for suggesting that the distribution determination should be made as proposed including the draft constituent decisions i.e. the decisions made in accordance with rule 6.12 on which the draft distribution determination is predicated;
 - (4) notice of a predetermination conference; and
 - (5) an invitation for written submissions on its draft distribution determination.
- (b) The *AER* must hold the predetermination conference at the time, date and place specified in the notice under subparagraph (a)(4) for the purpose of explaining the draft distribution determination.
- (c) Any person may make a written submission to the *AER* on the draft distribution determination within the time specified in the invitation referred to in paragraph (a)(5), which must be not earlier than 45 *business days* after the making of the draft determination.

6.10.3 Submission of revised proposal

- (a) In addition to making written submissions, the *Distribution Network Service Provider* may, not more than 45 *business days* after the publication of the draft distribution determination, submit a revised *regulatory proposal* or a revised proposed *tariff structure statement* to the *AER*.
- (b) A *Distribution Network Service Provider* may only make the revisions referred to in paragraph (a) so as to incorporate the substance of any changes required to address matters raised by the draft distribution determination or the *AER's* reasons for it.
- (b1) A revised proposed *tariff structure statement* must comply with the *pricing principles for direct control services* and must be accompanied by a revised *indicative pricing schedule*.
- (c) A revised *regulatory proposal* must comply with the requirements of, and must contain or be accompanied by the information required by, any relevant *regulatory information instrument* or the *Rules*.
- (c1) If the *Distribution Network Service Provider* has identified any part of the revised *regulatory proposal* to the *AER* under this Part to be confidential, the

AER must, as soon as is reasonably practicable, make available on its website a notice that sets out:

- (1) the fact that the revised *regulatory proposal* contains information over which a claim of confidentiality has been made;
 - (2) the proportion of material in the revised *regulatory proposal* that is subject to any claim of confidentiality compared to that which is not subject to any such claim; and
 - (3) the comparative proportion of material in the revised *regulatory proposal* that is subject to any claim of confidentiality compared to that which is subject to claims of confidentiality in the revised *regulatory proposals* of other *Distribution Network Service Providers*.
- (d) Subject to the provisions of the Law and the *Rules* about the disclosure of *confidential information*, the *AER* must *publish* a revised *regulatory proposal* or a revised proposed *tariff structure statement* submitted by the *Distribution Network Service Provider* under paragraph (a), together with the accompanying information, as soon as practicable after receipt by the *AER*.
- (e) The *AER* may invite written submissions on the revised *regulatory proposal* or the revised proposed *tariff structure statement*.

6.10.4 Submissions on specified matters

If the *AER* invites submissions on a revised *regulatory proposal* or a revised proposed *tariff structure statement* under clause 6.10.3(e), the *AER* may invite further written submissions on the submissions received under clause 6.10.2(c) or 6.10.3(e) by *publishing* an invitation which specifies:

- (a) the matters in respect of which submissions are invited; and
- (b) the time for making submissions, which must not be earlier than 15 *business days* after the date on which the invitation was *published*.

6.11 Distribution determination

6.11.1 Making of distribution determination

- (a) The *AER* must make a distribution determination in relation to the *Distribution Network Service Provider*.
- (b) In making a distribution determination in relation to the *Distribution Network Service Provider*, and subject to rule 6.14, the *AER* must have regard to each of the following:
 - (1) the information included in or accompanying the *regulatory proposal*, the proposed *tariff structure statement* and the *exemption application* (if any);
 - (2) written submissions received under this Part E; and
 - (3) any analysis undertaken by or for the *AER* that is *published* prior to the making of the distribution determination or as part of the distribution determination.

- (c) The *AER* must use its best endeavours to *publish*, a reasonable time prior to the making of the distribution determination, any analysis undertaken by or for it on which it proposes to rely, or to which it proposes to refer, for the purposes of the distribution determination.

6.11.1A Out of scope revised regulatory proposal or late submissions

On or before making a distribution determination, the *AER* must make available on its website:

- (a) a summary of any revisions to the relevant *regulatory proposal* or proposed *tariff structure statement* that have been made in a revised *regulatory proposal* or revised proposed *tariff structure statement* that do not comply with clause 6.10.3(b), together with an indication of the amount of that information;
- (b) a summary of any submissions on the draft distribution determination, revised *regulatory proposal* or revised proposed *tariff structure statement* that were made by the *Distribution Network Service Provider* and that contain information that the *Distribution Network Service Provider* was entitled to incorporate in the revised *regulatory proposal* or the revised proposed *tariff structure statement* under clause 6.10.3(b), together with an indication of the amount of that information;
- (c) a summary of any submissions that purport to be made by the *Distribution Network Service Provider* under clause 6.10.4 but are in respect of matters other than those specified by the *AER* under that clause, together with an indication of the length of those submissions; and
- (d) a summary of any submissions on the draft determination, revised *regulatory proposal* or revised proposed *tariff structure statement* that were made by the *Distribution Network Service Provider* after the time for making the submissions has expired, together with an indication of the length of those submissions.

For the purpose of this clause 6.11.1A, revisions or submissions may be summarised by cross-referencing to the relevant *regulatory proposal*, proposed *tariff structure statement* or submissions.

6.11.2 Notice of distribution determination

The *AER* must as soon as practicable, but not later than 2 months before the commencement of the relevant *regulatory control period*, *publish*:

- (1) notice of the making of the distribution determination;
- (2) the distribution determination itself; and
- (3) the *AER's* reasons for making the distribution determination in its final form including the constituent decisions i.e. the decisions made in accordance with rule 6.12 on which the distribution determination is predicated.

6.11.3 Commencement of distribution determination

- (a) A distribution determination takes effect at the commencement of the *regulatory control period* to which it relates.

- (b) If a period intervenes between the end of one *regulatory control period* and the commencement of a new distribution determination providing for the next *regulatory control period*:
 - (1) the previous distribution determination continues in force during the intervening period;
 - (2) the previous *approved pricing proposal* continues in force (despite any contrary provision of these *Rules*) during the intervening period and the first *regulatory year* of the later *regulatory control period*; and
 - (3) the later distribution determination is to make provision for appropriate adjustments to the *approved pricing proposals* for subsequent *regulatory years* of the *regulatory control period*.

6.12 Requirements relating to draft and final distribution determinations

6.12.1 Constituent decisions

A distribution determination is predicated on the following decisions by the *AER* (**constituent decisions**):

- (1) a decision on the classification of the services to be provided by the *Distribution Network Service Provider* during the course of the *regulatory control period*;
- (2) a decision on the *Distribution Network Service Provider's* current *building block proposal* in which the *AER* either approves or refuses to approve:
 - (i) the *annual revenue requirement* for the *Distribution Network Service Provider*, as set out in the *building block proposal*, for each *regulatory year* of the *regulatory control period*; and
 - (ii) the commencement and length of the *regulatory control period* as proposed in the *building block proposal*;
- (2A) a decision in which the *AER* determines to either grant or reject a request for an *asset exemption* under clause 6.4B.1(a)(1) in respect of a *building block proposal* for the *regulatory control period*;
- (3) a decision in which the *AER* either:
 - (i) acting in accordance with clause 6.5.7(c), accepts the total of the forecast capital expenditure for the *regulatory control period* that is included in the current *building block proposal*; or
 - (ii) acting in accordance with clause 6.5.7(c)(2) or 6.5.7(d), does not accept the total of the forecast capital expenditure for the *regulatory control period* that is included in the current *building block proposal*, in which case the *AER* must set out its reasons for that decision and an estimate of the total of the *Distribution Network Service Provider's* required capital expenditure for the *regulatory control period* that the *AER* is satisfied reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*;

- (3A) the AER's estimate of the total of the *Distribution Network Service Provider's* required capital expenditure referred to in subparagraph (3)(ii) must not include *expenditure for a restricted asset*, unless:
- (i) the relevant *Distribution Network Service Provider* has requested an *asset exemption* under:
 - (A) clause 6.4B.1(a)(2) for the previous *regulatory control period*, to the extent any of the AER's estimate relates to the *Distribution Network Service Provider's* forecast for unspent capital expenditure under clause 6.5.7(g) for a *contingent project* that commenced in the previous *regulatory control period* and that unspent capital was in respect of *expenditure for a restricted asset*;
 - (B) clause 6.4B.1(a)(3) for the previous *regulatory control period*, to the extent any of the AER's estimate relates to an *approved pass through amount* for the *Distribution Network Service Provider* for the *regulatory control period* and that *approved pass through amount* is in respect of *expenditure for a restricted asset*; or
 - (C) clause 6.4B.1(a)(1) for the *regulatory control period*, to the extent any of the AER's estimate otherwise relates to the *Distribution Network Service Provider's* required capital expenditure for the *regulatory control period* and that capital expenditure is in respect of *expenditure for a restricted asset*,for that asset or class of asset; and
 - (ii) the AER has granted the *asset exemption*.
- (4) a decision in which the AER either:
- (i) acting in accordance with clause 6.5.6(c), accepts the total of the forecast operating expenditure for the *regulatory control period* that is included in the current *building block proposal*; or
 - (ii) acting in accordance with clause 6.5.6(d), does not accept the total of the forecast operating expenditure for the *regulatory control period* that is included in the current *building block proposal*, in which case the AER must set out its reasons for that decision and an estimate of the total of the *Distribution Network Service Provider's* required operating expenditure for the *regulatory control period* that the AER is satisfied reasonably reflects the *operating expenditure criteria*, taking into account the *operating expenditure factors*;
- (4A) a decision in which the AER determines:
- (i) whether each of the *proposed contingent projects* (if any) described in the current *regulatory proposal* are *contingent projects* for the purposes of the distribution determination in which case the decision must clearly identify each of those *contingent projects*;
 - (ii) the capital expenditure that it is satisfied reasonably reflects the *capital expenditure criteria*, taking into account the *capital expenditure factors*, in the context of each *contingent project* as described in the current *regulatory proposal*;

- (iii) the *trigger events* in relation to each *contingent project* (in which case the decision must clearly specify those *trigger events*);
 - (iv) if the AER determines that such a *proposed contingent project* is not a *contingent project* for the purposes of the distribution determination, its reasons for that conclusion, having regard to the requirements of clause 6.6A.1(b); and
 - (v) to grant or reject a request for an *asset exemption* under clause 6.4B.1(a)(2) in respect of a *proposed contingent project*;
- (5) a decision on the *allowed rate of return* for each *regulatory year* of the *regulatory control period* in accordance with clause 6.5.2;
 - (5A) a decision on whether the return on debt is to be estimated using a methodology referred to in clause 6.5.2(i)(2) and, if that is the case, the formula that is to be applied in accordance with clause 6.5.2(l);
 - (5B) a decision on the value of imputation credits as referred to in clause 6.5.3;
 - (6) a decision on the regulatory asset base as at the commencement of the *regulatory control period* in accordance with clause 6.5.1 and schedule 6.2;
 - (7) a decision on the estimated cost of corporate income tax to the *Distribution Network Service Provider* for each *regulatory year* of the *regulatory control period* in accordance with clause 6.5.3;
 - (8) a decision on whether or not to approve the depreciation schedules submitted by the *Distribution Network Service Provider* and, if the AER decides against approving them, a decision determining depreciation schedules in accordance with clause 6.5.5(b);
 - (9) a decision on how any applicable *efficiency benefit sharing scheme*, *capital expenditure sharing scheme*, *service target performance incentive scheme*, *demand management incentive scheme*, *demand management innovation allowance mechanism* or *small-scale incentive scheme* is to apply to the *Distribution Network Service Provider*;
 - (10) a decision in which the AER decides other appropriate amounts, values or inputs;
 - (11) a decision on the form of the control mechanisms (including the X factor) for *standard control services* (to be in accordance with the relevant *framework and approach paper*) and on the formulae that give effect to those control mechanisms;
 - (12) a decision on the form of the control mechanisms for *alternative control services* (to be in accordance with the relevant *framework and approach paper*) and on the formulae that give effect to those control mechanisms;
 - (13) a decision on how compliance with a relevant control mechanism is to be demonstrated;
 - (14) a decision on the additional *pass through events* that are to apply for the *regulatory control period* in accordance with clause 6.5.10;
 - (14A) a decision on the *Distribution Network Service Provider's* proposed *tariff structure statement*, in which the AER either approves or refuses to approve that statement;

- (15) a decision on the *negotiating framework* that is to apply to the *Distribution Network Service Provider* for the *regulatory control period* (which may be the *negotiating framework* as proposed by the *Distribution Network Service Provider*, some variant of it, or a framework substituted by the *AER*);
 - (16) a decision in which the *AER* decides the *Negotiated Distribution Service Criteria* for the *Distribution Network Service Provider*;
 - (17) a decision on the policies and procedures for assigning *retail customers* to *tariff classes*, or reassigning *retail customers* from one *tariff class* to another (including any applicable restrictions);
 - (17A) a decision on the approval of the proposed *pricing methodology* for *transmission standard control services* (if rule 6.26 applies);
 - (18) a decision on whether depreciation for establishing the regulatory asset base as at the commencement of the following *regulatory control period* is to be based on actual or forecast capital expenditure;
- Note:**
See clause S6.2.2B.
- (19) a decision on how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *designated pricing proposal charges* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those charges;
 - (20) a decision on how the *Distribution Network Service Provider* is to report to the *AER* on its recovery of *jurisdictional scheme amounts* for each *regulatory year* of the *regulatory control period* and on the adjustments to be made to subsequent *pricing proposals* to account for over or under recovery of those amounts. A decision under this subparagraph (20) must be made in relation to each *jurisdictional scheme* under which the *Distribution Network Service Provider* has *jurisdictional scheme obligations* at the time the decision is made; and
 - (21) a decision on the *connection policy* that is to apply to the *Distribution Network Service Provider* for the *regulatory control period* (which may be the *connection policy* as proposed by the *Distribution Network Service Provider*, some variant of it, or a policy substituted by the *AER*).

6.12.2 Reasons for decisions

- (a) The reasons given by the *AER* for a draft distribution determination under rule 6.10 or a final distribution determination under rule 6.11 must set out the basis and rationale of the determination, including:
 - (1) details of the qualitative and quantitative methods applied in any calculations and formulae made or used by the *AER*;
 - (2) the values adopted by the *AER* for each of the input variables in any calculations and formulae, including:
 - (i) whether those values have been taken or derived from the *Distribution Network Service Provider's* current building block proposal; and

- (ii) if not, the rationale for the adoption of those values;
 - (3) details of any assumptions made by the *AER* in undertaking any material qualitative and quantitative analyses; and
 - (4) reasons for the making of any decisions, the giving or withholding of any approvals, and the exercise of any discretions as referred to in this Chapter 6, for the purposes of the determination, such reasons being expressed by reference to the requirements relating to such decisions, approvals or discretions as are contained in this Chapter.
- (b) The *AER* must include in its reasons for a draft distribution determination under rule 6.10 or a final distribution determination under rule 6.11 a statement, with supporting reasons, as to the extent to which the roll forward of the regulatory asset base as determined under clause 6.12.1(6) contributes to the achievement of the *capital expenditure incentive objective*.

6.12.3 Extent of AER's discretion in making distribution determinations

- (a) Subject to this clause and other provisions of this Chapter 6 explicitly negating or limiting the *AER*'s discretion, the *AER* has a discretion to accept or approve, or to refuse to accept or approve, any element of:
- (1) a *regulatory proposal*;
 - (2) proposed *tariff structure statement*; or
 - (3) *exemption application* (if any).
- (b) The classification of *distribution services* must be as set out in the relevant *framework and approach paper* unless the *AER* considers that a material change in circumstances justify departing from the classification as set out in that paper.
- (c) The form of the control mechanism must be as set out in the relevant *framework and approach paper* unless the *AER*:
- (1) has departed from the classification of a *distribution service* as set out in that paper in accordance with paragraph (b); and
 - (2) considers that no form of control mechanism set out in that paper should apply to that *distribution service*.
- (c1) The formulae that give effect to the control mechanisms set out in the relevant *framework and approach paper* must be as set out in that paper unless the *AER* considers that a material change in circumstances justify departing from the formulae as set out in that paper.
- (d) The *AER* must approve the *total revenue requirement* for a *Distribution Network Service Provider* for a *regulatory control period*, and the *annual revenue requirement* for each *regulatory year* of the *regulatory control period*, as set out in the *Distribution Network Service Provider's* current *building block proposal*, if the *AER* is satisfied that those amounts have been properly calculated using the *post-tax revenue model* on the basis of amounts calculated, determined or forecast in accordance with the requirements of Part C of this Chapter 6.

- (e) The *AER* must approve a proposed *regulatory control period* if the proposed period consists of 5 *regulatory years*.
- (f) **[Deleted]**
- (g) The *AER* must approve a proposed *negotiating framework* if the *AER* is satisfied that it adequately complies with the requirements of Part D.
- (h) If the *AER* refuses to approve the proposed *negotiating framework*, the approved amended *negotiating framework* must be:
 - (1) determined on the basis of the current proposed *negotiating framework*; and
 - (2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.
- (i) The *AER* must approve the proposed *connection policy* if the *AER* is satisfied that it adequately complies with the requirements of Part DA.
- (j) If the *AER* refuses to approve the proposed *connection policy*, the approved amended *connection policy* must be:
 - (1) determined on the basis of the current proposed *connection policy*; and
 - (2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.
- (k) The *AER* must approve a *Distribution Network Service Provider's* proposed *tariff structure statement* unless the *AER* is reasonably satisfied that the proposed *tariff structure statement* does not comply with the *pricing principles for direct control services* or other applicable requirements of the *Rules*.
- (l) If, in making a distribution determination in relation to a *Distribution Network Service Provider*, the *AER* refuses to approve the *Distribution Network Service Provider's* proposed *tariff structure statement*, the *AER* must include in that distribution determination an amended *tariff structure statement* which is:
 - (1) determined on the basis of the *Distribution Network Service Provider's* proposed *tariff structure statement*; and
 - (2) amended from that basis only to the extent necessary to enable it to be approved in accordance with the *Rules*.

6.13 Revocation and substitution of distribution determination for wrong information or error

- (a) The *AER* may (but is not required to) revoke a distribution determination during a *regulatory control period* if it appears to the *AER* that the distribution determination is affected by a material error or deficiency of one or more of the following kinds:
 - (1) a clerical mistake or an accidental slip or omission;
 - (2) a miscalculation or misdescription;
 - (3) a defect in form; or

- (4) a deficiency resulting from the provision of false or materially misleading information to the *AER*.
- (b) If the *AER* revokes a distribution determination under paragraph (a), the *AER* must make a new distribution determination in substitution for the revoked distribution determination to apply for the remainder of the *regulatory control period* for which the revoked distribution determination was to apply.
- (c) If the *AER* revokes and substitutes a distribution determination under paragraphs (a) and (b), the substituted distribution determination must only vary from the revoked distribution determination to the extent necessary to correct the relevant error or deficiency.
- (d) The *AER* may only revoke and substitute a distribution determination under this rule 6.13, if it has first consulted with the relevant *Distribution Network Service Provider* and such other persons as it considers appropriate.

6.14 Miscellaneous

- (a) The *AER* may, but is not required to, consider any submission made pursuant to an invitation for submissions after the time for making the submission has expired.
- (b) Nothing in this Part E is to be construed as precluding the *AER* from *publishing* any issues, consultation and discussion papers, or holding any conferences and information sessions, that the *AER* considers appropriate.
- (c) Subject to paragraph (d), as soon as practicable after the *AER* receives a submission in response to an invitation for submissions that is made under this Chapter (whether or not the submission was made before the time for making it has expired), the *AER* must *publish* that submission.
- (d) The *AER* must not *publish* a submission referred to in paragraph (c) to the extent it contains information which has been clearly identified as confidential by the person making the submission.
- (e) The *AER* may give such weight to *confidential information* identified in accordance with paragraph (d) in a submission as it considers appropriate, having regard to the fact that such information has not been made publicly available.
- (f) Paragraph (d) does not apply to the extent that any other provision of the Law or the *Rules* permits or requires such information to be publicly released by the *AER*.

6.14A Distribution Confidentiality Guidelines

- (a) The *AER* must, in accordance with the *distribution consultation procedures*, make and *publish* guidelines (*Distribution Confidentiality Guidelines*).
- (b) The *Distribution Confidentiality Guidelines* must specify the manner in which the *Distribution Network Service Provider* may make confidentiality claims in its *regulatory proposal*, which may include categories of confidential information by reference to which *Distribution Network Service Providers* must classify any claims of confidentiality in their *regulatory proposals*.

- (c) There must be *Distribution Confidentiality Guidelines* in force at all times after the date on which the AER first *publishes* the *Distribution Confidentiality Guidelines* under these Rules.
- (d) The *Distribution Confidentiality Guidelines* are binding on the AER and each *Distribution Network Service Provider* to which they apply.

[Drafting note: The remaining provisions in Chapter 6 have been removed from this draft for convenience.]

CHAPTER 6B

Chapter 6B Retail markets

Part A Retail support

Division 1 – Application and definitions

6B.A1.1 Application of this Part

(a) This Part:

- (1a) applies to a *Distribution Network Service Provider* (including an Embedded Network Service Provider and an Exempt System Operator) and a *retailer* (other than an off-market retailer) who have shared customers; and
- (2b) applies to the exclusion of Part J of Chapter 6 to a *Market Customer* who is a *retailer*; and
- (3e) prevails over any inconsistent provisions in a distribution determination.

(b) In this Part, a reference to:

- (1) a Distribution Network Service Provider includes an Embedded Network Service Provider and an Exempt System Operator; and
- (2) a retailer excludes an off-market retailer.

Note:

This Part applies to an Exempt System Operator as a condition of its network exemption. Where an Exempt Network Manager is appointed, the role of the Exempt Network Manager includes performance of these obligations. Refer to Chapter 7.

6B.A1.2 Definitions

In this Part:

customer connection service has the same meaning as in the *NERL*.

date of issue of a *statement of charges* means the date on which the *Distribution Network Service Provider* sends the statement to the *retailer*.

default rate means the *bank bill rate* (as in force from time to time) plus two percentage points per annum.

due date for payment means 10 *business days* from the *date of issue* specified on a *statement of charges*.

network charges means charges that a *Distribution Network Service Provider* is entitled to claim for *customer connection services* in respect of *shared customers* under these *Rules*.

on-market embedded customer means a *retail customer* who takes a supply of electricity at an *on-market child connection point* in an *embedded network*.

retail billing period means a calendar month or any other period agreed between a *Distribution Network Service Provider* and a *retailer*.

shared customer has the same meaning as in the *NERL*.

statement of charges—see clause 6B.A2.4.

6B.A1.3 Shadow network charges procedure

(a) AEMO must develop, publish and maintain a procedure (*shadow network charges procedure*) that applies in relation to the *network charges payable by retailers to Embedded Network Service Providers and Exempt System Operators* in relation to *on-market embedded customers* and specifies:

- (1) the methodology to be used to determine the *network charges*;
- (2) arrangements for billing and settlement of the *network charges*;
- (3) information to be provided to AEMO by *Embedded Network Service Providers* and *Exempt System Operators* for inclusion in the *shadow network charges database*;
- (4) the procedures for providing information to AEMO for the *shadow network charges database* including when it must be provided and updated; and
- (5) any other matter reasonably considered necessary by AEMO to facilitate the efficient and timely billing and settlement of the *network charges* and to secure payment of the charges in a manner consistent with this Chapter.

(b) The methodology referred to in paragraph (a) must so far as practicable result in a *network charge* that is the same as the *network charge* that would have applied if the *on-market embedded customer's child connection point* were connected to the *Local Network Service Provider's distribution system*.

(c) The arrangements for billing and settlement of the *network charges* referred to in paragraph (a) must provide for:

- (1) billing and settlement communications between *retailers, Embedded Network Service Providers* and *Exempt Network Managers*; and
- (2) standardised data and file formats for those communications.

- (d) AEMO may from time to time amend the *shadow network charges procedure*.
- (e) In developing and amending the *shadow network charges procedure*, AEMO must comply with the *Rules consultation procedures*.

6B.A1.4 Shadow network charges database

- (a) AEMO must establish, maintain and publish a database (*shadow network charges database*) that provides information about the *network charges payable by retailers to Embedded Network Service Providers and Exempt System Operators in relation to on-market embedded customers*.
- (b) A Distribution Network Service Provider required by the *shadow network charges procedure* to provide information to AEMO for inclusion in the *shadow network charges database*:
 - (1) must provide the information to AEMO at the time and in the manner specified in the *shadow network charges procedure*; and
 - (2) must update the information where required to do so by the *shadow network charges procedure*.

Note:

The AEMC recommends that this clause be classified as a civil penalty provision.

- (c) AEMO is not required to verify the accuracy of information provided to it for publication in the *shadow network charges database*.

Division 2 Billing and payment rules

6B.A2.1 Obligation to pay

Subject to this Part, a *retailer* must pay to a *Distribution Network Service Provider* the *network charges* payable in respect of each *shared customer* by the *due date for payment*.

Note:

This clause is a conduct provision for the purpose of the NEL.

6B.A2.2 Direct customer billing and energy-only contracts

- (a) Where a *Distribution Network Service Provider* and a *shared customer* agree that the *customer* will be responsible for paying *network charges* directly to the *Distribution Network Service Provider* (a **direct billing arrangement**), the *Distribution Network Service Provider* may issue a bill to that *customer* for any or all of the *customer connection services* provided to that *customer's* premises.

- (b) The *Distribution Network Service Provider* must notify the *retailer* of the *direct* billing arrangement as soon as reasonably practicable after commencement of the agreement.
- (c) A *retailer* has no liability to pay *network charges* that have been, or are to be, billed to the *shared customer* under a *direct* billing arrangement.
- (d) Where a *retailer* and a *shared customer* enter into a contract for the sale of electricity only, the *retailer* must notify the relevant *Distribution Network Service Provider* as soon as reasonably practicable after commencement of the contract.

6B.A2.3 Calculating network charges

- (a) Network charges must be calculated in accordance with these *Rules* and a *Distribution Network Service Provider's* distribution determination.
- (b) Network charges in relation to an on-market embedded customer must be calculated in accordance with the shadow network charges procedure.

6B.A2.4 Statement of charges

- (a) A *Distribution Network Service Provider* must provide a statement of *network charges* (a **statement of charges**) to a *retailer* as agreed between the parties but no later than the 10th *business day* of the *retail billing period* next following the *retail billing period* to which the charges relate.
- (b) The *statement of charges* must include:
 - (1) the *network charges*, separately identified, in respect of each *shared customer's* premises for which *metering data* was received, or a service request was completed, during that *retail billing period*;
 - (2) the *date of issue* of the *statement of charges*, and the *due date for payment*;
 - (3) where applicable, the *metering data* for each *shared customer's* premises;
 - (4) any adjustments to *network charges* from previous *retail billing periods*; and

Note:

See clause 6B.A3.1.

- (5) where applicable, any credits for GSL payments that the *Distribution Network Service Provider* is required to make in respect of a *shared customer's* premises.
- (c) Subject to these *Rules* and the *Retail Market Procedures*, the format of the *statement of charges* must be as agreed between the *retailer* and

Distribution Network Service Provider or, in default of agreement, as reasonably determined by the *Distribution Network Service Provider*.

- (d) In this rule:

GSL payment means a payment by a *Distribution Network Service Provider* in respect of non-compliance with a *distribution service* standard or *distribution reliability* standard.

service request means a request by a *retailer* to a *Distribution Network Service Provider* for a *customer connection service*.

6B.A2.5 Time and manner of payment

- (a) Subject to clause 6B.A3.3(c), a *retailer* must, by the *due date for payment*, pay the full amount specified in a *statement of charges* without set-off.
- (b) Payment must be made into the *Distribution Network Service Provider's* nominated bank account.

Division 3 Matters incidental to billing and payment

6B.A3.1 Adjustment of network charges

- (a) If a *retailer* is not permitted to recover *network charges* from a *shared customer* under the *NERL* or the *NERR*, then neither is the *Distribution Network Service Provider* permitted to recover those charges from the *retailer*.
- (b) Subject to paragraph (a), *network charges* contained in a *statement of charges* may be adjusted to account for any error in, or correction or substitution of:
- (1) *metering data*; or
 - (2) any other amount or factor that affects the calculation of the *network charges*.
- (c) An adjustment under paragraph (b) may be made by a *Distribution Network Service Provider* by including, in a subsequent *statement of charges*, the amount required to be paid by, or credited to, the *retailer* together with an explanation of the adjustment.

Note:

See also clause 6B.A3.3.

6B.A3.2 Tariff reassignment

- (a) A *retailer*:

- (1) must, if a *shared customer* informs the *retailer* of a *change* in use of electricity consumption at the *customer's* premises as a result of which the *retailer* reasonably considers that the existing tariff applying to the *customer* should no longer apply; and
 - (2) may, for any other reason, but not more than once in any 12 *month* period in respect of the same premises,
- request the *Distribution Network Service Provider* to review the tariff to which the *customer* is assigned.
- (b) The request is to include:
 - (1) the reasons for the request; and
 - (2) any relevant information provided by the *customer*; and
 - (3) the tariff proposed by the *retailer*.
 - (c) On receipt of the request, the *Distribution Network Service Provider* must decide whether the tariff should be *changed*.
 - (d) The *Distribution Network Service Provider* must inform the *retailer* of its decision and, if the decision is not to *change* the tariff or to assign a tariff other than that proposed by the *retailer*, the *Distribution Network Service Provider* must also inform the *retailer* of its reasons for the decision.
 - (e) If the *Distribution Network Service Provider* decides to *change* the tariff, it must make the *change* in accordance with:
 - (1) the requirements of the *NERL* and the *NERR*;
 - (2) any provisions of the *Distribution Network Service Provider's* distribution determination governing the assignment or re-assignment of *retail customers* to tariffs; and

Note:

See clause 6.18.4.

- (3) the *Rules* and the *Retail Market Procedures*.

6B.A3.3 Disputed statements of charges

If a *retailer* disputes an amount (the **disputed amount**) set out in a *statement of charges*, the following provisions apply:

- (a) The *retailer* must give written notice to the *Distribution Network Service Provider* of the disputed amount and the reasons for disputing payment.

Note:

A *retailer* may also give notice pursuant to this clause if it seeks an adjustment under clause 6B.A3.1 or where it disputes an adjustment made under that clause.

- (b) Payment by the *retailer* of all or part of an amount set out in a *statement of charges* does not affect the right of the *retailer* to dispute the amount.
- (c) If the *retailer* has given notice under paragraph (a) and payment of the charges to which the statement relates has not yet been made, the *retailer* must pay the *Distribution Network Service Provider* by the *due date for payment* (unless the *Distribution Network Service Provider* agrees otherwise) the greater of:
 - (1) the undisputed component of the *statement of charges*; or
 - (2) 80% of the total amount due under the disputed *statement of charges*;
- (d) The *retailer* must, if the dispute is not resolved by agreement of the parties within 10 *business days* after the date the *retailer* gave notice under paragraph (a), immediately submit the dispute for resolution or determination in accordance with Chapter 8.
- (e) If the *retailer* fails to submit the dispute for resolution or determination in accordance with paragraph (d), the *Distribution Network Service Provider* may submit the dispute for resolution or determination in accordance with Chapter 8.
- (f) Subject to any determination of the *DRP*, if following resolution or determination of the dispute in accordance with Chapter 8, the amount due to the *Distribution Network Service Provider* is:
 - (1) more than the amount already paid by the *retailer*, the *retailer* must pay the difference to the *Distribution Network Service Provider* within 3 *business days* of the resolution or determination of the dispute, together with interest on the amount of the difference at the *default rate* for each *day* from the original *due date for payment* to the actual date of payment; or
 - (2) less than the amount already paid by the *retailer*, the *Distribution Network Service Provider* must pay the difference to the *retailer* within 3 *business days* of the resolution or determination of the dispute, together with interest on the amount of the difference at the *default rate* for each *day* from the date the *retailer* made the overpayment to the *Distribution Network Service Provider* to the actual date of repayment of the amount of the excess by the *Distribution Network Service Provider*.

6B.A3.4 Interest

If requested, a *Distribution Network Service Provider* and a *retailer* must pay interest at the *default rate* on any amount due to the other under this Chapter that remains unpaid after the *due date for payment*, until the date on which that amount is paid in full.

6B.A3.5 Notification of changes to charges

- (a) A *Distribution Network Service Provider* must notify a *retailer* of:
- (1) any proposed *changes* in the *Distribution Network Service Provider's* price lists under Chapter 6 (**preliminary information**) no later than 2 *business days* after the date on which the *changes* are notified to the *AER* under these *Rules*; and
 - (2) any *changes* in the *Distribution Network Service Provider's* price lists approved by the *AER* no later than 2 *business days* after the date on which the *AER* notifies the *Distribution Network Service Provider* of the approval; and
 - (3) any *change* in the level of a *network charge* (other than a *network tariff*) as soon as reasonably practicable after the *Distribution Network Service Provider* becomes aware of that *change* and, if the *change* requires the approval of the *AER* under these *Rules*, no later than 2 *business days* after the *AER* advises the *Distribution Network Service Provider* that the *change* (or the resulting charge) is approved by the *AER*.
- (b) A *retailer* must treat preliminary information notified under paragraph (a)(1) as *confidential information*.
- (c) A *Distribution Network Service Provider* has no liability where proposed *changes* contained in preliminary information provided under paragraph (a)(1) are subsequently not approved, or are modified, by the *AER*.

Part B Credit support required for late payment**Note:**

The *credit support* rules set out in Part B are conduct provisions for the purpose of the *NEL*.

Division 1 Application and definitions**6B.B1.1 Application of Part B**

(a) This Part B (to be known as the **credit support rules**) applies to a *Distribution Network Service Provider* ([including an Embedded Network Service Provider](#)) and a *retailer* ([excluding an off-market retailer](#)):

- (1a) in respect of shared customers;
- (2b) in respect of charges for services for which the retailer pays the *Distribution Network Service Provider* in arrears in accordance with a statement of charges under clause 6B.A2.4.

(b) [In this Part, a reference to:](#)

- (1) a *Distribution Network Service Provider* includes an *Embedded Network Service Provider*; and
- (2) a *retailer* excludes an *off-market retailer*.

6B.B1.2 Definitions

In this part:

date of issue has the meaning given in clause 6B.A1.2.

default rate has the meaning given in clause 6B.A1.2.

due date for payment has the meaning given in clause 6B.A1.2.

network charges has the meaning given in clause 6B.A1.2.

shared customer has the meaning given in clause 6B.A1.2.

statement of charges—see clause 6B.A2.4.

Division 2 Requirements for credit support

6B.B2.1 Distribution Network Service Provider may require credit support in limited circumstances

- (a) A *Distribution Network Service Provider* may only require a *retailer* to provide *credit support* if within the previous 12 months, the *retailer* has failed to pay in full:
 - (1) the charges contained in 3 *statements of charges* by the *due date for payment*; or
 - (2) the charges contained in 2 consecutive *statements of charges* by the *due date for payment*; or
 - (3) the charges contained in 1 *statement of charges* within 15 *business days* of the *due date for payment*.

and then only in accordance with the *credit support* rules.
- (b) A *Distribution Network Service Provider* may only require a *retailer* to provide *credit support* up to an amount equal to the charges contained in the most recent *statement of charges* that gave rise to the requirement for the *retailer* to provide *credit support* under clause 6B.B2.1(a).
- (c) If a *retailer* fails to pay charges contained in a *statement of charges*, but the charges are disputed, and the *retailer* has complied with the requirements of clause 6B.A3.3 in respect of the dispute, the *retailer* will not be considered in default in payment of the disputed charges and the *Distribution Network Service Provider* will not be entitled to require the *retailer* to provide *credit support*.

Division 3 Provision of credit support by retailers

6B.B3.1 Retailer to provide credit support

- (a) *A retailer must, on request by a Distribution Network Service Provider, under clause 6B.B2.1 provide credit support to a Distribution Network Service Provider in accordance with the credit support rules.*
- (b) *The credit support provided by a retailer must be:*
 - (1) *for an amount requested by the Distribution Network Service Provider, not exceeding an amount equal to the charges contained in the most recent statement of charges that gave rise to the requirement for the retailer to provide credit support under clause 6B.B2.1; and*
 - (2) *provided within 5 business days of the Distribution Network Service Provider's request; and*
 - (3) *an acceptable form of credit support in favour of the Distribution Network Service Provider (see clause 6B.B3.2).*
- (c) *A retailer must ensure that at all times the aggregate undrawn amount of the credit support is not less than the amount requested by a Distribution Network Service Provider in accordance with clause 6B.B2.1.*

6B.B3.2 Acceptable form of credit support

- (a) *A retailer required to provide credit support under these Rules must provide the credit support in an acceptable form.*
- (b) *An acceptable form of credit support is:*
 - (1) *a form of credit support that the retailer agrees to provide, and the Distribution Network Service Provider agrees to accept; or*
 - (2) *an undertaking:*
 - (i) *substantially in the form set out in Schedule 6B.1; and*
 - (ii) *issued by a financial institution acceptable to the Distribution Network Service Provider.*

Division 4 Other Rules relating to credit support

6B.B4.1 Application of credit support

- (a) *A Distribution Network Service Provider may only apply or draw on the credit support if:*
 - (1) *the Distribution Network Service Provider has given not less than 3 business days' notice to a retailer that it intends to apply or draw on the credit support in respect of an amount due and payable by the*

retailer to the Distribution Network Service Provider, and that amount remains outstanding; and

- (2) *there is no unresolved dispute under clause 6B.A3.3 about the retailer's liability to pay that amount.*

6B.B4.2 Return of credit support

(a) If:

- (1) *a Distribution Network Service Provider and a retailer no longer have any shared customers; or*
- (2) *in the 12 months since the credit support was provided, the retailer has paid in full the charges contained in each statement of charges issued in that 12 month period by the due date for payment,*

the Distribution Network Service Provider must pay, cancel or return to a retailer as appropriate, any balance of credit support outstanding after payment of all amounts owing by the retailer to the Distribution Network Service Provider.

6B.B4.3 Other retailer obligations

- (a) *A retailer must not take any steps to restrain (by injunction or otherwise):*
 - (1) *an issuer of credit support from paying out, or otherwise satisfying, a claim properly made by the Distribution Network Service Provider under the terms of the credit support; or*
 - (2) *the Distribution Network Service Provider from making a claim on the credit support in accordance with the credit support rules; or*
 - (3) *the Distribution Network Service Provider using the money obtained by calling on the credit support.*
- (b) *A Distribution Network Service Provider may disclose to its financiers, the AER or AEMO that it has required or called on credit support provided by the retailer under the credit support rules.*

Schedule 6B.1 Prescribed form of unconditional undertaking for credit support

(Clause 6B.B3.2)

In this deed:

- (a) ABC Ltd (ACN) is the *retailer*; and
- (b) DEF Ltd (ACN) is the *Distribution Network Service Provider*; and
- (c) GHI Ltd (ACN) is the Financial Institution.

The Financial Institution unconditionally undertakes to pay, on demand by the *Distribution Network Service Provider*, to the *Distribution Network Service Provider* any sum or sums up to a maximum aggregate of \$.....

The payment or payments are to be made forthwith and unconditionally, without reference to the retailer, and despite any instruction from the retailer not to make the payment or payments.

A demand for payment under this deed is to be made on behalf of the *Distribution Network Service Provider* by[*name of person authorised to act on behalf of the Distribution Network Service Provider*]

This deed is terminated if:

- (a) the *Distribution Network Service Provider* notifies the Financial Institution that it no longer requires the Financial Institution's undertaking; or
- (b) the Financial Institution pays to the *Distribution Network Service Provider* a sum or sums amounting to its maximum aggregate liability under this deed; or
- (c) the parties agree to terminate it.

Executed as a deed at this day of
20.....

CHAPTER 7

7. Metering

Part A Introduction

7.1 Introduction to the Metering Chapter

7.1.1 Contents

This Chapter sets out provisions relating to:

- (a) roles and responsibilities of *financially responsible Market Participants*, *off-market retailers*, *Metering Coordinators* and *AEMO*;
- (b) the appointment of and the qualifications and registration requirements applying to *Metering Providers* and *Metering Data Providers*;
- (b1) the qualifications and registration requirements applying to *Embedded Network Managers*;
- (c) the appointment of *Metering Coordinators* and *Metering Coordinator* default arrangements;
- (d) *metering installation* requirements;
- (e) *metering data services* and the *metering database*;
- (f) *metering register* requirements, disclosure of *NMI* information and *metering data* provision to *retail customers*;
- (g) security of, and rights to access, *metering installations*, services provided by *metering installations*, *energy data* held in *metering installations* and *metering data* from *metering installations*;
- (h) procedures to be established, maintained and *published* by *AEMO* including the *metrology procedures* and *service level procedures*; and
- (i) B2B arrangements.

7.1.2 Application in relation to embedded networks and off-market retailers

(a) In this Chapter:

- (1) a reference to a *Registered Participant* includes a reference to an *off-market retailer*;
- (2) in relation to an *off-market connection point* for which electricity is sold by an *off-market retailer*, a reference to the *financially responsible Market Participant* for the *off-market connection point* is a reference to the *off-market retailer*.

Note

Under Chapter 10, an off-market retailer includes any retailer who is selling off-market.

(b) This Chapter applies to an *Embedded Network Service Provider* as if:

- (1) a reference to a *Local Network Service Provider* includes a reference to an *Embedded Network Service Provider* in relation to a *child connection point* in its *embedded network*; and
- (2) a reference to a *Distribution Network Service Provider* (except in clause 7.17.6(b)) includes a reference to an *Embedded Network Service Provider*.

(c) This Chapter:

- (1) applies in respect of an *off-market connection point* on an *embedded network* for which (at the relevant time) there is an *off-market retailer*; and
- (2) does not apply in respect of an *off-market connection point* on an *embedded network* for which (at the relevant time) there is an *exempt seller*.

Note

A *Metering Coordinator* is appointed for an *off-market connection point* on an *embedded network* if there is an *off-market retailer* at that point (ie the person selling electricity supplied at that point is not an *exempt seller*.)

(d) An *Embedded Network Service Provider* for an *embedded network* must ensure that the *local embedded network retailer* has access to the information and systems required to comply with Chapter 7 in relation to the *embedded network*.

Part B Roles and Responsibilities

7.2 Role and Responsibility of financially responsible Market Participant

7.2.1 Obligations of financially responsible Market Participants to establish metering installations

- (a) Except as otherwise specified in paragraph (c) or (e), before participating in the *market* in respect of a *connection point*, and for so long as the *financially responsible Market Participant* continues to participate in the *market* in respect of a *connection point*, the *financially responsible Market Participant* must ensure that:
 - (1) a *Metering Coordinator* is appointed in respect of the *connection point* in accordance with clause 7.6.2;

- (2) the *connection point* has a *metering installation* and that the *metering installation* is registered with AEMO; and
- (3) prior to registration, a *NMI* has been obtained with respect to the *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) AEMO may refuse to permit a *financially responsible Market Participant* to participate in the *market* in respect of any *connection point* in relation to which that *financially responsible Market Participant* is not in compliance with its obligations under paragraph (a).
- (c) For an *interconnector*:
 - (1) the relevant *Transmission Network Service Provider* is responsible for the provision, installation and maintenance of a *metering installation*; and
 - (2) AEMO is responsible for the collection of *metering data* from that *metering installation*, the processing of that data and the delivery of the processed data to the *metering database*.
- (e) For an *off-market connection point*, the *off-market retailer* who is selling electricity to the *retail customer* at the *connection point* must, before starting to sell electricity in respect of the *connection point* and for so long as the *off-market retailer* continues to sell electricity to a *retail customer* at the *connection point*, ensure that:
 - (1) a *Metering Coordinator* is appointed in respect of the *connection point* in accordance with clause 7.6.2;
 - (2) the *connection point* has a *metering installation* and that the *metering installation* is registered with AEMO; and
 - (3) prior to registration, a *NMI* has been obtained with respect to the *connection point*.

Note

The AEMC recommends that this clause be classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

Note

Clause 7.2.1(d) will be inserted by Schedule 3 of the National Electricity Amendment (Global settlement and market reconciliation) Rule 2018 No. 14, which comes into effect on 6 February 2022.

7.2.2 [Not used]**7.2.3 [Not used] ~~Agreements with Local Network Service Provider~~**

~~For the purpose of section 140(2)(b) of the *National Energy Retail Law*, an agreement in force under the following clauses of the *Rules* is taken to be an agreement in force under 'rule 7.2.3':~~

- ~~(a) clause 7.6.3;~~
- ~~(b) clause 7.6.4; and~~
- ~~(c) clause 11.86.7.~~

7.2.4 [Not used]**7.2.5 [Not used] ~~Agreements with Metering Provider~~**

~~For the purpose of section 140(2)(c) of the *National Energy Retail Law*, an agreement in force under clause 7.3.2(b) of the *Rules* is taken to be an agreement in force under 'rule 7.2.5':~~

7.3 Role and Responsibility of Metering Coordinator**7.3.1 Responsibility of the Metering Coordinator**

- (a) For the term of its appointment in respect of a *connection point*, the *Metering Coordinator* is the person responsible for the:
 - (1) provision, installation and maintenance of a *metering installation* in accordance with Part D of this Chapter 7;
 - (2) except as otherwise specified in clause 7.5.1(a) or Part E, collection of *metering data* with respect to the *metering installation*, the processing of that data, retention of *metering data* in the *metering data services database* and the delivery of the *metering data* to the *metering database* and to other persons in accordance with Part E of this Chapter 7; and
 - (3) managing access to and the security of the *metering installation*, services provided by the *metering installation*, *energy data* held in the *metering installation* and *metering data* from the *metering installation* in accordance with Part F of this Chapter 7.
- (b) The *Metering Coordinator* must perform its role in accordance with:
 - (1) this Chapter 7; and
 - (2) procedures authorised under the *Rules*.

- (c) *AEMO* must establish, maintain and *publish* relevant explanatory material that sets out the role of the *Metering Coordinator* consistent with this Chapter 7.

7.3.2 Role of the Metering Coordinator

Appointment of a Metering Provider

- (a) The *Metering Coordinator* at a *connection point* (other than a *connection point* with a type 7 *metering installation*) must:
 - (1) appoint a *Metering Provider* or *Metering Providers* for the provision, installation and maintenance of the *metering installation*; or
 - (2) subject to the *metrology procedure*, appoint a *Metering Provider* or *Metering Providers* for the provision and maintenance of that installation and allow another person to appoint a *Metering Provider* to install the *metering installation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Metering Coordinator* at a *connection point* (other than a *connection point* with a type 7 *metering installation*) must:
 - (1) appoint a *Metering Provider* or *Metering Providers*:
 - (i) for the provision, installation and maintenance of the *metering installation*, where the *Metering Coordinator* has appointed the *Metering Provider* under paragraph (a)(1); or
 - (ii) for the provision and maintenance of the *metering installation*, where another person has appointed the *Metering Provider* under paragraph (a)(2).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The *Metering Coordinator* may elect to terminate an appointment made under paragraph (b)(1)(i) after the *metering installation* is installed and, if such an appointment is terminated, the *Metering Coordinator* must appoint another *Metering Provider* for the maintenance of the *metering installation*.

Appointment of a Metering Data Provider

- (d) Except as otherwise specified in clause 7.5.1(a), the *Metering Coordinator* at a *connection point* must:

- (1) appoint a *Metering Data Provider* to provide *metering data services*; and
- (2) provide the *financially responsible Market Participant* with the name of the *Metering Data Provider* appointed under subparagraph (1).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Metering installations

- (e) The *Metering Coordinator* at a *connection point* (other than a *connection point* with a type 7 *metering installation*) must:
 - (1) ensure that the *metering installation* is provided, installed and maintained in accordance with the *Rules* and procedures authorised under the *Rules*;
 - (2) ensure that the components, accuracy and testing of the *metering installation* complies with the requirements of the *Rules* and procedures authorised under the *Rules*;
 - (3) ensure that the security control of the *metering installation* is provided in accordance with rule 7.15;
 - (4) where *remote acquisition* is used or is to be used, ensure that a *communications interface* is installed and maintained to facilitate connection to the *telecommunications network*;
 - (5) ensure that *AEMO* is provided (when requested) with the information specified in Schedule 7.1 for any new or replacement *metering installation* or any altered *metering installation*; and
 - (6) ensure that no device that is capable of producing *interval energy data* and is already installed in a *metering installation* is replaced with a device that only produces *accumulated energy data* unless the *metrology procedure* permits the replacement to take place.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The *Metering Coordinator* at a *connection point* with a *small customer metering installation* must ensure that *energy data* is retrieved from that *small customer metering installation* via remote access.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) A *Metering Coordinator* must not prevent, hinder or otherwise impede a *Local Network Service Provider* from locally accessing a *metering installation* or *connection point* for the purposes of *reconnecting* or *disconnecting* the *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Metering data services

- (h) Except as specified in clause 7.5.1(a), the *Metering Coordinator* at a *connection point* must:
 - (1) ensure that the *Metering Data Provider* appointed under paragraph (d) accommodates any special site or technology related conditions determined by *AEMO* in accordance with clause 7.8.12(c), and the *Metering Coordinator* must clarify any matters with *AEMO* in order to choose a *Metering Data Provider* for that *metering installation* that is mutually suitable to all parties;
 - (2) ensure that *metering data services* are provided in accordance with the *Rules* and procedures authorised under the *Rules*;
 - (3) for any type 5 *metering installation* where the annual flow of electricity through the *connection point* is greater than the *type 5 accumulation boundary*, ensure that *interval energy data* is collected;
 - (4) for any type 4A *metering installation*, ensure that *interval energy data* is collected; and
 - (5) arrange for the provision of relevant *metering data* to the *Metering Data Provider* if *remote acquisition*, if any, becomes unavailable.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

Access to small customer metering installation

- (i) The *Metering Coordinator* at a *connection point* with a *small customer metering installation* must:
 - (1) ensure that access to the *metering installation*, the services provided by the *metering installation* and *energy data* held in the *metering*

installation is only granted to persons entitled to access that *metering installation*, or the services provided by the *metering installation* or *energy data* held in the *metering installation* in accordance with this Chapter 7;

- (2) not arrange a *disconnection* except:
 - (i) on the request of the *financially responsible Market Participant*, *Local Network Service Provider* or, *Exempt Embedded Network Service Provider* in relation to a *child connection point* on its *network*;
 - (ii) where such *disconnection* is effected via remote access;
 - (iii) in accordance with *jurisdictional electricity legislation*; and
 - (iv) if applicable, in accordance with the *emergency priority procedures*;
- (3) not arrange a *reconnection* except:
 - (i) on the request of the *financially responsible Market Participant*, *Local Network Service Provider*, *Incoming Retailer* or, *Exempt Embedded Network Service Provider* in relation to a *child connection point* on its *network*;
 - (ii) where such *reconnection* is effected via remote access;
 - (iii) in accordance with *jurisdictional electricity legislation*; and
 - (iv) if applicable, in accordance with the *emergency priority procedures*; and
- (4) not arrange a *retailer planned interruption* of the supply of electricity at the *metering installation* except:
 - (i) on the request of the *retailer*;
 - (ii) in accordance with *jurisdictional electricity legislation*; and
 - (iii) if applicable, in accordance with the *emergency priority procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.4 Qualification and Registration of Metering Providers, Metering Data Providers and Embedded Network Managers

7.4.1 Qualifications and registration of Metering Providers

- (a) [Not used]
- (a1) A *Metering Provider* is a person who:
 - (1) meets the requirements set out in Schedule 7.2; and
 - (2) is accredited by and registered by *AEMO* in that capacity in accordance with the qualification process established under clause S7.2.1(b).
- (b) Any person may apply to *AEMO* for accreditation and registration as a *Metering Provider*.
- (c) *AEMO* must include requirements for accreditation of *Metering Providers* in the *service level procedures*. The adoption of the requirements by *Metering Providers* is to be included in the qualification process in accordance with clause S7.2.1(b). The requirements must include a dispute resolution process.
- (d) A *Metering Provider* must comply with the provisions of the *Rules* and procedures authorised under the *Rules* that are expressed to apply to *Metering Providers* relevant to their category of registration.
- (e) A *Market Generator* which is involved in the trading of *energy* must not be registered as a *Metering Provider* for *connection points* in respect of which the *metering data* relates to its own use of *energy*.
- (f) Except as otherwise specified in paragraph (g), a *Market Customer* [or an off-market retailer](#) must not be registered as a *Metering Provider* at any *connection point*.
- (g) If a *Market Participant* is a *Market Customer* and also a *Network Service Provider* then the *Market Participant* may be registered as a *Metering Provider* for that *connection point* notwithstanding paragraph (f), providing that at the *connection points* on the *transmission network*, the *Market Participant* must regard the *Transmission Network Service Provider* with which it has entered into a *connection agreement* as the *Local Network Service Provider*.

7.4.2 Qualifications and registration of Metering Data Providers

- (a) A *Metering Data Provider* is a person who:
 - (1) meets the requirements set out in Schedule 7.3; and

- (2) is accredited by and registered by *AEMO* in that capacity in accordance with the qualification process established under clause S7.3.1(c).
- (b) Any person may apply to *AEMO* for accreditation and registration as a *Metering Data Provider*.
- (c) **[Not used]**
- (c1) *AEMO* must include requirements for accreditation of *Metering Data Providers* in the *service level procedures*. The adoption of the requirements by *Metering Data Providers* is to be included in the qualification process in accordance with clause S7.3.1(c). The requirements must include a dispute resolution process.
- (d) A *Metering Data Provider* must comply with the provisions of the *Rules* and procedures authorised under the *Rules* that are expressed to apply to *Metering Data Providers* relevant to their category of registration.
- (e) A *Market Generator* which is involved in the trading of *energy* must not be registered as a *Metering Data Provider* for *connection points* in respect of which the *metering data* relates to its own use of *energy*.
- (f) Except as otherwise specified in paragraph (g), a *Market Customer* or an off-market retailer must not be registered as a *Metering Data Provider* at any *connection point*.
- (g) If a *Market Participant* is a *Market Customer* and also a *Network Service Provider* then the *Market Participant* may be registered as a *Metering Data Provider* for that *connection point* notwithstanding paragraph (f).

7.4.2A Qualifications and registration of Embedded Network Managers

- (a) An *Embedded Network Manager* must:
 - (1) meet the requirements set out in schedule 7.7; and
 - (2) be accredited and registered by *AEMO* in that capacity in accordance with the qualification process established under clause S7.7.1(b).
- (b) Any person may apply to *AEMO* for accreditation and registration as an *Embedded Network Manager*.
- (c) *AEMO* must include requirements for accreditation and registration of *Embedded Network Managers* in the *ENM service level procedures*. The adoption of the requirements by *Embedded Network Managers* is to be included in the qualification process in accordance with clause S7.7.1(b). The requirements must include a dispute resolution process.
- (d) *AEMO* must develop and *publish* guidelines to assist persons wishing to be accredited and registered by *AEMO* as an *Embedded Network Manager* with the preparation of their applications to *AEMO*.

- (e) An *Embedded Network Manager* must comply with the provisions of the *Rules* and procedures authorised under the *Rules* that are expressed to apply to *Embedded Network Managers*.

7.4.2B List of Embedded Network Managers

AEMO must *publish* and maintain a list of persons accredited and registered as *Embedded Network Managers*.

7.4.3 Nature of appointment of Metering Provider or Metering Data Provider

- (a) A *Metering Provider* or *Metering Data Provider* must perform all of the obligations of a *Metering Provider* or *Metering Data Provider* (as the case may be) in respect of a *metering installation* under the *Rules* and procedures authorised under the *Rules* on terms and conditions (including as to price) to be commercially agreed between the *Metering Provider* or *Metering Data Provider* and the appointing *Metering Coordinator*.
- (b) Subject to the terms of appointment by the *Metering Coordinator* and in accordance with the *Rules* and procedures authorised under the *Rules*:
 - (1) a *Metering Provider* appointed under clause 7.3.2(b); and
 - (2) a *Metering Data Provider* appointed under clause 7.3.2(d).

may supply services in respect of the *metering installation* in addition to those provided under paragraph (a), including access to the services provided by the *metering installation* and *metering data* from the *metering installation*, on terms and conditions (including as to price) to be commercially agreed between the *Metering Provider* or *Metering Data Provider* (as the case may be) and the requesting party.

7.4.4 Deregistration of Metering Providers, Metering Data Providers and Embedded Network Managers

- (a) *AEMO* must establish, maintain and *publish* a procedure for deregistration of *Metering Providers* and *Metering Data Providers* which incorporates the principles specified in paragraph (b).
- (a1) *AEMO* must establish, maintain and *publish* a procedure for deregistration of *Embedded Network Managers*. This procedure must include a process for:
 - (1) voluntary deregistration by *Embedded Network Managers*; and
 - (2) determining a breach of the provisions of the *Rules* or of the procedures under the *Rules* by *AEMO*, which process incorporates the principles specified in paragraph (b).

- (a2) *AEMO* must deregister an *Embedded Network Manager* if the *Embedded Network Manager* requests deregistration and the request is made in accordance with the procedures developed by *AEMO* under paragraph (a1)(1).
- (b) A breach of the provisions of the *Rules* or of the procedures authorised under the *Rules* must be determined against the following principles:
 - (1) the definition of breach must contain three or more levels of severity, the highest level of severity being a 'material breach';
 - (2) the deregistration of a *Metering Provider*, *Metering Data Provider* or an *Embedded Network Manager* can only occur if it can be demonstrated that the person has committed a material breach; and
 - (3) the levels of a breach with severity below a material breach are to be treated as warnings with different levels of magnitude.
- (c) If *AEMO* reasonably determines that a *Metering Provider*, *Metering Data Provider* or an *Embedded Network Manager* has breached a provision of the *Rules* or of procedures authorised under the *Rules* that applies to *Metering Providers*, *Metering Data Providers* or *Embedded Network Managers*:
 - (1) *AEMO* must send to that *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* a notice in writing setting out the nature of the breach; and
 - (2) *AEMO* must, if the *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* remains in breach for a period of more than 7 days after notice in accordance with subparagraph (c)(1), conduct a review to assess the *Metering Provider's*, *Metering Data Provider's* or *Embedded Network Manager's* capability for ongoing compliance with the *Rules* or procedures authorised under the *Rules*.
- (d) *AEMO* may, following a review conducted under subparagraph (c)(2) and in accordance with the procedure under paragraph (a), deregister the *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager*, suspend the person from some categories of registration or allow the person to continue to operate under constraints agreed with *AEMO*.
- (e) If following a review under subparagraph (c)(2), *AEMO* deregisters or suspends from some categories of registration or allows the *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* to continue to operate under constraints, then *AEMO* must inform:
 - (1) the relevant *Metering Coordinator(s)* and the relevant financially responsible *Market Participants*; and
 - (2) in the case of an ~~*Embedded Network Manager*~~ *embedded network manager* only, the *Embedded Network Service Provider* or *Exempt Embedded Network Service Provider*,

of the outcome of that review.

7.5 Role and Responsibility of AEMO

7.5.1 Responsibility of AEMO for the collection, processing and delivery of metering data

- (a) Where the *Metering Coordinator* at a *connection point* or proposed *connection point* on a *transmission network* is the *Local Network Service Provider*, AEMO is responsible for:
 - (1) the collection of *metering data* with respect to the *metering installation*, the processing of that data, the delivery of the processed data to the *metering database* and the provision of *metering data* in accordance with the *Rules* and procedures authorised under the *Rules*; and
 - (2) the appointment of the *Metering Data Provider* to provide the *metering data services* in accordance with paragraph (b).
- (b) In performing its role under paragraph (a), AEMO must:
 - (1) subject to the limitation on that choice imposed by paragraph (d), permit the *financially responsible Market Participant* to appoint a *Metering Data Provider* of its choice to perform the obligations of a *Metering Data Provider* with respect to the *metering installation* under this Chapter 7;
 - (2) where a *financially responsible Market Participant* has not appointed a *Metering Data Provider* in accordance with subparagraph (1), appoint a *Metering Data Provider* to perform the obligations of a *Metering Data Provider* with respect to the *metering installation* under this Chapter 7; and
 - (3) comply with the processes for the collection, processing and delivery of *metering data* from the *metering installation* to the *metering database* and the provision of *metering data* to the persons who may receive *metering data* under clause 7.10.3(a) in accordance with the procedures authorised under the *Rules*, and may establish additional processes if necessary in order to fulfil that role.
- (c) If any additional processes are established by AEMO for the purpose of fulfilling its obligations under subparagraph (b)(3), and those processes impact on other persons, the relevant parts of those processes that impact on those persons must be incorporated in the *service level procedures*.
- (d) Where a *financially responsible Market Participant* chooses to appoint a *Metering Data Provider* under subparagraph (b)(1), it must:

- (1) only appoint a *Metering Data Provider* who can fully accommodate any special site or technology related conditions described in the document *published* under clause 7.8.12(c)(1); and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) clarify any matters with *AEMO* in order to choose a *Metering Data Provider* for that *metering installation* that is mutually suitable to all parties.

7.5.2 AEMO's costs in connection with metering installation

When *AEMO* is required to undertake functions associated with a *metering installation* in accordance with the requirements of the *metrology procedure* (which could include the preparation and application of a *profile*), *AEMO's* cost is to be recovered through *Participant fees* in accordance with a budget prepared under clause 2.11.3(b)(3) unless the *metrology procedure* specifies an alternative method of cost recovery in which case *AEMO* must not recover the costs through *Participant fees*.

7.5A Role and Responsibility of Embedded Network Managers

7.5A.1 Responsibility of Embedded Network Managers for management services

The provision of *embedded network management services* must be carried out only by an *Embedded Network Manager*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.5A.2 EN information

An *Embedded Network Manager* must:

- (a) maintain information about the types and configuration of *metering installations* at the *parent connection point* and all *child connection points* on the *Embedded Network Manager's embedded network* and about the subtractive or other arrangements used in respect of those *metering installations* relevant to *settlements*; and
- (b) in accordance with the *B2B Procedures*, make that information available on request to:

- (1) the *financially responsible Market Participant* for any *child connection point* on the *embedded network* or that *financially responsible* *Market Participant's Metering Coordinator*;
- (2) any *Incoming Retailer* or its *Metering Coordinator*; or
- (3) the *Exempt Embedded Network Service Provider* of the relevant *embedded network*.

Note

~~Schedule 4 of the National Electricity Amendment (Expanding Competition in metering and related services) Rule 2015 No.12 inserts a definition for *Incoming Retailer*.~~

Part C Appointment of Metering Coordinator

7.6 Appointment of Metering Coordinator

7.6.1 Commercial nature of the Metering Coordinator appointment and service provision

- (a) A *Metering Coordinator* assumes responsibility in respect of a *connection point* under this Chapter 7, and must perform all of the obligations of the *Metering Coordinator* under the *Rules* and procedures authorised under the *Rules* on terms and conditions (including as to price) to be commercially agreed between the *Metering Coordinator* and the person who appoints the *Metering Coordinator* under clause 7.6.2.
- (b) Subject to the terms of its appointment under clause 7.6.2 and in accordance with the *Rules* and procedures authorised under the *Rules*, a *Metering Coordinator* may supply services in respect of the *metering installation* in addition to those provided under paragraph (a), including access to the services provided by the *metering installation* and *metering data* from the *metering installation*, on terms and conditions (including as to price) to be commercially agreed between the *Metering Coordinator* and the requesting party.

7.6.2 Persons who may appoint Metering Coordinators

- (a) A *Metering Coordinator* may only be appointed:
 - (1) with respect to a *connection point* or proposed *connection point* on a *transmission network*, by the *Market Participant* which is *financially responsible* at the *connection point*;
 - (2) with respect to a *connection point* (other than the *connection point* of a *retail customer*) that connects, or is proposed to *connect*, a *generating system* to a *distribution network*, by:
 - (i) the *Market Participant* which is *financially responsible* at the *connection point*;

- (ii) a *Non-Market Generator* who owns, controls or operates the *generating system* that is connected to the *distribution network* at the *connection point*; or
 - (iii) a *person* who owns, controls or operates the *generating system* that is connected to the *distribution network* at the *connection point* and is exempt from the requirement to register as a *Generator* under clause 2.2.1(c); and
- (3) with respect to any other *connection point*, by:
 - (i) the *Market Participant* which is *financially responsible* at the *connection point*; or
 - (ii) the *large customer* whose premises are supplied at the *connection point*.
- (b) A person making an appointment under paragraph (a) must do so in accordance with the *Rules* and procedures authorised under the *Rules*.
- (c) The *Market Settlement and Transfer Solution Procedures* must specify that a *Metering Coordinator* at a *connection point* is responsible for the *metering installation*:
 - (1) where the change in the *Metering Coordinator* at a *connection point* is effected due to a change in the *financially responsible Market Participant* at that *connection point*, on the day that the *market load* at the *connection point* transfers to the new *financially responsible Market Participant*; and
 - (2) otherwise, on any other day.

7.6.3 Appointment with respect to transmission network connection

- (a) Where a *connection point* or proposed *connection point* is on a *transmission network*, only the *Local Network Service Provider* or the *financially responsible Market Participant* at the *connection point* may be appointed as *Metering Coordinator* under clause 7.6.2
- (b) Where a *connection point* or proposed *connection point* is on a *transmission network*, the *financially responsible Market Participant* at the *connection point* may request in writing an offer from the *Local Network Service Provider* to act as the *Metering Coordinator* in respect of the *connection point*.
- (c) If the *Local Network Service Provider* receives a request under paragraph (b), the *Local Network Service Provider* must:
 - (1) offer to act as the *Metering Coordinator* in respect of that *connection point*;

- (2) provide the *financially responsible Market Participant* with the name of the *Metering Provider* and the *Metering Data Provider* that would be appointed under clause 7.3.2(a)(1) and 7.3.2(d), if requested by the *financially responsible Market Participant*; and
- (3) provide the *financially responsible Market Participant* with the terms and conditions (including as to price) relating to that offer no later than 15 *business days* after the *Local Network Service Provider* receives a written request from the *financially responsible Market Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.6.4 Type 7 metering installations

- (a) The *financially responsible Market Participant* must appoint the *Local Network Service Provider* as the *Metering Coordinator* in respect of a *connection point* which has a type 7 metering installation connected to, or proposed to be connected to, the *Local Network Service Provider's network*.
- (b) The *Local Network Service Provider* may provide the *financially responsible Market Participant* with a standard set of terms and conditions on which it will agree to act as the *Metering Coordinator* for a type 7 metering installation.
- (c) Where the *Local Network Service Provider* has not provided the *financially responsible Market Participant* with a standard set of terms and conditions referred to in paragraph (b), the *financially responsible Market Participant* must request an offer from the *Local Network Service Provider* to act as the *Metering Coordinator* pursuant to paragraph (a).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) The *Local Network Service Provider* must, within 15 *business days* of receipt of the request under paragraph (c), make an offer to the *financially responsible Market Participant* setting out the terms and conditions on which it will agree to act as the *Metering Coordinator*.
- (e) The terms and conditions of an offer made under paragraph (b) or (d) must:
 - (1) be fair and reasonable; and
 - (2) not have the effect of unreasonably discriminating between *financially responsible Market Participants*, or between customers of a *financially responsible Market Participant*.

- (f) A *financially responsible Market Participant* must accept an offer on the standard terms and conditions of appointment provided by the *Local Network Service Provider* under paragraph (b) or (d), unless the *financially responsible Market Participant* and *Local Network Service Provider* agree other terms and conditions to apply to the appointment of the *Local Network Service Provider* as the *Metering Coordinator* under paragraph (a).
- (g) For the avoidance of doubt, any *Metering Coordinator* appointed under paragraph (a) must comply with Chapter 2 of the *Rules*, including the requirement that a *Metering Coordinator* be registered with AEMO as a *Metering Coordinator* under clause 2.4A.1(a).

7.7 Metering Coordinator default arrangements

7.7.1 Obligations of financially responsible Market Participants on Metering Coordinator default event and end of contract term

- (a) Without limiting the obligations of a *financially responsible Market Participant* under clause 7.2.1(a), the *financially responsible Market Participant* must appoint a new *Metering Coordinator* in respect of a *connection point* in circumstances where:
 - (1) a *Metering Coordinator default event* occurs with respect to the existing *Metering Coordinator* for the *connection point*; or
 - (2) the appointment of the existing *Metering Coordinator* by a person in accordance with clauses 7.6.2(a)(2)(ii), (2)(iii) or (3)(ii) (the **relevant person**) is terminated or expires and the relevant person does not appoint a new *Metering Coordinator* within the period specified by AEMO in procedures authorised under the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *financially responsible Market Participant* must appoint the *Metering Coordinator* in accordance with paragraph (a) as soon as practicable after the *Metering Coordinator default event* occurs or the period referred to in subparagraph (a)(2) has elapsed (as the case may be).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) If:
 - (1) the *financially responsible Market Participant* is required to appoint a new *Metering Coordinator* in respect of a *connection point* for a relevant person in accordance with paragraph (a); and

- (2) the existing contract between the *financially responsible Market Participant* and the relevant person does not deal with the appointment of a *Metering Coordinator* in these circumstances,

the terms and conditions of the contract between the *financially responsible Market Participant* and the relevant person relating to the appointment of the *Metering Coordinator* (including as to price) must be fair and reasonable.

- (d) The appointment of the *Metering Coordinator* in accordance with clause 7.6.2(a) must include terms to the effect that the appointment of the *Metering Coordinator* will terminate on the appointment of a new *Metering Coordinator* following the occurrence of a *Metering Coordinator default event* in respect of the *Metering Coordinator*.

7.7.2 Notices to be provided by Metering Coordinator

A *Metering Coordinator* must without delay notify:

- (a) the *financially responsible Market Participant* and relevant person (as defined in clause 7.7.1(a)(2)) who has appointed it in accordance with clause 7.6.2 in respect of a *connection point*; and
 - (b) AEMO,
- of:
- (c) the occurrence of a *Metering Coordinator default event* in relation to the *Metering Coordinator*; or
 - (d) the termination or expiry of the contract under which the *Metering Coordinator* has been appointed by a relevant person.

7.7.3 AEMO may issue breach notice

- (a) AEMO must establish, maintain and *publish* a procedure for the issue of a *Metering Coordinator default notice* in respect of *Metering Coordinators* which incorporates the principles specified in paragraph (b).
- (b) A breach of the provisions of the *Rules* or of the procedures authorised under the *Rules* must be determined against the following principles:
 - (1) the definition of breach must contain three or more levels of severity, the highest level of severity being a ‘material breach’;
 - (2) the issue of a *Metering Coordinator default notice* can only occur if it can be demonstrated that the *Metering Coordinator* has committed a material breach; and
 - (3) the levels of a breach with severity below a material breach are to be treated as warnings with different levels of magnitude.

- (c) If *AEMO* reasonably determines that a *Metering Coordinator* has breached a provision (or provisions) of the *Rules* or of procedures authorised under the *Rules* that applies to *Metering Coordinators* then:
 - (1) *AEMO* must send to that *Metering Coordinator* a notice in writing setting out the nature of the breach;
 - (2) *AEMO* must, if the *Metering Coordinator* remains in breach for a period of more than 7 days after notice in accordance with subparagraph (c)(1), conduct a review to assess the *Metering Coordinator's* capability for ongoing compliance with the *Rules* or procedures authorised under the *Rules*; and
 - (3) *AEMO* may, following a review conducted under subparagraph (c)(2), issue a notice to the *Metering Coordinator* which must identify the continuing breach and state that the notice is a notice for the purpose of paragraph (d) of the definition of a *Metering Coordinator default event*.
- (d) If *AEMO* has issued a notice under subparagraph (c)(3), it must promptly issue a notice to the *financially responsible Market Participant* and relevant person for each *connection point* for which the *Metering Coordinator* in respect of whom the *Metering Coordinator default event* occurred is appointed by the *financially responsible Market Participant* or relevant person. Such notice must:
 - (1) state that a *Metering Coordinator default event* under paragraph (d) of the definition of *Metering Coordinator default event* has occurred; and
 - (2) specify the *Metering Coordinator* in respect of whom the *Metering Coordinator default event* occurred.

Part D Metering installation

7.8 Metering installation arrangements

7.8.1 Metering installation requirements

- (a) The *Metering Coordinator* at a *connection point* must ensure that there is a *metering installation* at that *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Metering Coordinator* at a *connection point* must ensure that *energy data* held in the *metering installation* is based on units of watthour (**active energy**) and where required varhour (**reactive energy**).

- (c) Installation and maintenance of a *metering installation* must be carried out only by a *Metering Provider* appointed under clause 7.3.2(a).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Paragraph (c) does not apply in respect of an off-market connection point where the retail customer buys electricity from an exempt seller within the meaning of the NERL.

7.8.2 Metering installation components

- (a) A *Metering Provider* must, in accordance with the *Rules* and procedures authorised under the *Rules*, ensure that a *metering installation* (other than a type 7 *metering installation*):-

- (1) contains a device that has either a visible or an equivalently accessible display of the cumulative total *energy* measured by that *metering installation* (at a minimum);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) is accurate in accordance with clause 7.8.8;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) in the case of *metering installations* types 1, 2, 3, or 4, has *electronic data transfer* facilities from the *metering installation* to the *metering data services database*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) includes a *communications interface* to meet the requirements of clause 7.3.2(e)(4);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (5) is secure in accordance with rule 7.15;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (6) records *energy data* in a manner that enables *metering data* to be collated in accordance with clause 7.10.5;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (7) is capable of separately recording *energy data* for *energy* flows in each direction where bi-directional *active energy* flows occur or could occur;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (8) has a *measurement element* for *active energy* and if required in accordance with Schedule 7.4 a *measurement element* for *reactive energy*, with both measurements to be recorded;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (9) includes facilities for storing *interval energy data* for a period of at least 35 *days* if the *metering installation* is registered as a type 1, 2, 3 or 4 *metering installation*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (10) includes facilities for storing *interval energy data* for a period of at least 200 *days* or such other period as specified in the *metrology procedure* if the *metering installation* is registered as a type 4A or type 5 *metering installation*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (11) in the case of a type 6 *metering installation*, includes facilities capable of continuously recording, the total accumulated *energy* supplied

through it by a visible display in accordance with subparagraph (1), over a period of at least 12 months.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *A metering installation* may consist of combinations of:
- (1) a *current transformer*;
 - (2) a *voltage transformer*;
 - (3) secure and protected wiring from the *current transformer* and the *voltage transformer* to the *meter*;
 - (4) *communications interface* equipment such as a modem, isolation requirements, telephone service, radio transmitter and data link equipment;
 - (5) auxiliary electricity supply to the *meter*;
 - (6) an alarm circuit and monitoring facility;
 - (7) a facility to keep the *metering installation* secure from interference;
 - (8) test links and fusing;
 - (9) summation equipment; and
 - (10) several *metering points* to derive the *metering data* for a *connection point*.
- (c) Subject to paragraph (ea), the *financially responsible Market Participant* at a *connection point* must:
- (1) apply to the *Local Network Service Provider* for a *NMI*; and
 - (2) provide the *Metering Coordinator* with the *NMI* for the *metering installation* within 5 *business days* of receiving the *NMI* from the *Local Network Service Provider*.
- (d) The *Local Network Service Provider* must:
- (1) issue a unique *NMI* for each *metering installation* on its *network* to the *financially responsible Market Participant*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) register the *NMI* with *AEMO* in accordance with procedures from time to time specified by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) The *Metering Coordinator* must ensure that *AEMO* is provided with the relevant details of the *metering installation* as specified in Schedule 7.1 within 10 *business days* of receiving the *NMI* under subparagraph (c)(2).
- (ea) An *Embedded Network Manager* at a *child connection point* on an *embedded network* for which it is the *Embedded Network Manager* must:
 - (1) apply to *AEMO* for a *NMI* for a *metering installation* at a *child connection point*;
 - (2) provide the *Metering Coordinator*, *financially responsible Market Participant* and the *Exempt Embedded Network Service Provider* with the *NMI* for the *metering installation* within 5 *business days* of receiving the *NMI* from *AEMO*; and
 - (3) register the *NMI* with *AEMO* in accordance with procedures from time to time specified by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (eb) The obligation in paragraph (ea) does not apply to the extent a *metering installation* at a *child connection point* already has a *NMI*.
- (ec) *AEMO* must issue for each *metering installation* at a *child connection point* a unique *NMI* to the *Embedded Network Manager*.

Requirements for metering installations for non-market generating units

- (f) In addition to the requirements in paragraphs (a) to (e), the *Metering Coordinator* at a *connection point* for a *non-market generating unit* must ensure that the *metering installation*:
 - (1) where payments for the purchase of electricity *generated* by that unit are based on different rates according to the time of the day, is capable of recording *interval energy data*;
 - (2) where a *current transformer*, a *voltage transformer* or a *measurement element* for *reactive energy* is installed, meets the requirements in Schedule 7.4 for the type of *metering installation* appropriate to that *connection point*;

- (3) for units with a *nameplate rating* greater than 1 MW, meets:
 - (i) the accuracy requirements specified in Schedule 7.4; and
 - (ii) the measurement requirements in subparagraph (a)(8);
- (4) in relation to new accumulation *metering* equipment for units with a *nameplate rating* equal to or less than 1 MW, meets the minimum standards for *active energy* class 1.0 watt hour or 2.0 watt hour *meters* in accordance with clause S7.4.6.1(f);
- (5) for units with a *nameplate rating* of equal to or less than 1 MW that are capable of recording *interval energy*, meets the minimum standards of accuracy for the *active energy meter* in accordance with Schedule 7.4 for a type 3 or 4 *metering installation* which is based on projected sent out annual *energy* volumes; and
- (6) if reasonably required by the *Distribution Network Service Provider* (where such a request must be in writing and with reasons), after taking into account the size of the *generating unit*, its proposed role and its location in the *network*, has the *active energy* and *reactive energy* measured where the unit has a *nameplate rating* of less than 1 MW.

Requirements for metering installations for a small generating unit classified as a market generating unit

- (g) In addition to the requirements for *metering installations* for *non-market generating units* in paragraph (f), the *Metering Coordinator* for a *small generating unit* classified as a *market generating unit* must ensure that a *metering installation*:
 - (1) is classified as a type 1, 2, 3 or 4 *metering installation*; and
 - (2) is capable of recording *interval energy data* relevant to *settlements*.

7.8.3 Small customer metering installations

- (a) Except as specified in clause 7.8.4, a *Metering Coordinator* must ensure that any new or replacement *metering installation* in respect of the *connection point* of a *small customer* is a type 4 *metering installation* that meets the *minimum services specification*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must establish, maintain and *publish* procedures relating to the *minimum services specification* that set out for each service specified in the *minimum service specification*:

- (1) minimum service levels, including service availability and completion timeframes; and
 - (2) minimum standards, including completion rates against the service levels and accuracy requirements.
- (c) The procedures established under paragraph (b) may also include technical requirements of one or more of the services specified in the *minimum services specification*.

7.8.4 Type 4A metering installation

No existing telecommunications network

- (a) AEMO may exempt a *Metering Coordinator* from complying with clause 7.8.3(a) in respect of a *connection point* for a period of up to 5 years if the *Metering Coordinator* demonstrates to AEMO's reasonable satisfaction that there is no existing *telecommunications network* which enables remote access to the *metering installation* at that *connection point*.
- (b) Where the *Metering Coordinator* is exempt under paragraph (a) from complying with clause 7.8.3(a) in respect of a *connection point*, the *Metering Coordinator* must ensure that any new or replacement *metering installation* in respect of that *connection point* including, for the avoidance of doubt, a *metering installation* at a *new connection*, is a type 4A *metering installation* that has the capability, if remote access is activated, of providing the services in table S7.5.1.1.
- (c) Subject to the reapplication of paragraph (a), on and from the date that an exemption under paragraph (a) ceases to apply in respect of a *connection point*, the *Metering Coordinator* must ensure that the *metering installation* at that *connection point* is a type 4 *metering installation* that meets the *minimum services specification*.

Small customer refusal

- (d) A *Metering Coordinator* is not required to comply with clause 7.8.3(a) where, in the *Metering Coordinator's* reasonable opinion, the *small customer* has communicated its refusal to the installation or proposed installation of a type 4 *metering installation* at a *connection point* in accordance with paragraph (e).
- (e) For the purposes of paragraph (d) a *small customer* refusal to the installation or proposed installation of a type 4 *metering installation* must be communicated:
 - (1) verbally, in writing or by conduct; and
 - (2) to the *financially responsible Market Participant*, *Metering Coordinator* or *Metering Provider*.

- (f) If the *small customer* communicates its refusal under paragraph (e) to the *financially responsible Market Participant* or *Metering Provider*, the *financially responsible Market Participant* or *Metering Provider* (as the case may be) must promptly provide written notice of the refusal to the *Metering Coordinator* which must include:

- (1) the date of the refusal;
- (2) how the refusal was communicated; and
- (3) details of the *NMI* at the relevant *connection point*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) A *Metering Coordinator* must retain a written record of a *small customer* refusal under paragraph (e) for a period of at least 7 years.
- (h) Where paragraph (d) applies:
- (1) the *Metering Coordinator* must ensure that the new or replacement *metering installation* installed at that *connection point* is a type 4A *metering installation*; and
 - (2) clause 7.8.3(a) will apply to any subsequent installation or proposed installation of a new or replacement *metering installation* at that *connection point*, subject to the reapplication of paragraph (d).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) Nothing in paragraph (h) prevents a *Metering Coordinator* from, at any time, activating the remote access capabilities of a *metering installation* with the consent of the *small customer* at the *connection point*.

7.8.5 Emergency management

- (a) The *Metering Coordinator* at a *connection point* must ensure that access to the *metering installation*, services provided by the *metering installation* and *energy data* held in the *metering installation* are managed in accordance with the *emergency priority procedures* in the event of an emergency condition as determined in accordance with those *emergency priority procedures*.
- (b) *AEMO* must establish, maintain and *publish* procedures that set out:

- (1) the criteria for determining when an emergency condition is present and which *metering installations* will be affected by the emergency condition; and
 - (2) where a *Metering Coordinator* supplies services to a *Local Network Service Provider* from a *metering installation* that is affected by an emergency condition, which services the *Metering Coordinator* must prioritise at the request of the *Local Network Service Provider*.
- (c) A *Local Network Service Provider* must comply with the *emergency priority procedures* when issuing any service prioritisation request to a *Metering Coordinator* under those procedures.

7.8.6 Network devices

LNSP obligations

- (a) A *Local Network Service Provider*:
- (1) may install and maintain a *network device* provided that the installation and maintenance of the *network device* does not:
 - (i) adversely impact on the operation of the *metering installation*, including its compliance with the *Rules* and procedures authorised under the *Rules*;
 - (ii) damage the *metering installation*; or
 - (iii) prevent the *metering installation* being maintained or removed, as required, by or on behalf of the *Metering Coordinator*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) must not remove a *metering installation*, or any part of a *metering installation*, in order to install or maintain a *network device*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) subject to paragraph (b), must not use a *network device* to provide services to a *retail customer* or any other third party.
- (b) A *Local Network Service Provider* may use a *network device* to:
- (1) *reconnect* or *disconnect* a *metering installation* via remote access, as permitted under *energy laws*; or

- (2) provide services to a *retail customer* but only where those services are incidental to the provision of *network services* that are reasonably required to enable the *Local Network Service Provider* to meet its obligations to provide a safe, reliable and secure *network*.
- (c) Information obtained from a *network device*:
 - (1) may be accessed by the *Local Network Service Provider*; and
 - (2) is confidential and must be treated as *confidential information* in accordance with the *Rules*; and
 - (3) for the purposes of clause 8.6.2(c), is deemed to have been provided by the *retail customer* at the relevant *connection point*.

Metering Coordinator obligations

- (d) The *Metering Coordinator* at a *connection point*:
 - (1) must, at the request of the *Local Network Service Provider*, ensure that the *Local Network Service Provider* receives all reasonable assistance to facilitate access to a metering facility for:
 - (i) the installation of a *network device* under paragraph (a)(1); and
 - (ii) the maintenance of a *network device*; and
 - (2) unless paragraph (f) applies, must not, and must ensure that the *Metering Provider* does not:
 - (i) remove the *network device*;
 - (ii) take any action that adversely impacts on the operation of the *network device*;
 - (iii) damage the *network device*; or
 - (iv) prevent the *network device* being maintained or removed, as required, by or on behalf of the *Local Network Service Provider*,except with the consent of the *Local Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) All reasonable costs incurred by the *Metering Coordinator* as a consequence of providing assistance to the *Local Network Service Provider* under paragraph (d)(1) must be borne by the *Local Network Service Provider*.

- (f) The *Metering Coordinator* may remove or arrange the removal of a *network device* from the metering facility, without the consent of the *Local Network Service Provider*, if:
- (1) the *Metering Coordinator* proposes to install a new or replacement *metering installation* at a *connection point*;
 - (2) there is a *network device* in the metering facility at the *connection point*; and
 - (3) in the *Metering Coordinator's* or *Metering Provider's* reasonable opinion, the *metering installation* cannot be installed in the metering facility in a manner that allows it to:
 - (i) operate effectively and in compliance with the *Rules* and procedures authorised under the *Rules*; and
 - (ii) be maintained or removed, as required, by or on behalf of the *Metering Coordinator*,
 without removing or impacting on the *network device* as specified in paragraphs (d)(2)(i) to (iv); and
 - (4) it has complied with paragraph (g) and any applicable *jurisdictional electricity legislation*.
- (g) If a *Metering Coordinator* removes or arranges the removal of an existing *network device* under paragraph (f) it must:
- (1) notify the *Local Network Service Provider* of its removal as soon as practicable after it is removed; and
 - (2) keep a record in accordance with paragraph (h) of the basis upon which the determination under paragraph (f)(3) was made.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (h) A record kept for the purposes of subparagraph (g) must include, in respect of each *network device*:
- (1) the address from which the *network device* was removed;
 - (2) the date and time of removal of the *network device*;
 - (3) photographs and measurements of the *network device*, the *metering installation* and the metering facility; and

- (4) any other material in relation to the determination in accordance with paragraph (f)(3) that is required by the procedures made under paragraph (i).

Network device procedures

- (i) AEMO must develop and maintain procedures that apply to:
 - (1) *Metering Coordinators* and *Local Network Service Providers* and which specify when an existing *metering installation* that is to be replaced by a *Metering Coordinator* may be a *network device* for the purpose of this clause 7.8.6;
 - (2) *Metering Coordinators* and *Local Network Service Providers* when installing or removing *network devices*, including the return of a *network device* to the *Local Network Service Provider*; and
 - (3) notifications to be given in respect of activities which affect *network devices* or *metering installations*, including the provision of records maintained under paragraph (g)(2) when requested by the *Local Network Service Provider*.

Clause does not apply to transmission network connection points

- (j) This clause 7.8.6 does not apply in respect of *transmission network connection points*.

Definitions

- (k) In this clause 7.8.6, **metering facility** means the existing facility used to house the *metering installation*.

7.8.7 Metering point

- (a) The *Metering Coordinator* must ensure that:
 - (1) the *metering point* is located as close as practicable to the *connection point*; and
 - (2) any *instrument transformers* required for a *check metering installation* are located in a position which achieves a mathematical correlation with the *metering data*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *financially responsible Market Participant*, the *Local Network Service Provider* or, in the case of a *child connection point* on an embedded network with an Embedded Network Manager, the *Embedded Network Manager*, and AEMO must use their best endeavours to agree to adjust the *metering data*

which is recorded in the *metering database* to allow for physical losses between the *metering point* and the relevant *connection point* where a *meter* is used to measure the flow of electricity in a power conductor.

- (c) Where a *Market Network Service Provider* installs a *two-terminal link* between two *connection points*, *AEMO* in its absolute discretion may require a *metering installation* to be installed in the *facility* at each end of the *two-terminal link*. Each of these *metering installations* must be separately assessed to determine the requirement for *check metering* in accordance with Schedule 7.4.

7.8.8 Metering installation types and accuracy

- (a) The type of *metering installation* and the accuracy requirements for a *metering installation* are to be determined in accordance with Schedule 7.4.
- (b) A *check metering installation* is not required to have the degree of accuracy required of a *metering installation* but the *Metering Coordinator* must ensure that it has mathematical correlation with the *metering installation* and be consistent with the requirements of Schedule 7.4.
- (c) The *Metering Coordinator* at a *connection point* must ensure that the accuracy of a type 6 *metering installation* is in accordance with regulations issued under the *National Measurement Act* or, in the absence of any such regulations, with the *metrology procedure*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.8.9 Meter churn

- (a) Any alteration or replacement of a *metering installation* under this Chapter 7 must be managed in accordance with the *meter churn procedures*.
- (b) A *Metering Coordinator* may arrange to alter a type 5 or 6 *metering installation* in accordance with paragraph (a) to make it capable of *remote acquisition* where:
 - (1) the alteration of the *metering installation* is reasonably required to address operational difficulties as defined in paragraph (d); or
 - (2) the *Metering Coordinator* is the *Local Network Service Provider* and the alteration of the *metering installation* is reasonably required to enable the *Local Network Service Provider* to meet its obligations to provide a safe, reliable and secure *network*.
- (c) An alteration of a *metering installation* by a *Metering Coordinator* in accordance with paragraph (b) does not alter the classification of that installation to a type 4 or 4A *metering installation*.

- (d) For the purposes of subparagraph (b)(1), operational difficulties arise where the *metering installation* is difficult or unsafe to access because:
 - (1) the *metering installation* is on a remote property;
 - (2) the *metering installation* is within a secure facility;
 - (3) the *metering installation* is in close proximity to hazardous materials;
or
 - (4) accessing or arranging access to the *metering installation* otherwise poses a risk to the safety and security of persons or property.
- (e) The *Market Settlement and Transfer Solution Procedures* must include provisions that enable:
 - (1) an *Incoming Retailer* to nominate a *Metering Coordinator*, *Metering Provider* or *Metering Data Provider* to be appointed at a *connection point* in respect of which it is the *Incoming Retailer*, and for those appointments to be recorded as being effective on or, where requested by an *Incoming Retailer*, after the day that the *market load* at the *connection point* transfers to the *Incoming Retailer* as the new *financially responsible Market Participant*; and
 - (2) the installation of a new or replacement *metering installation* at a *connection point* as soon as practicable after the transfer of a *market load* at that *connection point* has been effected by AEMO.
- (f) AEMO must establish, maintain and *publish* procedures for the *Metering Coordinator*, *Metering Provider*, *Metering Data Provider* and *financially responsible Market Participant* to consider in managing the *meter churn* resulting from an alteration or replacement of a *metering installation* under paragraph (a) (the '*meter churn procedures*').

7.8.10 Meter installation malfunctions

- (a) Unless an exemption is obtained by the *Metering Coordinator* from AEMO under this clause 7.8.10, the *Metering Coordinator* must in respect of a *connection point* with:
 - (1) a type 1, 2 or 3 *metering installation*, if a *metering installation malfunction* occurs to the *metering installation*, cause repairs to be made to it as soon as practicable but no later than 2 *business days* after the *Metering Coordinator* has been notified of the *metering installation malfunction*; or
 - (2) a *metering installation* other than the installations referred to in subparagraph (1), if a *metering installation malfunction* occurs to the *metering installation*, cause repairs to be made to it as soon as practicable but no later than 10 *business days* after the *Metering Coordinator* has been notified of the *metering installation malfunction*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must establish, maintain and *publish* a procedure applicable to the provision of exemptions for the purpose of paragraph (a).
- (c) If an exemption is provided by *AEMO* under this clause 7.8.10 then the *Metering Provider* must provide *AEMO* with a plan for the rectification of the *metering installation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *Registered Participant*, *Metering Provider* or *Metering Data Provider* who becomes aware of a *metering installation malfunction* of a *metering installation* that cannot be rectified within the applicable timeframes as specified in paragraph (a) must notify the *Metering Coordinator* of the *metering installation malfunction* within 1 *business day*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.8.11 Changes to metering equipment, parameters and settings within a metering installation

The *Metering Coordinator* at a *connection point* must ensure that changes to parameters or settings within a *metering installation* are:

- (a) authorised by *AEMO* prior to the alteration being made;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) implemented by a *Metering Provider*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) confirmed by the *Metering Coordinator* within 2 *business days* after the alteration has been made; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) reported to *AEMO* to enable *AEMO* to record the changes in the *metering register*.

7.8.12 Special site or technology related conditions

- (a) Special site or technology related conditions are situations where *AEMO* determines that special arrangements are required to support the integrity of the collection and processing of *metering data* from nominated *metering installations*. These conditions include, but are not limited to, the following situations:
 - (1) a *connection point* or proposed *connection point* on a *transmission network*, where the *metering data* collection and/or processing arrangements from *metering installations* nominated in the document *published* in subparagraph (c)(1) require a single *Metering Data Provider*;
 - (2) a situation where two or more *metering points* are required to form a *metering installation* and the *metering data* determined from that *metering installation* is required to be identified as a virtual *NMI* in the *settlements process*;
 - (3) a *metering installation* on an *interconnector*; or
 - (4) a *metering installation* on the *interconnection* between adjacent *distribution networks*.
- (b) Special site or technology related conditions do not exist until they are described and *published* in the document specified in subparagraph (c)(1).
- (c) Where *AEMO* determines that special site or technology related conditions exist under paragraph (a), it must:
 - (1) describe and *publish* those special site or technology related conditions including the nomination of *metering installations* affected by those conditions in a document;
 - (2) notify *Metering Coordinators* and *financially responsible Market Participants* of the availability of the document specified in subparagraph (1) at the time of its *publication* and each time that document is revised; and
 - (3) clarify any matters with the *Metering Coordinator* or the *financially responsible Market Participant* in order to enable the *Metering Coordinator* or *financially responsible Market Participant* to choose a *Metering Data Provider* for that *metering installation* that is mutually suitable to all parties.

- (d) The *Metering Coordinator* or the *financially responsible Market Participant* at a *connection point* may make alterations to a *metering installation* and its *metering data* collection arrangements in order to remove its classification as a special site or technology related condition, in which case *AEMO* must remove that *metering installation* from the document specified in subparagraph (c)(1).

7.8.13 Joint metering installations

- (a) Where more than one *Market Participant* uses a *metering installation* at a particular *connection point*, they must agree and notify *AEMO* as to which of them will appoint the *Metering Coordinator* for that *metering installation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) In the absence of such agreement, *AEMO* may nominate one of the *Market Participants* to appoint the *Metering Coordinator* for that *metering installation*.
- (c) Where more than one *Market Participant* is subject to the same special site or technology related conditions as specified in clause 7.8.12(a), the *Metering Coordinator* must notify *AEMO* of the *Metering Data Provider* that will provide the *metering data services* for the relevant *metering installation*.
- (d) In the absence of a *Metering Coordinator* notifying *AEMO* in accordance with paragraph (c), *AEMO* may nominate a *Metering Data Provider* to provide the *metering data services* for the *metering installation*.
- (e) Clause 7.8.13 does not apply to a *metering installation* at a *child connection point*.

7.9 Inspection, Testing and Audit of Metering installations

7.9.1 Responsibility for testing

- (a) A person who arranges or carries out testing of a *metering installation* under this clause 7.9.1 must do so in accordance with:
 - (1) this clause 7.9.1; and
 - (2) the relevant inspection and testing requirements set out in Schedule 7.6.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) A *Registered Participant* may request that the *Metering Coordinator* make arrangements for the testing of a *metering installation* and if the request is reasonable, the *Metering Coordinator* must:
 - (1) not refuse the request; and
 - (2) make arrangements for the testing.
- (c) Where the *Metering Coordinator* does not arrange for the testing requested under paragraph (b), the *Metering Coordinator* must advise *AEMO* that the requested testing has not been arranged and *AEMO* must make the arrangements for the testing where, in *AEMO*'s reasonable opinion, it is practicable for *AEMO* to do so.
- (d) The *Registered Participant* who requested the tests under paragraph (b) may make a request to the *Metering Coordinator* to witness the tests.
- (e) The *Metering Coordinator* must not refuse a request received under paragraph (d) and must no later than 5 *business days* prior to the testing, advise:
 - (1) the party making the request; and
 - (2) the *financially responsible Market Participant*,
of:
 - (3) the location and time of the tests; and
 - (4) the method of testing to be undertaken.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The *Metering Coordinator* and *AEMO* must co-operate for the purpose of making arrangements for *AEMO* to inspect or test the *metering installation* where:
 - (1) the *Metering Coordinator* must make arrangements for *AEMO* to have access to the *metering installation*; and
 - (2) *AEMO* must:
 - (i) no later than seven *business days* prior to the testing or inspection, give the *Metering Coordinator* notice of:

- (A) its intention to access the *metering installation* for the purpose of inspection or testing;
 - (B) the name of the *representative* who will be conducting the test or inspection on behalf of *AEMO*; and
 - (C) the time when the test or inspection will commence and the expected time when the test or inspection will conclude; and
- (ii) where reasonable, comply with the security and safety requirements of the *Metering Coordinator*.
- (g) Where the *Metering Coordinator* has arranged testing of, or *AEMO* has undertaken testing of, a *metering installation* under this clause 7.9.1 and Schedule 7.6, the *Metering Coordinator* or *AEMO* (as the case may be) must:
 - (1) inform the *financially responsible Market Participant* that testing has been undertaken in respect of the *metering installation* in accordance with this clause 7.9.1; and
 - (2) make the test results available in accordance with paragraphs (h) and (i).
- (h) If the test results referred to in paragraph (g) indicate deviation from the technical requirements for that *metering installation*, the *Metering Coordinator* or *AEMO* (as the case may be) must ensure that the test results are provided as soon as practicable to the persons who receive that *metering data* under clause 7.10.3(a).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (i) If the test results referred to in paragraph (g) indicate compliance with the technical requirements for that *metering installation*, the *Metering Coordinator* or *AEMO* (as the case may be) must ensure that the test results are provided as soon as practicable:
 - (1) in circumstances where the tests were requested by a *Registered Participant*, to the *Registered Participant* and persons receive that *metering data* under clause 7.10.3(a); or
 - (2) to a *Registered Participant* if requested by that *Registered Participant*, where the tests are not the result of a request for testing.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (j) *AEMO* must check test results recorded in the *metering register* by arranging for sufficient audits annually of *metering installations* and to satisfy itself that the accuracy of each *metering installation* complies with the requirements of this Chapter 7.
- (k) The *Metering Coordinator* must store the test results in accordance with clause 7.9.5 and provide a copy to *AEMO* upon request or as part of an audit.
- (l) The cost of any test under paragraph (b) must be borne by:
 - (1) if paragraph (h) applies, the *Metering Coordinator*; and
 - (2) otherwise, the *Registered Participant* who requested the test.

7.9.2 Actions in event of non-compliance

- (a) If the accuracy of the *metering installation* does not comply with the requirements of the *Rules*, the *Metering Coordinator* must:
 - (1) advise *AEMO* as soon as practicable of the errors detected and the possible duration of the existence of the errors; and
 - (2) arrange for the accuracy of the *metering installation* to be restored in a time-frame agreed with *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* may make appropriate corrections to the *metering data* to take account of errors referred to in paragraph (a) and to minimise adjustments to the final *settlements* account.

7.9.3 Audits of information held in metering installations

- (a) *AEMO* is responsible for auditing *metering installations*.
- (b) A *Registered Participant* may request *AEMO* to conduct an audit to determine the consistency between the data held in the *metering database* and the data held in the relevant *metering installation*.
- (c) If there are inconsistencies between data held in a *metering installation* and data held in the *metering database*, the *Metering Coordinator* and *Registered Participants* with a financial interest in the *metering installation* or the *energy* measured by that *metering installation* must liaise together to determine the most appropriate way to resolve the discrepancy.
- (d) If there is an inconsistency between the data held in a *metering installation* and the data held in the *metering database*, the data in the *metering*

installation is to be taken as prima facie evidence of the *connection point's energy data*.

- (e) *AEMO* must carry out periodic random audits of *metering installations* to confirm compliance with the *Rules*.
- (e1) The *Metering Coordinator* must ensure that *AEMO* has unrestrained access to *metering installations* for the purpose of carrying out such random audits provided that *AEMO* agrees to comply with the *Metering Coordinator's* reasonable security and safety requirements and has first given the *Metering Coordinator* at least two *business days'* notice of its intention to carry out an audit, which notice must include:
 - (1) the name of the *representative* who will be conducting the audit on behalf of *AEMO*; and
 - (2) the time when the audit will commence and the expected time when the audit will conclude.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) The costs of any audit conducted under paragraph (b) will be borne by:
 - (1) if paragraph (c) applies, the *Metering Coordinator*; or
 - (2) otherwise, the *Registered Participant* who requested the audit.

7.9.4 Errors found in metering tests, inspections or audits

- (a) If a *metering installation* test, inspection or audit, carried out in accordance with clause 7.9.1, demonstrates errors in excess of those prescribed in Schedule 7.4, the *Metering Coordinator* must ensure the *metering data* is substituted in accordance with this clause 7.9.4 and clause 7.10.1 as appropriate.
- (b) If *AEMO* or the *Metering Coordinator* is not aware of the time at which the error that was identified in paragraph (a) arose, the error is to be deemed to have occurred at a time half way between the time of the most recent test or inspection which demonstrated that the *metering installation* complied with the relevant accuracy requirement and the time when the error was detected.
- (c) The time that the error was deemed to occur, as determined in paragraph (b), is to be used by the *Metering Data Provider* in performing substitution of the *metering data*.
- (d) If a test or audit of a *metering installation* demonstrates an error of measurement of less than 1.5 times the error permitted by Schedule 7.4, no substitution of readings is required unless in *AEMO's* reasonable opinion a particular party would be significantly affected if no substitution were made.

- (e) If any substitution is required under paragraph (d), *AEMO* must request the *Metering Coordinator* or the *financially responsible Market Participant* or the *Metering Data Provider*, as appropriate, to arrange for a suitable substitution of the incorrect *metering data* to be undertaken in accordance with the recommendations of any audit report provided by *AEMO* (under clauses 7.9.1(j), 7.9.3(b) or 7.9.3(e)), or if no audit report is provided, in accordance with the substitution requirements of the *metrology procedure*.

7.9.5 Retention of test records and documents

- (a) All records and documentation of tests prepared under this Chapter 7 or for the purposes of this Chapter 7 must be retained in accordance with this clause 7.9.5.
- (b) The *Metering Coordinator* must ensure records and documentation are retained as follows:
 - (1) for a period of at least 7 years:
 - (i) sample testing of *meters* while the *meters* of the relevant style remain in service;
 - (ii) the most recent sample test results of the *meters* referred to in subparagraph (i) after the *meters* are no longer in service;
 - (iii) non-sample testing of *meters* while the *meters* remain in service;
 - (iv) the most recent non-sample test results after the *meters* are no longer in service;
 - (v) the most recent sample test results of *instrument transformers* after *instrument transformers* of the relevant type are no longer in service;
 - (vi) the most recent non sample test results of *instrument transformers* after they are no longer in service;
 - (vii) tests of new *metering* equipment of the relevant style while the equipment remains in service; and
 - (viii) tests of new *metering* equipment of the relevant style after the equipment is no longer in service; and
 - (2) for a period of at least 10 years:
 - (i) sample testing of *instrument transformers* while *instrument transformers* of the relevant type remain in service; and
 - (ii) non-sample testing of *instrument transformers* while they remain in service.

- (c) The *Metering Coordinator* must ensure records of type tests and pattern approvals carried out or obtained in accordance with S7.4.6.1(f) are retained while *metering* equipment of the relevant type remains in service and for at least 7 years after it is no longer in service.

7.9.6 Metering installation registration process

AEMO must establish, maintain and *publish* a registration process to facilitate the application of this Chapter 7 to *Market Participants*, [*off-market retailers*](#), *Metering Coordinators* and *Network Service Providers* in respect of:

- (a) new *metering installations*;
- (b) modifications to existing *metering installations*; and
- (c) decommissioning of *metering installations*,

including the provision of information on matters such as application process, timing, relevant parties, fees and *metering installation* details.

Part E Metering Data

7.10 Metering Data Services

7.10.1 Metering Data Services

- (a) *Metering Data Providers* must provide *metering data services* in accordance with the *Rules* and procedures authorised under the *Rules*, including:
 - (1) collecting *metering data* by local access or by *remote acquisition*;
 - (2) the validation and substitution of *metering data* for a type 1, 2, 3 and 4 *metering installation*;
 - (3) the validation, substitution and estimation of *metering data* for a type 4A, 5 and 6 *metering installation*;
 - (4) the calculation, estimation and substitution of *metering data* for a type 7 *metering installation*;
 - (5) establishing and maintaining a *metering data services database* associated with each *metering installation* and providing access to the *metering data services database* in accordance with clause 7.10.2;
 - (6) delivery of *metering data* and relevant *NMI Standing Data* for a *metering installation* in accordance with clause 7.10.3;
 - (7) the delivery of *metering data* and relevant *NMI Standing Data* to *AEMO* for settlements;

- (8) ensuring the *metering data* and other data associated with the *metering installation* is protected from local access or remote access while being collected and while held in the *metering data services database* and that *data* is provided only in accordance with the *Rules*;
 - (9) maintaining the standard of accuracy of the time setting of the *metering data services database* and the *metering installation* in accordance with clause 7.10.6;
 - (10) notifying the *Metering Coordinator* of any *metering installation malfunction* of a *metering installation* within 1 *business day*; and
 - (11) management and storage of *metering data* in accordance with clause 7.10.2.
- (b) Despite anything to the contrary in the *Rules*, *AEMO* may obtain *energy data* directly from a *metering installation* for the *settlements* process.

7.10.2 Data management and storage

- (a) *Metering Data Providers* must:
- (1) retain *metering data* for all relevant *metering installations* in the *metering data services database*:
 - (i) online in an accessible format for at least 13 months;
 - (ii) following the retention under subparagraph (1)(i), in an accessible format for an overall period of not less than 7 years; and
 - (2) archive in an accessible format for a period of 7 years:
 - (i) *metering data* in its original form collected from the *metering installation*;
 - (ii) records of each substitution to *metering data* in respect of a *metering installation*; and
 - (3) if required in procedures authorised by *AEMO* under this Chapter 7, provide the persons referred to in clauses 7.15.5(c)(1) to 7.15.5(c)(5a) with access to the *metering data* and *NMI Standing Data* in the *metering data services database*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (4) except for the persons referred to in clauses 7.15.5(c)(1) to 7.15.5(c)(5a), ensure that no other person has access to the *metering data services database*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *Metering Data Providers* accredited for type 7 *metering installations* must maintain techniques for determining *calculated metering data* for type 7 *metering installations* that are *market loads* under Schedule 7.4 in accordance with the *metrology procedure*.
- (c) *Metering Data Providers* must maintain *electronic data transfer* facilities in order to deliver *metering data* from the *metering data services database* to the *metering database* in accordance with the relevant *service level procedures*.
- (d) *Check metering data*, where available, and appropriately adjusted for differences in *metering installation* accuracy, where applicable, must be used by the *Metering Data Provider* to validate *metering data*.
- (e) If the *Metering Data Provider* becomes aware that the *metering data* that has been delivered into the *metering database* from a *metering data services database* is incorrect, then the *Metering Data Provider* must provide corrected *metering data* to the persons referred to in clauses 7.15.5(c)(1) to 7.15.5(c)(5a).
- (f) *Metering data* may only be altered by a *Metering Data Provider* except in the preparation of *settlements ready data*, in which case AEMO may alter the *metering data* in accordance with clause 7.11.2(c).
- (g) A *Metering Data Provider* may only alter *metering data* in the *metering data services database* in accordance with the *metrology procedure*.
- (h) *Metering Data Providers* must maintain *electronic data transfer* facilities in order to deliver *metering data* from the *metering data services database* in accordance with clause 7.10.3.
- (i) The *Metering Data Provider's* rules and protocols for supplying the *metering data services* must be approved by AEMO and AEMO must not unreasonably withhold such approval.
- (j) The *Metering Data Provider* must arrange with the *Metering Coordinator* to obtain the relevant *metering data* if *remote acquisition*, if any, becomes unavailable.

7.10.3 Provision of metering data to certain persons

- (a) The *Metering Data Provider* must provide *metering data* and relevant *NMI Standing Data* to the persons referred to in clauses 7.15.5(c)(1) to 7.15.5(c)(5a) as required by and in accordance with the *Rules* and procedures authorised by AEMO under this Chapter 7.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* must ensure that the procedures it authorises under this Chapter 7 do not require the *Metering Data Provider* to provide *metering data* or relevant *NMI Standing Data* to a person under paragraph (a) except to the extent that such *metering data* or relevant *NMI Standing Data* is required by that person to perform its obligations under the *Rules*, the *National Energy Retail Rules* or *jurisdictional electricity legislation*.

7.10.4 Use of check metering data

- (a) *Check metering data*, where available and provided that the *check metering data* has been appropriately adjusted for differences in *metering installation* accuracy, must be used by *Metering Data Providers* or *AEMO*, as the case may be, for:

- (1) validation;
- (2) substitution; and
- (3) estimation,

of *metering data* as required by clauses 7.10.1 and 7.11.2(c).

7.10.5 Periodic energy metering

- (a) The *Metering Data Provider* must, for type 1, 2, 3, 4, 4A and 5 *metering installations*, collate *metering data* relating to:

- (1) the amount of *active energy*; and
- (2) *reactive energy* (where relevant) passing through a *connection point*,

in *trading intervals* within a *metering data services database* unless it has been agreed between *AEMO*, the *Local Network Service Provider*, *Embedded Network Manager* in relation to *child connection points* and the *financially responsible Market Participant* that *metering data* may be recorded in sub-multiples of a *trading interval*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) For type 6 *metering installations*, *metering data* relating to the amount of *active energy* passing through a *connection point* must be converted into *trading intervals* in the *profiling* process undertaken by *AEMO* in accordance with the *metrology procedure* and the *metrology procedure* must specify:

- (1) the parameters to be used in preparing the *trading interval metering data* for each *market load*, including the algorithms;
- (2) the *metering data* from *first-tier loads* that is to be used in the conversion process;
- (3) the quality and timeliness of the *metering data* from the *first-tier loads*;
- (4) the party responsible for providing the *metering data* from the *first-tier loads*; and
- (5) if required, the method of cost recovery in accordance with clause 7.5.2.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) The *Metering Data Provider* must, for type 7 *metering installations*, prepare *metering data* relating to the amount of *active energy* passing through a *connection point* in accordance with clause 7.10.1(a)(4) in *trading intervals* within a *metering data services database*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.10.6 Time settings

- (a) The *Metering Provider* must set the times of clocks of all *metering installations* with reference to *Eastern Standard Time* to a standard of accuracy in accordance with Schedule 7.4 relevant to the *load* through the *connection point* when installing, testing and maintaining *metering installations*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) AEMO must ensure that the *metering database* clock is maintained within –1 second and +1 second of *Eastern Standard Time*.
- (c) The *Metering Data Provider* must maintain the *metering data services database* clock within –1 second and + 1 second of *Eastern Standard Time*.
- (d) The *Metering Data Provider* must:

- (1) check the accuracy of the clock of the *metering installation* with reference to *Eastern Standard Time* to a standard of accuracy in accordance with Schedule 7.4 relevant to the *load* through the *connection point* on each occasion that the *metering installation* is accessed;
- (2) reset the clock of the *metering installation* so that it is maintained to the required standard of accuracy in accordance with Schedule 7.4 relevant to the *load* through the *connection point* where the clock error of a *metering installation* does not conform to the required standard of accuracy on any occasion that the *metering installation* is accessed; and
- (3) notify the *Metering Provider* where the *Metering Data Provider* is unable to reset the clock of the *metering installation* in accordance with subparagraph (2).

7.10.7 Metering data performance standards

- (a) Except as otherwise specified in clause 7.5.1, the *Metering Coordinator* must ensure that *metering data* is provided to *AEMO* for all *trading intervals* where the *metering installation* has the capability for *remote acquisition of metering data*, and that the data is:
 - (1) derived from a *metering installation* compliant with clause 7.8.8(a);
 - (2) provided within the timeframe required for *settlements* and *prudential requirements* specified in the *metrology procedure*, and the relevant *service level procedures*;
 - (3) actual or substituted in accordance with the *metrology procedure*; and
 - (4) provided in accordance with the performance standards specified in the *metrology procedure*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The performance standards specified in subparagraph (a)(4) must be set at a level that does not impose a material risk on *AEMO's* ability to meet its *settlements* and *prudential requirements* obligations under the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) *AEMO* may relax or exempt the performance standards specified in subparagraph (a)(4) in circumstances, including those referred to in clause 7.8.9(b), when *AEMO* and the *Metering Coordinator* agree on a lower

performance standard that does not place a material risk on *AEMO's* ability to meet its *settlements* and *prudential requirements* obligations under the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) Where the *metering installation* is a type 4A *metering installation* or does not have the capability for *remote acquisition* of *metering data*, the *Metering Coordinator* must ensure that *metering data* is provided to *AEMO* and that the data is:
 - (1) derived from a *metering installation* compliant with clause 7.8.8(a);
 - (2) provided within the timeframe required for *settlements* specified in the *metrology procedure* and the relevant *service level procedures*;
 - (3) actual, substituted or estimated in accordance with the *metrology procedure*; and
 - (4) provided in accordance with the performance standards specified in the *metrology procedure*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.11 Metering data and database

7.11.1 Metering database

- (a) *AEMO* must create, maintain and administer a *metering database* (either directly or under a contract for provision of the database) containing information for each *metering installation* registered with *AEMO*.
- (b) *AEMO* must ensure that the *metering database* has the capability for remote access.
- (c) The *metering database* must include *metering data*, *settlements ready data*, and information for each *metering installation* registered with *AEMO* in accordance with rule 7.12.
- (d) *AEMO* must:
 - (1) enable the persons referred to in clauses 7.15.5(c)(1) to 7.15.5(c)(5a) and clause 7.15.5(e) to access or receive data in the *metering database*; and

- (2) except as specified in subparagraph (1), ensure that no other person has access to the *metering database*.
- (e) For all types of *metering installations*, the *metering database* must contain *metering data* that is:
 - (1) retained online in an accessible format for at least 13 months; and
 - (2) following the retention under subparagraph (1), archived in an accessible format for an overall period of not less than 7 years.
- (f) The *settlements ready data* held in the *metering database* must be used by AEMO for *settlements* purposes.
- (g) The *settlements ready data* held in the *metering database* may be used by *Distribution Network Service Providers* for the purpose of determining *distribution service charges* in accordance with clause 6.20.1.
- (h) AEMO must retain *settlements ready data* for all *metering installations* for a period of 7 years.
- (i) Despite anything to the contrary in this *Rule*, AEMO may provide an *energy ombudsman* with *metering data* relating to a *Registered Participant* from a *metering installation*, the *metering database*, or the *metering register*, if the *energy ombudsman* has received a complaint to which the data is relevant from a *retail customer* of the *Registered Participant*.
- (j) AEMO must notify the relevant *Registered Participant* of any information requested by the *energy ombudsman* under paragraph (i) and, if it is requested by that *Registered Participant*, supply the *Registered Participant* with a copy of any information provided to the *energy ombudsman*.
- (k) AEMO must, acting jointly with the *energy ombudsman*, develop procedures for the efficient management of timely access to data by the *energy ombudsman*.

7.11.2 Data validation, substitution and estimation

- (a) If AEMO in the preparation of *settlements ready data* detects *metering data* that fails validation AEMO must notify the *Metering Data Provider* within 1 business day of detection.
- (b) Where a *Metering Data Provider* receives notification under paragraph (a), the *Metering Data Provider* must use its best endeavours to provide corrected *metering data* to AEMO within 1 *business day* or advise AEMO that this time limit cannot be achieved, and the reason for delay, in which case the parties must agree on a revised time limit by which the corrected *metering data* will be provided.
- (c) Where *metering data* fails validation by AEMO in the preparation of *settlements ready data* and replacement *metering data* is not available

within the time required for *settlements* then *AEMO* must prepare a substitute value in accordance with the *metrology procedure*.

7.11.3 Changes to energy data or to metering data

- (a) The *Metering Coordinator* must ensure that *energy data* held in a *metering installation* is not altered except when the *meter* is reset to zero as part of a repair or reprogramming.
- (b) If an on-site test of a *metering installation* requires the injection of current, the *Metering Coordinator* must ensure that:
 - (1) the *energy data* stored in the *metering installation* is inspected; and
 - (2) if necessary following the inspection under subparagraph (1), alterations are made to the *metering data*, to ensure that the *metering data* in the *metering data services database* and the *metering database* is not materially different from the *energy* consumed at that *connection point* during the period of the test.
- (c) If a *Metering Coordinator* considers alterations are necessary under paragraph (b)(2), the *Metering Coordinator* must:
 - (1) notify *AEMO* that alteration to the *metering data* is necessary; and
 - (2) advise the *financially responsible Market Participant* of the need to change the *metering data* and the *Metering Coordinator* must arrange for the *Metering Data Provider* to:
 - (i) alter the *metering data* for the *connection point* held in the *metering data services database* in accordance with the validation, substitution and estimation procedures in the *metrology procedure*; and
 - (ii) provide the altered *metering data* to the persons who receive that *metering data* under clause 7.10.3(a).
- (d) If a test referred to in paragraph (b) is based on actual *connection point loads*, no alteration is required.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.12 Register of Metering Information

7.12.1 Metering register

- (a) As part of the *metering database*, *AEMO* must maintain a *metering register* of all *metering installations* and *check metering installations* which provide *metering data* used for *settlements* [or in relation to off-market connection points for which there is an off-market retailer](#).

- (b) The *metering register* referred to in paragraph (a) must contain the information specified in Schedule 7.1.

7.12.2 Metering register discrepancy

- (a) If the information in the *metering register* indicates that the *metering installation* or the *check metering installation* does not comply with the requirements of the *Rules*, *AEMO* must advise affected *Registered Participants* of the discrepancy.
- (b) The *Metering Coordinator* must arrange for the discrepancy to be corrected within 2 *business days* of receipt of notification under paragraph (a) unless exempted by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.13 Disclosure of NMI information

7.13.1 Application of this Rule

A *retailer* is entitled to information under this *Rule* only if the relevant information is not available to the *retailer* through the *Market Settlement and Transfer Solution Procedures*.

7.13.2 NMI and NMI checksum

- (a) A *Distribution Network Service Provider* or *Embedded Network Manager* must, at the request of a *retailer*, and within 1 *business day* of the date of the request, provide the *retailer* with the *NMI* and *NMI* checksum for premises identified in the request by reference to:
 - (1) a unique meter identifier held by the *Distribution Network Service Provider*; or
 - (2) a street address; or
 - (3) the code used by Australia Post to provide a unique identifier for postal addresses.
- (b) If a computer search by the *Distribution Network Service Provider* does not produce a unique match for the information provided by the *retailer*, the *Distribution Network Service Provider* must provide the *retailer* with any computer matches achieved up to a maximum of 99.

7.13.3 NMI Standing Data

- (a) Unless paragraph (b) applies, a *Distribution Network Service Provider* must, at the request of a *retailer*, and within 2 *business days* of the date of

the request, provide the *retailer* with the *NMI Standing Data* for premises identified in the request by reference to the *NMI* for the premises.

- (b) An Embedded Network Manager at a child connection point on an embedded network for which it is the Embedded Network Manager must, at the request of a retailer, and within 2 business days of the date of the request, provide the retailer with the NMI Standing Data for the premises at the child connection point identified in the request by reference to the NMI for the premises.

7.14 Metering data provision to retail customers

- (a) *AEMO* must establish, maintain and *publish* the *metering data provision procedures* in accordance with this rule 7.14, this Chapter 7, and otherwise in accordance with the *Rules*.
- (b) The objective of the *metering data provision procedures* is to establish the minimum requirements for the manner and form in which *metering data* should be provided to a *retail customer* (or its *customer authorised representative*) in response to a request for such data from the *retail customer* or *customer authorised representative* to the *retailer* or the *Distribution Network Service Provider*.
- (c) The *metering data provision procedures* must:
- (1) specify the manner and form in which *retail customers' metering data* must be provided, including a:
 - (i) detailed data format; and
 - (ii) summary data format;
 - (2) for *retail customers* for whom *interval metering data* is available, specify the summary data format, which, at a minimum should include the *retail customer's*:
 - (i) nature and extent of *energy* usage for daily time periods;
 - (ii) usage or *load* profile over a specified period; and
 - (iii) a diagrammatic representation of the information referred to in subparagraph (i);
 - (3) for *retail customers* for whom accumulated *metering data* is available, specify a summary data format;
 - (4) include timeframes in which a *retailer* or a *Distribution Network Service Provider* must, using reasonable endeavours, respond to requests made by a *retail customer* or *customer's authorised representative*. The timeframe to be included must:

- (i) be no more than 10 *business days*, except where requests are made by a *customer authorised representative* in relation to more than one *retail customer* of either the *retailer* or *Distribution Network Service Provider* to whom the request is made; and
 - (ii) take account of procedures in place relating to the validation of *metering data*; and
- (5) specify a minimum method of delivery for the requested *metering data*.
- (d) *Retailers* and *Distribution Network Service Providers* must comply with the *metering data provision procedures* when responding to requests by a *retail customer* or *customer authorised representative*.

Part F Security of metering installation and energy data

7.15 Security of metering installation and energy data

7.15.1 Confidentiality

- (a) *Energy data, metering data, NMI Standing Data*, information included under a scheme for a NMI Standing Data Schedule as referred to in clause 3.13.12A, information in the *metering register* and passwords are confidential and must be treated as *confidential information* in accordance with the *Rules*.
- (b) For the purposes of clause 8.6.2(c), *metering data* from a *metering installation* at a *retail customer's connection point* is deemed to have been provided by the *retail customer*.

7.15.2 Security of metering installations

- (a) The *Metering Coordinator* at a *connection point* must ensure that the *metering installation* is secure and that associated links, circuits and information storage and processing systems are protected by security mechanisms acceptable to *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) *AEMO* may override any of the security mechanisms fitted to a *metering installation* with prior notice to the *Metering Coordinator*.
- (c) If a *Local Network Service Provider, financially responsible Market Participant, Metering Provider* or *Metering Data Provider* becomes aware that a seal protecting *metering* equipment has been broken, it must notify the *Metering Coordinator* within 5 *business days*.

- (d) If a broken seal has not been replaced by the person who notified the *Metering Coordinator* under paragraph (c), the *Metering Coordinator* must ensure that the broken seal is replaced no later than:
 - (1) the first occasion on which the *metering* equipment is visited to take a reading; or
 - (2) 100 days,
 after receipt of notification that the seal has been broken.
- (e) The costs of replacing broken seals as required by paragraph (d) are to be borne by:
 - (1) the *financially responsible Market Participant* if the seal was broken by a *retail customer* of that financially responsible Market Participant;
 - (2) a *Registered Participant* if the seal was broken by the *Registered Participant*;
 - (3) the *Metering Provider* if the seal was broken by the *Metering Provider*;
 - (4) the *Metering Data Provider* if the seal was broken by the *Metering Data Provider*; or
 - (5) otherwise by the *Metering Coordinator*.
- (f) If it appears that as a result of, or in connection with, the breaking of a seal referred to in paragraph (c) that the relevant *metering* equipment may no longer meet the relevant minimum standard, the *Metering Coordinator* must ensure that the *metering* equipment is tested.

7.15.3 Security controls for energy data

- (a) The *Metering Coordinator* must ensure that *energy data* held in the *metering installation* is protected from local access and remote access by suitable password and security controls in accordance with paragraph (c).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Metering Provider* must keep records of passwords secure.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Except as otherwise specified in clause 7.15.4(e), the *Metering Provider* must allocate 'read only' passwords to *Market Participants*, [*off-market retailers*](#), *Local Network Service Providers* and *AEMO*, except where separate 'read only' and 'write' passwords are not available, in which case the *Metering Provider* must allocate a password to *AEMO* only. For the avoidance of doubt, a *financially responsible Market Participant* may allocate that 'read only' password to a *retail customer* who has requested access to its *energy data* in accordance with paragraph (g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) The *Metering Provider* must hold 'read only' and 'write' passwords.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) The *Metering Provider* must forward a copy of the passwords held under paragraph (d) to *AEMO* on request by *AEMO* for *metering installations* types 1, 2, 3 and 4.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) *AEMO* must hold a copy of the passwords referred to in paragraph (e) for the sole purpose of revealing them to a *Metering Provider* in the event that the passwords cannot be obtained by the *Metering Provider* by any other means.
- (g) Subject to the authorisation of the *Metering Coordinator* which is for the purpose of managing congestion in accordance with clause 7.15.5(b), if a *retail customer* of a *financially responsible Market Participant* requests a 'read only' password, the *financially responsible Market Participant* must:
- (1) obtain a 'read only' password from the *Metering Provider* in accordance with paragraph (c); and
 - (2) provide a 'read only' password to the *retail customer* within 10 *business days*.
- (h) The *Metering Coordinator* referred to in paragraph (g) must not unreasonably withhold the authorisation required by the *financially responsible Market Participant*.
- (i) The *Metering Provider* must allocate suitable passwords to the *Metering Data Provider* that enables the *Metering Data Provider* to collect the *energy*

data and to maintain the clock of the *metering installation* in accordance with clause 7.10.6.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (j) The *Metering Data Provider* must keep all *metering installation* passwords secure and not make the passwords available to any other person.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.15.4 Additional security controls for small customer metering installations

In respect of a *small customer metering installation*:

- (a) the *Metering Coordinator* must ensure that access to *energy data* held in the *metering installation* is only given to a person and for a purpose that is permitted under the *Rules*;
- (b) the *Metering Coordinator* must ensure that access to services provided by the *metering installation* and *metering data* from the *metering installation* is only given to:
 - (1) in respect of a service listed in the *minimum services specification* in column 1 of table S7.5.1.1 and of *metering data* in connection with that service, an *access party* listed in column 3 of table S7.5.1.1;
 - (2) a person and for a purpose that is permitted under the *Rules*; or
 - (3) except as otherwise specified in subparagraph (1) or (2):
 - (i) the *Local Network Service Provider*, but only to the extent that, in the *Metering Coordinator's* reasonable opinion, such access is reasonably required by the *Local Network Service Provider* to enable it to meet its obligations to provide a safe, reliable and secure *network*; or
 - (ii) a person and for a purpose to which the *small customer* has given prior consent;
- (c) the *Metering Coordinator* must ensure that the services provided by the *metering installation* are protected from local access and remote access by suitable password and security controls in accordance with paragraph (e);
- (d) the *Metering Provider* must keep records of passwords secure; and
- (e) the *Metering Provider* must ensure that:

- (1) it forwards a copy of a password allowing local access and a copy of a password allowing remote access to the *metering installation*, services provided by the *metering installation* and *energy data* held in the *metering installation*, to the *Metering Coordinator*, *Metering Data Provider*, *Embedded Network Manager* in relation to *child connection points* and *AEMO*; and
- (2) except as provided above, no other person receives or has access to a copy of a password allowing local access or remote access to the *metering installation*, services provided by the *metering installation* or *energy data* held in the *metering installation*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

7.15.5 Access to data

- (a) Access to *energy data* recorded by a *metering installation* must only be provided where passwords are allocated in accordance with rule 7.15.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (b) The *Metering Coordinator* must ensure that access to *energy data* from the *metering installation* is scheduled appropriately to ensure that congestion does not occur.
- (c) Except as specified in paragraphs (d) or (e), only the following persons may access or receive *metering data*, *settlements ready data*, *NMI Standing Data*, and data from the *metering register* for a *metering installation*:
 - (1) *Registered Participants* with a financial interest in the *metering installation* or the *energy* measured by that *metering installation*;
 - (2) the *Metering Coordinator* appointed in respect of the *connection point* for that *metering installation*, or a person who was previously appointed as the *Metering Coordinator* in respect of that *connection point*, as required in connection with a *Metering Coordinator default event* in accordance with procedures authorised under the *Rules*;
 - (3) the *Metering Provider* appointed with respect to that *metering installation*;
 - (4) the *Metering Data Provider* appointed with respect to that *metering installation*, or who was previously appointed with respect to a *metering installation* as required in accordance with the *Rules* and procedures authorised under the *Rules*;

- (5) *AEMO* and its authorised agents; ~~and~~
 - (5a) in relation to a *metering installation* at a *child connection point*, an *Embedded Network Manager*; ~~and~~
 - (6) the *AER* or *Jurisdictional Regulators* upon request to *AEMO*.
- (d) In addition to the persons listed in paragraph (c), the following persons may access or receive *metering data* in accordance with the *Rules* and procedures authorised under the *Rules*:
- (1) a *retail customer* or *customer authorised representative*, upon request by that *retail customer* or its *customer authorised representative* to the *retailer* or *Distribution Network Service Provider* in relation to that *retail customer's* *metering installation* in accordance with the *metering data provision procedures*;
 - (2) if a *small customer* has consented to a person accessing the *metering data* from its *small customer metering installation* in accordance with clause 7.15.4(b)(3), to that person;
 - (3) a *large customer* or a *customer authorised representative*, in relation to *metering data* from the *metering installation* in respect of the *connection point* of the *large customer*;
 - (4) the *energy ombudsman* in accordance with paragraphs 7.11.1(i) – (k); and
 - (5) an *Exempt Embedded Network Service Provider* in relation to a *metering installation* at a *child connection point* on its *network*.
- (e) In addition to the persons listed in paragraphs (c) and (d), a *retailer* may access and receive *NMI Standing Data*.
- (f) Without limiting this clause 7.15.5 or clause 7.13.3:
- (1) a *retailer* may access and receive *NMI Standing Data*;
 - (2) a *customer authorised representative* may receive *metering data*;
 - (3) a *retailer* or a *Distribution Network Service Provider* may access, receive or provide *metering data* to a *customer authorised representative*; and
 - (4) *Exempt Embedded Network Service Provider* and its *Embedded Network Manager* may access or receive *metering data*,

after having first done whatever may be required or otherwise necessary, where relevant, under any applicable privacy legislation (including if appropriate making relevant disclosures or obtaining relevant consents from *retail customers*).

PART G Procedures**7.16 Procedures****7.16.1 Obligation to establish, maintain and publish procedures**

- (a) *AEMO* is responsible for the establishment and maintenance of procedures specified in Chapter 7 except for procedures established and maintained under rule 7.17.
- (b) The procedures authorised by *AEMO* under Chapter 7 must be established and maintained by *AEMO* in accordance with the *Rules consultation procedures*.
- (c) The *Information Exchange Committee* is responsible for the establishment and maintenance of procedures specified in rule 7.17.
- (d) The procedures authorised by the *Information Exchange Committee* must be established and maintained in accordance with the requirements of rule 7.17.
- (e) The procedures established or maintained under this clause 7.16.1 must be *published* by the party authorised to make the procedure.
- (f) *AEMO* must establish, maintain and *publish* a list of procedures authorised under the *Rules* relevant to this Chapter 7, irrespective of who authorised those procedures.

7.16.2 Market Settlement and Transfer Solution Procedures

- (a) *AEMO*, must establish, maintain and *publish Market Settlement and Transfer Solution Procedures*.
- (b) *AEMO* must *publish* any amendment to the *Market Settlement and Transfer Solution Procedures*.
- (c) All *Registered Participants*, *Metering Providers*, *Metering Data Providers* and *Embedded Network Managers* must comply with the *Market Settlement and Transfer Solution Procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) If a *Registered Participant*, *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* breaches the requirements of the *Market Settlement and Transfer Solution Procedures*, *AEMO* may send to that *Registered Participant*, *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* a notice in writing setting out the nature of the breach.

- (e) If the *Registered Participant, Metering Provider, Metering Data Provider* or *Embedded Network Manager* remains in breach for more than 5 *business days* after receipt of the notice from *AEMO*, *AEMO* must advise:
 - (1) the *AER*; and
 - (2) in the case of breach by a *Registered Participant* other than a *Metering Coordinator*, the *Authority* responsible for administering *jurisdictional electricity legislation* in the *participating jurisdiction* in which the *connection point* to which the breach relates is located.

7.16.3 Requirements of the metrology procedure

- (a) *AEMO* must establish, maintain and *publish* the *metrology procedure* that will apply to *metering installations* in accordance with this clause 7.16.3 and this Chapter 7.
- (b) The *metrology procedure* must include a minimum period of 3 months between the date when the *metrology procedure* is *published* and the date the *metrology procedure* commences unless the change is made under clause 7.16.7(e) in which case the effective date may be the same date as the date of *publication*.
- (c) The *metrology procedure* must include:
 - (1) information on the devices and processes that are to be used to:
 - (i) measure, or determine by means other than a device, the flow of electricity in a power conductor;
 - (ii) convey the measured or determined data under subparagraph (i) to other devices;
 - (iii) prepare the data using devices or algorithms to form *metering data*; and
 - (iv) provide access to the *metering data* from a *telecommunications network*;
 - (2) the requirements for the provision, installation and maintenance of *metering installations*;
 - (3) the obligations of *Metering Coordinators, financially responsible Market Participants, Local Network Service Providers, Metering Providers, Metering Data Providers* and *Embedded Network Managers*;
 - (4) details on:
 - (i) the parameters that determine the circumstances when *metering data* must be delivered to *AEMO* for the purposes of Chapter 3 and such parameters must include, but are not limited to, the

- volume limit per annum below which *AEMO* will not require *metering data* for those purposes;
- (ii) the timeframe obligations for the delivery of *metering data* relating to a *metering installation* for the purpose of *settlements*; and
 - (iii) the performance standards for *metering data* required for the purpose of *settlements*;
- (5) subject to clause 7.16.4(d)(2), zero MWh as the specification for the *type 5 accumulation boundary*;
- (6) procedures for:
- (i) the validation and substitution of *metering data*;
 - (ii) the estimation of *metering data*;
 - (iii) the method:
 - (A) by which *accumulated metering data* is to be converted by *AEMO* into *trading interval metering data*; and
 - (B) of managing the *first-tier load metering data* that is necessary to enable the conversion referred to in subparagraph (A) to take place; and
- (7) other matters in the *Rules* required to be included in the *metrology procedure*.

7.16.4 Jurisdictional metrology material in metrology procedure

- (a) Subject to this clause 7.16.4, *AEMO* may include in the *metrology procedure* other metrology material that is in the nature of a guideline, specification or other standard for a *participating jurisdiction* in relation to type 5, 6 and 7 *metering installations* which alters the application of the *metrology procedure* for that jurisdiction (*jurisdictional metrology material*).
- (b) *Jurisdictional metrology material* may only be submitted to *AEMO* for inclusion in the metrology procedure by the *Ministers of the MCE*.
- (c) *Jurisdictional metrology material* submitted to *AEMO* under paragraph (b) must:
 - (1) be in writing;
 - (2) be provided to *AEMO* within sufficient time for *AEMO* to meet its obligations under this clause 7.16.4;
 - (3) be consistent with the matters contained in clauses 7.16.3 and 7.16.5;

- (4) contain a date by which the *Ministers of the MCE* will undertake a review in relation to harmonising the *jurisdictional metrology material* with the *metrology procedure* (the **review date**); and
 - (5) be accompanied by written reasons as to why the *jurisdictional metrology material* is required instead of the *metrology procedure*.
- (d) *Jurisdictional metrology material* may address the following matters:
- (1) guidelines for the replacement of a device capable of producing *interval energy data* with a device that only produces *accumulated energy data*; and
 - (2) the specification of the *type 5 accumulation boundary*.
- (e) On receiving *jurisdictional metrology material* from the *Ministers of the MCE*, *AEMO* must undertake the *Rules consultation procedures* in relation to that material, including in that consultation the reasons referred to subparagraph (c)(5).
- (f) At the conclusion of the *Rules consultation procedures* under paragraph (e), *AEMO* must provide a final report to the *Ministers of the MCE* in accordance with rule 8.9(k) of the outcome of that procedure and:
- (1) in the case where the *Ministers of the MCE* do not advise *AEMO* of any amendments to the *jurisdictional metrology material*, *AEMO* must incorporate that material into a separate part of the *metrology procedure*; or
 - (2) in the case where the *Ministers of the MCE* advise *AEMO* of amendments to the *jurisdictional metrology material*, *AEMO* must incorporate the amended material into a separate part of the *metrology procedure*.
- (g) The *jurisdictional metrology material*, as included in the *metrology procedure* by *AEMO*, expires on the review date unless the *Ministers of the MCE* submit to *AEMO* new *jurisdictional metrology material* in accordance with this clause 7.16.4.
- (h) The *jurisdictional metrology material* must not prevent the *metering data* from being collected as *interval metering data* if required by the *financially responsible Market Participant* or a *Local Network Service Provider* for any purpose other than for *settlements*.

7.16.5 Additional metrology procedure matters

- (a) The *metrology procedure* may:
 - (1) clarify the operation of the *Rules* in relation to:
 - (i) *load profiling*;

- (ii) the provision and maintenance of *meters*;
 - (iii) the provision of *metering data services*;
 - (iv) metrology for a *market load* connected to a *network* where the owner or operator of that *network* is not a *Registered Participant*;
 - (v) the accreditation of *Metering Providers*, *Metering Data Providers* and *Embedded Network Managers*; and
 - (vi) with respect to the provision, installation and maintenance of *metering installations* and the provision of *metering data services*, the obligations of *Metering Coordinators*, *financially responsible Market Participants*, *Local Network Service Providers*, *AEMO*, *Metering Providers* and *Metering Data Providers*;
- (2) specify in detail:
- (i) the accuracy of *metering installations*;
 - (ii) inspection and testing standards;
 - (iii) *Metering Provider*, *Metering Data Provider* and *Embedded Network Manager* capabilities in accordance with Schedules 7.2, 7.3 and 7.7 respectively, and accreditation standards;
 - (iv) the standards and/or technical requirements for the *metering data services database*; and
 - (v) the technical standards for *metering* of a *market load* that is *connected* to a *network* where the operator or owner of that *network* is not a *Registered Participant*;
- (3) provide information on the application of the *Rules*, subject to a statement in the procedure that where any inconsistency arises between the *Rules* and the *metrology procedure*, the *Rules* prevail to the extent of that inconsistency;
- (4) in relation to type 4A, 5, 6 and 7 *metering installations* specify in what circumstances *metering data* held in the *metering data services database* within the relevant *participating jurisdiction*, can be used by *Distribution Network Service Providers* to calculate charges for *distribution services* for the purposes of clause 6.20.1(e); and
- (5) contain information to ensure consistency in practice between the *metrology procedure* and other instruments developed and *published* by *AEMO*, including the practices adopted in the *Market Settlement and Transfer Solution Procedures*.

- (b) The *metrology procedure* may not include information relating to consumer protection.

7.16.6 Requirements of the service level procedures

- (a) AEMO must establish, maintain and *publish* the *service level procedures* that will apply to the relevant categories of registration that apply to *Metering Providers* and *Metering Data Providers*, in accordance with this Chapter 7 and this clause 7.16.6.
- (b) AEMO must establish, maintain and *publish* the *service level procedures* in accordance with clause 7.16.1.
- (c) The *service level procedures* must include:
 - (1) the requirements for the provision, installation and maintenance of *metering installations* by *Metering Providers*;
 - (2) requirements for the systems and processes for the collection, processing and delivery of *metering data* by *Metering Data Providers*;
 - (3) the performance levels associated with the collection, processing and delivery of *metering data*;
 - (4) the data formats that must be used for the delivery of *metering data*;
 - (5) the requirements for the management of relevant *NMI Standing Data*;
 - (6) the requirements for the processing of *metering data* associated with *connection point* transfers and the alteration of *metering installations* where one or more devices are replaced;
 - (7) other matters in the *Rules* required to be included in the *service level procedures*; and
 - (8) information to ensure consistency in practice between the *service level procedures* and other documents developed and *published* by AEMO, including the practices adopted in the *Market Settlement and Transfer Solutions Procedures*.
- (d) The *service level procedures* must include requirements for accreditation, and for *Metering Providers* and *Metering Data Providers* (the '**service providers**'), may include requirements relating to, without limitation:
 - (1) cooperation with AEMO;
 - (2) the confidentiality of information collected by the service providers;
 - (3) the resolution of disputes between AEMO and the service providers, including disputes associated with a breach of the *Rules* and procedures authorised under the *Rules*;

- (4) the access of *AEMO* to and the inspection and audit by *AEMO* of any equipment or database maintained by the service providers;
- (5) the insurance which must be taken out by or on behalf of the service providers;
- (6) subcontracting by the service providers;
- (7) the software and systems that are used by the service providers;
- (8) maintenance of quality systems accreditation;
- (9) the ownership of intellectual property that is developed or used by the service providers; and
- (10) the delivery up to *AEMO* of data, works, material and other property that *AEMO* has the right to in the event of the deregistration of a service provider.

7.16.6A Requirements of the ENM service level procedures

- (a) *AEMO* must establish, maintain and *publish* the *ENM service level procedures* that apply to *Embedded Network Managers*, in accordance with this Chapter 7 and this clause 7.16.6A.
- (b) *AEMO* must establish and publish the *ENM service level procedures* in accordance with clause 7.16.7.
- (c) The *ENM service level procedures* must include:
 - (1) a list of *embedded network management services*;
 - (2) the requirements for the provision of *embedded network management services*;
 - (3) the requirements for the management of relevant *EN wiring information*;
 - (4) the requirements for the assignment of the *parent connection point* and *child connection points* on an *embedded network*;
 - (5) application of *distribution loss factors* in relation to the *embedded network*;
 - (6) the requirements for the notification of *distribution loss factors* to *AEMO*; and
 - (7) information to ensure consistency in practice between the *ENM service level procedures* and other documents developed and published by *AEMO*, including the practices adopted in the *Market Settlement and Transfer Solutions Procedures*.

- (d) The *ENM service level procedures* must include requirements for accreditation and registration for *Embedded Network Managers*, including, without limitation:
 - (1) requirements relating to cooperation with *AEMO*, *Registered Participants*, *Metering Providers* and *Metering Data Providers*;
 - (2) the confidentiality of information collected by the *Embedded Network Managers*;
 - (3) the resolution of disputes between *AEMO* and the *Embedded Network Managers*, including disputes associated with a breach of the *Rules* and procedures authorised under the *Rules*;
 - (4) the access of *AEMO* to and the inspection and audit by *AEMO* of any relevant database maintained by the *Embedded Network Managers*;
 - (5) the insurance which must be taken out by or on behalf of the *Embedded Network Managers*;
 - (6) subcontracting by the *Embedded Network Managers*;
 - (7) the software and systems that are used by the *Embedded Network Managers*;
 - (8) the ownership of intellectual property that is developed or used by the *Embedded Network Managers*; and
 - (9) the delivery up to *AEMO* of data, works, material and other property that *AEMO* has the right to in the event of the deregistration of an *Embedded Network Manager*.
- (e) The *ENM service level procedures* must contain information to ensure consistency in practice between the procedures and other documents developed and *published* by *AEMO*, including the practices adopted in the *Market Settlement and Transfer Solutions Procedures*.

Clause 7.16.6B Guide to embedded networks

AEMO must develop and *publish* a guide to *embedded networks* addressing, without limitation:

- (a) the nature of *network exemptions* granted by the *AER* under section 13(3) of the *National Electricity Law* and clause 2.5.1(d) in respect of *embedded networks*;
- (b) which *retailers* and other persons are able to sell electricity to consumers whose premises are *supplied* with electricity conveyed through *embedded networks*; and
- (c) the roles, responsibilities and obligations of *Embedded Network Managers* under the *Rules* and procedures authorised under the *Rules*.

7.16.7 Amendment of procedures in the Metering Chapter

- (a) Any person (the '**proponent**') may submit to *AEMO* a proposal (the '**proposal**') to amend any procedure in this Chapter 7 including the *metrology procedure* except:
 - (1) in relation to the *jurisdictional metrology material* which is contained within the *metrology procedure*; and
 - (2) procedures specified in rule 7.17,and must include reasons for the proposed change.
- (b) For proposals submitted under paragraph (a), *AEMO* must:
 - (1) give notice of receipt of the proposal to the proponent; and
 - (2) advise the proponent of the action that *AEMO* proposes to undertake under paragraphs (c) or (e).
- (c) Where *AEMO*:
 - (1) accepts the proposal, *AEMO* must conduct the *Rules consultation procedures* in relation to that proposal;
 - (2) requests further information from the proponent in relation to a proposal, on receiving that information *AEMO* must either accept, or reject the proposal; or
 - (3) rejects a proposal, *AEMO* must advise the proponent of its decision and reasons for the decision in writing.
- (d) *AEMO* may at the conclusion of the *Rules consultation procedures* amend the procedure (if necessary).
- (e) Where, in *AEMO*'s reasonable opinion, a proposal referred to in paragraph (a) relates to amendments that are of a minor or administrative nature, *AEMO* is not required to undertake the *Rules consultation procedures* but must:
 - (1) *publish* the proposal including the accompanying reasons;
 - (2) issue a notice to *Registered Participants, Metering Providers, Metering Data Providers, Embedded Network Managers, Ministers* and the *AER* advising that the amendment to the procedure has been *published*;
 - (3) invite submissions on the proposal;
 - (4) allow 10 *business days* for the receipt of submissions;

- (5) allow a reasonable extension of time for submissions if requested in writing by a *Registered Participant*, *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager*;
- (6) *publish* submissions as soon as practicable after submissions have been received;
- (7) consider the submissions; and
- (8) *publish*, on or before the day of *publication* of the procedure identified in paragraph (a), reasons for the amendments to the procedure.

7.16.8 National Measurement Act

- (a) *AEMO* in consultation with the National Measurement Institute must establish guidelines that clarify the application of the requirements of the *National Measurement Act* to *metering installations*.
- (b) For the avoidance of doubt, to the extent that there is an inconsistency between the *Rules* and the *National Measurement Act*, the Act prevails to the extent of that inconsistency.

Part H B2B Requirements

7.17 B2B Arrangements

7.17.1 B2B e-Hub

- (a) *AEMO* must provide and operate a *B2B e-Hub*.
- (b) The *B2B e-Hub* must:
 - (1) have the capability to facilitate the *B2B Communications* in accordance with the *B2B Procedures*;
 - (2) have the capability to support a free-form method of communication between *B2B Parties*; and
 - (3) meet any minimum standards of performance specified in the *B2B Procedures*.
- (c) A person must not use the *B2B e-Hub* unless they are a *B2B e-Hub Participant*.
- (d) Each *B2B Party* and *AEMO* must comply with the *B2B Procedures*.
- (e) Subject to paragraph (f), each *B2B Party* must use the *B2B e-Hub* for *B2B Communications* in accordance with the *B2B Procedures*.
- (f) *B2B Parties* may, on such terms and conditions as agreed between them, communicate a *B2B Communication* on a basis other than through the *B2B*

e-Hub provided the *B2B Communication* is otherwise made in accordance with the *B2B Procedures*.

- (g) Despite paragraphs (d) and (e), a person:
 - (1) appointed as a *Metering Coordinator* in respect of a *transmission network connection point*; and
 - (2) not accredited as a *B2B e-Hub Participant*,
 is not required to:
 - (3) comply with the *B2B Procedures*; and
 - (4) use the *B2B e-Hub* for *B2B Communications*,
 in respect of that *transmission network connection point*.

7.17.2 B2B e-Hub Participants

- (a) A *B2B e-Hub Participant* is a person so accredited with *AEMO*.
- (b) *AEMO* must establish and maintain an accreditation process for *B2B e-Hub Participants* (including circumstances under which accreditation can be revoked by *AEMO*) and *publish* information relating to the process by which parties can apply to be accredited as *B2B e-Hub Participants*.
- (c) To be eligible for accreditation as a *B2B e-Hub Participant*, a person must:
 - (1) satisfy *AEMO* that it is complying with and will comply with the *Rules* and the procedures authorised under the *Rules*; and
 - (2) satisfy such other requirements as reasonably determined by *AEMO*, which may include (but are not limited to):
 - (i) systems and information technology requirements necessary for secure use of the *B2B e-Hub*; and
 - (ii) fee payment and credit support requirements.
- (d) *AEMO* may exempt persons or classes of persons from any one or more requirements of the accreditation process for *B2B e-Hub Participants* established under paragraph (b), subject to such conditions as *AEMO* deems appropriate.

7.17.3 Content of the B2B Procedures

- (a) The *B2B Procedures* may be constituted by one or more separate documents and:
 - (1) must provide for *B2B Communications* to support each of the services set out in the *minimum services specification*;

(1A) must provide for *B2B Communications* to support the billing and settlement of *network charges payable by retailers to Embedded Network Service Providers and Exempt Network Operators* in accordance with the *shadow network charges procedure*;

- (2) may provide for any other *B2B Communications* determined in accordance with the Rules;
 - (3) may include obligations in relation to the information to be maintained and provided to support *B2B Communications*;
 - (4) must not restrict *B2B Parties* from communicating *B2B Communications* on a basis other than through the *B2B e-Hub* as permitted under clause 7.17.1(f); and
 - (5) may include minimum performance standards for the *B2B e-Hub*.
- (b) For each *B2B Communication*, the *B2B Procedures*:
- (1) must specify:
 - (i) the required *B2B Data* inputs and *B2B Data* outputs;
 - (ii) the required business process flows and related timing requirements;
 - (iii) the required content and format;
 - (iv) the required delivery method; and
 - (v) the back-up delivery method to be used where the required delivery method cannot be used; and
 - (2) may specify:
 - (i) details for testing and certification;
 - (ii) provisions relating to contingency arrangements; and
 - (iii) examples of how a *B2B Communication* may operate in practice.
- (c) *B2B Data* is confidential information and may only be disclosed as permitted by the *Rules*.

7.17.4 Changing B2B Procedures

Change date for B2B Procedures

- (a) Any change to the *B2B Procedures* must specify the date on which the change to the *B2B Procedures* will commence (**B2B change date**). The *B2B change date* must be not less than 10 *business days* after the *B2B Decision* to make the change is *published*.

- (b) The *Information Exchange Committee* may change the B2B change date to a date later than that previously specified by the *Information Exchange Committee* following consultation with *AEMO* and any affected *B2B Parties* and *B2B Change Parties*. If the B2B change date is changed by the *Information Exchange Committee*, the *Information Exchange Committee* must provide *AEMO* with that date and *AEMO* must *publish* that date
- (c) A change to the *B2B Procedures* may also include provisions relating to a date for the end of a process related to a *B2B Communication*. That date may be after the date of commencement of the change and may be left to the discretion of the *Information Exchange Committee*. If the date is set by the *Information Exchange Committee*, the *Information Exchange Committee* must provide *AEMO* with that date and *AEMO* must *publish* that date.

Minor and administrative changes to the B2B Procedures

- (d) If a change to the *B2B Procedures* is of a minor or administrative nature or is necessary to correct a manifest error in the *B2B Procedures*, the *Information Exchange Committee* may recommend the change to *AEMO* and need not consult on the change in accordance with the *Rules consultation procedures*. Paragraphs (a) to (c) and (n) to (q) (inclusive) and clause 7.17.5 apply to such a change (with any necessary modifications).
- (e) *AEMO* must publish its *B2B Decision* in relation to a change under paragraph (d) and notify all *B2B Parties* of the change to the *B2B Procedures*.

B2B Procedure change process

- (f) Any person (other than the *Information Exchange Committee*) may propose a change to the *B2B Procedures* by providing a change proposal to the *Information Exchange Committee* in writing. A change proposal must provide details of the proposed change to the *B2B Procedure* and supporting information, including reasons for the proposed change.
- (g) Within 25 *business days* of receipt by the *Information Exchange Committee* of a proposal under paragraph (f), the *Information Exchange Committee* must meet to determine whether, on a *prima facie* basis, changing the *B2B Procedures* is warranted having regard to the *national electricity objective* and the *B2B factors* and considering the *B2B Principles*.
- (h) If, after its consideration under paragraph (g), the *Information Exchange Committee* decides that the proposal made under paragraph (f) should not be considered further, the *Information Exchange Committee* must within five *business days* provide written reasons for that decision to the person who made the proposal.
- (i) If, after its consideration under paragraph (g), the *Information Exchange Committee* decides that the proposal made under paragraph (f) should be considered further, the *Information Exchange Committee* must:

- (1) develop the proposal into a *B2B Proposal* (which may differ from the proposal originally made) and an accompanying *B2B Procedures Change Pack* for consultation; and
- (2) seek *AEMO*'s advice on whether:
 - (i) a conflict with the *Market Settlement and Transfer Solution Procedures* arises from the *B2B Proposal*; and
 - (ii) changes are required to the *B2B e-Hub* in order to deliver the *B2B Proposal* and, if so, the likely costs of making such changes,

and include any such advice in the *B2B Procedures Change Pack*.

- (j) The *Information Exchange Committee* must comply with the *Rules consultation procedures* in relation to the *B2B Proposal*. For the purposes of rule 8.9(b), the nominated persons to whom notice must be given are *B2B Parties*, relevant *B2B Change Parties*, *AEMO* and such other persons who identify themselves to the *Information Exchange Committee* as interested in the *B2B Procedures*. For the purposes of the notice, the particulars of the matters under consultation must include a copy of the *B2B Procedures Change Pack*.
- (k) *AEMO* must publish the notice of consultation within 3 *business days* of its receipt and must notify all persons referred to in paragraph (j) of the consultation.
- (l) In addition to the matters which rule 8.9(g) requires be included in the draft report, the draft report must contain details of how the *Information Exchange Committee* has:
 - (1) had regard to the *national electricity objective* and the *B2B factors*; and
 - (2) sought to give effect to the *B2B Principles*,

when considering the *B2B Proposal* and each valid written submission.
- (m) In addition to the matters which rule 8.9(k) requires be included in the final report, the final report must contain details of how the *Information Exchange Committee* has:
 - (1) had regard to the *national electricity objective* and the *B2B factors*; and
 - (2) sought to give effect to the *B2B Principles*,

when considering the *B2B Proposal* and each valid written submission.
- (n) The *Information Exchange Committee* may decide:

- (1) not to recommend the proposed change to the *B2B Procedures*; or
- (2) to recommend a change to the *B2B Procedures* to AEMO.
- (o) An *Information Exchange Committee Recommendation* may recommend a different change to the *B2B Procedures* than that originally proposed under paragraph (f).
- (p) The *Information Exchange Committee's* decision under paragraph (n) must be included in the final report required under rule 8.9(k).
- (q) In making a decision under paragraph (n), the *Information Exchange Committee* must:
 - (1) have regard to the *national electricity objective* and the *B2B factors*; and
 - (2) seek to give effect to the *B2B Principles*.
- (r) For the purposes of paragraph (q), to the extent of any conflict between the *B2B Principles*, the *Information Exchange Committee* may determine the manner in which those principles can best be reconciled or which of them should prevail.

7.17.5 B2B Decision

- (a) If the *Information Exchange Committee* decides not to recommend a change to the *B2B Procedures* under clause 7.17.4(n)(1), AEMO must take no further action in respect of the proposal.
- (b) If the *Information Exchange Committee* makes an *Information Exchange Committee Recommendation*, AEMO must consider the *Information Exchange Committee Recommendation* and must approve that *Information Exchange Committee Recommendation*, unless it concludes that the *Information Exchange Committee Recommendation* would conflict with the *Market Settlement and Transfer Solution Procedures*.
- (c) In considering whether the *Information Exchange Committee Recommendation* would conflict with the *Market Settlement and Transfer Solution Procedures*, AEMO must not otherwise consider the merits of the *Information Exchange Committee Recommendation*.
- (d) AEMO must not amend the *Information Exchange Committee Recommendation* and must not conduct any further consultation on the *Information Exchange Committee Recommendation* prior to making its *B2B Decision*.
- (e) AEMO must *publish* and make available on its website its *B2B Decision*, with reasons, within 10 *business days* of receiving an *Information Exchange Committee Recommendation* from the *Information Exchange Committee*.

- (f) If *AEMO* decides not to approve an *Information Exchange Committee Recommendation* (a **Vetoed Recommendation**), then:
- (1) the reasons for the *B2B Decision* which are to be published and made available in accordance with paragraph (e) must include an explanation of how the Vetoed Recommendation would give rise to a conflict with the *Market Settlement and Transfer Solution Procedures*; and
 - (2) the *Information Exchange Committee* may:
 - (i) reconsider the proposal made under clause 7.17.4(f) in respect of which the Vetoed Recommendation was made; and
 - (ii) make a new *Information Exchange Committee Recommendation*, which may materially differ from the Vetoed Recommendation,

in accordance with clauses 7.17.4(i) to 7.17.4(r) (inclusive).

7.17.6 Establishment of Information Exchange Committee

- (a) *AEMO* must establish the *Information Exchange Committee* in accordance with the *Information Exchange Committee Election Procedures* and the *Rules*.
- (b) The *Information Exchange Committee* must consist of:
 - (1) one *Distribution Network Service Provider Member*;
 - (2) one *Retailer Member*;
 - (3) one *Metering Member*;
 - (4) one *Consumer Member*;
 - (5) one *AEMO Member*;
 - (6) if there is at least one person that is accredited by *AEMO* as a *B2B e-Hub Participant* and that person:
 - (i) is a *Third Party B2B Participant*; and
 - (ii) nominates a representative for election as the *Third Party B2B Participant Member*,

one *Third Party B2B Participant Member*; and
 - (7) at least two, but no more than four, *Discretionary Members*.
- (c) *AEMO* must maintain a register of *Members* which includes:

- (1) the name of each current *Member* and their category of membership; and
 - (2) in respect of each *Discretionary Member*, a description of the class or classes of persons that the *Discretionary Member* has been appointed by *AEMO* to represent under clause 7.17.10(d).
- (d) Subject to paragraph (e), the *AEMO Member* is the chairperson of the *Information Exchange Committee*.
- (e) If the *AEMO Member* is unable to act as chairperson at a meeting of the *Information Exchange Committee* because he or she has, or would reasonably be considered to have, a material conflict of interest in the matter to be decided or determined by the *Information Exchange Committee* at that meeting, then a *Member* chosen by an *ordinary majority* may preside as chairperson of the meeting for the relevant matter.
- (f) Each *Member* must serve on the *Information Exchange Committee* for the term specified in the *Information Exchange Committee Election Procedures* and must only be removed or replaced in accordance with the *Information Exchange Committee Election Procedures* and the *Rules*.
- (g) *B2B Parties* must ensure that the *Information Exchange Committee Election Procedures* include provisions in respect of:
 - (1) procedures for nominating *Members* and voting for *Members*;
 - (2) the term of a *Member*;
 - (3) procedures for the determination and publication of results of elections of a *Member*; and
 - (4) procedures for the removal or resignation of a *Member*.

7.17.7 Functions and powers of Information Exchange Committee

- (a) The functions and powers of the *Information Exchange Committee* include:
 - (1) developing, consulting on and making an *Information Exchange Committee Recommendation*;
 - (2) managing the ongoing development of the *B2B Procedures* and any changes to them;
 - (3) establishing the *Information Exchange Committee Working Groups*;
 - (4) developing, consulting on and approving the *Information Exchange Committee Works Programme*;
 - (5) reviewing and considering work completed by the *Information Exchange Committee Working Groups*;

- (6) developing proposed amendments to the *Information Exchange Committee Election Procedures*; and
 - (7) developing proposed amendments to the *Information Exchange Committee Operating Manual*.
- (b) The *Information Exchange Committee* must prepare an *Information Exchange Committee Annual Report* by 31 December each year. The *Information Exchange Committee* must provide the *Information Exchange Committee Annual Report* to AEMO by the following 31 March and AEMO must publish that *Information Exchange Committee Annual Report*.
 - (c) The *Information Exchange Committee Annual Report* must contain the information required by the *Information Exchange Committee Operating Manual*.
 - (d) By 28 February each year the *Information Exchange Committee* must prepare a draft budget for the following *financial year* in a form which is consistent with the budget procedures of AEMO. Following discussion with AEMO the *Information Exchange Committee* must prepare a budget by 31 March and provide that budget to AEMO. When AEMO publishes its budget pursuant to clause 2.11.3, AEMO must advise the *Information Exchange Committee* of the final budget for the *Information Exchange Committee* for that *financial year*.
 - (e) The *Information Exchange Committee* must provide to AEMO the current version of the *B2B Procedures* and the *Information Exchange Committee Works Programme*.
 - (f) AEMO must publish the *B2B Procedures* and the *Information Exchange Committee Works Programme* provided to it by the *Information Exchange Committee*.

7.17.8 Obligations of Members

- (a) Each *Member* in performing his or her duties or in exercising any right, power or discretion as a *Member* must:
 - (1) have regard to the *national electricity objective* and *B2B factors*; and
 - (2) seek to give effect to the *B2B Principles*,
 and must:
 - (1) at all times act honestly;
 - (2) exercise the degree of care and diligence that a reasonable person in a like position would exercise;
 - (3) not make improper use of information acquired by virtue of his or her position to gain, directly or indirectly, an advantage for himself or

herself, or the parties by which he or she is employed and/or which nominated him or her to be a *Member*;

- (4) not make improper use of his or her position to gain, directly or indirectly, an advantage for himself or herself or the parties by which he or she is employed and/or which nominated him or her to be a *Member*; and
 - (5) not take part in any decision or determination of the *Information Exchange Committee* where the *Member* has, or would reasonably be considered to have, a material conflict of interest in the matter to be decided or determined by the *Information Exchange Committee*.
- (b) For the purposes of subparagraph (a)(5), a conflict will be material if it detracts, or would reasonably be considered to be likely to detract, from the *Member's* capacity to exercise independent judgment in respect of the relevant decision or determination.
 - (c) Notwithstanding subparagraph (a)(5) and paragraph (b), a *B2B Party* may take into account the interests of the persons it has been elected to represent in performing his or her duties or in exercising any right, power or discretion.
 - (d) Notwithstanding subparagraph (a)(5) and paragraph (b), the *Consumer Member* may take into account the interests of *small customers* in performing his or her duties or in exercising any right, power or discretion.
 - (e) Notwithstanding subparagraph (a)(5) and paragraph (b), the *Discretionary Member* may take into account the interests of the persons the *Discretionary Member* was appointed by *AEMO* to represent in performing his or her duties or in exercising any right, power or discretion.
 - (f) Notwithstanding subparagraph (a)(5) and paragraph (b), the *AEMO Member* may take into account the interests of *AEMO* in performing his or her duties or in exercising any right, power or discretion.

7.17.9 Meetings of Information Exchange Committee

- (a) The *Information Exchange Committee* must meet at least once every three months.
- (b) The quorum for a meeting of the *Information Exchange Committee* consists of:
 - (1) if there are less than nine *Members*, five *Members*; and
 - (2) if there are nine *Members* or more, six *Members*,

and must include the *AEMO Member*, except where the *AEMO Member* is unable to attend the meeting because he or she has, or would reasonably be considered to have, a material conflict of interest in the matter to be decided or determined by the *Information Exchange Committee* at the meeting.

- (c) A decision of the *Information Exchange Committee* is not valid and enforceable unless, in respect of:
 - (1) an *Information Exchange Committee Recommendation*, it has the support of a *super majority*;
 - (2) any decision that a proposal under clause 7.17.4(f) should not be considered further after initial consideration under clause 7.17.4(g), and any decision to not recommend a change to the *B2B Procedures* for approval by *AEMO*, it has the support of a *super majority*;
 - (3) any decision to approve the *Information Exchange Committee Works Programme*, it has the support of a *super majority*; and
 - (4) any other decision by the *Information Exchange Committee*, it has the support of an *ordinary majority*.

7.17.10 Nomination, election and appointment of Members

- (a) A person may only be nominated and elected as a *Member* in accordance with the *Information Exchange Committee Election Procedures* and the *Rules* including, without limitation, this clause 7.17.10 and clause 7.17.11.
- (b) *AEMO* must appoint a *Consumer Member*. Prior to making such appointment, *AEMO* must consult with Energy Consumers Australia and may consult with any other person or persons determined by *AEMO*.
- (c) *AEMO* must appoint an *AEMO Member* and the *AEMO Member* must be a director of *AEMO*.
- (d) *AEMO* must appoint at least two, but may appoint up to four, *Discretionary Members* to represent a class or classes of persons who, in *AEMO*'s reasonable opinion, have an interest in the *B2B Procedures* and those interests are not adequately represented on the *Information Exchange Committee*. Prior to making such appointments, *AEMO* may consult with any person or persons determined by *AEMO*.
- (e) *Distribution Network Service Providers* must elect a *Distribution Network Service Provider Member*.
- (f) *Retailer Member Voters* must elect a *Retailer Member*.
- (g) *Metering Member Voters* must elect a *Metering Member*.
- (h) *Third Party B2B Participants* must elect a *Third Party B2B Participant Member*.
- (i) Any person who is:
 - (1) both a *retailer* and a *Local Retailer*, may nominate and vote only once in respect of the appointment of a *Retailer Member*; and

- (2) registered with *AEMO* in two or more of the categories of *Metering Coordinator*, *Metering Provider* and *Metering Data Provider*, may nominate and vote only once in respect of the appointment of a *Metering Member*.
- (j) If two or more persons are *related bodies corporate* and belong to the same *Voter Category* (**related voters**) then only one of the related voters may nominate and vote in respect of an election for a *Distribution Network Service Provider Member*, a *Retailer Member*, *Metering Member* or *Third Party B2B Participant Member*, as the case may be.

7.17.11 Qualifications of Members

- (a) In this clause, being **Independent** of another person means:
 - (1) is not currently an employee or director of that person;
 - (2) is not:
 - (i) an employee of, or a partner in, any partnership; or
 - (ii) an employee of, or a director of, any company,
 which partnership or company is an adviser or consultant to that person, where such relationship is a significant source of income for that partnership or company; or
 - (3) an adviser or consultant to that person, where such relationship is a significant source of income for that adviser or consultant.
- (b) Each *B2B Party* must ensure that a person they nominate as a *Member* satisfies the requirements for that particular category of *Member* as set out in the *Information Exchange Committee Election Procedures* and the *Rules*.
- (c) A *B2B Party* must ensure that a person they nominate as a *Member*:
 - (1) has knowledge of and experience in the *National Electricity Market*;
 - (2) in relation to *Members* voted by a particular *Voter Category*, has experience with and skills in considering, issues that affect the relevant *Voter Category*.
 - (3) has knowledge of the subject matter of *B2B Procedures*; and
 - (4) has knowledge and understanding of the *Rules* and the related legislative and regulatory framework.
- (d) *AEMO* must ensure that an appointee for a *Discretionary Member* or the *Consumer Member*:
 - (1) has knowledge of and experience with the *National Electricity Market*;

- (2) has experience with and skills in considering issues that affect:
 - (i) in respect of a *Discretionary Member*, the class or classes of persons whom the *Discretionary Member* represents (as specified in the register kept pursuant to clause 7.17.6(c)); and
 - (ii) in respect of the *Consumer Member*, *small customers*;
- (3) has knowledge of the subject matter of *B2B Procedures*;
- (4) has knowledge and understanding of the *Rules* and the related legislative and regulatory framework; and
- (5) in the case of the *Discretionary Member*, is Independent of AEMO.

7.17.12 Information Exchange Committee Election Procedures and Information Exchange Committee Operating Manual

- (a) The *Information Exchange Committee*, AEMO and *B2B Parties* must comply with the *Information Exchange Committee Election Procedures* and the *Information Exchange Committee Operating Manual*.
- (b) *B2B Parties* and AEMO are not obliged to comply with an amendment to the *Information Exchange Committee Election Procedures* unless that amendment is made in accordance with this clause.
- (c) The *Information Exchange Committee Election Procedures* may only be amended in accordance with the procedure set out in the *Information Exchange Committee Election Procedures* and with the support of not less than 75% of voters in each of at least three of the *Voter Categories* for the following *Members*:
 - (1) *Distribution Network Service Provider Member*;
 - (2) *Retailer Member*;
 - (3) *Metering Member*; and
 - (4) *Third Party B2B Participant Member*.
- (d) AEMO must *publish* the current version of the *Information Exchange Committee Election Procedures*.
- (e) *B2B Parties* and AEMO are not obliged to comply with an amendment to the *Information Exchange Committee Operating Manual* unless that amendment is made in accordance with this clause.
- (f) The *Information Exchange Committee Operating Manual* may only be amended in accordance with the procedure set out in the *Information Exchange Committee Election Procedures* and with the support of not less than 75% of voters in each of at least three of the *Voter Categories* for the following *Members*:

- (1) *Distribution Network Service Provider Member*;
 - (2) *Retailer Member*;
 - (3) *Metering Member*; and
 - (4) *Third Party B2B Participant Member*.
- (g) *AEMO must publish the current version of the Information Exchange Committee Operating Manual.*

7.17.13 Cost Recovery

- (a) *The B2B costs must be paid by AEMO in the first instance and recouped by AEMO as Participant fees.*
- (b) *Subject to paragraph (a), the costs of any Member relating to their participation in the Information Exchange Committee and the costs of individuals relating to their participation in the Information Exchange Committee Working Groups is not to be borne by AEMO.*
- (c) *The cost to a person of implementing and maintaining the necessary systems and processes to ensure compliance with B2B Procedures must be met by that person.*

Schedule 7.1 Metering register

S7.1.1 General

- (a) *The metering register forms part of the metering database and holds static metering information associated with metering installations defined by the Rules that determines the validity and accuracy of metering data.*
- (b) *The purpose of the metering register is to facilitate:*
 - (1) *the registration of connection points, metering points and affected Registered Participants;*
 - (2) *the verification of compliance with the Rules; and*
 - (3) *the auditable control of changes to the registered information.*

S7.1.2 Metering register information

Metering information to be contained in the metering register should include, but is not limited to the following:

- (a) *Connection and metering point reference details, including:*
 - (1) *agreed locations and reference details (eg drawing numbers);*
 - (2) *loss compensation calculation details;*

- (3) site identification names;
 - (4) details of *Market Participants* and *Local Network Service Providers* associated with the *connection point* and the *Embedded Network Manager* in relation to a *child connection point*;
 - (5) details of the *Metering Coordinator*; and
 - (6) transfer date for *Second-Tier Customer* and *Non-Registered Second-Tier Customer metering data* (i.e. to another *Market Customer*).
- (b) The identity and characteristics of *metering* equipment (ie *instrument transformers*, *metering installation* and *check metering installation*), including:
- (1) serial numbers;
 - (2) *metering installation* identification name;
 - (3) *metering installation* types and models;
 - (4) *instrument transformer* ratios (available and connected);
 - (5) current test and calibration programme details, test results and references to test certificates;
 - (6) asset management plan and testing schedule;
 - (7) calibration tables, where applied to achieve *metering installation* accuracy;
 - (8) *Metering Provider(s)* and *Metering Data Provider(s)* details;
 - (9) summation scheme values and multipliers; and
 - (10) data register coding details.
- (c) Data communication details, including:
- (1) telephone number(s) for access to *energy data*;
 - (2) communication equipment type and serial numbers;
 - (3) communication protocol details or references;
 - (4) data conversion details;
 - (5) user identifications and access rights; and
 - (6) 'write' password (to be contained in a hidden or protected field).

- (d) Data validation, substitution and estimation processes agreed between affected parties, including:
 - (1) algorithms;
 - (2) data comparison techniques;
 - (3) processing and alarms (eg *voltage* source limits; phase angle limits);
 - (4) *check metering* compensation details; and
 - (5) alternate data sources.
- (e) Data processing prior to the *settlement* process, including algorithms for:
 - (1) *generation* half-hourly 'sent out' calculation;
 - (2) customer half-hourly *load* calculation; and
 - (3) *Local Retailer* net *load* calculation.

Schedule 7.2 Metering Provider

S7.2.1 General

- (a) A *Metering Provider* must be accredited by and registered by AEMO. AEMO must accredit and register a *Metering Provider* only for the type of work the *Metering Provider* is qualified to provide.
- (b) AEMO must establish a qualification process for *Metering Providers* that enables registration to be achieved in accordance with the requirements of this Schedule 7.2.
- (c) A *Metering Provider* must have the necessary licences in accordance with appropriate State and Territory requirements.
- (d) A *Metering Provider* must ensure that any *metering* equipment it installs is suitable for the range of operating conditions to which it will be exposed (e.g. temperature; impulse levels), and operates within the defined limits for that equipment.

S7.2.2 Categories of registration

- (a) Registrations for *Metering Providers* in relation to the provision, installation and maintenance of *metering installation* types 1, 2, 3, 4 and 4A must be categorised in accordance with Tables S7.2.2.1, S7.2.2.2 and S7.2.2.3, or other procedures approved by AEMO.
- (b) Registrations for *Metering Providers* in relation to the provision, installation and maintenance (unless otherwise specified) of *metering installation* types 5 and 6 must be categorised in accordance with Table S7.2.2.4 with the capabilities established in the *metrology procedures*.

- (c) Registration for *Metering Providers* in relation to the provision, installation and maintenance of *small customer metering installations* must be categorised in accordance with Tables S7.2.2.2 and satisfy the requirements in clause S7.2.5.
- (d) *AEMO* may establish *Accredited Service Provider categories* of registration for a *Metering Provider* in accordance with clause S7.2.6.

Table S7.2.2.1 Categories of registration for accreditation

Category	Competency
1C	Class 0.2 CTs with < 0.1% uncertainty.
1V	Class 0.2 VTs with < 0.1% uncertainty.
1M	Class 0.2 Wh meters with < 0.1/cosφ% uncertainty and class 0.5 varh meters with <0.3/sinφ uncertainty.
1A	Class 0.2 CTs, VTs, Wh meters; class 0.5 varh meters; the total installation to 0.5%. Wh with < 0.2% uncertainty at unity <i>power factor</i> ; 1.0% for varh with <0.4% uncertainty at zero <i>power factor</i> .
2C	Class 0.5 CTs with < 0.2% uncertainty.
2V	Class 0.5 VTs with < 0.2% uncertainty.
2M	Class 0.5 Wh meters with < 0.2/cosφ uncertainty and class 1.0 varh meters with <0.4/sinφ uncertainty.
2A	Class 0.5 CTs, VTs, Wh meters; class 1.0 varh meters; the total installation to 1.0%. Wh with < 0.4% uncertainty at unity <i>power factor</i> ; 2.0% for varh with <0.5% uncertainty at zero <i>power factor</i> .

Table S7.2.2.2 Categories of registration for accreditation

Category	Competency
3M	Class 1.0 Wh meters with < 0.3/cosφ uncertainty and class 2.0 varh meters with <0.5/sinφ% uncertainty.
3A	Class 0.5 CTs, VTs; class 1.0 Wh meters; class 2.0% varh meters; the total installation to 1.5%. Wh with < 0.5% uncertainty at unity <i>power factor</i> ; 3.0% for varh with <0.6% uncertainty at zero <i>power factor</i> .
4M	Class 1.0 Wh meters and class 1.5 Wh meters with <0.3/cosφ% uncertainty.

Category	Competency
4A	Class 1.0 Wh meters and class 1.5 Wh meters with $<0.3/\cos\phi\%$ uncertainty.
4S	Class 1.0Wh meters and class 1.5 Wh meters with $<0.3/\cos\phi\%$ uncertainty.

Table S7.2.2.3 Categories of registration for accreditation

Category	Competency
L	Approved <i>communications interface</i> installer

Table S7.2.2.4 Categories of registration for accreditation

Category	Competency
5A Installation only	Class 1.0 and class 1.5 whole current Wh <i>meters</i> with $<0.3/\cos\Phi\%$ uncertainty.
6A Installation only	Class 1.5 whole current Wh <i>meters</i> with $<0.3/\cos\Phi\%$ uncertainty.
5B	Class 1.0 and class 1.5 whole current or CT connected Wh <i>meters</i> with $<0.3/\cos\Phi\%$ uncertainty.
6B	Class 1.5 whole current or CT connected Wh <i>meters</i> with $0.3</\cos\Phi\%$ uncertainty.

S7.2.3 Capabilities of Metering Providers for metering installations types 1, 2, 3, 4 and 4A

Category 1A, 2A, 3A and 4M *Metering Providers* must be able to exhibit the following capabilities to the reasonable satisfaction of AEMO:

- (a) Detailed design and specification of *metering* schemes, including:
 - (1) knowledge and understanding of this Chapter 7;
 - (2) knowledge of equipment (*meters*, *current transformers* and where applicable *voltage transformers*);
 - (3) design experience including knowledge of *current transformers* and where applicable *voltage transformers* and the effect of burdens on performance;
 - (4) ability to calculate summation scheme values, multipliers, etc; and

- (5) ability to produce documentation, such as single line diagrams, panel layouts and wiring diagrams.
- (b) Programming and certification requirements for *metering installations* to the required accuracy, including:
 - (1) licensed access to *metering* software applicable to all equipment being installed by the *Metering Provider*;
 - (2) ability to program requirements by setting variables in *meters*, summators, modems, etc;
 - (3) management of the testing of all equipment to the accuracy requirements specified in this Chapter 7;
 - (4) certifications that all calibration and other *meter* parameters have been set, verified and recorded prior to *meters*, and other components of the *metering installation* being released for installation;
 - (5) all reference/calibration equipment for the purpose of meeting test or inspection obligations must be tested to ensure full traceability to test certificates issued by a *NATA* accredited body or a body recognised by *NATA* under the International Laboratory Accreditation Corporation (**ILAC**) mutual recognition scheme and documentation of the traceability must be provided to *AEMO* on request; and
 - (6) compliance with ISO/IEC Guide 25 "General Requirements for the Competence of Calibration and Testing Laboratories" with regard to the calculation of uncertainties and accuracy.
- (c) Installation and commissioning of *metering installations* and, where necessary, the *communications interface* to facilitate the *remote acquisition of metering data*, including:
 - (1) the use of calibrated test equipment to perform primary injection tests and field accuracy tests;
 - (2) the availability of trained and competent staff to install and test *metering installations* to determine that installation is correct; and
 - (3) the use of test procedures to confirm that the *metering installation* is correct and that *metering* constants are recorded and/or programmed correctly.
- (d) Inspection and maintenance of *metering installations* and equipment, including:
 - (1) regular readings of the measurement device where external recording is used (6 monthly) and verification with *AEMO* records;
 - (2) approved test and inspection procedures to perform appropriate tests as detailed in this Chapter 7;

- (3) calibrated field test equipment for primary injection and *meter* testing to the required levels of uncertainty; and
 - (4) secure documentation system to maintain *metering* records for all work performed on a *metering installation*, including details of the security method used.
- (e) Verification of *metering data* and *check metering data*, as follows:
 - (1) on commissioning *metering data*, verification of all readings, constraints (adjustments) and multipliers to be used for converting raw data to consumption data; and
 - (2) on inspection, testing and/or maintenance, verification that readings, constants and multipliers are correct by direct conversion of *meter* readings and check against the *metering database*.
- (f) Quality System as AS 9000 series standards, including:
 - (1) a quality system to AS/NZ ISO 9000 series applicable to the work to be performed:
 - Type 1 full implementation of AS/NZ ISO 9002;
 - Type 2 full implementation of AS/NZ ISO 9002;
 - Type 3 – implementation of AS/NZ ISO 9002 to a level agreed with *AEMO*;
 - Type 4 implementation of AS/NZ ISO 9002 to a level agreed with *AEMO*;
 - Type 4A – implementation of AS/NZ ISO 9002 to a level agreed with *AEMO*;
 - (2) the calculations of accuracy based on test results are to include all reference standard errors;
 - (3) an estimate of Testing Uncertainties which must be calculated in accordance with the ISO “Guide to the Expression of Uncertainty in Measurement”; and
 - (4) a knowledge and understanding of the appropriate standards and guides, including those in the *Rules*.
- (g) All of the capabilities relevant to that type of *metering installation* which are set out in the *Rules* and procedures authorised under the *Rules*.

S7.2.4 Capabilities of Metering Providers for metering installations types 5 and 6

Metering Providers, who apply for categories of *Metering Provider* accreditation of *metering installations* types 5 and/or 6, must be able to exhibit, to the reasonable satisfaction of *AEMO* all of the capabilities relevant to that type of *metering installation* which are set out in the *Rules* and procedures authorised under the *Rules*.

S7.2.5 Capabilities of Metering Providers for small customer metering installations

Category 4S *Metering Providers* must be able to exhibit, to the reasonable satisfaction of *AEMO*:

- (a) all of the capabilities in S7.2.3; and
- (b) the establishment of an appropriate security control management plan and associated infrastructure and communications systems for the purposes of preventing unauthorised local access or remote access to *metering installations*, services provided by *metering installations* and *energy data* held in *metering installations*.

S7.2.6 Capabilities of the Accredited Service Provider category

- (a) The *Accredited Service Providers categories* established by *AEMO* under clause S7.2.2(d) may perform work relating to the installation of any types 1, 2, 3, 4, 4A, 5 or 6 *metering installations*.
- (b) *AEMO* must include *Accredited Service Provider categories* in the accreditation guidelines prepared and *published* under clause 7.4.1(c).
- (c) *AEMO* may determine:
 - (1) the competencies of a *Metering Provider* registered in each *Accredited Service Provider category* provided that those competencies are consistent with any capabilities established in the *metrology procedure* in respect of the work performed under paragraph (a); and
 - (2) different competencies for each *Accredited Service Provider category* for each *participating jurisdiction*.

Schedule 7.3 Metering Data Provider**S7.3.1 General**

- (a) A *Metering Data Provider* must be accredited by and registered by *AEMO*.
- (b) *AEMO* must accredit and register a *Metering Data Provider* only for the type of work the *Metering Data Provider* is qualified to provide.

- (c) *AEMO* must establish a qualification process for *Metering Data Providers* that enables registration to be achieved in accordance with the requirements of this Schedule 7.3.

S7.3.2 Categories of registration

Categories of registration are set out in Table S7.3.2.1.

Table S7.3.2.1 Categories of registration for accreditation

<i>Metering installation type</i>	Categories of registration	
1, 2 3 and/or 4	Category 1D, 2D, 3D and/or 4D (for <i>remote acquisition</i> , processing and delivery of <i>metering data</i> for <i>connection points</i>)	Category 4S (for <i>small customer metering installations</i> in relation to <i>remote acquisition</i> , processing and delivery of <i>metering data</i> for <i>connection points</i>)
4A, 5 and/or 6	Category 4AC, 5C and/or 6C (for manual collection or <i>remote acquisition</i> of <i>metering data</i>)	Category 4AD, 5D and/or 6D (for manual collection, processing and delivery of <i>metering data</i> or for <i>remote acquisition</i> , processing and delivery of <i>metering data</i>)
7	Category 7D (for processing and delivery of <i>calculated metering data</i>)	

S7.3.3 Capabilities of Metering Data Providers

Metering Data Providers must be able to exhibit to the reasonable satisfaction of *AEMO* the following capabilities, as applicable, for the categories of *Metering Data Provider* accreditation sought:

- (a) Detailed understanding of the *Rules*, and all procedures authorised under the *Rules* including the relevant *service level procedures* relating to the function of a *Metering Data Provider* and the carrying out of *metering data services*.
- (b) Detailed understanding of the participant role relationships and obligations that exist between the *Metering Data Provider*, *Metering Provider*, *financially responsible Market Participant*, [*off-market retailer*](#), *Local Network Service Provider*, *AEMO* and the *Metering Coordinator*.
- (c) An understanding of *metering* arrangements, including knowledge of *metering equipment* (*meters*, *current transformers* and *voltage transformers*).

- (d) Authorised access to *metering* software for the:
 - (1) collection of *metering data*;
 - (2) establishment, maintenance and operation of a *metering data services database* for the storage and management of *metering data* and *NMI Standing Data*; and
 - (3) the validation, substitution and estimation of *metering data*.
- (e) Processes and systems for the collection of *metering data* including:
 - (1) knowledge of manual collection and *remote acquisition* of *metering data* (as applicable);
 - (2) collection technologies and methodologies; and
 - (3) *metering* protocols and equipment.
- (f) Systems for the processing of *metering data* including:
 - (1) processes for the verification and commissioning of *metering data* and relevant *NMI Standing Data* pertaining to each *metering installation* into the *metering data services database*;
 - (2) processes for validation, substitution and estimation of *metering data*;
 - (3) processes for the storage, adjustment and aggregation of *metering data*; and
 - (4) the secure storage of historical data.
- (g) Processes for the delivery of *metering data* and relevant *NMI Standing Data* to *Registered Participants* and *AEMO* including:
 - (1) delivery performance requirements for *metering data*; and
 - (2) an understanding of the relevant *metering data* file formats.
- (h) The availability of trained and competent staff to:
 - (1) read or interrogate the *metering installation*;
 - (2) collect and process *metering data* into the *metering data services database*;
 - (3) validate, substitute or estimate *metering data* as the case may be;
 - (4) maintain the physical and logical security of the *metering data services database* and only allow access to *metering data* by those persons entitled to receive *metering data*; and

- (5) ensure the ongoing performance and availability of the collection process and the *metering data services database* are maintained inclusive of necessary system supports for backup, archiving and disaster recovery.
- (i) The establishment of a quality system which will:
 - (1) underpin all operational documentation, processes and procedures;
 - (2) facilitate good change control management of procedures, IT systems and software;
 - (3) provide audit trail management of *metering data* and *NMI Standing Data*;
 - (4) maintain a security control management plan;
 - (5) maintain security controls and data integrity; and
 - (6) maintain knowledge and understanding of the *Rules* and relevant procedures, standards and guides authorised under the *Rules*.
- (j) Understanding of the required logical interfaces necessary to support the provision of *metering data services* including the interfaces needed to:
 - (1) access *AEMO's* systems for the management and delivery of *metering data*;
 - (2) support *B2B procedures*; and
 - (3) support *Market Settlement and Transfer Solution Procedures* for delivery and update of *NMI Standing Data*.

S7.3.4 Capabilities of Metering Data Providers for small customer metering installations

Category 4S *Metering Data Providers* must be able to exhibit, to the reasonable satisfaction of *AEMO*:

- (a) all the capabilities in S7.3.3; and
- (b) the establishment of an appropriate security control management plan and associated infrastructure and communications systems for the purposes of preventing unauthorised local access or remote access to *metering installations*, services provided by *metering installations* and *energy data* held in *metering installations*.

Schedule 7.4 Types and Accuracy of Metering installations

S7.4.1 General requirements

- (a) This Schedule 7.4 sets out the minimum requirements for *metering installations*.

S7.4.2 Metering installations commissioned prior to 13 December 1998

- (a) This clause provides conditions that are to apply to *metering installations* that were commissioned prior to 13 December 1998.
- (b) The use of *metering class current transformers* and *voltage transformers* that are not in accordance with Table S7.4.3.1 are permitted provided that where necessary to achieve the overall accuracy requirements:
- (1) *meters* of a higher class accuracy are installed; and/or
 - (2) calibration factors are applied within the *meter* to compensate for *current transformer* and *voltage transformer* errors.
- (c) Protection *current transformers* are acceptable where there are no suitable *metering class current transformers* available and the overall accuracy and performance levels can be met.
- (d) Where the requirements of paragraph (b) and (c) cannot be achieved then the *Metering Coordinator* is required to comply with transitional arrangements or obtain an exemption from AEMO or upgrade the *metering installation* to comply with this Schedule 7.4.
- (e) The arrangements referred to in paragraph (d) may remain in force while the required accuracy and performance can be maintained within the requirements of the *Rules*.
- (f) The purchase of new *current transformers* and *voltage transformers* must comply with the *Rules*.

S7.4.3 Accuracy requirements for metering installations

Table S7.4.3.1 Overall Accuracy Requirements of Metering Installation Components

Type	Volume limit per annum per connection point	Maximum allowable overall error ($\pm\%$) at full load (Item 6) active reactive		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to EST
1	greater than 1000GWh	0.5	1.0	0.2CT/VT/meter Wh	± 5

Type	Volume limit per annum per connection point	Maximum allowable overall error ($\pm\%$) at full load (Item 6) active reactive		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to EST
				0.5 meter varh	
2	100 to 1000GWh	1.0	2.0	0.5CT/VT/meter Wh 1.0 meter varh	± 7
3	0.75 to less than 100 GWh	1.5	3.0	0.5CT/VT 1.0 meter Wh 2.0 meter varh (Item 1)	± 10
4	less than 750 MWh (Item 2)	1.5	n/a	Either 0.5 CT and 1.0 meter Wh; or whole current general purpose meter Wh: <ul style="list-style-type: none"> meets requirements of clause 7.8.2(a)(9); and meets the requirements of clause 7.10.7(a). (Item 1)	± 20 (Item 2a)
4A	less than x MWh Item 3	1.5	3.0	Either 0.5 CT and 1.0 meter Wh; or whole current general purpose meter Wh: <ul style="list-style-type: none"> meets the requirements of clause 7.8.2(a)(10); and has the capability, if remote access is activated, of providing the services in table 	± 20 (Item 2a)

Type	Volume limit per annum per connection point	Maximum allowable overall error ($\pm\%$) at full load (Item 6) active reactive		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to EST
				S7.5.1.1; and <ul style="list-style-type: none">meets the requirements of clause 7.10.7(d).	
5	less than x MWh (Item 3)	1.5 (Item 3b)	n/a	Either 0.5 CT and 1.0 meter Wh; or whole current connected general purpose meter wh: <ul style="list-style-type: none">meets requirements of clause 7.8.2(a)(10); andmeets the requirements of clause 7.10.7(d). (Item 1)	' \pm 20' (Item 3a)
6	less than y MWh (Item 4)	2.0 (Item 4b)	n/a	CT or whole current general purpose <i>meter</i> Wh recording <i>accumulated energy data</i> only. Processes used to convert the <i>accumulated metering data</i> into <i>trading interval metering data</i> and <i>estimated metering data</i> where necessary are included in the <i>metrology procedure</i> . (Item 1)	(Item 4a)
7	volume limit not specified (Item 5)	(Item 6)	n/a	No <i>meter</i> . The <i>metering data</i> is <i>calculated metering data</i> determined in accordance with the	n/a

Type	Volume limit per annum per connection point	Maximum allowable overall error ($\pm\%$) at full load (Item 6) active reactive		Minimum acceptable class or standard of components	Metering installation clock error (seconds) in reference to EST
				<i>metrology procedure.</i>	

- Item 1:
- (a) For a type 3, 4, 4A and 5 and 6 *metering installation*, whole current *meters* may be used if the *meters* meet the requirements of the relevant *Australian Standards* and International Standards which must be identified in the *metrology procedure*.
 - (b) The *metering installation* types referred to in paragraph (a) must comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.
- Item 2: *High voltage* customers that require a VT and whose annual consumption is below 750 MWh, must meet the relevant accuracy requirements of Type 3 *metering* for *active energy* only.
- Item 2a: For the purpose of clarification, the clock error for a type 4 and 4A *metering installation* may be relaxed in the *metrology procedure* to accommodate evolving whole current technologies.
- Item 3: The following requirements apply in relation to a type 4A and type 5 *metering installation*:
- (1) the value of "x" must be determined by each *Minister* of a *participating jurisdiction* and:
 - (i) the "x" value must be provided to *AEMO*; and
 - (ii) *AEMO* must record the "x" value in the *metrology procedure*;
 - (2) the maximum acceptable value of "x" determined under subparagraph (1) must be 750 MWh per annum; and
- Item 3a: For the purpose of clarification, the clock error for a type 5 *metering installation* may be relaxed in the *metrology procedure* to accommodate evolving whole current technologies.
- Item 3b: The maximum allowable error of a type 5 *metering installation* may be relaxed in the *metrology procedure* to accommodate evolving technologies providing that such relaxation is consistent with any regulations published under the *National Measurement Act*.
- Item 4: The following requirements apply in relation to a type 6 *metering installation*:

- (1) a *metrology procedure* must include a procedure relating to converting *active energy* into *metering data*;
- (2) the value of "y" must be determined by each *Minister* of a *participating jurisdiction* and:
 - (i) the "y" value must be provided to *AEMO*; and
 - (ii) *AEMO* must record the "y" value in the *metrology procedure*;
- (3) the maximum acceptable value of "y" determined under subparagraph (2) must be 750 MWh per annum;
- (4) devices within the *metering installation* may record *accumulated energy data* in pre determined daily time periods where such time periods are contained in the *metrology procedure*.

Item 4a: Any relevant clock errors for a type 6 *metering installation* are to be established in the *metrology procedure*.

Item 4b: The maximum allowable error of a type 6 *metering installation* may be relaxed in the *metrology procedure* providing that such relaxation is consistent with any regulations published under the *National Measurement Act*.

- Item 5:
- (a) A type 7 *metering installation* classification applies where a *metering installation* does not require a *meter* to measure the flow of electricity in a power conductor and accordingly there is a requirement to determine by other means the *metering data* that is deemed to correspond to the flow of electricity in the power conductor.
 - (b) The condition referred to in paragraph (a) will only be allowed for *connection points* where *AEMO* in consultation with the *Metering Coordinator* determines:
 - (1) the *load* pattern is predictable;
 - (2) for the purposes of *settlements*, the *load* pattern can be reasonably calculated by a relevant method set out in the *metrology procedure*; and
 - (3) it would not be cost effective to meter the *connection point* taking into account:
 - (i) the small magnitude of the *load*;
 - (ii) the *connection* arrangements; and
 - (iii) the geographical and physical location.
 - (c) The *metrology procedure* must include arrangements for type 7 *metering installations* that have been classified as *market loads*.

- (d) A *connection point* that meets the condition for classification as a type 7 *metering installation* does not prevent that *connection point* from being subject to *metering* in the future.

Item 6: The maximum allowable overall error ($\pm\%$) at different *loads* and *power factors* is set out in Table S7.4.3.2 to Table S7.4.3.6.

Table S7.4.3.2 Type 1 Installation – Annual Energy Throughput greater than 1,000 GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	active	active	reactive	active	reactive	reactive
10	1.0%	1.0%	2.0%	n/a	n/a	1.4%
50	0.5%	0.5%	1.0%	0.7%	1.4%	1.0%
100	0.5%	0.5%	1.0%	n/a	n/a	1.0%

Table S7.4.3.3 Type 2 Installation – Annual Energy Throughput between 100 and 1,000 GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	active	active	reactive	active	reactive	reactive
10	2.0%	2.0%	4.0%	n/a	n/a	2.8%
50	1.0%	1.0%	2.0%	1.5%	3.0%	2.0%
100	1.0%	1.0%	2.0%	n/a	n/a	2.0%

Table S7.4.3.4 Type 3 Installation – Annual Energy Throughput from 0.75 GWh to less than 100 GWh and Type 4A Installation - Annual Energy Throughput less than 0.75 GWh

% Rated Load	Power Factor					
	Unity	0.866 lagging		0.5 lagging		Zero
	active	active	reactive	active	reactive	reactive
10	2.5%	2.5%	5.0%	n/a	n/a	4.0%
50	1.5%	1.5%	3.0%	2.5%	5.0%	3.0%
100	1.5%	1.5%	3.0%	n/a	n/a	3.0%

Table S7.4.3.5 Type 4 or 5 Installation – Annual Energy Throughput less than 0.75 GWh

% Rated Load	Power Factor		
	Unity	0.866 lagging	0.5 lagging
	active	active	active
10	2.5%	2.5%	n/a
50	1.5%	1.5%	2.5%
100	1.5%	1.5%	n/a

Table S7.4.3.6 Type 6 Installation – Annual Energy Throughput less than 0.75 GWh

% Rated Load	Power Factor		
	Unity	0.866 lagging	0.5 lagging
	active	active	active
10	3.0%	n/a	n/a
50	2.0%	n/a	3.0%
100	2.0%	n/a	n/a

Note:

All measurements in Tables S7.4.3.2 – S7.4.3.6 are to be referred to 25 degrees Celsius.

- (a) The method for calculating the overall error is the vector sum of the errors of each component part (that is, $a + b + c$) where:

a = the error of the *voltage transformer* and wiring;

b = the error of the *current transformer* and wiring; and

c = the error of the *meter*.

- (b) If compensation is carried out then the resultant *metering data* error shall be as close as practicable to zero.

S7.4.4 Check metering

- (a) *Check metering* is to be applied in accordance with the following Table:

Metering Installation Type in accordance with Table S7.2.3.1	Check Metering Requirements
1	<i>Check metering installation</i>

Metering Installation Type in accordance with Table S7.2.3.1	Check Metering Requirements
2	Partial <i>check metering</i>
3	No requirement
4, 4A, 5 and 6	No requirement

- (b) A *check metering installation* involves either:
- (1) the provision of a separate *metering installation* using separate *current transformer* cores and separately fused *voltage transformer* secondary circuits, preferably from separate secondary windings: or
 - (2) if in *AEMO's* absolute discretion it is considered appropriate, in the case of a *metering installation* located at the *facility* at one end of the *two-terminal link*, a *metering installation* located at the *facility* at the other end of a *two-terminal link*.
- (c) Where the *check metering installation* duplicates the *metering installation* and accuracy level, the average of the two validated data sets will be used to determine the *energy* measurement.
- (d) Partial *check metering* involves the use of other *metering data* or operational data available to *AEMO* in 30 min electronic format as part of a validation process in accordance with the *metrology procedure*.
- (e) The physical arrangement of partial *check metering* shall be agreed between the *Metering Coordinator* and *AEMO*.
- (f) *Check metering installations* may be supplied from secondary circuits used for other purposes and may have a lower level of accuracy than the *metering installation*, but must not exceed twice the level prescribed for the *metering installation*.

S7.4.5 Resolution and accuracy of displayed or captured data

Programmable settings available within a *metering installation* or any peripheral device, which may affect the resolution of displayed or stored data, must:

- (a) meet the requirements of the relevant *Australian Standards* and *International Standards* which must be identified in the *metrology procedure*; and
- (b) comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act*.

S7.4.6 General design standards

S7.4.6.1 Design requirements

Without limiting the scope of detailed design, the following requirements must be incorporated in the design of each *metering installation*:

- (a) For *metering installations* greater than 1000 GWh pa per *connection point*, the *current transformer* core and secondary wiring associated with the *meter(s)* shall not be used for any other purpose unless otherwise agreed by AEMO.
- (b) For *metering installations* less than 1000 GWh pa per *connection point* the *current transformer* core and secondary wiring associated with the *meter(s)* may be used for other purposes (e.g. local *metering* or protection) provided the *Metering Coordinator* demonstrates to the satisfaction of AEMO that the accuracy of the *metering installation* is not compromised and suitable procedures/measures are in place to protect the security of the *metering installation*.
- (c) Where a *voltage transformer* is required, if separate secondary windings are not provided, then the *voltage* supply to each *metering installation* must be separately fused and located in an accessible position as near as practical to the *voltage transformer* secondary winding.
- (d) Secondary wiring must be by the most direct route and the number of terminations and links must be kept to a minimum.
- (e) The incidence and magnitude of burden changes on any secondary winding supplying the *metering installation* must be kept to a minimum.
- (f) *Meters* must:
 - (1) meet the requirements of relevant *Australian Standards* and International Standards which must be identified in the *metrology procedure*; and
 - (2) have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate.
- (g) New *instrument transformers* must:
 - (1) meet the requirements of relevant *Australian Standards* and International Standards which must be identified in the *metrology procedure*; and
 - (2) have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate.

- (h) Suitable *isolation* facilities are to be provided to facilitate testing and calibration of the *metering installation*.
- (i) Suitable drawings and supporting information, detailing the *metering installation*, must be available for maintenance and auditing purposes.

S7.4.6.2 Design guidelines

In addition to the above design requirements, the following guidelines should be considered for each *metering installation*:

- (a) The provision of separate secondary windings for each *metering installation* where a *voltage transformer* is required.
- (b) A *voltage* changeover scheme where more than one *voltage transformer* is available.

Schedule 7.5 Requirements of minimum services specification

S7.5.1 Minimum services specification

A *metering installation* meets the *minimum services specification* if it:

- (a) subject to paragraph (d), is capable of providing the services listed in table S7.5.1.1 in accordance with the procedures made under clause 7.8.3;
- (b) is connected to a *telecommunications network* which enables remote access to the *metering installation*;
- (c) achieves the maximum allowable overall error ($\pm\%$) at rates not exceeding the rates set out in table S7.4.3.4; and
- (d) in relation to a *metering installation* that is connected to a *current transformer*, is capable of providing the services listed in items (c) to (f) in table S7.5.1.1 in accordance with procedures made under clause 7.8.3.

Table S7.5.1.1 Minimum Services Specification – services and access parties

1. Service	2. Description	3. Access Party
(a) remote <i>disconnection</i> service	The remote <i>disconnection</i> of a <i>small customer's</i> premises via the <i>metering installation</i> .	<i>Local Network Service Provider</i> <i>financially responsible Market Participant</i>
(b) remote <i>reconnection</i> service	The remote <i>reconnection</i> of a <i>small customer's</i> premises via the <i>metering installation</i> .	<i>Local Network Service Provider</i> <i>financially responsible Market Participant</i>

1. Service	2. Description	3. Access Party
		<i>Incoming Retailer</i>
(c) remote on-demand meter read service	<p>The remote retrieval of <i>metering data</i> including quality flags for a specified point or points in time and the provision of such data to the requesting party. The service includes the retrieval and provision of:</p> <ul style="list-style-type: none"> • <i>reactive energy metering data</i> and/or <i>active energy metering data</i> (for imports and/or exports of <i>energy</i> measured by the <i>meter</i>); • <i>interval metering data</i> and cumulative total <i>energy</i> measurement for the <i>metering installation</i>; and • <i>accumulated metering data</i> at the start and the end of the period specified in the request. 	<p><i>Registered Participants</i> with a financial interest in the <i>metering installation</i> or the <i>energy</i> measured by that <i>metering installation</i></p> <p>A person to whom a <i>small customer</i> has given its consent under clause 7.15.4(b)(3)(ii)</p>
(d) remote scheduled meter read service	<p>The remote retrieval of <i>metering data</i> including quality flags on a regular and ongoing basis and the provision of such data to the requesting party. The service includes the retrieval and provision of:</p> <ul style="list-style-type: none"> • <i>reactive energy metering data</i> and/or <i>active energy metering data</i> (for imports and/or exports of <i>energy</i> measured by the <i>meter</i>); • <i>interval metering data</i> and cumulative total <i>energy</i> measurement for the <i>metering</i> 	<p><i>Registered Participants</i> with a financial interest in the <i>metering installation</i> or the <i>energy</i> measured by that <i>metering installation</i></p> <p>A person to whom a <i>small customer</i> has given its consent under clause 7.15.4(b)(3)(ii)</p>

1. Service	2. Description	3. Access Party
	<i>installation</i> ; and <ul style="list-style-type: none"> <i>accumulated metering data</i> at the start and the end of the period specified in the request. 	
(e) <i>metering installation inquiry service</i>	<p>The remote retrieval of information from, and related to, a specified <i>metering installation</i> and the provision of such information to the requesting party. The <i>metering installation</i> must be capable of providing the following information, as a minimum, when requested:</p> <ul style="list-style-type: none"> the status of the switch used to effect the <i>disconnection</i> and <i>reconnection</i> services; the <i>voltage</i> as measured by the <i>metering installation</i>, with a date and <i>time stamp</i> for that reading; the current as measured by the <i>metering installation</i>, with a date and <i>time stamp</i> for that reading; the power (watts) as measured by the <i>metering installation</i>, with a date and <i>time stamp</i> for that reading; the supply frequency (Hertz) as measured by the <i>metering installation</i>, with a date and <i>time stamp</i> for that reading; the average <i>voltage</i> and 	<p><i>Local Network Service Provider</i></p> <p><i>financially responsible Market Participant</i></p> <p>A person to whom a <i>small customer</i> has given its consent under clause 7.15.4(b)(3)(ii)</p>

1. Service	2. Description	3. Access Party
	<p>current over a nominated <i>trading interval</i> for one or more nominated <i>trading intervals</i>; and</p> <ul style="list-style-type: none"> events that have been recorded in <i>meter</i> log (or logs) including recorded information in the tamper detection alarm, reverse energy flow alarm and <i>metering</i> device temperature alarm. 	
(f) advanced <i>meter</i> reconfiguration service	<p>The remote setting of the operational parameters of the <i>meter</i>.</p> <p>The operational parameters that must be capable of being set are, as a minimum, the following:</p> <ul style="list-style-type: none"> the activation or deactivation of a data stream or data streams; and altering the method of presenting <i>energy data</i> and associated information on the <i>meter</i> display. 	<p><i>Local Network Service Provider</i></p> <p><i>financially responsible Market Participant</i></p>

Schedule 7.6 Inspection and Testing Requirements

S7.6.1 General

- The *Metering Coordinator* must ensure that equipment comprised in a purchased *metering installation* has been tested to the required class accuracy with less than the uncertainties set out in Table S7.6.1.1.
- The *Metering Coordinator* must ensure appropriate test certificates of the tests referred to in paragraph (a) are retained.

- (c) The *Metering Coordinator* (or any other person arranging for testing) must ensure that testing of the *metering installation* is carried out:
- (1) in accordance with clause 7.9.1 and this Schedule 7.6; or
 - (2) in accordance with an asset management strategy that defines an alternative testing practice (other than time based) determined by the *Metering Coordinator* and approved by *AEMO*,
- and:
- (3) in accordance with a test plan which has been registered with *AEMO*;
 - (4) to the same requirements as for new equipment where equipment is to be recycled for use in another site; and
 - (5) so as to include all data storage and processing components included in the *metrology procedure*, including algorithms used to prepare agreed *load* patterns.
- (d) *AEMO* must review the prescribed testing requirements in this Schedule 7.6 every 5 years in accordance with equipment performance and industry standards.
- (e) The testing intervals may be increased if the equipment type/experience proves favourable.
- (f) The maximum allowable level of testing uncertainty (\pm) for all *metering* equipment must be in accordance with Table S7.6.1.1.

Table S7.6.1.1 Maximum Allowable Level of Testing Uncertainty (\pm)

Description		Metering Equipment Class				
		Class 0.2	Class 0.5	Class 1.0	General Purpose	Class 2.0
In Laboratory	CTs ratio	0.05%	0.1%	n/a	n/a	n/a
	phase	0.07 crad	0.15 crad			
	VTs ratio	0.05%	0.1%	n/a	n/a	n/a
	Phase	0.05 crad	0.1 crad			
	Meters Wh	0.05/cos ϕ %	0.1/cos ϕ %	0.2/cos ϕ %	0.2/cos ϕ %	n/a
	Meters varh	n/a	0.2/sin ϕ %	0.3/sin ϕ %	n/a	0.4/sin ϕ %
In Field	CTs ratio	0.1%	0.2%	n/a	n/a	n/a
	Phase	0.15 crad	0.3 crad			

Description	Metering Equipment Class				
	Class 0.2	Class 0.5	Class 1.0	General Purpose	Class 2.0
VTs ratio	0.1%	0.2%	n/a	n/a	n/a
Phase	0.1 crad	0.2 crad			
Meters Wh	0.1/cos ϕ %	0.2/cos ϕ %	0.3/cos ϕ %	0.3/cos ϕ %	n/a
Meters varh	n/a	0.3/sin ϕ %	0.4/sin ϕ %	n/a	0.5/sin ϕ %

Where cos ϕ is the *power factor* at the test point under evaluation.

Table S7.6.1.2 Maximum Period Between Tests

Unless the *Metering Coordinator* has developed an asset management strategy that defines practices that meet the intent of this Schedule 7.6 and is approved by *AEMO*, the maximum period between tests must be in accordance with this Table S7.6.1.2.

Description	Metering Installation Type				
	Type 1	Type 2	Type 3	Type 4 & 4A	Types 5 & 6
CT	10 years	10 years	10 years	10 years	10 years
VT	10 years	10 years	10 years		n/a
Burden tests	When <i>meters</i> are tested or when changes are made				
CT connected Meter (electronic)	5 years	5 years	5 years	5 years	5 years
CT connected Meter (induction)	2.5 years	2.5 years	5 years	5 years	5 years
Whole current Meter	The testing and inspection requirements must be in accordance with an asset management strategy. Guidelines for the development of the asset management strategy must be recorded in the <i>metrology procedure</i> .				

Table S7.6.1.3 Period Between Inspections

Unless the *Metering Coordinator* has developed an asset management strategy that meets the intent of this Schedule 7.6 and is approved by *AEMO*, the period between inspections must be in accordance with this Table S7.6.1.3.

Description	Metering Installation Type			
	Type 1	Type 2	Type 3	Type 4, 4A, 5 & 6
<i>Metering installation equipment inspection</i>	2.5 years	12 months (2.5 years if <i>check metering</i> installed)	> 10 GWh: 2 years 2 ≤ GWh ≤ 10: 3 years <2 GWh: when <i>meter</i> is tested.	When <i>meter</i> is tested.

S7.6.2 Technical Guidelines

- (a) *Current transformer* and *voltage transformer* tests are primary injection tests or other testing procedures as approved by AEMO.
- (b) The calculations of accuracy based on test results are to include all reference standard errors.
- (c) An “estimate of testing uncertainties” must be calculated in accordance with the ISO “Guide to the Expression of Uncertainty for Measurement”.
- (d) Where operational *metering* is associated with *settlements metering* then a shorter period between inspections is recommended.
- (e) For $\sin\phi$ and $\cos\phi$ refer to the ISO “Guide to the Expression of Uncertainty in Measurement”, where $\cos\phi$ is the *power factor*.
- (f) A typical inspection may include:
 - (1) check the seals;
 - (2) compare the pulse counts;
 - (3) compare the direct readings of *meters*;
 - (4) verify *meter* parameters and physical connections; and
 - (5) *current transformer* ratios by comparison.

Schedule 7.7 Embedded Network Managers

S7.7.1 General

- (a) An *Embedded Network Manager* must be accredited and registered by AEMO.

- (b) *AEMO* must establish a qualification process for *Embedded Network Managers* that enables accreditation and registration to be achieved in accordance with the requirements of this schedule 7.7.
- (c) An *Embedded Network Manager* must ensure that *embedded network management services* are carried out in accordance with the *Rules* and procedures authorised under the *Rules*.

S7.7.2 Capabilities of Embedded Network Managers

Embedded Network Managers must be able to exhibit to the reasonable satisfaction of *AEMO* the following capabilities:

- (a) detailed understanding of the *Rules* including this Chapter 7, and all procedures authorised under the *Rules* including the *ENM service level procedures* [and the shadow network charges procedure](#).
- (b) detailed understanding of:
 - (1) the terms and conditions on which the *AER* grants [network exemptions exemptions](#) under ~~section 13 of~~ the *National Electricity Law* to persons who engage in the activity of owning, controlling or operating *embedded networks*; and
 - (2) any related guidelines developed and issued by the *AER* under clause 2.5.1.
- (c) detailed understanding of the participant role relationships and obligations that exist between *Embedded Network Managers*, *Metering Data Providers*, *Metering Providers*, *financially responsible Market Participants*, *Local Network Service Providers*, *AEMO* and *Metering Co-ordinators*.
- (d) the establishment of a system which will:
 - (1) underpin all operational documentation, processes and procedures;
 - (2) facilitate good change control management of procedures, IT systems and software;
 - (3) provide audit trail management of *EN wiring information*;
 - (4) maintain security controls and data integrity; and
 - (5) maintain knowledge and understanding of the *Rules* and relevant procedures, standards and guides authorised under the *Rules*.
- (e) understanding of the required logical interfaces necessary to support the provision of *embedded network management services* including the interfaces needed to:
 - (1) access *AEMO's* systems; and

-
- (2) support the *metrology procedure*, *B2B Procedures*, *service level procedures*, *ENM service level procedures*, [shadow network charges procedure](#) and *Market Settlement and Transfer Solution Procedures*.

CHAPTER 8

8. Administrative Functions

Part A Introductory

8.1 Administrative functions

8.1.1 [Deleted]

8.1.2 [Deleted]

8.1.3 Structure of this Chapter

- (a) This Chapter describes some of the key processes and obligations associated with the administration of the *Rules* and deals also with *augmentations*.
- (b) It is divided into Parts as follows:
 - (1) this Part is introductory;
 - (2) Part B deals with dispute resolution;
 - (3) Part C deals with the obligations of *Registered Participants* to maintain confidentiality;
 - (4) Part D deals with monitoring and reporting;
 - (5) Part E deals with the structure and responsibilities of the *Reliability Panel*;
 - (6) Part F sets out the *Rules consultation procedures*;
 - (7) Part G deals with funding for the Consumer Advocacy Panel;
 - (8) Part H deals with *augmentations*.
- (c) [Deleted]
- (d) [Deleted]
- (e) [Deleted]
- (f) [Deleted]
- (g) [Deleted]

Part B Disputes

8.2 Dispute Resolution

8.2.1 Application and guiding principles

- (a) This rule 8.2 applies to any dispute which may arise between two or more *Registered Participants* about:

- (1) the application or interpretation of the *Rules*;
- (2) the failure of any *Registered Participants* to reach agreement on a matter where the *Rules* require agreement or require the *Registered Participants* to negotiate in good faith with a view to reaching agreement;
- (3) **[Deleted]**
- (4) the proposed access arrangements or *connection agreements* of an *Intending Participant* or a *Connection Applicant*, for *connection* and access to a *distribution network* or *declared transmission system*;
- (5) the payment of moneys under or concerning any obligation under the *Rules*;
- (6) any other matter relating to or arising out of the *Rules* to which a contract between two or more *Registered Participants* provides that the dispute resolution procedures under the *Rules* are to apply;
- (7) any other matter relating to or arising out of the *Rules* in respect of which two or more *Registered Participants* have agreed in writing that this rule 8.2 should apply; or
- (8) any other matter that the *Rules* provide may or must be dealt with under this rule 8.2,

but does not apply to those disputes described in clause 8.2.1(h).

- (a1) For the purposes of this rule 8.2 only, "**Registered Participant**" is deemed to include not just *Registered Participants* but also *AEMO*, *Connection Applicants*, *Metering Providers*, *Metering Data Providers*, *Embedded Network Managers*, ~~and~~ *NMAS providers* (including *NSCAS preferred tenderers*) and off-market retailers who are not otherwise *Registered Participants*, except that this will not be the case where the term "*Registered Participant*":

- (1) is used in clauses 8.2.2(b)(4), 8.2.2(d), 8.2.3(a), 8.2.3(b)(5) and 8.2.5(e); or
- (2) first occurs in clauses 8.2.3(b), 8.2.3(b)(3), 8.2.3(b)(4) or 8.2.3(c); or
- (3) last occurs in clauses 8.2.4(a) or 8.2.9(c).

- (b) **[Deleted]**
- (c) **[Deleted]**
- (d) The dispute resolution regime in this rule 8.2 provides procedures to resolve disputes between parties, not sanctions for breach of the *Rules*. The dispute resolution processes may indicate that a breach of the *Rules* has occurred and the resolution or determination of the dispute may take account of the damage thereby caused to a party. Any action for breach of the *Rules* may only be taken by the *AER* acting in accordance with the *National Electricity Law*.
- (e) It is intended that the dispute resolution regime set out in or implemented in compliance with the *Rules* and described in detail in this rule 8.2 should to the extent possible:
 - (1) be guided by the *national electricity objective*;
 - (2) be simple, quick and inexpensive;
 - (3) preserve or enhance the relationship between the parties to the dispute;
 - (4) take account of the skills and knowledge that are required for the relevant procedure;
 - (5) observe the rules of natural justice;
 - (6) place emphasis on conflict avoidance; and
 - (7) encourage resolution of disputes without formal legal representation or reliance on legal procedures.
- (f) Except as provided in the *National Electricity Law* and clause 8.2.1(g), where any dispute of a kind set out in clause 8.2.1(a) arises, the parties concerned must comply with the procedures set out in clauses 8.2.4 to 8.2.10 and 8.2.12 and, where the dispute is referred to a *DRP*, a determination of the *DRP* is final and binding on the parties.
- (g) Notwithstanding clause 8.2.1(f), a party may seek an urgent interlocutory injunction from a court of competent jurisdiction.
- (h) Rule 8.2 does not apply to:
 - (1) a decision by *AEMO* regarding an exemption under clause 2.2.1(c);
 - (2) a decision by *AEMO* under clause 2.2.2 not to approve the classification of a *generating unit* as a *scheduled generating unit*;
 - (3) a decision by *AEMO* under clause 2.2.3 not to approve the classification of a *generating unit* as a *non-scheduled generating unit*;

- (3A) a decision by *AEMO* under clause 2.5.1A(d) not to approve the classification of a *dedicated connection asset* as a *small dedicated connection asset* or *large dedicated connection asset*;
- (4) a decision by *AEMO* under clause 2.9.2(c);
- (5) a decision by *AEMO* to reject a notice from a *Market Customer* under clause 2.10.1(d);
- (5A) a decision by *AEMO* with regard to the preparation or publication of a budget;
- (5B) the formulation by *AEMO* of its revenue methodology or an amendment to its revenue methodology;
- (5C) a decision by *AEMO* to reject a notice from a *Market Small Generation Aggregator* under clause 2.10.1(d1);
- (6) a determination by *AEMO* under clause 3.3.8 of the minimum amount of *credit support* a *Market Participant* must provide to *AEMO* for the relevant time period, as determined by *AEMO* in accordance with clause 3.3.8 ;
- (7) a decision by *AEMO* under clause 3.8.3 to refuse an application for aggregation;
- (8) a decision by *AEMO* under clause 3.15.11 to reject a *reallocation request*;
- (9) a decision by *AEMO* to issue a notice under clause 4.11.1(d);
- (10) a decision by *AEMO* under clause 7.2.1(b) to refuse to permit a *Market Participant* to participate in the *market* in respect of a *connection point*;
- (11) a decision by *AEMO* whether or not to deregister a *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* under clause 7.4.4(d) or to suspend a *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager* from a category of registration under clause 7.4.4(d) or to impose agreed constraints on the continued operation of a *Metering Provider*, *Metering Data Provider* or *Embedded Network Manager*;
- (12) a dispute concerning the price of a *SRAS* agreement or a tender conducted by *AEMO* for the acquisition of *system restart ancillary services* under clause 3.11.9;
- (13) a dispute of a kind referred to in clause 5.16.5 or 5.17.5;
- (14) a *transmission services access dispute* and *large DCA services access dispute* to which rule 5.5 applies;

- (14A) a decision by a *Co-ordinating Network Service Provider* with regard to the provision of an estimate of the *modified load export charge* payable to each *Transmission Network Service Provider* as referred to in clause 6A.29A.2.
- (15) a *distribution services access dispute* to which Part L of Chapter 6 applies;
- (16) a decision by *AEMO* under clause 2.2.7 not to approve the classification of a *semi-scheduled generating unit*; or
- (17) a decision by *AEMO* regarding an exemption under clause 2.4A.1(b); or
- (18) a decision by *AEMO* regarding an exemption under clause 7.8.4(a).

8.2.2 The Dispute Resolution Adviser

- (a) The *AER* must appoint a person or persons from time to time to perform the functions of the Dispute Resolution Adviser (the *Adviser*), on such terms and conditions as the *AER* may determine.
- (b) The *Adviser* must:
 - (1) have a detailed understanding and experience of dispute resolution practice and procedures which do not involve litigation (**alternative dispute resolution**);
 - (2) have the capacity to determine the most appropriate alternative dispute resolution procedures in particular circumstances;
 - (3) have an understanding of the electricity industry or the capacity to quickly acquire such an understanding; and
 - (4) not be a *Registered Participant* or *AEMO* or be associated, directly or indirectly, with a *Registered Participant*, *AEMO* or the *AER*.
- (c) The primary function of the *Adviser* is to attend to any matters necessary to ensure the effective operation of:
 - (1) the Stage 1 dispute resolution process set out in clause 8.2.4;
 - (2) the Stage 2 dispute resolution process set out in clauses 8.2.5 and 8.2.6A to 8.2.6D; and
 - (3) the *Independent Engineer* process set out in rule 5.4.
- (d) The *Adviser* must take reasonable steps to keep *Registered Participants* and *AEMO* informed, and in any case must report at least quarterly to *Registered Participants* and *AEMO*, about the operation of the dispute resolution processes established under the *Rules*.

- (e) The *Adviser* must establish and maintain a pool of persons from which members of a *dispute resolution panel (DRP)* may be selected in accordance with clause 8.2.6A.
- (f) In selecting persons for the pool, the *Adviser* must have regard to:
 - (1) the need for members of a *DRP* to have an appropriate range of skills; and
 - (2) the need for persons in the pool to be drawn from all *participating jurisdictions*.
- (g) The *Adviser* must review the composition of the pool at least every two years.
- (h) The *Adviser* may issue guidance notes relating to:
 - (1) the form and content of a *dispute management system (DMS)*; and
 - (2) the use and conduct of mediation in the Stage 1 dispute resolution process.

8.2.3 Dispute management systems of Registered Participants and AEMO

- (a) Each *Registered Participant* and *AEMO* must adopt and implement a *DMS*.
- (b) The *DMS* of a *Registered Participant* or *AEMO* must:
 - (1) be consistent with guidance notes of the *Adviser* relating to the form and content of a *DMS*;
 - (2) nominate a *DMS Contact* to be the first point of contact for the notification of disputes;
 - (3) provide that the *Registered Participant* or *AEMO* (as the case may be) must respond to a request for information (being information that is relevant to any of the matters set out in clause 8.2.1(a)) from another *Registered Participant* within 5 *business days* of receiving the request;
 - (4) set out the procedures of the *Registered Participant* or *AEMO* (as the case may be) for responding to requests for information from other *Registered Participants*; and
 - (5) set out any requirements and procedures necessary to ensure that the *Registered Participant* or *AEMO* (as the case may be) is able to comply with the requirements and time limits set out in clause 8.2.4.
- (c) A *Registered Participant* or *AEMO* must provide a copy of its *DMS* upon being requested to do so by another *Registered Participant* or the *Adviser*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

8.2.4 Stage 1 - dispute resolution through Registered Participants' DMS

- (a) A *Registered Participant* may activate the dispute resolution mechanisms in this clause by serving a *DMS referral notice* on the *DMS Contact* of one or more other *Registered Participants* or AEMO (as the case may be).
- (b) Except where the *Rules* provides for another time period to apply, and subject to clause 8.2.4(k), a *DMS referral notice* must be served no later than 60 *business days* after the date on which the making of a disputed decision or the occurrence of disputed conduct could reasonably have become known to a *Registered Participant* affected by it.
- (c) A *DMS referral notice*:
 - (1) must be in a form approved and *published* by the *Adviser*;
 - (2) must contain a statement setting out the circumstances giving rise to the dispute; and
 - (3) may request the person on whom it is to be served to provide information that is relevant to any of the matters set out in clause 8.2.1(a).
- (d) Within 5 *business days* of service of a *DMS referral notice*, representatives of:
 - (1) the *Registered Participant* that served the notice; and
 - (2) every person on whom the notice was served,
 must meet to determine, by agreement, the further conduct of the dispute.
- (e) A meeting of *Registered Participants'* representatives:
 - (1) may be conducted in person, by telephone, video-conference or like method of real time communication;
 - (2) may agree that the dispute should be conducted by any consensual means, including by direct discussions between *Registered Participants* or by mediation; and
 - (3) must consider whether any other *Registered Participant* should be served with a *DMS referral notice*.
- (f) Subject to clause 8.2.4(g), a meeting of *Registered Participants'* representatives may agree to keep confidential:

- (1) the fact that a dispute exists between them; and
 - (2) any information exchanged between them for the purposes of attempting to resolve the dispute.
- (g) *AEMO* must immediately notify the *Adviser* if:
- (1) it serves a *DMS referral notice* on the *DMS Contact* of another *Registered Participant*, or
 - (2) it is served with a *DMS referral notice* by another *Registered Participant*.

The notification to the *Adviser* must include a list setting out each *Registered Participant* that *AEMO* considers may have an interest in the dispute, together with an indication as to whether *AEMO* has served a *DMS referral notice* in relation to the dispute on that *Registered Participant*, or has otherwise made the *Registered Participant* aware of the dispute.

- (h) If *Registered Participants'* representatives, meeting in accordance with clauses 8.2.4(d) and (e), all agree that a *Registered Participant* that was not previously a party to the dispute should be served with a *DMS referral notice*, any one or more of them may serve a *DMS referral notice* on that other *Registered Participant*. Where a *Registered Participant* is served with such a notice, that *Registered Participant* must meet with the other parties to the dispute to determine the further conduct of the dispute in accordance with clauses 8.2.4(d), (e) and (f).
- (i) If:
- (1) a *Registered Participant* on whom a *DMS referral notice* is served does not agree to become a party to the dispute; or
 - (2) the dispute is not resolved within 20 *business days* (or such lesser period as is agreed by all the parties) after the day on which a *DMS referral notice* was last served on a *Registered Participant*,

any *Registered Participant* that has served a *DMS referral notice* in relation to the dispute or that has agreed to become a party to the dispute may, no later than 60 *business days* after the day on which a *DMS referral notice* was last served on a *Registered Participant*, refer the matter to the *Adviser* in accordance with clause 8.2.5.

- (j) If the dispute has not been referred to the *Adviser* within 60 *business days* after the day on which a *DMS referral notice* was last served on a *Registered Participant*, any obligations or requirements arising under this clause 8.2.4 in relation to that dispute cease to have effect.
- (k) Despite clauses 8.2.4(b) and 8.2.4(i) and any other provision of the *Rules* that specifies a time limit for the raising of a dispute, where:

- (1) a *DMS referral notice* has not been served within the period specified in clause 8.2.4(b);
- (2) a dispute has not been referred to the *Adviser* within the time specified in clause 8.2.4(i); or
- (3) any other dispute to which rule 8.2 applies has not been raised within the time limit specified in the *Rules* for the raising of such a dispute,

the dispute may be referred to the *Adviser*, and a *DRP* may determine the dispute if, in the opinion of the *DRP*, any prejudice suffered by any *Registered Participant* as a result of the dispute being referred outside the specified period would not, having regard to the circumstances giving rise to the failure to refer the dispute within the specified period, be unreasonable.

8.2.5 Stage 2 - dispute resolution process

- (a) A dispute may be referred to the *Adviser* by serving on the *Adviser* an *Adviser referral notice* in accordance with this clause 8.2.5. An *Adviser referral notice* must:
 - (1) be in a form approved and published by the *Adviser*;
 - (2) contain the names of all the parties to the dispute; and
 - (3) if the *Registered Participant* serving the *Adviser referral notice* does not agree to the *Adviser* attempting to resolve the dispute in accordance with clause 8.2.5(c)(1) and requires the *Adviser* to refer the dispute to a *DRP* for determination, must contain a statement to that effect.
- (b) Where a dispute is referred to the *Adviser*, the *Adviser* must immediately notify each *Registered Participant* that is party to the dispute of that fact. Each *Registered Participant* must, within 5 *business days* of being so notified, provide to the *Adviser* a statement setting out:
 - (1) a brief history of the dispute and the circumstances giving rise to it; and
 - (2) a statement of its issues in relation to the dispute.
- (c) The *Adviser* must, within 10 *business days* of being served with the *Adviser referral notice*, either:
 - (1) if the parties so agree, attempt to resolve the dispute by any means the *Adviser*, having regard to the principles set out in clause 8.2.1(e), considers appropriate; or
 - (2) if the parties do not agree to the *Adviser* attempting to resolve the dispute in accordance with clause 8.2.5(c)(1), refer the dispute to a *DRP* for determination in accordance with clauses 8.2.6A to 8.2.6D.

- (d) If the *Adviser*, having attempted to resolve the dispute in accordance with clause 8.2.5(c)(1), considers that such attempt is unlikely to result in resolution of the dispute within a reasonable time, the *Adviser* may, at any time, refer the dispute to a *DRP* for determination in accordance with clauses 8.2.6A to 8.2.6D.
- (e) Where the *Adviser* refers a dispute to a *DRP*, the *Adviser* must promptly *publish* to all *Registered Participants*, as well as promptly notify *AEMO*, the *AER* and the *AEMC* of, the fact that the referral has been made.

8.2.6A Establishment of Dispute Resolution Panel

- (a) Where the *Adviser* decides to refer a dispute for resolution by a *DRP*, the *Adviser* must establish the *DRP* to determine the dispute.
- (b) **[Deleted]**
- (c) The *Adviser* must consult with the parties to the Stage 1 dispute resolution process on the composition of the *DRP*. For the avoidance of doubt, the requirement to consult on the composition of the *DRP* does not apply with respect to a party that is later joined as, or that later opts to become, a party to the dispute.
- (d) Despite the requirement to consult set out in clause 8.2.6A(c), a decision of the *Adviser* as to the composition of the *DRP* is final and binding upon all parties to the dispute.
- (e) A *DRP* must comprise three members or, if the parties agree that the circumstances and nature of the dispute warrant a panel comprised of one or two members, the number so agreed.
- (f) The *Adviser* may appoint as a member of the *DRP* any person who is a member of the pool established under clause 8.2.2(e) and who in the reasonable opinion of the *Adviser* is either:
 - (1) expert in the field to which the dispute relates; or
 - (2) experienced or trained in dispute resolution techniques.
- (g) A person, whether a member of the pool established under clause 8.2.2(e) or not, is not eligible for appointment to a *DRP* if that person has any interest which may conflict with, or which may be seen to conflict with, the impartial resolution of the dispute. Where a person becomes aware of such a conflict after the *DRP* commences the determination of a dispute, the person must advise the parties to that effect.
- (h) Where:
 - (1) a *Registered Participant* who is a party to the dispute believes that a person appointed to a *DRP* has an interest which may conflict with the impartial resolution of the dispute; or

- (2) a person appointed to a *DRP* discloses the existence of such an interest:

the person must not continue as a member of the *DRP*, except with the written consent of all parties to the dispute.

- (i) The *Adviser* may, if in his or her reasonable opinion no member of the pool established under clause 8.2.2(e) is:
 - (1) eligible for appointment to a *DRP*; or
 - (2) sufficiently skilled and experienced to resolve the dispute,

appoint to the *DRP* another person whom he or she considers to be eligible and sufficiently skilled and experienced, but who is not a member of the pool. A person so appointed is deemed to be a member of the pool on and from his or her appointment to the *DRP*.
- (j) Any person who has previously been a member of a *DRP* is eligible for appointment to another *DRP*.
- (k) The *Adviser* must nominate one of the *DRP* members to be the chairperson.

8.2.6B Parties to *DRP* Proceedings

- (a) The following persons are parties to the dispute before a *DRP*:
 - (1) the parties to the Stage 1 dispute resolution process referred by the *Adviser* to the *DRP*;
 - (2) any other *Registered Participant* that the *DRP* directs to become a party to the dispute in accordance with clause 8.2.6B(b); and
 - (3) any other *Registered Participant* that has opted to become a party to the dispute in accordance with clause 8.2.6B(c).
- (b) If the *DRP* considers that a *Registered Participant* should become a party to the dispute, it may direct the *Registered Participant* to become a party by giving that *Registered Participant's DMS Contact* written notice setting out:
 - (1) the names of the other parties to the dispute;
 - (2) a brief history of the dispute and the circumstances giving rise to it;
 - (3) the results of any previous dispute resolution processes undertaken pursuant to the *Rules* in respect of the dispute; and
 - (4) the grounds on which the *DRP* considers the *Registered Participant* should be made a party to the dispute.
- (c) Any *Registered Participant* that has an interest in a dispute may opt to become a party to the dispute by giving notice to the *DRP* that it wishes to

do so. When a *Registered Participant* opts to become a party to the dispute in accordance with this clause 8.2.6B(c), the *DRP* must give that *Registered Participant's DMS Contact* written notice setting out:

- (1) the names of the other parties to the dispute;
- (2) a brief history of the dispute and the circumstances giving rise to it; and
- (3) the results of any previous dispute resolution processes undertaken pursuant to the *Rules* in respect of the dispute.

8.2.6C Proceedings of the *DRP*

- (a) The *DRP* may give to the parties such directions as it considers necessary for the proper conduct of the proceedings, including, without limitation, a direction:
 - (1) that the proceedings be conducted at a specified venue or venues (including the premises of a party) at a specified time or times;
 - (2) requiring the parties to prepare and exchange written submissions;
 - (3) requiring the parties to exchange documents; and
 - (4) limiting or prohibiting the cross examination of witnesses.
- (b) The *DRP* may direct the parties that the proceedings, or part of the proceedings, are to be conducted solely on the basis of documentary evidence and written submissions.
- (c) The *DRP* may give to the parties such directions relating to the use and disclosure of information obtained from other parties to the dispute (including a direction to keep information confidential) as it considers necessary in the circumstances.
- (d) At any time before it determines a dispute, the *DRP* may, with the consent of all parties, refer the dispute for mediation.
- (e) A *DRP*:
 - (1) must determine the real questions in controversy between the parties; and
 - (2) is not bound by the parties' formulation of those questions.
- (f) A *DRP*:
 - (1) is not bound by the rules of evidence and may inform itself in any way it thinks fit; but
 - (2) must observe the rules of natural justice.

8.2.6D Decisions of the DRP

- (a) A decision of a *DRP* on any matter may be made by a majority of the members comprising the *DRP*. Where a *DRP* comprising two members is unable to reach a unanimous decision, the decision of the chairperson will be the decision of the *DRP*.
- (b) Subject to clause 8.2.6D(c), a *DRP* must determine a dispute as quickly as possible, and in any case must do so:
 - (1) in the case of disputes involving two parties, within 30 *business days* after the dispute is referred to the *DRP*; and
 - (2) in the case of disputes involving more than two parties, within 70 *business days* after the dispute is referred to the *DRP*.
- (c) A *DRP* may extend either of the periods specified in clause 8.2.6D(b) for determination of a dispute if:
 - (1) all parties to the dispute agree in writing;
 - (2) the *AER* agrees in writing; or
 - (3) the dispute is referred to mediation under clause 8.2.6C(d).
- (d) A determination of the *DRP* may, without limitation of the *DRP*'s power, require a party to do any or all of the following in such manner and within such time or times as is specified in the determination:
 - (1) take specified action;
 - (2) refrain from taking specified action; or
 - (3) pay a monetary amount to another party.
- (e) Each party to a dispute that is required by a determination of the *DRP* to take specified action, to refrain from taking specified action or to pay a monetary amount must:
 - (1) do so within such period after being notified of the determination as is specified in the determination; and
 - (2) report to the *Adviser* as soon as practicable after doing so.

8.2.6 [Deleted]**8.2.7 Legal representation**

- (a) In any meeting, negotiation or mediation forming part of the Stage 1 dispute resolution process, a party is entitled to be legally represented.
- (b) A *DRP* may give any direction it considers appropriate in relation to the role the parties' legal representatives may take in the proceedings.

8.2.8 Cost of dispute resolution

- (a) The costs of any dispute resolution processes (other than legal costs of one or more parties), including the costs incurred by the *Adviser* in performing functions of the *Adviser* under clauses 8.2.5, 8.2.6A, 8.2.6B, 8.2.6C or 8.2.6D and the costs of the *DRP* and its members, are to be borne equally by the parties to the dispute unless:
 - (1) clause 8.2.8(b) applies; or
 - (2) otherwise agreed between the parties.
- (b) Costs of the dispute resolution processes (including legal costs of one or more parties) may be allocated by the *DRP* for payment by one or more parties as part of any determination. Subject to clause 8.2.8(c), in deciding to allocate costs against one or more parties to a dispute, the *DRP* may have regard to any relevant matters, including (but not limited to) whether the conduct of that party or those parties unreasonably prolonged or escalated the dispute or otherwise increased the costs of the *DRP* proceedings.
- (c) A party that disagrees with another party about the number of persons comprising a *DRP* is not to be taken, by reason only of that disagreement, to have unreasonably prolonged or escalated a dispute or otherwise increased the costs of the *DRP* proceedings.

8.2.9 Effect of resolution

- (a) Where the parties to a dispute reach agreement (whether or not the matter is before a *DRP*), the parties may execute a written agreement recording that a party has or parties have agreed:
 - (1) to take certain action;
 - (2) not to take certain action; or
 - (3) to make a monetary payment.
- (b) An agreement that is recorded in accordance with clause 8.2.9(a) and a determination of the *DRP* are binding on the parties to the dispute.
- (c) A requirement that a *Registered Participant* pay moneys, imposed on the *Registered Participant* under:
 - (1) a determination of the *DRP*; or
 - (2) an agreement that is recorded in accordance with clause 8.2.9(a),

is an obligation under the *Rules* to pay such amounts. A *Registered Participant* or *AEMO* entitled to such amount may recover the amount in accordance with section 72 of the *National Electricity Law*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (d) A *Registered Participant* must comply with a requirement or determination of the *DRP* and any agreement that is recorded in accordance with clause 8.2.9(a). Failure to do so is a breach of the *Rules* in respect of which the *AER* may take action in accordance with the *National Electricity Law*.

8.2.10 Recording and publication

- (a) Where a *DRP* makes a determination, a copy of the determination must be forwarded to the *Adviser*.
- (b) The *DRP* must provide a copy of its determination (save to the extent that it contains confidential information), to the *AER* for publication.
- (c) The *AER* must, in accordance with the *Rules consultation procedures*, develop and issue guidelines relating to the confidentiality of information obtained, used or disclosed for the purposes of resolving a dispute to which rule 8.2 applies.

8.2.11 Appeals on questions of law

A party to a dispute may appeal on a question of law against a decision or determination of a *DRP* in accordance with section 71 of the *National Electricity Law*.

8.2.12 [Deleted]**8.2A B2B Determination Disputes****8.2A.1 Application of rule 8.2**

Rule 8.2 applies to *B2B Determination Disputes* but with the modifications set out in clause 8.2A.2.

8.2A.2 How rule 8.2 applies

For the purposes of its application to a *B2B Determination Dispute*, rule 8.2 is modified as follows:

- (a) For clause 8.2.1(a) substitute:
 "(a) This clause 8.2 applies to a *B2B Determination Dispute*."
- (b) In clause 8.2.1(a1):
 (1) delete "*Connection Applicants*"; and

- (2) omit “*Embedded Network Managers and NMAS providers (including NSCAS preferred tenderers)*” and substitute “*Third Party B2B Participants and B2B Change Parties*”.
- (c) For clause 8.2.1(e)(1) substitute:

“(1) be guided by the *national electricity objective* and the *B2B Principles*”.
- (d) In clause 8.2.1(f):
 - (1) omit “set out in clauses 8.2.4 to 8.2.10 and 8.2.12” and substitute “set out in clauses 8.2.5 to 8.2.10 and 8.2.12 (in each case, as those clauses are amended by clause 8.2A.2)”; and
 - (2) insert a new sentence at the end of the clause as follows:

“The subject matter of a *B2B Determination Dispute* which has been determined by the *DRP* cannot be the subject of further review.”
- (e) For the avoidance of doubt, clause 8.2.3 does not apply to the *Information Exchange Committee*.
- (f) The contact for the *Information Exchange Committee* in relation to disputes will be the *DMS Contact* for AEMO.
- (g) Clause 8.2.4 does not apply.
- (h) Clauses 8.2.5(a), (b), (c) and (d) do not apply.
- (i) Insert new clauses 8.2.5(d1) to (d4) as follows:
 - “(d1) A *B2B Party* or *B2B Change Party* adversely affected by an *Information Exchange Committee Recommendation* or a *B2B Decision* may apply to the *Adviser* for review of that *Information Exchange Committee Recommendation* or that *B2B Decision*. The application must be made within 10 *business days* of publication of the *Information Exchange Committee Recommendation* or the *B2B Decision*, state grounds for the review and give full particulars of where the applicant believes the *Information Exchange Committee Recommendation* or *B2B Decision* is in error.
 - (d2) Where an application for review of an *Information Exchange Committee Recommendation* is made, AEMO must not take any further action in relation to that *Information Exchange Committee Recommendation* until the *DRP* has made its decision in relation to the dispute.
 - (d3) An application for review of a *B2B Decision* stays the *B2B Decision*.
 - (d4) On receiving the application the *Adviser* must refer the dispute to a *DRP* for determination in accordance with clauses 8.2.6A to 8.2.6D.”.
- (j) In clause 8.2.6A(a), for “decides to refer” substitute “refers”.

- (k) In clause 8.2.6A(c), for “the parties to the Stage 1 dispute resolution process” substitute “the parties to the dispute”.
- (l) In clause 8.2.6A(h)(1) before “a *Registered Participant*” insert “the *Information Exchange Committee* or”.
- (m) For clause 8.2.6B(a)(1) substitute:
 - "(1) the *Registered Participant* making application for a review of the *Information Exchange Committee Recommendation* or the *B2B Decision*, a *Registered Participant* affected by the *Information Exchange Committee Recommendation* or the *B2B Decision* the subject of the application for review and the *Information Exchange Committee* or, if the *Information Exchange Committee* is unable to act as a party, any other *Registered Participant* wishing to support the position of the *Information Exchange Committee*;"
- (n) At the end of clause 8.2.6B(a) insert:

“AEMO is a party to an application for review of a *B2B Decision* and may be a party, in accordance with clause 8.2.6B(b), to an application for review of an *Information Exchange Committee Recommendation*. In addition:

 - (1) where the *Information Exchange Committee* is unable to act as a party to a *B2B Determination Dispute*, and another *Registered Participant* is a party to support the position of the *Information Exchange Committee*, the *Information Exchange Committee* must give to that party all assistance including access to both documents and *Members*. A *Registered Participant* of which a *Member* is an employee must ensure that *Member* is available to provide such assistance; and
 - (2) where AEMO is a party to a *B2B Determination Dispute*, the *Information Exchange Committee* must give AEMO all assistance including access to both documents and *Members*. A *Registered Participant* of which a *Member* is an employee must ensure that *Member* is available to provide such assistance.”.
- (o) Clause 8.2.6C(d) does not apply.
- (p) Insert a new clause 8.2.6C(g) as follows:
 - "(g) In considering a *B2B Determination Dispute*, the *DRP* must conduct a full reconsideration of the *Information Exchange Committee Recommendation* or *B2B Decision* and:
 - (1) can rely on any material available and is not confined to only considering material that was before the *Information Exchange Committee* in relation to an *Information Exchange Committee Recommendation* or AEMO in relation to a *B2B Decision*; and
 - (2) may exercise all powers and discretions that are conferred on the *Information Exchange Committee* in relation to an *Information*

Exchange Committee Recommendation or AEMO in relation to a B2B Decision.”.

(q) Insert a new clause 8.2.6D(da) as follows:

"(da) The *DRP* must make a decision in writing:

- (1) affirming the *Information Exchange Committee Recommendation* or the *B2B Decision*;
- (2) varying the *Information Exchange Committee Recommendation* or the *B2B Decision*; or
- (3) setting aside the *Information Exchange Committee Recommendation* or the *B2B Decision* and substituting its own decision.”.

(r) Clause 8.2.7(a) does not apply.

(s) In clause 8.2.8(a) after “8.2.6D” insert “(as modified by clause 8.2A.2)”.

(t) Clauses 8.2.9(a), (b) and (c)(2) do not apply.

(u) In clause 8.2.9(d) after “*Registered Participant*” insert “and the *Information Exchange Committee*”, and delete “and any agreement that is recorded in accordance with clause 8.2.9(a)”.

(v) In clause 8.2.8(a), insert “(in each case, as modified by clause 8.2A.2)” after “8.6.2D”.

8.3 Power to make Electricity Procedures

(a) *AEMO* may make *Electricity Procedures*.

(b) *Electricity Procedures* may govern:

- (1) the operation of the *national electricity market*; or
- (2) the sale and *supply* of electricity to *retail customers*.

(c) *Electricity Procedures* may amend or revoke procedures formerly made under this Part or *AEMO*’s general administrative powers to regulate electricity *markets*.

8.4 [Deleted]**8.5 [Deleted]****Part C Registered Participants' confidentiality obligations****8.6 Confidentiality****8.6.1 Confidentiality**

- (a) Each *Registered Participant* must use all reasonable endeavours to keep confidential any *confidential information* that comes into the possession or control of the *Registered Participant* or of which the *Registered Participant* becomes aware.
- (b) A *Registered Participant*:
- (1) must not disclose *confidential information* to any person except as permitted by the *Rules*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (2) must only use or reproduce *confidential information* for the purpose for which it was disclosed or another purpose contemplated by the *Rules*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (3) must not permit unauthorised persons to have access to *confidential information*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (c) Each *Registered Participant* must use all reasonable endeavours:
- (1) to prevent unauthorised access to *confidential information* which is in the possession or control of that *Registered Participant*; and
 - (2) to ensure that any person to whom it discloses *confidential information* observes the provisions of this rule 8.6 in relation to that information.

- (d) The officers of a *Transmission Network Service Provider* participating in *transmission service* pricing must not be involved in or associated with competitive electricity trading activities of any other *Registered Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (e) A *Transmission Network Service Provider* participating in *transmission service* pricing must provide to any *Transmission Network Service Provider* or *Registered Participant* which supplies information for *transmission service* pricing an undertaking that the *Transmission Network Service Provider* to which that information was supplied will comply with the confidentiality requirements set out in 6.9.2A.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

8.6.1A Application

For the purposes of this Part C only, "*Registered Participant*" is deemed to include not just *Registered Participants* but also *Metering Providers*, *Metering Data Providers*, *Embedded Network Managers*, ~~and~~ *Third Party B2B Participants* and off-market retailers.

8.6.2 Exceptions

This rule 8.6 does not prevent:

- (a) **(public domain)**: the disclosure, use or reproduction of information if the relevant information is at the time generally and publicly available other than as a result of breach of confidence by the *Registered Participant* who wishes to disclose, use or reproduce the information or any person to whom the *Registered Participant* has disclosed the information;
- (b) **(employees and advisers)**: the disclosure of information by a *Registered Participant* or the *Registered Participant's Disclosees* to:
- (1) an employee or officer of the *Registered Participant* or a *related body corporate* of the *Registered Participant*; or
 - (2) a legal or other professional adviser, auditor or other consultant (in this clause 8.6.2(b) called **Consultants**) of the *Registered Participant*,

which require the information for the purposes of the *Rules*, or for the purpose of advising the *Registered Participant* or the *Registered Participant's Disclosee* in relation thereto;

- (b1) (**service providers**): the disclosure of *NMI Standing Data* or the provision of means to gain electronic access to that data by a *Customer* or the *Customer's Disclosees* to a person who requires the *NMI Standing Data* for the purposes of providing services in connection with the *Customer's* sale of electricity to end users.
- (c) (**consent**): the disclosure, use or reproduction of information with the consent of the person or persons who provided the relevant information under the *Rules*;
- (d) (**law**): the disclosure, use or reproduction of information to the extent required by law or by a lawful requirement of:
 - (1) any government or governmental body, authority or agency having jurisdiction over a *Registered Participant* or its *related bodies corporate*; or
 - (2) any stock exchange having jurisdiction over a *Registered Participant* or its *related bodies corporate*;
- (d1) **[Deleted]**
- (e) (**disputes**): the disclosure, use or reproduction of information if required in connection with legal proceedings, arbitration, expert determination or other dispute resolution mechanism relating to the *Rules*, or for the purpose of advising a person in relation thereto;
- (f) (**trivial**): the disclosure, use or reproduction of information which is trivial in nature;
- (g) (**safety**): the disclosure of information if required to protect the safety of personnel or equipment;
- (h) (**potential investment**): the disclosure, use or reproduction of information by or on behalf of a *Registered Participant* to the extent reasonably required in connection with the *Registered Participant's* financing arrangements, investment in that *Registered Participant* or a disposal of that *Registered Participant's* assets;
- (i) (**regulator**): the disclosure of information to the *AER*, the *AEMC* or the *ACCC* or any other regulatory authority having jurisdiction over a *Registered Participant*, pursuant to the *Rules* or otherwise;
- (j) (**reports**): the disclosure, use or reproduction of information of an historical nature in connection with the preparation and giving of reports under the *Rules*;
- (k) (**aggregate sum**): the disclosure, use or reproduction of information as an unidentifiable component of an aggregate sum; and
- (l) (**profile**): the publication of a *profile*.

(m) **[Deleted]**

(n) **[Deleted]**

(o) **[Deleted]**

8.6.3 Conditions

In the case of a disclosure under clauses 8.6.2(b), 8.6.2(b1), 8.6.2(h), prior to making the disclosure the *Registered Participant* that wishes to make the disclosure must inform the proposed recipient of the confidentiality of the information and must take appropriate precautions to ensure that the proposed recipient keeps the information confidential in accordance with the provisions of this rule 8.6 and does not use the information for any purpose other than that permitted under clause 8.6.1.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

8.6.4 **[Deleted]**

8.6.5 Indemnity to AER, AEMC and AEMO

Each *Registered Participant* must indemnify the *AER*, the *AEMC* and *AEMO* against any claim, action, damage, loss, liability, expense or outgoing which the *AER*, the *AEMC* or *AEMO* pays, suffers, incurs or is liable for in respect of any breach by that *Registered Participant* or any officer, agent or employee of that *Registered Participant* of this rule 8.6.

8.6.6 AEMO information

AEMO must develop and, to the extent practicable, implement a policy:

- (a) to protect information which it acquires pursuant to its various functions from use or access which is contrary to the provisions of the *Rules*;
- (b) to disseminate such information in accordance with its rights, powers and obligations in a manner which promotes the orderly operation of any *market*; and
- (c) to ensure that *AEMO*, in undertaking any trading activity except the procurement of *ancillary services*, does not make use of such information unless the information is also available to other *Registered Participants*.

8.6.7 Information on Rules Bodies

AEMO must, in consultation with the *AEMC*, develop and implement policies concerning:

- (a) the protection of information which *Rules bodies* acquire pursuant to their various functions from use or access by *Registered Participants* or *Rules bodies* which is contrary to the provisions of the *Rules*; and
- (b) the dissemination of such information where appropriate to *Registered Participants*.

Part D Monitoring and reporting

8.7 Monitoring and Reporting

8.7.1 Monitoring

- (a) **[Deleted]**
- (b) The *AER* must, for the purpose of performing its monitoring functions:
 - (1) determine whether *Registered Participants* and *AEMO* are complying with the *Rules*;
 - (2) assess whether the dispute resolution and *Rules* enforcement mechanisms are working effectively in the manner intended; and
 - (3) **[Deleted]**
 - (4) collect, analyse and disseminate information relevant and sufficient to enable it to comply with its reporting and other obligations and powers under the *Rules*.
- (c) The *AER* must ensure that, to the extent practicable in light of the matters set out in clause 8.7.1(b), the monitoring processes which it implements under this rule 8.7:
 - (1) are consistent over time;
 - (2) do not discriminate unnecessarily between *Registered Participants*;
 - (3) are cost effective to both the *AER*, all *Registered Participants* and *AEMO*; and
 - (4) subject to confidentiality obligations, are publicised or available to the public.

8.7.2 Reporting requirements and monitoring standards for Registered Participants and AEMO

- (a) For the purpose of performing its monitoring functions, the *AER* must establish:
 - (1) reporting requirements which apply to all or particular categories of *Registered Participants* in relation to matters relevant to the *Rules*;

- (2) reporting requirements for *AEMO* in relation to matters relevant to the *Rules*;
 - (3) procedures and standards generally applicable to *Registered Participants* relating to information and data received by them in relation to matters relevant to the *Rules*;
 - (4) procedures and standards applicable to *AEMO* relating to information and data received by it in relation to matters relevant to the *Rules*; and
 - (5) procedures and standards applicable to the *AER* relating to information and data received by the *AER* from *Registered Participants* or *AEMO* in relation to matters relevant to the *Rules*.
- (b) The *AER* must:
- (1) after consultation with the *AEMC*, *AEMO* and *Registered Participants* in accordance with the *Rules consultation procedures*, establish the requirements and standards and procedures referred to in clause 8.7.2(a)(1), (3), (4) and (5); and
 - (2) after consultation with the *AEMC*, *AEMO* and such *Registered Participants* as the *AER* considers appropriate, establish the requirements referred to in clause 8.7.2(a)(2).
- In formulating such requirements or procedures and standards, the *AER* must take into consideration the matters set out in clause 8.7.1(c).
- (c) Subject to clause 8.7.2(d), the *AER* must notify to *AEMO* and all *Registered Participants* particulars of the requirements and procedures and standards which it establishes under this clause 8.7.2.
 - (d) For the purpose of performing its monitoring functions, the *AER* may establish additional or more onerous requirements or procedures and standards which do not apply to all or a particular category of *Registered Participants*. In formulating such requirements or procedures and standards, the *AER* must take into consideration the matters set out in clause 8.7.1(c) and is not required to consult in accordance with the *Rules consultation procedures* but must consult with the relevant *Registered Participants*. In such a case, and if the *AER* considers it appropriate to do so, the *AER* may choose to notify only those *Registered Participants* to whom these additional or more onerous requirements or procedures and standards apply.
 - (e) Each *Registered Participant* and *AEMO* must comply with all requirements, procedures and standards established by the *AER* under this rule 8.7 to the extent that they are applicable to it within the time period specified for the requirement, procedure or standard or, if no such time period is specified, within a reasonable time. Each *Registered Participant* and *AEMO* must bear its own costs associated with complying with these requirements, procedures and standards.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (f) In complying with its obligations or pursuing its rights under the *Rules*, neither a *Registered Participant* nor *AEMO* must recklessly or knowingly provide, or permit any other person to provide on behalf of that *Registered Participant* or *AEMO* (as the case may be), misleading or deceptive data or information to any other person (including the *AER*).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

- (g) Any *Registered Participant* or *AEMO* may ask the *AER* to impose additional or more onerous requirements, procedures or standards under clause 8.7.2(d) on a *Registered Participant* in order to monitor or assess compliance with the *Rules* by that *Registered Participant*. When such a request is made, the *AER* may but is not required to impose the additional or more onerous requirements, procedures or standards.

If the *AER* decides to impose additional or more onerous requirements, procedures or standards on a *Registered Participant*, the *AER* may determine the allocation of costs of any additional compliance monitoring undertaken between the relevant *Registered Participants* and/or *AEMO* (as the case may be). The relevant *Registered Participants* and (to the extent relevant) *AEMO* must pay such costs as allocated. In the absence of such allocation, the *Registered Participant* which is subject to the additional or more onerous requirements, procedures or standards must bear its own costs of compliance.

- (h) The *AER* must develop and implement guidelines in accordance with the *Rules consultation procedures* governing the exercise of the powers conferred on it by clause 8.7.2(g) which guidelines must set out the matters to which the *AER* must have regard prior to deciding the allocation of costs of any additional or more onerous requirements, procedures or standards imposed pursuant to clause 8.7.2(g) between the relevant *Registered Participants* and/or *AEMO* (as the case may be).

8.7.3 Consultation required for making general regulatory information order (Section 28H of the NEL)

- (a) Before the *AER* makes a *general regulatory information order*, it must publish:
 - (1) the proposed order;
 - (2) an explanatory statement that sets out objectives of the proposed order; and

- (3) an invitation for written submissions on the proposed order.
- (b) The invitation must allow no less than 30 *business days* for the making of submissions (and the *AER* is not required to consider any submission made after the period has expired).
- (c) The *AER* may *publish* such issues, consultation and discussion papers, and hold such conferences and information sessions, in relation to the proposed order as it considers appropriate.
- (d) Within 80 *business days* of *publishing* the documents referred to in paragraph (a), the *AER* must:
 - (1) consider any submissions made in response to the invitation within the period allowed in the invitation;
 - (2) make a final decision on the order; and
 - (3) *publish* the final decision including:
 - (i) a statement of the reasons for the final decision (including a summary of each material issue raised in the submissions and the *AER's* response to it); and
 - (ii) if the final decision is to make the order (either in the terms in which it was proposed or in modified terms) – the order in its final form.
- (e) The *AER* may extend the time within which it is required to publish its final decision if:
 - (1) the consultation involves questions of unusual complexity or difficulty; or
 - (2) the extension has become necessary because of circumstances beyond the *AER's* control.

8.7.4 Preparation of network service provider performance report (Section 28V of the NEL)

- (a) Before the *AER* embarks on the preparation of *network service provider performance reports*, the *AER* must consult with:
 - (1) *network service providers*; and
 - (2) bodies representative of the *network service providers* and network service users; and
 - (3) the public generally;

in order to determine appropriate priorities and objectives to be addressed through the preparation of *network service provider performance reports*.

- (b) In the course of preparing a *network service provider performance report*, the *AER*:
 - (1) must consult with the *network service provider* or *network service providers* to which the report is to relate; and
 - (2) must consult with the authority responsible for the administration of relevant *jurisdictional electricity legislation* about relevant safety and technical obligations; and
 - (3) may consult with any other persons who have, in the *AER's* opinion, a proper interest in the subject matter of the report; and
 - (4) may consult with the public.
- (b1) In preparing a *network service provider performance report*, the *AER* must have regard to the *Distribution Reliability Measures Guidelines*.
- (c) A *network service provider* to which the report is to relate:
 - (1) must be allowed an opportunity, at least 30 *business days* before publication of the report, to submit information and to make submissions relevant to the subject matter of the proposed report; and
 - (2) must be allowed an opportunity to comment on material of a factual nature to be included in the report.

8.7.5 [Deleted]

8.7.6 Recovery of reporting costs

Where, under the *Rules*, *AEMO* is entitled or required to publish or give information, notices or reports to:

- (a) any *Registered Participant*, any court, the *ACCC* or the *AER*, unless the context otherwise requires, *AEMO* must not charge those persons a separate fee for providing them with a copy of the information or report and the costs in providing that service must be recovered through the *Participant fees* described in rule 2.12;
- (b) any other person, *AEMO* may charge that person a fee which is appropriate to cover the costs of providing that service.

[Drafting note: The remaining provisions in Chapter 8 have been removed from this draft for convenience.]

CHAPTER 10

10. Glossary

AARR

The *aggregate annual revenue requirement* for *prescribed transmission services*.

abnormal conditions

A condition described in clause 4.2.3A(a).

above-standard system shared transmission service

A *shared transmission service* that exceeds the requirements referred to in paragraph (a)(1) or (2) of the definition of *negotiated transmission service* principally as a consequence of investments that have *system-wide benefits*.

ACCC

Australian Competition and Consumer Commission as established under the *Competition and Consumer Act 2010* (Cth).

acceptable credit criteria

The credit criteria defined in clause 3.3.3.

acceptable credit rating

The credit rating determined by *AEMO* under clause 3.3.4.

accepted restriction offer

A *restriction offer* accepted by *AEMO* in accordance with the *restriction offer procedures*.

access charge

For a *Distribution Network Service Provider* - in respect of access to:

- (a) *negotiated distribution services* which would have been *negotiated distribution services* regardless of the operation of clause 6.24.2(c), an amount described in clause 5.3AA(f)(4).
- (b) **[Deleted]**

access party

In respect of a service that is listed in column 1 of Table S7.5.1.1, the party listed in column 3 of Table S7.5.1.1.

access policy

An access policy as required for *large DCA services* under clause 5.2A.8.

access standard

Either an *automatic access standard* or a *negotiated access standard* for a particular technical requirement as recorded in a *connection agreement*.

Accredited Service Provider category

A category of registration of a *Metering Provider* established by *AEMO* under S7.2.2(b) as a consequence of requirements of a *participating jurisdiction* to install *metering installations*.

accumulated energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data represents a period in excess of a *trading interval*. *Accumulated energy data* is held in the *metering installation*. The measurement is carried out at a *metering point*.

accumulated metering data

The *accumulated energy data*, once collected from a *metering installation*, is *accumulated metering data*. *Accumulated metering data* is held in a *metering data services database* and the *metering database*.

activate, activated, activation

The operation of a *generating unit* (other than a *scheduled generating unit*) at an increased *loading level* or reduction in demand (other than a *scheduled load*) undertaken in response to a request by *AEMO* in accordance with an *unscheduled reserve contract*.

active energy

A measure of electrical energy flow, being the time integral of the product of *voltage* and the in-phase component of current flow across a *connection point*, expressed in watthour (Wh).

active power

The rate at which *active energy* is transferred.

active power capability

The maximum rate at which *active energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

additional intervention claim

Has the meaning given in clause 3.12.2(k).

adequately damped

In relation to a *control system*, when tested with a step change of a feedback input or corresponding reference, or otherwise observed, any oscillatory response at a *frequency* of:

- (a) 0.05 Hz or less, has a damping ratio of at least 0.4;
- (b) between 0.05 Hz and 0.6 Hz, has a halving time of 5 seconds or less (equivalent to a damping coefficient –0.14 nepers per second or less); and
- (c) 0.6 Hz or more, has a damping ratio of at least 0.05 in relation to a *minimum access standard* and a damping ratio of at least 0.1 otherwise.

adjusted gross energy

The *energy* adjusted in accordance with clause 3.15.5 (for a *transmission network connection point*) or clause 3.15.5A (for a *virtual transmission node*) or clause 3.15.4 (for any other *connection point*).

adjusted locational component

Has the meaning given to it in clause 6A.23.3(b).

adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(e).

administered floor price

A price floor to apply to a *regional reference price*, with the levels of the price floor being administered under clause 3.14.1 and the circumstances under which it can be invoked by *AEMO* being determined as set out in clause 3.14.2.

administered price cap

A price cap to apply to a *dispatch price*, *regional reference price* or *ancillary service price* as specified in clause 3.14.1.

administered price period

A period declared by *AEMO*, in accordance with clause 3.14.2, in which an *administered price cap* may be invoked.

adoptive jurisdiction

Has the meaning given in the *National Electricity Law*.

adverse system strength impact

An adverse impact, assessed in accordance with the *system strength impact assessment guidelines*, on the ability under different operating conditions of:

- (a) the *power system* to maintain system stability in accordance with clause S5.1a.3; or

- (b) a *generating system* or *market network service facility* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the power system in a *secure operating state*.

Adviser

The Dispute Resolution Adviser specified in clause 8.2.2(a).

Adviser referral notice

A notice referring a dispute to the *Adviser* for the purposes of clause 8.2.5.

AEMC

The Australian Energy Market Commission, which is established under section 5 of the *Australian Energy Market Commission Establishment Act 2004* (SA).

AEMO

Means Australian Energy Market Operator Limited (ACN 072 010 327)

Note

Before its change of name, AEMO was known as NEMMCO.

AEMO advisory matter

A matter that relates to *AEMO's* functions under the *National Electricity Law* and a matter in which *AEMO* has a role in schedules 5.1a, 5.1, 5.2, 5.3 and 5.3a.

AEMO co-ordinating centre

The control centre from which *AEMO* conducts *market* related activities and the coordination of the operation of the *national grid*.

AEMO intervention event

An event where *AEMO* intervenes in the *market* under the *Rules* by:

- (a) issuing a *direction* in accordance with clause 4.8.9; or
- (b) exercising the *reliability and emergency reserve trader* in accordance with rule 3.20 by:
 - (1) *dispatching scheduled generating units, scheduled network services or scheduled loads* in accordance with a *scheduled reserve contract*; or
 - (2) *activating loads or generating units* under an *unscheduled reserve contract*.

AEMO Member

A person appointed as a *Member* by *AEMO* to represent *AEMO* in accordance with clause 7.17.10(c).

AEMO power system security responsibilities

The responsibilities described in clause 4.3.1.

AER

The Australian Energy Regulator, which is established by section 44AE of the *Competition and Consumer Act 2010* (Cth).

AER Exempt Network Guidelines

Has the meaning given in the *National Electricity Law*.

affected participant's adjustment claim

Has the meaning given in clause 3.12.2(g)(3).

Affected Participant

- (a) In respect of a particular *direction* in an *intervention price trading interval*:
 - (1) a *Scheduled Generator* or *Scheduled Network Service Provider*:
 - (i) which was not the subject of the *direction*, that had its *dispatched* quantity affected by that *direction*; or
 - (ii) which was the subject of the *direction*, that had its *dispatched* quantity for other *generating units* or other services which were not the subject of that *direction* affected by that *direction*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not the subject of that *direction*; or
 - (2) an *eligible person* entitled to receive an amount from *AEMO* pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention price trading interval*, as a result of the *direction*; and
- (b) in relation to the exercise of the *RERT* under rule 3.20:
 - (1) a *Scheduled Generator* or *Scheduled Network Service Provider*:
 - (i) whose *plant* or *scheduled network service* was not *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity affected by the *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*; and
 - (ii) who was not the subject of *activation* under an *unscheduled reserve contract*, that had its *dispatched* quantity affected by the *activation* of *generating units* or *loads* under that *unscheduled reserve contract*;

- (2) a *Scheduled Generator* or *Scheduled Network Service Provider* whose plant or scheduled network service was dispatched under a scheduled reserve contract, that had its dispatched quantity for other generating units or other services which were not dispatched under the scheduled reserve contract affected by that dispatch of plant or scheduled network service under that scheduled reserve contract, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those generating units and services which were not dispatched under that scheduled reserve contract; or
- (3) an *eligible person* entitled to receive an amount from AEMO pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention price trading interval*, as a result of the dispatch of plant or scheduled network service under a scheduled reserve contract or the activation of generating units or loads under an *unscheduled reserve contract*.

aggregate annual revenue requirement

For *prescribed transmission services*, the meaning in clause 6A.22.1 and for any other service, the calculated total annual revenue to be earned by an entity for a defined class or classes of service.

aggregate payment due

The aggregate of the net amounts payable by AEMO to each of the *Market Participants* to whom payments are to be made in relation to *spot market transactions* or *reallocation transactions* in respect of a *billing period* determined in accordance with clause 3.15.22(c).

agreed capability

In relation to a *connection point*, the capability to receive or send out power for that *connection point* determined in accordance with the relevant *connection agreement*.

allowed rate of return

Has the meaning given to it by clause 6.5.2(a) or clause 6A.6.2(a), as the case may be.

allowed rate of return objective

Has the meaning given to it by clause 6.5.2(c) or clause 6A.6.2(c), as the case may be.

alternative control service

A *distribution service* that is a *direct control service* but not a *standard control service*.

alternative network constraint formulation

A *network constraint* equation formulation used by AEMO other than a *fully co-optimised network constraint formulation*.

Amending Rule

A Rule made by the AEMC under section 103 of the *National Electricity Law* on and from the date of commencement of the operation of that Rule, or parts of that Rule.

ancillary service fees

The fees determined by AEMO under Chapter 2 in relation to *ancillary services*.

ancillary service generating unit

A *generating unit* which has been classified in accordance with Chapter 2 as an *ancillary service generating unit*.

ancillary service load

A *market load* or *load* which has been classified in accordance with Chapter 2 as an *ancillary service load*.

ancillary service price

In respect of a *dispatch interval*, for a *market ancillary service*, the common clearing price for the *market ancillary service* determined in accordance with clause 3.9.

Ancillary Service Provider

A person who engages in the activity of owning, controlling or operating a *generating unit*, *load* or *market load* classified in accordance with Chapter 2 as an *ancillary service generating unit* or *ancillary service load*, as the case may be.

ancillary services

Market ancillary services and *non-market ancillary services*.

ancillary services agreement

An agreement under which an *NMAS provider* agrees to provide one or more *non-market ancillary services* to AEMO.

annual benchmarking report

Has the meaning given to it by clause 6.27 or clause 6A.31, as the case may be.

annual building block revenue requirement

The amount representing the revenue requirement of a *Transmission Network Service Provider* for each *regulatory year* of a *regulatory control period* calculated in accordance with clause 6A.5.4.

annual revenue requirement

An amount representing revenue for a *Distribution Network Service Provider*, for each *regulatory year* of a *regulatory control period*, calculated in accordance with Part C of Chapter 6.

annual service revenue requirement (or "ASRR")

Has the meaning set out in clause 6A.22.2.

apparent power

The square root of the sum of the squares of the *active power* and the *reactive power*.

applicable regulatory instruments

All laws, regulations, orders, licences, codes, determinations and other regulatory instruments (other than the *Rules*) which apply to *Registered Participants* from time to time, including those applicable in each *participating jurisdiction* as listed below, to the extent that they regulate or contain terms and conditions relating to access to a *network*, *connection to a network*, the provision of *network services*, *network service price* or *augmentation of a network*.

(1) New South Wales:

- (a) the *Electricity Supply Act 1995* (**ES Act**);
- (b) all regulations made and licences (**Licences**) issued under the ES Act;
- (c) the *Independent Pricing and Regulatory Tribunal Act 1992* (**IPART Act**);
- (d) all regulations and determinations made under the IPART Act;
- (e) all regulatory instruments applicable under the Licences; and
- (f) *Commercial Arbitration Act 2010*.

(2) Victoria:

- (a) the *Electricity Industry Act 2000* (**EI Act**);
- (b) all regulations made and licences (**Licences**) issued under the EI Act;
- (c) the *Essential Services Commission Act 2001* (**ESCV Act**);
- (d) all regulations and determinations made under the ESCV Act;
- (e) all regulatory instruments applicable under the Licences; and
- (f) the Tariff Order made under section 158A(1) of the *Electricity Industry Act 1993* and continued in effect by clause 6(1) of Schedule 4

to the *Electricity Industry (Residual Provisions) Act 1993*, as amended or varied in accordance with section 14 of the EI Act.

- (3) South Australia:
 - (a) the *Electricity Act 1996*;
 - (b) all regulations made and licences (**Licences**) issued under the Electricity Act;
 - (c) the *Essential Services Commission Act 2002* (**ESCSA Act**);
 - (d) all regulations and determinations made under the ESCSA Act;
 - (e) all regulatory instruments applicable under the Licences; and
 - (f) the Electricity Pricing Order made under section 35B of the Electricity Act.
- (4) Australian Capital Territory:
 - (a) the *Utilities Act 2000*;
 - (b) all regulations made and licences (**Licences**) issued under the Utilities Act;
 - (c) the *Independent Competition and Regulatory Commission Act 1997* (**ICRC Act**);
 - (d) all regulations and determinations made under the ICRC Act; and
 - (e) all regulatory instruments applicable under the Licences.
- (5) Queensland:
 - (a) the *Electricity Act 1994*;
 - (b) all regulations made and authorities and special approvals (**Licences**) granted under the Electricity Act;
 - (c) the *Queensland Competition Authority Act 1997* (**QCA Act**);
 - (d) all regulations and determinations made under the QCA Act;
 - (e) all regulatory instruments applicable under the Licences; and
 - (f) the *Gladstone Power Station Agreement Act 1993* and associated agreements.
- (6) Tasmania:
 - (a) the *Electricity Supply Industry Act 1995*;

- (b) all regulations made and licences (**Licences**) issued under the Electricity Supply Industry Act;
- (c) all regulatory instruments under the Electricity Supply Industry Act or the Licences (including, without limitation, determinations of the Tasmanian Electricity Regulator under the *Electricity Supply Industry (Price Control) Regulations*); and
- (d) the Tasmanian Electricity Code issued under section 49A of the Electricity Supply Industry Act.

application to connect

An application made by a *Connection Applicant* in accordance with rule 5.3 or rule 5.3A for *connection* to a *network* and/or the provision of *network services* or modification of a *connection* to a *network* and/or the provision of *network services*.

approved jurisdictional scheme

For a *Distribution Network Service Provider*, means a *jurisdictional scheme* in relation to which the *AER*:

- (a) has made a decision under clause 6.12.1(20);
- (b) has made a determination under clause 6.6.1A(e); or
- (c) is taken to have made a determination under clause 6.6.1A(f).

approved pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*:

- (a) the amount which the *AER* determines should be passed through to *Transmission Network Users* under clause 6A.7.3(d)(2); or
- (b) the amount which the *AER* is taken to have determined under clause 6A.7.3(e)(1),

as the case may be.

In respect of a *positive change event* for a *Distribution Network Service Provider*:

- (a) the amount the *AER* determines should be passed through to *Distribution Network Users* under clause 6.6.1(d)(2); or
- (b) the amount the *AER* is taken to have determined under clause 6.6.1(e)(1),

as the case may be.

approved pricing proposal

A *pricing proposal* approved by the *AER*.

ASRR

The *annual service revenue requirement*.

asset exemption

Has the meaning given in clause 6.4B.1(a).

Asset Exemption Guidelines

Guidelines developed, maintained and *published* by the AER under clause 6.4B.1(c).

asynchronous generating unit

A *generating unit* that is not a *synchronous generating unit*.

attributable connection point cost share

Has the meaning set out in clause 6A.22.4.

attributable cost share

Has the meaning set out in clause 6A.22.3.

auction

A *settlement residue* auction held under clause 3.18.

auction amounts

All amounts:

- (a) payable by AEMO to *eligible persons* under *SRD agreements*; or
- (b) distributed to *Network Service Providers* under clause 3.18.4; or
- (c) recovered by AEMO under clause 3.18.4, clause 3.18.4A or the *auction rules*, including *auction expense fees*; or
- (d) payable by *eligible persons* to AEMO under *SRD agreements* including any margin referred to in clause 3.18.4A(b).

auction expense fees

The costs and expenses incurred by AEMO referred to in clause 3.18.4(b).

auction participation agreement

Has the meaning given in clause 3.18.1(a).

auction rules

The rules developed by AEMO under clause 3.18.3, as amended from time to time in accordance with that clause.

augmentation

Has the meaning given in the *National Electricity Law*.

augmentation technical report

A report on *augmentation* under rule 5.21.

Australian Standard (AS)

The most recent edition of a standard publication by Standards Australia (Standards Association of Australia).

Australian Government's National Greenhouse and Energy Reporting Framework

The reporting framework developed under the National Greenhouse and Energy Reporting Act 2007 (Cth).

Authority

Any government, government department, instrumentality, *Minister*, agency, statutory authority or other body in which a government has a controlling interest, and includes the *AEMC*, *AEMO*, the *AER* and the *ACCC* and their successors.

automatic access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as an automatic access standard for that technical requirement, such that a *plant* that meets that standard would not be denied access because of that technical requirement.

automatic generation control system(AGC)

The system into which the *loading levels* from economic *dispatch* will be entered for *generating units* operating on automatic generation control in accordance with clause 3.8.21(d).

automatic reclose equipment

In relation to a *transmission line* or *distribution line*, the equipment which automatically recloses the relevant line's circuit breaker(s) following their opening as a result of the detection of a fault in the *transmission line* or the *distribution line* (as the case may be).

available capacity

The total MW capacity available for *dispatch* by a *scheduled generating unit*, *semi-scheduled generating unit* or *scheduled load* (i.e. maximum plant availability) or, in relation to a specified *price band*, the MW capacity within that *price band* available for *dispatch* (i.e. availability at each price band).

average electrical energy loss

The volume-weighted average of the *electrical energy losses* incurred in each *trading interval* over all *trading intervals* in a defined period of time

average loss factor

A multiplier used to describe the *average electrical energy loss* for electricity used or transmitted.

avoided Customer TUOS charges

The charges described in rule 5.3AA(h).

B2B Change Party

A person who has provided a change proposal to the *Information Exchange Committee* under clause 7.17.4(f) and is not otherwise a *B2B Party*.

B2B Communications

Communications between *B2B Parties* relating to end-users or *supply* to end-users provided for in the *B2B Procedures*.

B2B costs

The following costs incurred by *AEMO*:

- (a) the costs of the development of the *B2B Procedures*;
- (b) the costs of the establishment and operation of the *Information Exchange Committee* (including the engagement costs of specialist advisers), all of which must be set out in the budget prepared by the *Information Exchange Committee* pursuant to clause 7.17.7(d) and the *Information Exchange Committee Annual Report*; and
- (c) the operational costs associated with any service provided by *AEMO* to facilitate *B2B Communications* (including providing, maintaining, upgrading and operating a *B2B e-Hub*).

B2B Data

Data relating to *B2B Communications*.

B2B Decision

A decision of *AEMO* to approve or not approve an *Information Exchange Committee Recommendation*.

B2B Determination Dispute

A dispute in relation to either a *B2B Decision* or an *Information Exchange Committee Recommendation*.

B2B e-Hub

An electronic information exchange platform provided, maintained and operated by *AEMO* to facilitate *B2B Communications*.

B2B e-Hub Participant

A person who has been accredited by *AEMO* as a *B2B e-Hub Participant* under clause 7.17.2.

B2B factors

The following factors:

- (a) The reasonable costs of compliance by *AEMO* and *B2B Parties* with the *B2B Procedures* compared with the likely benefits from *B2B Communications*;
- (b) The likely impacts on innovation in and barriers to entry to the markets for services facilitated by advanced meters resulting from changing the existing *B2B Procedures*; and
- (c) The implementation timeframe reasonably necessary for *AEMO* and *B2B Parties* to implement systems or other changes required to be compliant with any change to existing *B2B Procedures*.

B2B Party

Distribution Network Service Providers, retailers, Local Retailers, Metering Coordinators, Metering Providers, Metering Data Providers, Embedded Network Managers and other *Third Party B2B Participants*.

B2B Principles

The following principles:

- (a) *B2B Procedures* should provide a uniform approach to *B2B Communications* in *participating jurisdictions*;
- (b) *B2B Procedures* should detail operational and procedural matters and technical requirements that result in efficient, effective and reliable *B2B Communications*;
- (c) *B2B Procedures* should avoid unreasonable discrimination between *B2B Parties*; and
- (d) *B2B Procedures* should protect the confidentiality of commercially sensitive information.

B2B Procedures

The *B2B Procedures* made under Part H with the content required under clause 7.17.3.

B2B Procedures Change Pack

A document consisting of:

- (a) a *B2B Proposal*;

- (b) a report setting out an overview of the likely impact of the *B2B Proposal* on *AEMO* and *B2B Parties*;
- (c) draft *B2B Procedures* (incorporating proposed changes in mark up, where appropriate); and
- (d) an issues paper explaining why the *B2B Proposal* is being presented.

B2B Proposal

A proposal for *B2B Procedures*, or a change to the *B2B Procedures*, which is the subject of consultation by the *Information Exchange Committee*.

bank bill rate

On any *day*, the rate determined by *AEMO* (having regard to such market indicators as *AEMO* in its discretion selects) to be the market rate as at 10.00 am on that *day* (or if not a *business day*, on the previous *business day*) for Australian dollar denominated bank accepted bills of exchange having a tenor of 30 *days*.

basic connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

basic micro EG connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

bid and offer validation data

Data submitted by *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* to *AEMO* in relation to their *scheduled loads*, *scheduled generating units*, *semi-scheduled generating units* and *scheduled market network services* in accordance with schedule 3.1.

billed but unpaid charges

For a *Distribution Network Service Provider*, *network charges* that have been billed to a *failed retailer* by the *Distribution Network Service Provider*, but that the *failed retailer* has not yet paid (whether before or after the relevant due date for payment).

billing period

The period of 7 *days* commencing at the start of the *trading interval* ending 12.30 am Sunday.

black start capability

A capability that allows a *generating unit*, following its *disconnection* from the *power system*, to be able to deliver electricity to either:

- (a) its *connection point*; or

- (b) a suitable point in the *network* from which *supply* can be made available to other *generating units*,

without taking *supply* from any part of the *power system* following *disconnection*.

black system

The absence of *voltage* on all or a significant part of the *transmission system* or within a *region* during a *major supply disruption* affecting a significant number of customers.

breaker fail

In relation to a *protection system*, that part of the *protection system* that protects a *Market Participant's facilities* against the non-operation of a circuit breaker that is required to open.

breaker fail protection system

A *protection system* that protects a *facility* against the non-operation of a circuit breaker that is required to open to clear a fault.

brownfields conversion

The creation of an *embedded network* through:

- (a) modification or replacement of *embedded connection assets*; or
- (b) engaging in the activity of selling electricity to another person conveyed by means of *facilities* within a building or site or imposing a charge in respect of the conveyance or for use of the *facilities* where but for that sale or other activity, the *facilities* would be classified as *embedded connection assets*.

building block determination

The component of a distribution determination relevant to the regulation of *standard control services* (See rule 6.3).

building block proposal

For a *Distribution Network Service Provider*, the part of the provider's *regulatory proposal* relevant to the regulation of *standard control services* (See clause 6.3.1).

busbar

A common *connection point* in a *power station switchyard* or a *transmission network substation*.

business day

A day that is not:

- (a) a Saturday or Sunday; or

- (b) observed as a public holiday on the same day in each of the *participating jurisdictions* (except the Commonwealth).

calculated metering data

The *trading interval* data corresponding to the calculation of consumed *energy* for a type 7 *metering installation* in accordance with the *metrology procedure*. *Calculated metering data* is held in the *metering data services database* and the *metering database*.

call amount

The amount determined pursuant to the formula in clause 3.3.11 for the purposes of a *call notice* where the *outstandings* of a *Market Participant* exceed its *trading limit*.

call notice

A notice issued by *AEMO* pursuant to clause 3.3.11 where the *outstandings* of a *Market Participant* exceed its *trading limit*.

capacitor bank

Electrical equipment used to generate *reactive power* and therefore support *voltage* levels on *distribution* and *transmission lines* in periods of high *load*.

capacity reserve

At any time, the amount of surplus or unused generating capacity indicated by the relevant *Generators* as being available in the relevant timeframe minus the capacity requirement to meet the current forecast *load* demand, taking into account the known or historical levels of demand management.

capital expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.7(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.7(c)(1)–(3).

capital expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.7(e)(1)–(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.7(e)(1)–(12).

Capital Expenditure Incentive Guidelines

Guidelines made by the *AER* under clause 6.4A(b) or clause 6A.5A(b), as the case may be.

capital expenditure incentive objective

Has the meaning given to it by clause 6.4A(a) or clause 6A.5A(a), as the case may be.

capital expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.7(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.7(a).

capital expenditure sharing scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.5.8A or clause 6A.6.5A, as the case may be.

capital expenditure sharing scheme principles

Has the meaning given to it by clause 6.5.8A(c) or clause 6A.6.5(c), as the case may be.

capitalisation requirement

The requirement set out in clause S6.2.2A(e) or clause S6A.2.2A(e), as the case may be.

carbon dioxide equivalent intensity index

The index published by *AEMO* in accordance with clause 3.13.14(f).

carbon dioxide equivalent intensity index procedures

The procedures published by *AEMO* in accordance with clause 3.13.14(a).

cascading outage

The occurrence of an uncontrollable succession of *outages*, each of which is initiated by conditions (e.g. instability or overloading) arising or made worse as a result of the event preceding it.

categories of prescribed transmission services

For the purposes of pricing for *prescribed transmission services*:

- (a) *prescribed entry services*;
- (b) *prescribed exit services*;
- (c) *prescribed common transmission services*; and
- (d) *prescribed TUOS services*.

central dispatch

The process managed by AEMO for the *dispatch* of *scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *market ancillary services* in accordance with rule 3.8.

change

Includes amendment, alteration, addition or deletion.

changeover date

Has the meaning given in the *National Electricity Law*.

charging parameters

The constituent elements of a tariff.

check meter

An additional *meter* used as a source of *check metering data* for Type 1 and Type 2 *metering installations* as specified in schedule 7.4.

check metering data

The *energy data*, once collected from a *check metering installation*, is *check metering data*. *Check metering data* is held in a *metering data services database* and the *metering database*.

check metering installation

A *metering installation* that includes a *check meter* which is used as the source of *check metering data* for validation in the *settlements* process.

child connection point

The agreed point of supply established between the owner, controller or operator of the ~~an~~ embedded network and another Registered Participant, Non-Registered Customer, franchise customer or retail customer for an electrical installation, generating unit or other embedded network connected to that embedded network, ~~for which a Market Participant is, or proposes to be, financially responsible.~~

Note

A connection point for an embedded network within another embedded network will be both a child connection point and a parent connection point.

clause 4.8.9 instruction

Has the meaning given in clause 4.8.9(a1)(2).

commercial arbitrator

A dispute resolution panel (within the meaning of section 2 of the *National Electricity Law*) established pursuant to clause 6A.30.2(b).

commitment

The commencement of the process of starting up and *synchronising* a *generating unit* to the *power system*.

communications interface

The modem and other devices and processes that facilitate the connection between the *metering installation* and the *telecommunications network* for the purpose of the *remote acquisition* of *energy data*.

compensation recovery amount

Has the meaning given in clause 3.15.8(a).

confidential information

In relation to a *Registered Participant* or *AEMO*, information which is or has been provided to that *Registered Participant* or *AEMO* under or in connection with the *Rules* and which is stated under the *Rules*, or by *AEMO*, the *AER* or the *AEMC*, to be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

congestion information resource

The information resource developed, *published* and amended from time to time by *AEMO* in accordance with rule 3.7A.

congestion information resource guidelines

Guidelines developed and *published* by *AEMO* in accordance with rules 3.7A(k) to (m).

congestion information resource objective

The objective of the *congestion information resource* which is set out in rule 3.7A(a).

connect, connected, connection

To form a physical link to or through a *transmission network* (including to a *network connection asset* or a *dedicated connection asset* that is physically linked to that *transmission network*) or *distribution network*.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection agreement

An agreement between a *Network Service Provider* and a *Registered Participant* or other person by which the *Registered Participant* or other person is *connected* to the *Network Service Provider's* *transmission* or *distribution network* and/or receives *transmission services* or *distribution services*. In some *participating jurisdictions*, the *Registered Participant* or other person may have one *connection agreement* with a *Network Service Provider* for *connection services* and another agreement with a different *Network Service Provider* for *network services* provided by the *transmission network*.

connection alteration

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

Connection Applicant

A person who wants to establish or modify *connection* to a *transmission network* or *distribution network* and/or who wishes to receive *network services* and who makes a *connection enquiry* as described in clause 5.3.2 or clause 5.3A.5.

In respect of establishing or modifying a *connection* to a *transmission network* of a *Primary Transmission Network Service Provider*, a *Connection Applicant* includes:

- (a) a person seeking to *connect* its *facilities* to a *dedicated connection asset* that is or will be *connected* to the *transmission network* of that *Primary Transmission Network Service Provider*; and
- (b) a person seeking to negotiate a *network operating agreement* for a *third party IUSA*.

In respect of establishing or modifying a *connection* to an *embedded network* of an *Embedded Network Service Provider*, a *Connection Applicant* includes:

- (a) *Registered Participant* or person intending to become a *Registered Participant* who proposes to establish a *connection* to the *embedded network*; and
- (b) a *Network User* within the meaning of clause S5.3.1(a) in respect of a *generating system* or *load* connected or to be connected to the *embedded network*; and
- (c) an *Embedded Generator* who proposes to alter a *generating system* in circumstances where clause 5.3.9(a) applies.

Note

A person seeking access to *large DCA services* from a *third party DCA* under an *access policy* may also need to negotiate with the *Primary Transmission Network Service Provider*.

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

connection application

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection assets

For the *declared transmission system* of an *adoptive jurisdiction*, and a *distribution system*, those components of a *transmission or distribution system* which are used to provide *connection services*.

For other *transmission systems*, *dedicated connection assets* and *network connection assets*.

Note

A *third party DCA* is a *connection asset* but for the purpose of registration under Chapter 2 also constitutes a *transmission system*.

Without limiting the meaning of *connection assets*, facilities used to convey electricity within a building or site that constitute *embedded connection assets*.

connection charge

Has the meaning given in clause 5A.A.1.

connection charge guidelines

Has the meaning given in clause 5A.E.3.

connection charge principles

Has the meaning given in clause 5A.E.1.

connection contract

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

connection point

In relation to a *declared shared network* and a *distribution network* (other than an *embedded network*), the agreed point of *supply supply* established between *Network Service Provider(s)* and another *Registered Participant, Non-Registered Customer, or franchise customer or retail customer* ~~and includes a parent connection point~~.

In relation to other *transmission networks*, the point at which power flows to or from the person or *identified user group* connected to the *transmission network* can be isolated from the *transmission network*. If there is more than one such point, the *Network Service Provider* and that person or *identified user group* will agree which point is the *connection point* in their *connection agreement*.

In relation to [the connection of an embedded network to a transmission or distribution system, the parent connection point.](#)

[In relation to a connection to](#) an embedded network, the child connection point, unless otherwise specified.

connection policy

Has the meaning given in clause 5A.A.1.

connection service

An *entry service* (being a service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*) or an *exit service* (being a service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*).

Note:

In the context of Chapter 5A and Part DA of Chapter 6, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

considered project

- (a) In respect of a *transmission network augmentation*, a project that meets the following criteria:
 - (1) the *Network Service Provider* has acquired the necessary land and easements;
 - (2) the *Network Service Provider* has obtained all necessary planning and development approvals;
 - (3) as applicable:
 - (i) the *augmentation* project has passed the *regulatory investment test for transmission*;
 - (ii) the *augmentation* has passed the *regulatory investment test for distribution*;
 - (iii) in respect of a *transmission investment* which has not been subject to a *regulatory investment test for transmission* or the *regulatory investment test for distribution*, an intention to proceed with the project has been published in the *Network Service Provider's Transmission Annual Planning Report* or *Distribution Annual Planning Report* (as the case may be); or
 - (4) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.

- (b) In respect of a *distribution network augmentation*, a project that meets the following criteria:
- (1) the *Network Service Provider* has acquired the necessary land and easements;
 - (2) the *Network Service Provider* has obtained all necessary planning and development approvals; and
 - (3) construction has either commenced or the *Network Service Provider* has set a firm date for it to commence.

constrained off

In respect of a *generating unit*, the state where, due to a *constraint* on a *network*, the output of that *generating unit* is limited below the level to which it would otherwise have been *dispatched* by *AEMO* on the basis of its *dispatch offer*.

constrained on

In respect of a *generating unit*, the state where, due to a *constraint* on a *network* or in order to provide *inertia network services* under an *inertia services agreement* or *system strength services* under a *system strength services agreement*, the output of that *generating unit* is limited above the level to which it would otherwise have been *dispatched* by *AEMO* on the basis of its *dispatch offer*.

constraint, constrained

A limitation on the capability of a *network*, *load* or a *generating unit* such that it is unacceptable to either transfer, consume or generate the level of electrical power that would occur if the limitation was removed.

consulting party

The person who is required to comply with the *Rules consultation procedures*.

Consumer Member

A person appointed by *AEMO* as a *Member* to represent *small customers* in accordance with the *Rules* (including clause 7.17.10(b)).

contestable

- (a) In relation to *transmission services* a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Transmission Network Service Provider* as a contestable service or on a competitive basis.
- (b) In relation to *distribution services*, a service which is permitted by the laws of the relevant *participating jurisdiction* to be provided by more than one *Distribution Network Service Provider* as a contestable service or on a competitive basis.

Note:

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

contestable IUSA components

Those components of the *identified user shared asset* that satisfy the criteria set out in clause 5.2A.4(c).

contingency capacity reserve

Actual *active* and *reactive energy* capacity, *interruptible load* arrangements and other arrangements organised to be available to be utilised on the actual occurrence of one or more *contingency events* to allow the restoration and maintenance of *power system security*.

contingency capacity reserve standards

The standards set out in the *power system security standards* to be used by AEMO to determine the levels of *contingency capacity reserves* necessary for *power system security*.

contingency event

An event described in clause 4.2.3(a).

contingent project

In relation to a distribution determination, a *proposed contingent project* that is determined by the AER, in accordance with clause 6.6A.1(b), to be a *contingent project* for the purposes of that distribution determination.

In relation to a *revenue determination*, a *proposed contingent project* that is determined by the AER, in accordance with clause 6A.8.1(b), to be a *contingent project* for the purposes of that *revenue determination*.

continuous uninterrupted operation

In respect of a *generating system* or operating *generating unit* operating immediately prior to a *power system* disturbance, not *disconnecting* from the *power system* except under its *performance standards* established under clauses S5.2.5.8 and S5.2.5.9 and, after clearance of any electrical fault that caused the disturbance, only substantially varying its *active power* and *reactive power* required by its *performance standards* established under clauses S5.2.5.11, S5.2.5.13 and S5.2.5.14, with all essential auxiliary and *reactive plant* remaining in service, and responding so as to not exacerbate or prolong the disturbance or cause a subsequent disturbance for other *connected plant*.

control centre

The *facilities* used by AEMO for managing *power system security* and administering the *market*.

control system

Means of monitoring and controlling the operation of the *power system* or equipment including *generating units connected to a transmission or distribution network*.

cooling off period

Has the same meaning as in rule 47(2) of the *NERR*.

Co-ordinated Universal Time (UTC)

The time as determined by the International Bureau of Weights and Measures and maintained under section 8AA of the *National Measurement Act*.

Co-ordinating Network Service Provider

A *Network Service Provider* appointed by multiple *Transmission Network Service Providers* to allocate *AARR* in accordance with rule 6A.29.

Cost Allocation Guidelines

For a *Transmission Network Service Provider* – the guidelines referred to in clause 6A.19.3.

For a *Distribution Network Service Provider* – the guidelines referred to in clause 6.15.3.

Cost Allocation Method

For a *Distribution Network Service Provider*, the *Cost Allocation Method* approved by the *AER* for that *Distribution Network Service Provider* under clause 6.15.4(c) and (d) as amended from time to time in accordance with clause 6.15.4(f) and (g).

Cost Allocation Methodology

For a *Transmission Network Service Provider*, the *Cost Allocation Methodology* approved or taken to be approved by the *AER* for that *Transmission Network Service Provider* under clauses 6A.19.4(c) and (d) as amended from time to time in accordance with clauses 6A.19.4(f) and (g).

Cost Allocation Principles

For a *Transmission Network Service Provider* – the principles set out in clause 6A.19.2.

For a *Distribution Network Service Provider* – the principles set out in clause 6.15.2.

cost reflective network pricing methodology or CRNP methodology

The cost allocation methodology set out in clause S6A.3.2.

CPI

As at a particular time, the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the most recent quarter that precedes that particular time and for which the index referred to has been published by the Australian Bureau of Statistics as at that time. If that index ceases to be published or is substantially changed, *CPI* will be such other index as is determined by the *AER* as a suitable benchmark for recording general movements in prices.

credible contingency event

An event described in clause 4.2.3(b), certain examples of which are set out in schedule 5.1.

credit support

For the purposes of Chapter 3—an obligation owed to *AEMO* by a third party supporting the obligations of a *Market Participant* and having the characteristics required by clause 3.3.2.

For the purposes of Chapter 6B—a security supporting the obligations of a *retailer* to a *Distribution Network Service Provider* under Chapter 6B.

credit support provider

The issuing party that assumes obligations to *AEMO* pursuant to a *credit support*.

cumulative price threshold

The threshold for imposition of an *administered price cap* as defined in clause 3.14.1.

current rating

The maximum current that may be permitted to flow (under defined conditions) through a *transmission line* or *distribution line* or other item of equipment that forms part of a *power system*.

current transformer (CT)

A *transformer* for use with *meters* and/or protection devices in which the current in the secondary winding is, within prescribed error limits, proportional to and in phase with the current in the primary winding.

Customer

A person who:

1. engages in the activity of purchasing electricity *supplied* through a *transmission or distribution system* to a *connection point*; and
2. is registered by *AEMO* as a *Customer* under Chapter 2.

customer authorised representative

A person authorised by a *retail customer* to request and receive information under Chapter 7 on the *retail customer's* behalf.

customer connection service

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

Customer transmission use of system, Customer transmission use of system service

A service provided to a *Transmission Network User* for use of the *transmission network* for the conveyance of electricity that can be reasonably allocated to a *Transmission Network User* on a locational basis, but does not include *Generator transmission use of system services*.

date of issue

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

day

Unless otherwise specified, the 24 hour period beginning and ending at midnight *Eastern Standard Time (EST)*.

declared NEM project

A project determined to be a declared NEM project under clause 2.11.1(ba) or 2.11.1(bd), for which there is special treatment in the timing of cost recovery.

declared network functions

Has the meaning given in the *National Electricity Law*.

declared shared network

Has the meaning given in the *National Electricity Law*.

declared transmission system

Has the meaning given in the *National Electricity Law*.

declared transmission system operator

Has the meaning given in the *National Electricity Law*.

decommission, decommit

In respect of a *generating unit*, ceasing to generate and *disconnecting* from a *network*.

dedicated connection asset

The apparatus, equipment, plant and buildings that:

- (a) are used for the purpose of *connecting* an *identified user group* to an existing *transmission network*;
- (b) are used exclusively by the *identified user group*;
- (c) can be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the *identified user group*; and
- (d) are not:
 - (1) *network connection assets*;
 - (2) part of a *generating system*;
 - (3) part of a *distribution system*;
 - (4) part of a *transmission system* for which a *Market Network Service Provider* is registered under Chapter 2;
 - (5) part of a *Transmission Customer's facility* that utilises electrical energy; or
 - (6) part of the *declared transmission system* of an *adoptive jurisdiction*.

Note

Where a *Primary Transmission Network Service Provider* is registered in respect of a *dedicated connection asset* operating at distribution voltage, it will not be a *distribution system* and will constitute part of its *transmission system* for which it is registered. See definitions of *distribution system* and *transmission system*.

Dedicated Connection Asset Service Provider

A *Transmission Network Service Provider* to the extent that its *transmission system* or any part of it is classified as a *dedicated connection asset* in accordance with Chapter 2.

default dispatch bid

A *dispatch bid* made pursuant to clause 3.8.9.

default dispatch offer

A *dispatch offer* made pursuant to clause 3.8.9.

default event

An event defined as such in clause 3.15.21(a).

default notice

A notice issued by *AEMO* pursuant to clause 3.15.21(b)(1).

default rate

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

defaulting Market Participant

A *Market Participant* in relation to which a *default event* has occurred.

delayed lower service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the *power system* beyond a threshold or in accordance with electronic signals from *AEMO* in order to lower that *frequency* to within the *normal operating frequency band*.

delayed raise service

The service of providing, in accordance with the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to a change in the *frequency* of the *power system* beyond a threshold or in accordance with electronic signals from *AEMO* in order to raise that *frequency* to within the *normal operating frequency band*.

delayed response capacity reserve

That part of the *contingency capacity reserve* capable of realisation within 5 minutes of a major *frequency* decline in the *power system* as described further in the *power system security standards*.

delayed service

A *delayed raise service* or a *delayed lower service*.

demand based price

A price expressed in dollars per kilowatt per time period or dollars per kilovolt ampere per time period.

demand management incentive scheme

A scheme developed and *published* by the *AER* under clause 6.6.3.

demand management incentive scheme objective

Has the meaning given to it by clause 6.6.3(b).

demand management innovation allowance mechanism

A mechanism developed and *published* by the *AER* under clause 6.6.3A.

demand management innovation allowance objective

Has the meaning given to it by clause 6.6.3A(b).

deprival value

A value ascribed to assets which is the lower of economic value or optimised depreciated replacement value.

designated pricing proposal charges

Any of the following:

- (a) charges for *designated pricing proposal services*;
- (b) *avoided Customer TUOS charges*;
- (c) charges for *distribution services* provided by another *Distribution Network Service Provider*, but only to the extent those charges comprise:
 - (1) charges incurred by that *Distribution Network Service Provider* for *designated pricing proposal services*; or
 - (2) charges for *standard control services*;
- (d) charges or payments specified in rule 11.39.

designated pricing proposal services

Any of the following services:

- (a) *prescribed exit services*;
- (b) *prescribed common transmission services*; and
- (c) *prescribed TUOS services*.

de-synchronising/de-synchronisation

The act of *disconnection* of a *generating unit* from the *connection point* with the *power system*, normally under controlled circumstances.

direct control service

A *distribution service* that is a direct control network service within the meaning of section 2B of the Law.

Directed Participant

A *Scheduled Generator*, *Semi-Scheduled Generator*, *Market Generator*, *Market Ancillary Service Provider*, *Scheduled Network Service Provider* or *Market Customer* the subject of a *direction*.

direction

Has the meaning given in clause 4.8.9(a1)(1).

directional interconnector

Has the meaning given in clause 3.18.1(c).

Disclosee

In relation to a *Registered Participant*, a person to whom that *Registered Participant* discloses *confidential information*.

disconnect, disconnected, disconnection

The operation of switching equipment or other action so as to prevent the flow of electricity at a *connection point*.

Discretionary Member

A person appointed as a *Member* by *AEMO* to represent a class or classes of persons who have an interest in the *B2B Procedures* in accordance with the *Rules* (including clause 7.17.10(d)).

dispatch

The act of initiating or enabling all or part of the response specified in a *dispatch bid*, *dispatch offer* or *market ancillary service offer* in respect of a *scheduled generating unit*, *semi-scheduled generating unit*, a *scheduled load*, a *scheduled network service*, an *ancillary service generating unit* or an *ancillary service load* in accordance with rule 3.8, or a *direction* or operation of capacity the subject of a *reserve contract* or an instruction under an *ancillary services agreement* or to enable an *inertia network service* or *system strength service* as appropriate.

dispatch algorithm

The algorithm used to determine *central dispatch* developed by *AEMO* in accordance with clause 3.8.1(d).

dispatch bid

A notice submitted by a *Market Participant* to *AEMO* relating to the *dispatch* of a *scheduled load* in accordance with clause 3.8.7.

dispatch inflexibility profile

Data which may be provided to *AEMO* by *Market Participants*, in accordance with clause 3.8.19, to specify *dispatch inflexibilities* in respect of *scheduled loads* or *scheduled generating units* which are not *slow start generating units*.

dispatch instruction

An instruction given to a *Registered Participant* under clauses 4.9.2, 4.9.2A, 4.9.3, 4.9.3A, or to an *NMAS provider* under clause 4.9.3A.

dispatch interval

A period defined in clause 3.8.21(a1) in which the *dispatch algorithm* is run in accordance with clause 3.8.21(b).

dispatch level

Means:

- (1) for a *semi-dispatch interval*, the amount of electricity specified in a *dispatch instruction* as the *semi-scheduled generating unit's* maximum permissible *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*; and
- (2) for a *non semi-dispatch interval*, an estimate of the *active power* at the end of the *dispatch interval* specified in the *dispatch instruction*.

dispatch offer

A *generation dispatch offer* or a *network dispatch offer*.

dispatch offer price

The price submitted by a *Scheduled Generator*, *Semi-Scheduled Generator* or a *Scheduled Network Service Provider* for a *price band* and a *trading interval* in a *dispatch offer*.

dispatch price

The price determined for each *regional reference node* by the *dispatch algorithm* each time it is run by *AEMO*.

dispatchable unit identifier

An unique reference label allocated by *AEMO* for each *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled load*, and *scheduled network service*.

dispatched generating unit

A *scheduled generating unit* which has received instructions from *AEMO* in accordance with a *dispatch schedule*.

dispatched generation

The *generation* which has been *dispatched* as part of *central dispatch*.

dispatched Generator

A *Generator* who has received a *dispatch instruction* from *AEMO*.

dispatched load

The *load* which has been *dispatched* as part of *central dispatch*.

dispute management system

The dispute management system which each *Registered Participant* and *AEMO* must adopt in accordance with clause 8.2.3.

dispute resolution panel

A dispute resolution panel established pursuant to clause 8.2.6A.

distribution

Activities pertaining to a *distribution system* including the conveyance of electricity through that *distribution system*.

Distribution Annual Planning Report

A report prepared by a *Distribution Network Service Provider* under clause 5.13.2.

Distribution Confidentiality Guidelines

Guidelines made by the *AER* under clause 6.14A.

distribution connection assets

Those components of the *distribution system* which are used to provide *connection services* to a *Distribution Network User* or a group of *Distribution Network Users* or a *Network Service Provider* or a group of *Network Service Providers*.

distribution consultation procedures

The procedures set out in Part G of Chapter 6.

Distribution Customer

A *Customer*, *Distribution Network Service Provider*, *Non-Registered Customer*, *franchise customer*, or *retail customer* having a *connection point* with a *distribution network*.

distribution line

A power line, including underground cables, that is part of a *distribution network*.

distribution loss factor

An *average loss factor* calculated according to clause 3.6.3.

distribution losses

Electrical energy losses incurred in distributing electricity over a *distribution network*.

distribution network

A *network* which is not a *transmission network*.

distribution network connection point

A connection point on a *distribution network*.

Distribution Network Service Provider

A person who engages in the activity of owning, controlling, or operating a *distribution system*.

In this Chapter 10, for the purposes of clause 2.5.4(f), a reference to a *Distribution Network Service Provider* includes a reference to an *Embedded Network Service Provider*.

Distribution Network Service Provider Member

A person nominated and elected as a *Member* by regulated distribution system operators (as defined in the *National Electricity Law*)~~*Distribution Network Service Providers*~~ to represent ~~*Distribution Network Service Providers*~~regulated distribution system operators in accordance with the *Rules* (including clause 7.17.10(e)) and *Information Exchange Committee Election Procedures*.

Distribution Network User

A *Distribution Customer* or an *Embedded Generator*.

distribution network user access

The *power transfer capability* of the *distribution network* in respect of:

- (a) *generating units* or a group of *generating units*; and
- (b) *network elements*,

at a *connection point* which has been negotiated in accordance with rule 5.5.

Distribution Reliability Measures Guidelines

Guidelines made by the AER under clause 6.28.

Distribution Ring-Fencing Guidelines

The guidelines developed by the AER under clause 6.17.2.

distribution service

A service provided by means of, or in connection with, a *distribution system*.

distribution services access dispute

A dispute referred to in clause 6.22.1.

Distribution Service Classification Guidelines

Guidelines developed, maintained and *published* by the AER under clause 6.2.3A.

distribution standard control service revenue

Has the meaning given in rule 6.26(b)(2).

distribution system

A *distribution network*, together with the *connection assets* associated with the *distribution network*, which is *connected* to another *transmission or distribution system*.

Connection assets on their own, and *dedicated connection assets* in respect of which a *Primary Transmission Network Services Provider* is registered, do not constitute a *distribution system*.

The following do not constitute a *distribution system*:

- (a) a *metering installation*;
- (b) a micro EG connection as defined in Chapter 5A;
- (c) a *network* formed by *supply* to equipment supplied by or on behalf of NBN Co Ltd for the National Broadband Network and with an input current rating not exceeding 700 watts;
- (d) a *network* formed by the use of plug-in or rack mounted equipment (but excluding equipment supplied by or on behalf of NBN Co Ltd for the National Broadband Network) including where formed by the charging of an electric vehicle;
- (e) a *network* within a construction site or on a site adjacent to the construction site, but only where and for so long as the *network* is used for *supply* during the construction and commissioning phases of new facilities on the construction site;
- (f) an electric traction system for *supply* to a passenger or freight rail network including associated rail network infrastructure but not including a *network* for *supply* for commercial or retail activities associated with the provision of passenger or freight services.

Distribution System Operator

A person who is responsible, under the *Rules* or otherwise, for controlling or operating any portion of a *distribution system* (including being responsible for directing its operations during *power system* emergencies) and who is registered by AEMO as a *Distribution System Operator* under Chapter 2.

distribution use of system, distribution use of system service

A service provided to a *Distribution Network User* for use of the *distribution network* for the conveyance of electricity that can be reasonably allocated on a locational and/or *voltage* basis.

DMS

A dispute management system.

DMS Contact

A person appointed by a *Registered Participant* or *AEMO* pursuant to its *DMS* to be the first point of contact for the notification of disputes under clause 8.2.

DMS referral notice

A notice served on a *DMS Contact* pursuant to clause 8.2.4(a).

DRP

A dispute resolution panel.

dual function asset

Means any part of a *network* owned, operated or controlled by a *Distribution Network Service Provider* which operates between 66 kV and 220 kV and which operates in parallel, and provides support, to the higher voltage *transmission network* which is deemed by clause 6.24.2(a) to be a *dual function asset*. For the avoidance of doubt:

- (a) a *dual function asset* can only be an asset which forms part of a *network* that is predominantly a *distribution network*; and
- (b) an asset which forms part of a *network* which is predominantly a *transmission network* cannot be characterised as a *dual function asset*,

through the operation of clause 6.24.2(a).

due date for payment

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

dynamic performance

The response and behaviour of *networks* and *facilities* which are *connected* to the *networks* when the *satisfactory operating state* of the *power system* is disturbed.

EAAP guidelines

The guidelines *published* by *AEMO* in accordance with clause 3.7C(k) that *AEMO* must comply with in preparing the *EAAP*.

EAAP principles

The principles referred to in clause 3.7C(b) that *AEMO* must comply with in preparing the *EAAP* and the *EAAP guidelines*.

Eastern Standard Time (EST)

The time which is set at 10 hours in advance of *Co-ordinated Universal Time*.

EFCS settings schedule

The schedules developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(2) specifying the settings for *emergency frequency control schemes* affecting *regions* in the *participating jurisdiction*.

efficiency benefit sharing scheme

For a *Transmission Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6A.5.

For a *Distribution Network Service Provider* – a scheme developed and *published* by the *AER* under clause 6.5.8.

efficiency benefit sharing scheme parameters

For an *efficiency benefit sharing scheme*, those parameters that are *published* by the *AER* in respect of that scheme pursuant to clause 6A.6.5(c).

electrical energy loss

Energy loss incurred in the production, transportation and/or use of electricity.

electrical sub-network

A part of the *national grid* determined by *AEMO* in accordance with clause 3.11.8.

Electricity Procedures

Procedures made under these *Rules* including:

- (a) *Retail Market Procedures*; and
- (b) procedures governing the operation of the *National Electricity Market*; and
- (c) *RoLR procedures* for electricity; and
- (d) procedures dealing with any other subject on which these *Rules* empower the making of procedures.

electronic communication system

Includes the electronic communication and the *electronic data transfer* system provided to *Registered Participants* by *AEMO*.

electronic data transfer

The transfer of data by electronic means from one location to another.

eligible pass through amount

In respect of a *positive change event* for a *Transmission Network Service Provider*, the increase in costs in the provision of *prescribed transmission services* that, as a result of that *positive change event*, the *Transmission Network Service*

Provider has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or
- (b) if the *transmission determination* for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the AER for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

In respect of a *positive change event* for a *Distribution Network Service Provider*, the increase in costs in the provision of *direct control services* that, as a result of that *positive change event*, the *Distribution Network Service Provider* has incurred and is likely to incur (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *positive change event* occurred; or
- (b) if the distribution determination for the *regulatory control period* following that in which the *positive change event* occurred does not make any allowance for the recovery of that increase in costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the AER for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *positive change event* occurred.

eligible person

Has the meaning given in clause 3.18.2(b).

embedded connection assets

Facilities used to convey electricity within a building or site (other than facilities owned, controlled or operated by a Network Service Provider or Embedded Network Service Provider or identified user shared assets) where:

- (a) the facilities are used to provide, or are used in connection with the provision of, an entry service or exit service by a Network Service Provider (other than an Embedded Network Service Provider); and
- (b) either:
 - (i) each connection point to which electricity is conveyed by means of the facilities is an agreed point of supply established between Network Service Provider(s) and another Registered Participant, Non-Registered Customer, franchise customer or retail customer; or

- (ii) the only customer in respect of the electricity conveyed by means of the facilities is the Registered Participant, Non-Registered Customer, franchise customer or retail customer for the agreed point of supply for the building or site and that person does not engage in the activity of selling any such electricity to another person or imposing a charge in respect of the conveyance of such electricity or for use of the facilities.

Note

Paragraph (b) is not satisfied where the agreed point of supply for a customer to whom electricity is conveyed by the facilities is a child connection point.

embedded generating unit

A generating unit connected within a distribution network and not having direct access to the transmission network.

Embedded Generator

A Generator who owns, operates or controls an *embedded generating unit*.

Note:

In the context of Chapter 5A, the above definition has been displaced by the definition "embedded generator" specifically applicable to that Chapter. See clause 5A.A.1.

embedded network

A distribution system which:

- (a) has been classified in accordance with Chapter 2 as an embedded network;
or
(b) is owned, controlled or operated under a network exemption, ~~connected at a parent connection point to either a distribution system or transmission system that forms part of the national grid, and which is owned, controlled or operated by a person who is not a Network Service Provider.~~

embedded network area

The geographical area, site or premises served by an embedded network. In relation to an embedded network of an Embedded Network Service Provider, the embedded network area registered with AEMO under clause 2.5.4.

embedded network management services

Services that involve carrying out the roles, discharging the responsibilities and complying with the obligations of an *Embedded Network Manager* under the Rules and procedures authorised under the Rules.

Embedded Network Manager

A person:

- (a) who meets the requirements listed in schedule 7.7 and has been accredited and registered by *AEMO* as an *Embedded Network Manager*; and
- (b) who has not been deregistered by *AEMO* as an *Embedded Network Manager* under clause 7.4.4(d).

Embedded Network Service Provider

A Network Service Provider who has classified its distribution system as an embedded network in accordance with Chapter 2 and who is registered by AEMO as an Embedded Network Service Provider under Chapter 2.

emergency frequency control scheme

Facilities for initiating automatic load shedding or automatic generation shedding to prevent or arrest uncontrolled increases or decreases in frequency (alone or in combination) leading to cascading outages or major supply disruptions.

emergency priority procedures

The procedures developed and *published* by *AEMO* in accordance with clause 7.8.5(b).

emission factor

The factor representing the amount of greenhouse gas emissions per unit of electricity (t CO₂-e/MWh) of energy produced by each *power station*.

enabled, enable

A *market ancillary service* is enabled when *AEMO* has selected the relevant *generating unit* or *load* for the provision of the *market ancillary service* and has notified the relevant *Market Participant* accordingly.

An *inertia network service* is enabled when *AEMO* has selected the relevant *inertia network service* and the service is providing *inertia* to an *inertia sub-network*.

An activity approved by *AEMO* under clause 5.20B.5(a) is enabled when *AEMO* has selected the relevant activity and the activity is performing and available in accordance with any conditions of that approval.

A *system strength service* is enabled when *AEMO* has selected the relevant *system strength service* and the service is contributing to the *three phase fault level* at the relevant *fault level node*.

enablement limit

In relation to any *market ancillary service offer*, the level of associated *generation* or *load* (in MW) above or below which no response is specified as being available.

enabling price

Has the meaning given in clause 3.8.7A(d).

energise/energisation

The act of operation of switching equipment or the start-up of a *generating unit*, which results in there being a non-zero *voltage* beyond a *connection point* or part of the *transmission* or *distribution network*.

energy

Active energy and/or *reactive energy*.

energy adequacy assessment projection (EAAP)

A projection of AEMO's assessment of *energy* availability that accounts for *energy constraints* for each month over a 24 month period, which is prepared and *published* in accordance with rule 3.7C and is measured as *unserved energy* for each *region*.

energy based price

A price expressed in cents per kilowatt hour of *energy*.

energy constrained scheduled generating unit

A *scheduled generating unit* in respect of which the amount of electricity it is capable of *supplying* on a *trading day* is less than the amount of electricity it would *supply* on that *trading day* if it were *dispatched* to its full nominated availability for the whole *trading day*.

energy constrained scheduled load

A *scheduled load* in respect of which the amount of electricity it can take in a *trading day*, if *normally off*, or it can *off-load*, if *normally on*, is *constrained*.

energy constraint

A limitation on the ability of a *generating unit* or group of *generating units* to generate *active power* due to the restrictions in the availability of fuel or other necessary expendable resources such as, but not limited to, gas, coal, or water for operating turbines or for cooling.

energy conversion model

The model that defines how the *intermittent* input energy source (such as wind) is converted by the *semi-scheduled generating unit* into electrical output. That model must contain the information set out in the guidelines *published* by AEMO in accordance with clause 2.2.7(d).

energy data

Interval energy data or *accumulated energy data*.

energy laws

Has the meaning given in section 2(1) of the *NERL*

energy ombudsman

Has the same meaning as in the *NERL*.

energy support arrangement

A contractual arrangement between a *Generator* or *Network Service Provider* on the one hand, and a customer or *participating jurisdiction* on the other, under which *facilities* not subject to an *ancillary services agreement* for the provision of *system restart ancillary services* are used to assist *supply* to a customer during a *major supply disruption* affecting that customer, or customers generally in the *participating jurisdictions*, as the case may be.

ENM conditions

An *Exempt Embedded Network Service Provider* must:

- (a) act as the *Embedded Network Manager* for the relevant *embedded network*; or
- (b) engage an *Embedded Network Manager* to provide *embedded network management services* for the relevant *embedded network*; and
- (c) enter into an agreement with an *Embedded Network Manager* for the provision of *embedded network management services* where that person has engaged an *Embedded Network Manager* under paragraph (b).

ENM conditions trigger

In relation to [an embedded network, when:](#)

- (a) ~~a small customer~~ [connected to the embedded network](#), ~~when the small customer~~ enters [into](#) a market retail contract for the sale of energy at the relevant *child connection point* and the cooling off period in relation to that contract has expired; [or](#) -
- (b) ~~In relation to a large customer~~ [connected to the embedded network](#), ~~when the large customer~~ has entered a contract for the sale of energy at the relevant *child connection point*.

ENM service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6A.

enquiry

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

entry charge

The charge payable by an *Embedded Generator* to a *Distribution Network Service Provider* for an *entry service* at a *distribution network connection point*.

entry cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *entry service* assets which provide *entry service* for the *connection point*.

entry service

A service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

EN wiring information

Panel layouts and wiring diagrams relevant to an *embedded network*.

estimated metering data

The estimated values of *accumulated metering data*, *interval metering data* or *calculated metering data* that have been prepared in accordance with the *metrology procedure*. *Estimated metering data* is held in a *metering data services database* and the *metering database*.

excitation control system

In relation to a *generating unit*, the automatic *control system* that provides the field excitation for the generator of the *generating unit* (including excitation limiting devices and any *power system stabiliser*).

Exempt Embedded Network Service Provider

An *Exempt System Operator* ~~person~~ who engages in the activity of owning, controlling or operating a *distribution system* ~~an embedded network under an exemption granted or deemed to be granted by the AER under section 13 of the National Electricity Law and clause 2.5.1(d)~~.

Exempt System Operator

A person who engages in the activity of owning, controlling or operating a *transmission system* or *distribution system* under a *network exemption*.

exempt seller

Has the same meaning as in the *NERL*.

exemption application

Has the meaning given in clause 6.4B.2(a).

exit charge

The charge payable by a *Distribution Customer* to a *Distribution Network Service Provider* for *exit service* at a *distribution network connection point*.

exit cost

For each *distribution network connection point*, the amount of the *aggregate annual revenue requirement* for all individual assets classified as *exit service* assets which provide *exit service* for the *connection point*.

exit service

A service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*.

expenditure for a restricted asset

Capital expenditure for a *restricted asset*, excluding capital expenditure for the refurbishment of that asset.

Expenditure Forecast Assessment Guidelines

Guidelines made by the AER under clause 6.4.5(a) or clause 6A.5.6(a), as the case may be.

extension

An *augmentation* that requires the *connection* of a power line or *facility* outside the present boundaries of the *transmission* or *distribution network* owned, controlled or operated by a *Network Service Provider*.

external administration default event

A *default event* of a type referred to in subparagraphs 3.15.21(a)(10) or (11).

extreme frequency excursion tolerance limits

In relation to the *frequency* of the *power system*, means the limits so described and specified in the *power system security standards*.

facilities

A generic term associated with the apparatus, equipment, buildings and necessary associated supporting resources provided at, typically:

- (a) a *power station* or *generating unit*;
- (b) a *substation* or *power station switchyard*;
- (c) a *control centre* (being a *AEMO control centre*, or a *distribution* or *transmission network control centre*);

- (d) facilities providing an *exit service*.

failed retailer

Has the meaning given in the *National Energy Retail Law*.

fast lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a rise in that *frequency*.

fast raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of rapidly controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to arrest a fall in that *frequency*.

fault clearance time

In respect of a *fault type*, the time within which the *protection system* is designed, operated and maintained to clear a *short circuit fault* of that *fault type* within its protection zone.

fault level node

A location on a *transmission network* that AEMO determines is a *fault level node* in its determination of *system strength requirements* under clause 5.20C.1(a).

fault level shortfall

A shortfall in the *three phase fault level* typically provided at a *fault level node* in a *region* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the minimum *three phase fault level* most recently determined by AEMO for the *fault level node*.

fault level shortfall event

A *Transmission Network Service Provider* is required to make *system strength services* available under clause 5.20C.3 as a consequence of an assessment by AEMO under clause 5.20C.2(c) that there is a *fault level shortfall* at a *fault level node* in a *region* for which the *Transmission Network Service Provider* is the *System Strength Service Provider* or to cease making *system strength services* available under clause 5.20C.3 as a consequence of an assessment by AEMO under clause 5.20C.2(d) that a *fault level shortfall* at a *fault level node* has ceased and:

- (a) the *Transmission Network Service Provider* is required to provide, or cease providing, *system strength services* during the course of a *regulatory control period*; and

- (b) making *system strength services* available or ceasing to make *system strength services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

fault type

One of the following types of electrical fault:

- (a) three phase to ground fault;
- (b) three phase fault;
- (c) two phase to ground fault;
- (d) phase to phase fault; and
- (e) one phase to ground fault.

final statement

A statement issued by *AEMO* under clause 3.15.15 to a *Market Participant*.

financial year

A period commencing on 1 July in one calendar year and terminating on 30 June in the following calendar year.

financially responsible

In relation to any *market connection point*, a term which is used to describe the *Market Participant* which has either:

1. classified the *connection point* as one of its *market loads*;
2. classified the *generating unit connected* at that *connection point* as a *market generating unit*; or
3. classified the *network services* at that *connection point* as a *market network service*.

First-Tier Customer

A *Customer* which has classified any *load* as a *first-tier load* in accordance with Chapter 2.

first-tier load

Electricity purchased at a *connection point* directly and in its entirety from the *Local Retailer* and which is classified as a *first-tier load* in accordance with Chapter 2.

former Chapter 6A

Chapter 6A of the *Rules* as in force immediately prior to the commencement of Schedules 1, 2, 4, 5 and 6 of the *National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017 No.4* and which is applicable for a *declared transmission system* of an *adoptive jurisdiction* under clause 11.98.8, as amended from time to time.

framework and approach paper

A document prepared and issued as a framework and approach paper under clause 6.8.1.

franchise customer

A person who does not meet its local jurisdiction requirements to make it eligible to be registered by *AEMO* as a *Customer* for a *load*.

frequency

For alternating current electricity, the number of cycles occurring in each second. The term Hertz (Hz) corresponds to cycles per second.

frequency operating standard

The standards which specify the *frequency* levels for the operation of the *power system* set out in the *power system security standards*.

frequency response mode

The mode of operation of a *generating unit* which allows automatic changes to the generated power when the *frequency* of the *power system* changes.

fully co-optimised network constraint formulation

A *network constraint* equation formulation that allows *AEMO*, through direct physical representation, to control all the variables within the equation that can be determined through the *central dispatch* process. Some variables may not be included in accordance with clause 3.8.10(c) of the *Rules* if control of such variables would not materially enhance the security of the *power system* due to the small size of their coefficients.

funded augmentation

A *transmission network augmentation* for which the *Transmission Network Service Provider* is not entitled to receive a charge pursuant to Chapter 6A.

GELF parameters

Variable parameters specific to a *Generator Energy Limitation Framework (GELF)* which are defined in the *EAAP guidelines* and supplement the *GELF*, and are submitted by a *Scheduled Generator* and updated in accordance with rule 3.7C for the purpose of the *EAAP*.

general regulatory information order

Has the meaning given in the *National Electricity Law*.

generated

In relation to a *generating unit*, the amount of electricity produced by the *generating unit* as measured at its terminals.

generating plant

In relation to a *connection point*, includes all equipment involved in generating electrical *energy*.

generating system

- (a) Subject to paragraph (b), for the purposes of the *Rules*, a system comprising one or more *generating units*.
- (b) For the purposes of clause 2.2.1(e)(3), clause 4.9.2, Chapter 5 and a *jurisdictional derogation* from Chapter 5, a system comprising one or more *generating units* and includes auxiliary or *reactive plant* that is located on the *Generator's* side of the *connection point* and is necessary for the *generating system* to meet its *performance standards*.

generating unit

The plant used in the production of electricity and all related equipment essential to its functioning as a single entity.

generating unit minimum ramp rate requirement

- (a) in relation to a *generating unit* that has not been aggregated in accordance with clause 3.8.3, the lower of 3MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b); or
- (b) in relation to a *generating unit* that has been aggregated in accordance with clause 3.8.3, the lower of 3 MW/minute or 3% of the maximum *generation* provided in accordance with clause 3.13.3(b1),

expressed as MW/minute rounded down to the nearest whole number except where this would result in the nearest whole number being zero, in which case the generating unit minimum ramp rate requirement is 1 MW/minute.

generation

The production of electrical power by converting another form of energy in a *generating unit*.

generation centre

A geographically concentrated area containing a *generating unit* or *generating units* with significant combined generating capability.

generation dispatch offer

A notice submitted by a *Scheduled Generator* or *Semi-Scheduled Generator* to AEMO relating to the *dispatch* of a *scheduled generating unit* or a *semi-scheduled generating unit* in accordance with clause 3.8.6.

generation shedding

Disconnecting, or reducing the transfer of *active power* to the *power system* from, one or more *generating systems* or *generating units*.

Generator

A person who engages in the activity of owning, controlling or operating a *generating system* that is *connected* to, or who otherwise *supplies* electricity to, a *transmission* or *distribution system* and who is registered by AEMO as a *Generator* under Chapter 2.

For the purposes of Chapter 5, the term includes a person who is required or intends to register in that capacity or is a non-registered embedded generator (as defined in clause 5A.A.1) who has made an election under clause 5A.A.2(c) [\(where permitted by that clause\)](#).

Generator Energy Limitation Framework (GELF)

A description of the *energy constraints* that affect the ability of a *scheduled generating unit* to generate electricity prepared in accordance with the *EAAP guidelines*.

Generator transmission use of system, Generator transmission use of system service

A service provided to a *Generator* for:

- (a) **[Deleted]**
- (b) use of a *transmission investment* for the conveyance of electricity that can be reasonably allocated to a *Generator* on a locational basis.

global market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

good electricity industry practice

The exercise of that degree of skill, diligence, prudence and foresight that reasonably would be expected from a significant proportion of operators of *facilities* forming part of the *power system* for the *generation, transmission* or *supply* of electricity under conditions comparable to those applicable to the relevant *facility* consistent with *applicable regulatory instruments, reliability, safety* and environmental protection. The determination of comparable conditions is to take into account factors such as the relative size, duty, age and technological status of the relevant *facility* and the *applicable regulatory instruments*.

high voltage (HV)

A *voltage* greater than 1 kV.

identified need

The objective a *Network Service Provider* (or in the case of a need identified through joint planning under clause 5.14.1(d)(3) or clause 5.14.2(a), or clause 5.14.3(a), a group of *Network Service Providers*) seeks to achieve by investing in the *network*.

identified user group

One or more persons (other than a *Network Service Provider* who is not a *Market Network Service Provider*) who, from time to time, are *connected* to a *transmission network* at the same single *connection point*.

identified user shared asset

The apparatus, equipment, plant and buildings that:

- (a) are used for the purpose of *connecting* one or more *identified user groups* to an existing *transmission network*;
- (b) are not used exclusively by the relevant *identified user groups*;
- (c) under normal operating conditions, cannot be electrically isolated from the *transmission network* without affecting the provision of *shared transmission services* to persons who are not members of the relevant *identified user groups*; and
- (d) are not part of the *declared transmission system* of an *adoptive jurisdiction*.

Incoming Retailer

A *retailer* that:

- (a) has a contract with a customer at a *connection point*; and
- (b) has initiated the customer transfer process in accordance with the *Market Settlement and Transfer Solution Procedures*,

but which is not yet designated the *financially responsible Market Participant* ([within the meaning of Chapter 7](#)) for that *connection point*.

Independent Engineer

A person appointed under rule 5.4.

independent person

A person who:

- (a) is not a member, employee or member of staff of the *AER* or the *AEMC*;

- (b) is not a director or employee of *AEMO*;
- (c) is not a director or employee of, or partner in, a *Registered Participant*;
- (d) does not have a direct or indirect financial interest (whether as shareholder, partner or other equity participant) in any *Registered Participant* or a *related body corporate* of any *Registered Participant*, other than an interest of less than 0.1% of the net shareholders funds of that entity (as determined at the date the relevant person is appointed to carry out a function under the *Rules*); or
- (e) is not a director or employee of a *related body corporate* of any *Registered Participant*.

independently controllable two-terminal link

A *two-terminal link* through which the *power transfer* can be independently controlled within a range determined by the *power transfer capability* of the *two-terminal link* and the conditions prevailing in the rest of the *power system*.

indexed amount

As at any time and in relation to a dollar value that is expressly set out in Part C of Chapter 6 or Part C of Chapter 6A, that dollar value multiplied by CPI_a/CPI_b

where:

CPI_a is the *CPI* as at that time; and

CPI_b is the Consumer Price Index: All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics for the quarter ending 30 June 2006.

indicative pricing schedule

For a *Distribution Network Service Provider*, means the schedule of indicative price levels as referred to in paragraph 6.18.1A(e).

inertia

Contribution to the capability of the *power system* to resist changes in *frequency* by means of an inertial response from a *generating unit*, *network element* or other equipment that is electro-magnetically coupled with the *power system* and *synchronised* to the *frequency* of the *power system*.

inertia generating unit

A *generating unit* registered with *AEMO* under clause 5.20B.6(b).

inertia network service

A service for the provision of *inertia* to a *transmission system*.

inertia requirements

The *minimum threshold level of inertia* and the *secure operating level of inertia* for an *inertia sub-network* determined by AEMO under clause 5.20B.2(a).

inertia requirements methodology

The process AEMO uses to determine the *inertia requirements* for each *inertia sub-network*, published by AEMO under clause 5.20.1(a)(3).

inertia service payment

A payment by a *Transmission Network Service Provider* made under an *inertia services agreement* where:

- (a) the payment is made for *inertia network services* or *inertia support activities* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as an *Inertia Service Provider* to (in the case of *inertia network services*) satisfy an obligation under clause 5.20B.4 or (in the case of *inertia support activities*) resulting in an adjustment to the *minimum threshold level of inertia* or the *secure operating level of inertia*; and
- (b) the *inertia network services* are made available or provided, or the *inertia support activity* is undertaken, in accordance with:
 - (1) applicable technical specifications and performance standards approved by AEMO; and
 - (2) in the case of an *inertia support activity*, any conditions of AEMO's approval under clause 5.20B.5(a).

Inertia Service Provider

The *Inertia Service Provider* for an *inertia sub-network* as specified under clause 5.20B.4(a).

inertia services agreement

An agreement under which a person agrees to provide one or more *inertia network services* to an *Inertia Service Provider* or to undertake an *inertia support activity*.

inertia shortfall

A shortfall in the level of *inertia* typically provided in an *inertia sub-network* (having regard to typical patterns of *dispatched generation* in *central dispatch*) compared to the *secure operating level of inertia* most recently determined by AEMO for the *inertia sub-network*.

inertia shortfall event

A *Transmission Network Service Provider* is required to make *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by

AEMO under clause 5.20B.3(c) that there is an *inertia shortfall* in an *inertia sub-network* for which the *Transmission Network Service Provider* is the *Inertia Service Provider* or to cease making *inertia network services* available under clause 5.20B.4 as a consequence of an assessment by *AEMO* under clause 5.20B.3(d) that an *inertia shortfall* in the *inertia sub-network* has ceased and:

- (a) the *Transmission Network Service Provider* is required to provide, or cease providing, *inertia network services* during the course of a *regulatory control period*; and
- (b) making *inertia network services* available or ceasing to make *inertia network services* available *materially* increases or *materially* decreases the *Transmission Network Service Provider's* costs of providing *prescribed transmission services*.

inertia sub-network

A part of the *national grid* determined by *AEMO* in accordance with clause 5.20B.1.

inertia support activity

An activity approved by *AEMO* under clause 5.20B.5(a).

inflexible, inflexibility

In respect of a *scheduled generating unit*, *scheduled load* or *scheduled network service* for a *trading interval* means that the *scheduled generating unit*, *scheduled load* or *scheduled network service* is only able to be *dispatched* in the *trading interval* at a fixed *loading level* specified in accordance with clause 3.8.19(a).

Information Exchange Committee

The committee established under clause 7.17.6(a).

Information Exchange Committee Annual Report

The annual report prepared by the *Information Exchange Committee* in accordance with the *Information Exchange Committee Operating Manual* and the *Rules*.

Information Exchange Committee Election Procedures

The procedures of that title which set out the process for election of *Members*.

Information Exchange Committee Operating Manual

The manual of that title prepared by the *Information Exchange Committee* which sets out the processes pursuant to which the *Information Exchange Committee* operates.

Information Exchange Committee Recommendation

- (a) For the purposes of Chapter 8 and any applicable definitions, a decision made by the *Information Exchange Committee* under clauses 7.17.4(n)(1) or 7.17.4(n)(2).
- (b) Otherwise, a decision made by the *Information Exchange Committee* under clause 7.17.4(n)(2).

Information Exchange Committee Working Groups

The groups established by the *Information Exchange Committee* to assist with the *Information Exchange Committee Works Programme*.

Information Exchange Committee Works Programme

The work programme prepared by the *Information Exchange Committee* in respect of the development, implementation and operation of the *B2B Procedures* and other matters which are incidental to effective and efficient *B2B Communications*.

information guidelines

Guidelines made by the *AER* for the purpose of guiding a *Transmission Network Service Provider* in the submission of certified annual statements and other related information in accordance with clause 6A.17.2.

insolvency official

A receiver, receiver and manager, administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function.

instrument transformer

Either a *current transformer (CT)* or a *voltage transformer (VT)*.

insurance event

An event for which the risk of its occurrence is the subject of insurance taken out by or for a *Transmission Network Service Provider*, for which an allowance is provided in the *total revenue cap* for the *Transmission Network Service Provider* and in respect of which:

- (a) the cost of the premium paid or required to be paid by the *Transmission Network Service Provider* in the *regulatory year* in which the cost of the premium changes is higher or lower than the premium that is provided for in the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;
- (b) the risk eventuates and, as a consequence, the *Transmission Network Service Provider* incurs or will incur all or part of a deductible where the amount so incurred or to be so incurred in a *regulatory year* is higher or lower than the allowance for the deductible (if any) that is provided for in

the *maximum allowed revenue* for the provider for that *regulatory year* by an amount of more than 1% of the *maximum allowed revenue* for the provider for that *regulatory year*;

- (c) insurance becomes unavailable to the *Transmission Network Service Provider*; or
- (d) insurance becomes available to the *Transmission Network Service Provider* on terms materially different to those existing as at the time the *revenue determination* was made (other than as a result of any act or omission of the provider which is inconsistent with good electricity industry practice).

intending load

A proposed purchase of electricity at a *connection point* (the location of which may be undefined) which is classified as an *intending load* in accordance with Chapter 2.

Intending Participant

A person who is registered by AEMO as an *Intending Participant* under Chapter 2.

interconnection, interconnector, interconnect, interconnected

A *transmission line* or group of *transmission lines* that *connects* the *transmission networks* in adjacent regions.

interconnector flow

The quantity of electricity in MW being transmitted by an *interconnector*.

interested party

- (a) In Chapter 5, a person including an end user or its *representative* who, in AEMO's opinion, has or identifies itself to AEMO as having an interest in relation to the *network* planning and development activities covered under Part B of Chapter 5 or in the determination of *plant standards* covered under clause 5.3.3(b2).
- (b) Despite the definition in (a) above, in clauses 5.16.4, 5.16.5, 5.17.4 and 5.17.5, the meaning given to it in clause 5.15.1.
- (c) In Chapter 6 or Chapter 6A, a person (not being a *Registered Participant* or AEMO) that has, in the AER's opinion, or identifies itself to the AER as having, an interest in the *Transmission Ring-Fencing Guidelines* or the *Distribution Ring-Fencing Guidelines*.
- (d) In Chapter 2, a person including an end user or its *representative* who, in AEMO's opinion, has or identifies itself to AEMO as having an interest in relation to the structure of *Participant fees*.

- (e) In Chapter 7, a person that has, in *AEMO's* opinion, or identifies itself to *AEMO* as having, an interest in the relevant procedure in Chapter 7.

interim statement

Has the meaning given in clause 3.3.11(a)(1).

intermediary

A person who is registered by *AEMO* as a *Generator* or a *Network Service Provider* instead of another person who, in the absence of an exemption under clause 2.9.3, would be required to be registered as such under the *Rules*.

intermittent

A description of a *generating unit* whose output is not readily predictable, including, without limitation, solar generators, wave turbine generators, wind turbine generators and hydro-generators without any material storage capability.

inter-network test

A test conducted for the purpose of verifying the magnitude of the *power transfer capability* of more than one *transmission network* in accordance with clause 5.7.7.

inter-network testing constraint

A *constraint* on a *transmission network* as contemplated by clause 5.7.7.

inter-regional

Between *regions*.

inter-regional loss factor

A *marginal loss factor* determined according to clause 3.6.1.

inter-regional losses

Has the meaning given to it by clause 3.6.1(a).

interruptible load

A *load* which is able to be *disconnected*, either manually or automatically initiated, which is provided for the restoration or control of the *power system frequency* by *AEMO* to cater for *contingency events* or shortages of *supply*.

interval energy data

The data that results from the measurement of the flow of electricity in a power conductor where the data is prepared and recorded by the *metering installation* in intervals which correspond to a *trading interval* or are submultiples of a *trading interval*. *Interval energy data* is held in the *metering installation*.

interval metering data

The *interval energy data*, once collected from a *metering installation*, is *interval metering data*. *Interval metering data* is held in a *metering data services database* and the *metering database*.

intervention price dispatch interval

A *dispatch interval* declared by AEMO to be an *intervention price dispatch interval* in accordance with clause 3.9.3.

intervention price trading interval

A *trading interval* in which AEMO has declared an *intervention price dispatch interval* in accordance with clause 3.9.3.

intervention settlement timetable

Has the meaning given in clause 3.12.1(b).

intra-regional

Within a *region*.

intra-regional loss factor

A *marginal loss factor* determined according to clause 3.6.2.

intra-regional losses

Has the meaning given to it by clause 3.6.2(a).

invoiced amount

The aggregate of the *settlement statements*, *interim*, *preliminary* or *final*, which at the time of issue of a *call notice* are unpaid by the *Market Participant*, notwithstanding that the usual time for issue or payment of those *settlement statements* has not been reached.

islanded, islanding

In relation to an *inertia sub-network* or a combination of two or more *inertia sub-networks*, temporary loss of synchronous *connection* to all adjacent parts of the *national grid*.

isolation

Electrical isolation of one part of a communication system from another but where the passage of *electronic data transfer* is not prevented.

jurisdictional derogation

Has the meaning given in the *National Electricity Law*. The jurisdictional derogations are included in Chapter 9.

jurisdictional electricity legislation

Has the meaning given to that term in the *National Electricity Law*.

jurisdictional metrology material

Jurisdictional metrology matters that are to be included in the *metrology procedure* for one or more of the *participating jurisdictions* and which is submitted by the *Ministers of the MCE* to *AEMO* under clause 7.16.4.

Jurisdictional NMI Standing Data schedule

The schedules described in clause 3.13.12(a), as amended from time to time in accordance with clause 3.13.12(b).

Jurisdictional NMI Standing Data suppliers

Registered Participants which are required by the relevant *participating jurisdiction's* legislation or licensing requirements to supply *NMI Standing Data* in respect of *connection points* in that *participating jurisdiction* to *AEMO*.

jurisdictional planning body

The entity nominated by the relevant *Minister of a participating jurisdiction* as having *transmission system* planning responsibility in that *participating jurisdiction*.

jurisdictional planning representative

The *representative* from the *jurisdictional planning body* for a *participating jurisdiction* nominated by that *jurisdictional planning body* as the *jurisdictional planning representative* for that *participating jurisdiction*.

Jurisdictional Regulator

The person authorised by a *participating jurisdiction* to regulate *distribution service* prices in that jurisdiction.

jurisdictional scheme

Has the meaning given in clause 6.18.7A(d).

jurisdictional scheme amounts

In respect of a *jurisdictional scheme*, the amounts a *Distribution Network Service Provider* is required under the *jurisdictional scheme obligations* to:

- (a) pay to a person;
- (b) pay into a fund established under an Act of a *participating jurisdiction*;
- (c) credit against charges payable by a person; or
- (d) reimburse a person,

less any amounts recovered by the *Distribution Network Service Provider* from any person in respect of those amounts other than under these *Rules*.

jurisdictional scheme eligibility criteria

The criteria specified in clause 6.18.7A(x)

jurisdictional scheme obligations

Obligations imposed on a *Distribution Network Service Provider* under:

- (a) an Act of a *participating jurisdiction* or an instrument, direction or order made under an Act of a *participating jurisdiction* (other than the *National Electricity Law* and these *Rules*); or
- (b) a condition of a distribution licence or authority held by a *Distribution Network Service Provider* in a *participating jurisdiction*.

Jurisdictional System Security Coordinator

A person appointed by the *Minister* of a *participating jurisdiction* in accordance with section 110 of the *National Electricity Law*.

lack of reserve (LOR)

A condition declared by *AEMO* under clause 4.8.4(b).

large customer

- (a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.
- (b) Otherwise, has the meaning given in *jurisdictional electricity legislation*, or a *retail customer* that is not a *small customer*.

large DCA service

A service provided by means of a *large dedicated connection asset*.

large DCA services access dispute

A dispute between a *Dedicated Connection Asset Service Provider* and a person seeking access to *large DCA services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

large dedicated connection asset

A *dedicated connection asset* where the total route length for any power lines forming part of the *dedicated connection asset* is 30 kilometres or longer.

last jurisdictional scheme approval date

For an *approved jurisdictional scheme* of a *Distribution Network Service Provider*, means the later of:

- (a) if the *approved jurisdictional scheme* is a *jurisdictional scheme* referred to in clause 6.18.7A(e), 1 July 2010;
- (b) if the *approved jurisdictional scheme* is not a *jurisdictional scheme* referred to in paragraph (a), the date on which the *AER* determined under clause 6.18.7A(l) that the scheme was a *jurisdictional scheme*;
- (c) if the *approved jurisdictional scheme* is a *jurisdictional scheme* in respect of which:
 - (i) a request has been made under clause 6.18.7A(o) or an assessment initiated under clause 6.18.7A(r); and
 - (ii) the *AER* has determined under clause 6.18.7A(u) that the scheme should not cease to be a *jurisdictional scheme*,
 the date of that determination; or
- (d) if in a previous *pricing proposal* the *Distribution Network Service Provider* provided information in respect of that *approved jurisdictional scheme* to the *AER* under clause 6.18.2(b)(6B), the date that such a *pricing proposal* was submitted.

last resort planning power

The *AEMC*'s power to direct a *Registered Participant* under rule 5.22(c).

last resort planning power guidelines

The guidelines made by the *AEMC* relating to the exercise of the *last resort planning power* and referred to in rule 5.22(n) to (q).

late rebidding period

In respect of a *trading interval*, the period beginning 15 minutes before the commencement of the *trading interval*.

load

A *connection point* or defined set of *connection points* at which electrical power is delivered to a person or to another *network* or the amount of electrical power delivered at a defined instant at a *connection point*, or aggregated over a defined set of *connection points*.

load centre

A geographically concentrated area containing *load* or *loads* with a significant combined consumption capability.

load shedding

Reducing or *disconnecting load* from the *power system*.

load shedding procedures

The procedures developed by *AEMO* for each *participating jurisdiction* in accordance with clause 4.3.2(h)(1) for the implementation of the *load shedding* priority and *sensitive load* priority advised by that *Jurisdictional System Security Coordinator* under clauses 4.3.2(f)(1) and (2).

loading level

The level of output, consumption or power flow (in MW) of a *generating unit*, *load* or *scheduled network service*.

loading price

The price specified for a *price band* and a *trading interval* in a *dispatch offer*, in accordance with clause 3.8.6, for the *dispatch* of a *scheduled generating unit* at a level above its *self-dispatch level*.

local area/local

The geographical area allocated to a *Network Service Provider* by the authority responsible for administering the *jurisdictional electricity legislation* in the relevant *participating jurisdiction*.

local black system procedures

The procedures, described in clause 4.8.12, applicable to a *local area* as approved by *AEMO* from time to time.

local embedded network retailer

For an *embedded network*, the *retailer* nominated by the *Embedded Network Service Provider* as the *local embedded network retailer* for the *embedded network area*.

local market ancillary service requirement

Has the meaning given to it by clause 3.8.1(e2).

Local Network Service Provider

Within a *local area*, a *Network Service Provider* to which that geographical area has been allocated by the authority responsible for administering the *jurisdictional electricity legislation* in the relevant *participating jurisdiction*.

Local Retailer

In relation to a *local area*, the *Customer* who is:

1. a business unit or *related body corporate* of the relevant *Local Network Service Provider*; or
2. responsible under the laws of the relevant *participating jurisdiction* for the *supply* of electricity to *franchise customers* in that *local area*; or

3. if neither 1 or 2 is applicable, such other *Customer* as *AEMO* may determine.

local spot price

A price determined according to clause 3.9.1(c).

long run marginal cost

For the purposes of clause 6.18.5, the cost of an incremental change in demand for *direct control services* provided by a *Distribution Network Service Provider* over a period of time in which all factors of production required to provide those *direct control services* can be varied.

loss factor

A multiplier used to describe the *electrical energy loss* for electricity used or transmitted.

low reserve

The conditions described in clause 4.8.4(a).

major supply disruption

The unplanned absence of *voltage* on a part of the *transmission system* affecting one or more *power stations* and which leads to a loss of *supply* to one or more *loads*.

mandatory restrictions

Restrictions imposed by a *participating jurisdiction* by a relevant law, other than the *Rules*, on the use of electricity in a *region*.

mandatory restriction period

The period of *mandatory restrictions*.

mandatory restriction schedule

A schedule prepared in accordance with clause 3.12A.2.

margin requirement

The requirement set out in clause S6.2.2A(d) or clause S6A.2.2A(d), as the case may be.

marginal electrical energy loss

The *electrical energy loss* associated with an infinitesimal increment in electricity produced, transported and/or used.

marginal loss factor

A multiplier used to describe the *marginal electrical energy loss* for electricity used or transmitted.

market

Any of the markets or exchanges described in the *Rules*, for so long as the market or exchange is conducted by *AEMO*.

market ancillary service

A service identified in clause 3.11.2(a).

market ancillary service offer

A notice submitted by an *Ancillary Service Provider* to *AEMO* in respect of a *market ancillary service* in accordance with clause 3.8.7A.

Market Ancillary Service Provider

A person who offers and provides *load* as a *market ancillary service* under Chapter 2 and who is registered by *AEMO* as a *Market Ancillary Service Provider* under Chapter 2. The relevant person does not need to be the *Market Customer* for the relevant *load*.

market ancillary service specification

Has the meaning given in clause 3.11.2(b).

market auditor

A person appointed by *AEMO* to carry out a *review* under clause 3.13.10(a).

market commencement

The date declared as such by *AEMO*, on which trading in the *market* commences.

market connection point

A *connection point* where any *load* is classified in accordance with Chapter 2 as a *market load* or which *connects* any *market generating unit* to the *national grid*, or where the *network service connected* at that *connection point* is a *market network service*.

Market Customer

A *Customer* who has classified any of its *loads* as a *market load* and who is also registered by *AEMO* as a *Market Customer* under Chapter 2.

market customer's additional claim

Has the meaning given in clause 3.12.2(g)(4).

market floor price

A price floor on *regional reference prices* as described in clause 3.9.6.

market generating unit

A *generating unit* whose *sent out generation* is not purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection point* and which has been classified as such in accordance with Chapter 2.

Market Generator

A *Generator* who has classified at least one *generating unit* as a *market generating unit* in accordance with Chapter 2 and who is also registered by AEMO as a *Market Generator* under Chapter 2.

market information

Information, other than *confidential information*, concerning the operation of the *spot market* or relating to the operation of, inputs to, or outputs from the *central dispatch* process.

market information bulletin board

A facility established by AEMO on the *electronic communication system* for the posting of information which may then be available to *Registered Participants*.

market load

A *load* at a *connection point* classified by the person *connected* at that *connection point* or, with the consent of that person, by some other person, as a *market load* in accordance with Chapter 2. There can be more than one *market load* at any one *connection point*.

market management systems

AEMO's *market information* systems and associated communications networks used to support the electronic communication by *Registered Participants* and others connected to or making use of the systems and networks in the operation of the *market*.

Market Management Systems Access Procedures

The procedures to be followed by *Registered Participants*, *Metering Providers* and *Metering Data Providers* in connecting to and making use of the *market management systems* from time to time *published* by AEMO under rule 3.19.

market network service

A *network service* which is classified as a *market network service* in accordance with clause 2.5.2.

Market Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *market network service* in accordance with Chapter 2 and who is also registered by AEMO as a *Market Network Service Provider* under Chapter 2.

Market Participant

A person who is registered by *AEMO* as a *Market Generator*, *Market Customer*, *Market Small Generation Aggregator*, *Market Ancillary Service Provider* or *Market Network Service Provider* under Chapter 2.

Market Participant registered data

The data kept on the register in accordance with schedule 5.5.

market price cap

A price cap on *regional reference prices* as described in clause 3.9.4.

market retail contract

Has the same meaning as in the *NERL*.

Market Settlement and Transfer Solution Procedures

The procedures from time to time *published* by *AEMO* under clause 7.16.2 which include those governing the recording of financial responsibility for *energy flows* at a *connection point*, the transfer of that responsibility between *Market Participants* and the recording of *energy flows* at a *connection point*.

Market Small Generation Aggregator

A person who:

- (a) has classified one or more *small generating units* as a *market generating unit*; and
- (b) is registered by *AEMO* as a *Market Small Generation Aggregator* under Chapter 2.

market suspension

Suspension of the *spot market* by *AEMO* in accordance with clause 3.14.3.

material inter-network impact

A material impact on another *Transmission Network Service Provider's network*, which impact may include (without limitation):

- (a) the imposition of *power transfer constraints* within another *Transmission Network Service Provider's network*; or
- (b) an adverse impact on the quality of *supply* in another *Transmission Network Service Provider's network*.

materially

For the purposes of the application of clause 6.6.1, an event results in a *Distribution Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the

Distribution Network Service Provider has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *annual revenue requirement* for the *Distribution Network Service Provider* for that *regulatory year*.

For the purposes of the application of clause 6A.7.3, an event (other than a *network support event*) results in a *Transmission Network Service Provider* incurring materially higher or materially lower costs if the change in costs (as opposed to the revenue impact) that the *Transmission Network Service Provider* has incurred and is likely to incur in any *regulatory year* of a *regulatory control period*, as a result of that event, exceeds 1% of the *maximum allowed revenue* for the *Transmission Network Service Provider* for that *regulatory year*.

In other contexts, the word has its ordinary meaning.

maximum allowed revenue

For a *Transmission Network Service Provider*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with rule 6A.3.

For *AEMO*: the amount calculated as such for a *regulatory year* of a *regulatory control period* in accordance with clause S6A.4.2(c)(4).

maximum credit allowance

Has (in the context of Chapter 6B) the meaning given in clause 6B.B1.2.

maximum demand

The highest amount of electrical power delivered, or forecast to be delivered, over a defined period (*day*, week, month, season or year) either at a *connection point*, or simultaneously at a defined set of *connection points*.

maximum power input (MPI)

The largest single *supply* input to a particular location or *region*, typically the output of the largest single *generating unit* or group of *generating units* or the highest *power transfer* of a single *transmission line* or *interconnection*.

maximum ramp rate

The *maximum ramp rate* that an item of equipment is capable of achieving in normal circumstances. This may be:

- (a) as specified by the manufacturer; or
- (b) as independently certified from time to time to reflect changes in the physical capabilities of the equipment.

maximum total payment

The amount determined in accordance with clause 3.15.22.

measurement element

An energy measuring component which converts the flow of electricity in a power conductor into an electronic signal and / or a mechanically recorded electrical measurement.

medium term PASA

The *PASA* in respect of the period described in clause 3.7.2(a), as described under clause 3.7.2.

medium term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.2(c) and (d).

Member

A person appointed or elected (as the case may be) to the *Information Exchange Committee* pursuant to the *Information Exchange Committee Election Procedures* and *Rules*, and includes all membership categories, unless a contrary intention appears.

meter

A device complying with *Australian Standards* which measures and records the production or consumption of electrical *energy*.

meter churn procedures

The procedures established by *AEMO* under clause 7.8.9(f).

metering

Recording the production or consumption of electrical *energy*.

Metering Coordinator

A person who is registered by *AEMO* as a *Metering Coordinator* under Chapter 2.

Metering Coordinator default event

In relation to a *Metering Coordinator*, means any of the following events or circumstances:

- (a) the *Metering Coordinator* ceases to be registered by *AEMO* as a *Metering Coordinator* under Chapter 2;
- (b) an *insolvency official* is appointed in respect of the *Metering Coordinator* or any property of the *Metering Coordinator*; or
- (c) an order is made for the winding up of the *Metering Coordinator* or a resolution is passed for the winding up of *Metering Coordinator*; or

- (d) a breach of the *Rules* or applicable procedures made under the *Rules* in relation to which AEMO has issued a *Metering Coordinator default notice* under clause 7.7.3(c)(3).

Metering Coordinator default notice

A notice issued by AEMO under clause 7.7.3(c)(3).

metering data

Accumulated metering data, interval metering data, calculated metering data, substituted metering data, estimated metering data and check metering data.

Metering Data Provider

A person who meets the requirements listed in schedule 7.3 and has been accredited and registered by AEMO as a *Metering Data Provider*.

metering data services

The services that involve the collection, processing, storage and delivery of *metering data* and the management of relevant *NMI Standing Data* in accordance with the *Rules*.

metering data provision procedures

Procedures for the provision of *metering data* requested under rule 7.14, developed and *published* by AEMO.

metering data services database

The database established and maintained by the *Metering Data Provider* that holds *metering data* and relevant *NMI Standing Data* relating to each *metering installation* for which the *Metering Coordinator* or the *financially responsible Market Participant*, [*off-market retailer*](#) or AEMO (as the case may be) has engaged the *Metering Data Provider* to provide *metering data services*.

metering database

A database of *metering data* and *settlements ready data* maintained and administered by AEMO in accordance with clause 7.11.

metering installation

The assembly of components including the *instrument transformer*, if any, measurement element(s) and processes, if any, recording and display equipment, *communications interface*, if any, that are controlled for the purpose of metrology and which lie between the *metering point(s)* and the point at or near the *metering point(s)* where the *energy data* is made available for collection.

Note:

- (1) The assembly of components may include the combination of several *metering points* to derive the *metering data* for a *connection point*.

- (2) The *metering installation* must be classified as being for revenue purposes and/or as a *check metering installation*.

metering installation malfunction

The full or partial failure of the *metering installation* in which the *metering installation* does not:

- (a) meet the requirements of schedule 7.4; or
- (b) record, or incorrectly records, *energy data*; or
- (c) allow, or provides for, collection of *energy data*; or
- (d) in the case of a *small customer metering installation*, meet the requirements of schedule 7.5.

Metering Member

A person nominated and elected as a *Member* by *Metering Member Voters* to represent *Metering Member Voters* in accordance with the *Rules* (including clause 7.17.10(g)) and the *Information Exchange Committee Election Procedures*.

Metering Member Voters

Metering Coordinators, Metering Providers and Metering Data Providers.

metering point

The point of physical connection of the device measuring the current in the power conductor.

Metering Provider

A person who meets the requirements listed in schedule 7.2 and has been accredited by and registered by *AEMO* as a *Metering Provider*.

metering register

A register of information associated with a *metering installation* as required by schedule 7.1.

metering system

The collection of all components and arrangements installed or existing between each *metering point* and the *metering database*.

metrology procedure

The procedure developed and *published* by *AEMO* in accordance with rule 7.16.

micro EG connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

micro embedded generator

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

minimum access standard

In relation to a technical requirement of access, a standard of performance, identified in a schedule of Chapter 5 as a minimum access standard for that technical requirement, such that a *plant* that does not meet that standard will be denied access because of that technical requirement.

minimum services specification

The requirements in respect of a *metering installation* set out in Schedule 7.5.

minimum threshold level of inertia

For an *inertia sub-network*, the *minimum threshold level of inertia* determined by AEMO and referred to in clause 5.20B.2(b)(1).

Minister

A Minister that is a “Minister” under the *National Electricity Law*.

Minister of (a, that, another, or other, etc) participating jurisdiction

Has the same meaning as Minister of a participating jurisdiction has in the *National Electricity Law*.

Ministers of the MCE

Ministers of the participating jurisdictions acting as the MCE where MCE has the same meaning as in the *National Electricity Law*.

mis-pricing

For a particular *network* node within a nominated *region*, the difference between:

- (a) the *regional reference price* for the *region*; and
- (b) an estimate of the marginal value of *supply* at the *network* node, which marginal value is determined as the price of meeting an incremental change in *load* at that *network* node.

MLEC CRNP Methodology

For the purposes of calculating the *modified load export charges*, the *CRNP Methodology* (and for the avoidance of doubt, not the *modified CRNP Methodology*) provided that each of the following is satisfied:

- (a) for the purposes of clause S6A.3.2(1), network ‘costs’ are attributed to all *transmission systems* assets of the relevant *Transmission Network Service Provider*; and
- (b) for the purposes of clause S6A.3.2(3):

- (1) every *trading interval* of the previous *regulatory year* in order to determine the range of actual operating conditions from the previous *regulatory year*; and
- (2) the peak usage of each *transmission system* asset by each *load* is used to determine the allocation of dispatched *generation* to loads from the previous *regulatory year*.

model standing offer

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

modified CRNP methodology

The cost allocation methodology set out in clause S6A.3.3.

modified load export charges

Charges received by or payable to the *Co-ordinating Network Service Provider* in a *region* by or to a *Co-ordinating Network Service Provider* in an *interconnected region* calculated under rule 6A.29A.2.

monitoring equipment

The testing instruments and devices used to record the performance of *plant* for comparison with expected performance.

month

Unless otherwise specified, the period beginning at 4.30 am on the relevant commencement date and ending at 4.30 am on the date in the next calendar month corresponding to the commencement date of the period.

nameplate rating

The maximum continuous output or consumption in MW of an item of equipment as specified by the manufacturer, or as subsequently modified.

NATA

National Association of Testing Authorities.

National Electricity Law

The National Electricity Law set out in the schedule to the *National Electricity (South Australia) Act 1996* (SA) and applied in each of the *participating jurisdictions*.

National Electricity Market

Has the same meaning as in the *National Electricity Law*.

national electricity objective

The objective stated in section 7 of the Law.

National Energy Retail Law

Means the *National Energy Retail Law* set out in the Schedule to the *National Energy Retail Law (South Australia) Act 2012* of South Australia.

National Energy Retail Rules

Has the same meaning as in the *National Energy Retail Law*.

national grid

The sum of all *connected transmission systems* and *distribution systems* within the *participating jurisdictions*.

National Measurement Act

The *National Measurement Act 1960* of the Commonwealth as amended from time to time.

national transmission flow path

That portion of a *transmission network* or *transmission networks* used to transport significant amounts of electricity between *generation centres* and *load centres*.

national transmission grid

Has the meaning given in the *National Electricity Law*.

negative change event

For a *Distribution Network Service Provider*, a *pass through event* which entails the *Distribution Network Service Provider* incurring *materially* lower costs in providing *direct control services* than it would have incurred but for that event.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* lower costs in providing *prescribed transmission services* than it would have incurred but for that event.

negative network support event

A *network support event* which entails a *Transmission Network Service Provider* making lower *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

negative pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the AER under clause 6A.7.3(g).

In respect of a *negative change event* for a *Distribution Network Service Provider*, an amount that is not greater than a *required pass through amount* as determined by the AER under clause 6.6.1(g).

negotiable service

- (a) In relation to *transmission services* means *negotiated transmission services*.
- (b) In relation to *distribution services* means *negotiated distribution services*.

negotiated access standard

In relation to a technical requirement of access for a particular *plant*, an agreed standard of performance determined in accordance with clause 5.3.4A and identified as a negotiated access standard for that technical requirement in a *connection agreement*.

negotiated distribution service

A *distribution service* that is a negotiated network service within the meaning of section 2C of the Law;

Negotiated Distribution Service Criteria

The criteria specified in a distribution determination in accordance with clause 6.7.4.

Negotiated Distribution Service Principles

The principles set out in clause 6.7.1.

negotiated transmission service

Any of the following services:

- (a) a *shared transmission service* that:
 - (1) exceeds the *network* performance requirements (whether as to quality or quantity) (if any) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*; or
 - (2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, exceeds or does not meet the *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1;
- (b) *connection services* that are provided to serve a *Transmission Network User*, or group of *Transmission Network Users*, at a *single transmission network connection point*, other than *connection services* that are provided by one *Network Service Provider* to another *Network Service Provider* to *connect their networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*;
- (c) services specified to be *negotiated transmission services* under rule 5.2A.4; or
- (d) undertaking *system strength connection works*,

but does not include an *above-standard system shared transmission service* or a *market network service*.

negotiated use of system charges

The charges described in clause 5.3AA(f)(3).

negotiated use of system service

A *use of system service* in respect of which:

- (a) an *Embedded Generator* may negotiate with a *Distribution Network Service Provider*; or
- (b) a *Market Network Service Provider* may negotiate with a *Distribution Network Service Provider*,

in accordance with clause 5.3AA(f)(3).

negotiating framework

For a *Distribution Network Service Provider*, a negotiating framework as approved or substituted by the AER in its final decision under clause 6.12.1(15).

negotiating principles

Those negotiating principles set out in schedule 5.11.

NEM

The *National Electricity Market*.

NEMMCO

Has the meaning given in the *National Electricity Law*.

NERL

National Energy Retail Law.

NERR

National Energy Retail Rules.

network

The apparatus, equipment, plant and buildings used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail) excluding any *connection assets*. In relation to a *Network Service Provider*, a *network* owned, operated or controlled by that *Network Service Provider*.

network agreement

has the meaning given in the *National Electricity Law*.

network capability

The capability of the *network* or part of the *network* to transfer electricity from one location to another.

network charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

network connection

The formation of a physical link between the *facilities* of two *Registered Participants* or a *Registered Participant* and a customer being a *connection* to a *transmission* or *distribution network* via *connection assets*.

network connection asset

Those components of a *transmission system* which are used to provide *connection services* between *Network Service Providers* (excluding a *Market Network Service Provider*).

network constraint

A *constraint* on a *transmission network* or *distribution network*.

network coupling point

The point at which *connection assets* join a *distribution network*, used to identify the *distribution service price* payable by a *Customer*.

network device

Apparatus or equipment that:

- (a) enables a *Local Network Service Provider* to monitor, operate or control the *network* for the purposes of providing *network services*, which may include switching devices, measurement equipment and control equipment;
- (b) is located at or adjacent to a *metering installation* at the *connection point* of a *retail customer*; and
- (c) does not have the capability to generate electricity.

network dispatch offer

An notice submitted by a *Scheduled Network Service Provider* to AEMO relating to the *dispatch* of a *scheduled network service* in accordance with clause 3.8.6A.

network element

A single identifiable major component of a *transmission system* or *distribution system* involving:

- (a) an individual *transmission* or *distribution* circuit or a phase of that circuit;
or

- (b) a major item of apparatus or equipment associated with the function or operation of a *transmission line*, *distribution line* or an associated *substation* or *switchyard* which may include *transformers*, circuit breakers, *synchronous condensers*, *reactive plant* and *monitoring equipment* and control equipment.

[network exemption](#)

[A network exemption as defined in the *National Electricity Law*.](#)

network loop

A set of *network elements* that are *connected* together in the form of a closed path, that is in such a way that by progressing from each element to the next it is possible to return to the starting point.

network losses

Energy losses incurred in the transfer of electricity over a *transmission network* or *distribution network*.

network operating agreement

An agreement described in clause 5.2A.7.

network option

A means by which an *identified need* can be fully or partly addressed by expenditure on a transmission asset or a distribution asset which is undertaken by a *Network Service Provider*.

For the purposes of this definition, **transmission asset** and **distribution asset** has the same meaning as in clause 5.10.2.

network pricing objective

The network pricing objective set out in paragraph 6.18.5(a).

network service

Transmission service or *distribution service* associated with the conveyance, and controlling the conveyance, of electricity through the *network*.

Network Service Provider

A person who engages in the activity of owning, controlling or operating a *transmission or distribution system* and who is registered by AEMO as a *Network Service Provider* under Chapter 2.

[In this Chapter 10, for the purposes of clause 2.5.4\(f\), a reference to a *Network Service Provider* includes a reference to an *Embedded Network Service Provider*.](#)

network service provider performance report

A report prepared by the AER under section 28V of the Law.

network support agreement

An agreement under which a person agrees to provide one or more *network support and control ancillary services* to a *Network Service Provider*, including *network support services* to improve *network capability* by providing a non-*network* alternative to a *network augmentation*.

network support and control ancillary service or NSCAS

A service (excluding an *inertia network service* or *system strength service*) with the capability to control the *active power* or *reactive power* flow into or out of a *transmission network* to address an *NSCAS need*.

network support event

- (a) If, at the end of a *regulatory year* of a *regulatory control period*, the amount of *network support payments* made by a *Transmission Network Service Provider* for that previous *regulatory year* is higher or lower than the amount of the *network support payment allowance* (if any) for the *Transmission Network Service Provider* for that previous *regulatory year*, this constitutes a *network support event*.
- (b) In calculating the amount for the purposes of a *network support event* referred to in paragraph (a), the amount of *network support payments* made by a *Transmission Network Service Provider* must not include an amount of *network support payments* that are a substitute for a *network augmentation* where an allowance for capital expenditure in relation to that *network augmentation* has been provided for in the *revenue determination* or an *approved pass through amount* arising from an *inertia shortfall event* or a *fault level shortfall event*.

network support pass through amount

The amount that should be passed through to *Transmission Network Users* in the *regulatory year* following the preceding *regulatory year*, in respect of a *network support event* for a *Transmission Network Service Provider*.

network support payment

Any of the following payments:

- (a) a payment made by a *Transmission Network Service Provider* to:
 - (1) any *Generator* providing *network support services* in accordance with rule 5.3A.12; or
 - (2) any other person providing a *network support service* that is an alternative to *network augmentation*;
- (b) an *inertia service payment*; and
- (c) a *system strength service payment*.

network support payment allowance

The amount of *network support payments* (if any) that is provided for a *Transmission Network Service Provider* for a *regulatory year* in:

- (a) the *annual building block revenue requirement* for the *Transmission Network Service Provider* for that *regulatory year*; or
- (b) any *approved pass through amount* for the *Transmission Network Service Provider* for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*,

less the amount (expressed as a positive) of avoided *network support payments* (if any) that is provided for in any *required pass through amount* for the *Transmission Network Service Provider* for that *regulatory year* arising from an *inertia shortfall event* or a *fault level shortfall event*.

Network User

A *Generator*, a *Transmission Customer*, a *Distribution Customer* or a *Market Network Service Provider*.

new connection

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

NMAS provider

A person who agrees to provide one or more *non-market ancillary services* to AEMO under an *ancillary services agreement*.

NMI

A National Metering Identifier as described in clause 7.8.2(c).

NMI Standing Data

The following data in respect of a *connection point*:

- (a) the *NMI* of the *connection point* and the street address of the relevant *connection point* to which that *NMI* is referable;
- (b) the *NMI* checksum for the *connection point*;
- (c) the identity of the *Local Network Service Provider* or, if the *connection point* is a *child connection point*, the identity of the [*Embedded Network Service Provider or the Embedded Network Manager*](#) and the *Exempt Embedded Network Service Provider*;
- (d) the code (known as a TNI) identifying the relevant *transmission node* which identifies the *transmission loss factor* and/or *transmission use of system charge* for the *connection point* and, if the *connection point* is a *child connection point*, the *NMI* of the *parent connection point* on that *embedded network*;

- (e) the relevant *distribution loss factor* applicable to the *connection point*;
- (f) the Network Tariff (identified by a code) applicable in respect of the *connection point*;
- (g) the *NMI* classification code (as set out in the *Market Settlement and Transfer Solution Procedures*) of the *connection point*;
- (h) the read cycle date, or date of next scheduled read or date in a relevant code representing the read cycle date or date of next scheduled read, for that *connection point*;
- (i) the profile type applicable to the *connection point*; and
- (j) such other categories of data as may be referred to in the *Market Settlement and Transfer Solution Procedures* as forming *NMI Standing Data*,

and, for the avoidance of doubt, does not include any *metering data* or other details of an end-user's consumption at that *connection point*.

nomenclature standards

The standards approved by *AEMO* in conjunction with the *Network Service Providers* relating to numbering, terminology and abbreviations used for information transfer between *Registered Participants* as provided for in clause 4.12.

nominal voltage

The design *voltage* level, nominated for a particular location on the *power system*, such that power lines and circuits that are electrically connected other than through *transformers* have the same *nominal voltage* regardless of operating *voltage* and *normal voltage*.

nominated pass through event considerations

The *nominated pass through event considerations* are:

- (a) whether the event proposed is an event covered by a category of *pass through event* specified in clause 6.6.1(a1)(1) to(4) (in the case of a *distribution determination*) or clause 6A.7.3(a1)(1) to(4) (in the case of a *transmission determination*);
- (b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;
- (c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;
- (d) whether the relevant service provider could insure against the event, having regard to:

- (1) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or
- (2) whether the event can be self-insured on the basis that:
 - (i) it is possible to calculate the self-insurance premium; and
 - (ii) the potential cost to the relevant service provider would not have a significant impact on the service provider's ability to provide *network services*; and.
- (e) any other matter the *AER* considers relevant and which the *AER* has notified *Network Service Providers* is a nominated pass through event consideration.

non-contestable IUSA components

Those components of the *identified user shared asset* that do not satisfy the criteria set out in clause 5.2A.4(c).

non-credible contingency event

An event described in clause 4.2.3(e).

Non-market ancillary service or NMAS

Any of the following services:

- (a) *network support and control ancillary services* and other services acquired by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet the service standards linked to the technical requirements of schedule 5.1 or in *applicable regulatory instruments* (but to avoid doubt, excluding *inertia network services* and *system strength services*); and
- (b) *system restart ancillary services* and *network support and control ancillary services* acquired by *AEMO* under *ancillary services agreements*.

non-market generating unit

A *generating unit* whose *sent out generation* is purchased in its entirety by the *Local Retailer* or by a *Customer* located at the same *connection* point and which has been classified as such in accordance with Chapter 2.

Non-Market Generator

A *Generator* who has classified a *generating unit* as a *non-market generating unit* in accordance with Chapter 2.

non-network option

A means by which an *identified need* can be fully or partly addressed other than by a *network option*.

Non-Registered Customer

A person who:

1. purchases electricity through a *connection point* with the *national grid* other than from the *spot market*; and
2. is eligible to be registered by AEMO as a *Customer* and to classify the *load* described in (1) as a *first-tier load* or a *second-tier load*, but is not so registered.

non-registered embedded generator

In the context of clause 6.7A, has the meaning given in chapter 5A.

non-regulated transmission services

A *transmission service* that is neither a *prescribed transmission service* nor a *negotiated transmission service*.

non-scheduled generating unit

A *generating unit* so classified in accordance with Chapter 2.

non-scheduled generating system

A *generating system* comprising *non-scheduled generating units*.

Non-Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *non-scheduled generating unit* in accordance with Chapter 2.

non-scheduled load

A *market load* which is not a *scheduled load*.

non semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* other than a *semi-dispatch interval*.

non-suspension decision

A decision made by AEMO under clause 3.15.21(c1)(2) or (3) not to suspend some or all of the activities of a *defaulting Market Participant* following an *external administration default event*.

normal operating frequency band

In relation to the *frequency* of the *power system*, means the range 49.9Hz to 50.1Hz or such other range so specified in the *power system security standards*.

normal operating frequency excursion band

In relation to the *frequency* of the *power system*, means the range specified as being acceptable for infrequent and momentary excursions of *frequency* outside the *normal operating frequency band*, being the range of 49.75 Hz to 50.25 Hz or such other range so specified in the *power system security standards*.

normal voltage

In respect of a *connection point*, its *nominal voltage* or such other *voltage* up to 10% higher or lower than *nominal voltage*, as approved by AEMO, for that *connection point* at the request of the *Network Service Provider* who provides *connection* to the *power system*.

normally off

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(j), should be considered as being switched off.

normally on

Describes a *scheduled load* which, unless *dispatched* in accordance with its *dispatch bid*, and in accordance with clause 3.8.7(i), should be considered as being switched on.

NSCAS gap

Any *NSCAS need* that AEMO forecasts will arise at any time within a planning horizon of at least 5 years from the beginning of the year in which the most recent *NTNDP* applies.

NSCAS need

- (a) Subject to paragraphs (b) and (c), *network support and control ancillary service* required to:
 - (1) maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security standards* and the *reliability standard*; and
 - (2) maintain or increase the *power transfer capability* of that *transmission network* so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the *market*.
- (b) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as an *inertia network service* to address an *inertia shortfall* through the arrangements in rule 5.20B must be treated as an *inertia shortfall* and is not an *NSCAS need*.
- (c) Any requirement for a service that satisfies paragraph (a) and is also capable of being made available as a *system strength service* to address a *fault level*

shortfall through the arrangements in rule 5.20C must be treated as a *fault level shortfall* and is not an *NSCAS need*.

NSCAS preferred tenderers

Persons that submitted tenders for *NSCAS* that are deemed to be non-competitive as selected by *AEMO* in accordance with clause 3.11.5(g).

NSCAS Provider

A person who agrees to provide one or more *network support and control ancillary services* to *AEMO* under an *ancillary services agreement*.

NTNDP

The National Transmission Network Development Plan as defined in the *National Electricity Law*.

NTNDP database

The database that *AEMO* is required to establish and maintain under clause 5.20.4.

NTNDP inputs

Has the meaning given in clause 5.20.4.

NTP functions

Has the meaning given in the *National Electricity Law*.

off-loading price

The price specified for a *price band* and a *trading interval* in a *dispatch offer*, in accordance with clause 3.8.6, for the *off-loading* of a *scheduled generating unit* below its *self-dispatch level*.

off-loading price band

A *price band* submitted for *off-loading* below a *self-dispatch level* for a *trading interval* in a *dispatch offer*.

off-loading, off-load

The reduction in electricity output or consumption.

off-market connection point

A *child connection point* for which electricity is sold by an *off-market retailer* or *exempt seller*.

off-market retailer

A person who holds an *off-market retailer authorisation* under the *NERR* and (in relation to a particular *child connection point*) any other *retailer* when selling electricity to a *retail customer* for premises connected at the *child connection point* that the *retailer* has not purchased directly from the *spot market*.

on-market child connection point

A child connection point that is not an off-market connection point.

operating expenditure criteria

For a *Transmission Network Service Provider* – the matters listed in clause 6A.6.6(c)(1)–(3).

For a *Distribution Network Service Provider* – the matters listed in clause 6.5.6(c)(1)–(3).

operating expenditure factors

For a *Transmission Network Service Provider* - the factors listed in clause 6A.6.6(e)(1)-(14).

For a *Distribution Network Service Provider* - the factors listed in clause 6.5.6(e)(1)-(12).

operating expenditure objectives

For a *Transmission Network Service Provider* – the objectives set out in clause 6A.6.6(a).

For a *Distribution Network Service Provider* – the objectives set out in clause 6.5.6(a).

operational communication

A communication concerning the arrangements for, or actual operation of, the *power system* in accordance with the *Rules*.

operational frequency tolerance band

The range of *frequency* within which the *power system* is to be operated to cater for the occurrence of a *contingency event* as specified in the *power system security standards*.

ordinary majority

At least 60% of the number of *Members*.

outage

Any full or partial unavailability of equipment or *facility*.

outstandings

In relation to a *Market Participant*, the dollar amount determined by the formula in clause 3.3.9.

over frequency scheme

An *emergency frequency control scheme* with capability to respond when frequency is above or climbing above the *normal operating frequency band*.

over-recovery amount

Any amount by which the revenue earned from the provision of *prescribed transmission services* in previous *regulatory years* exceeds the sum of the *AARR* in those *regulatory years*.

overspending requirement

The requirement set out in clause S6.2.2A(c) or clause S6A.2.2A(c), as the case may be.

parent connection point

The agreed point of supply~~connection point~~ between an *embedded network* and a transmission or distribution system that is serving that embedded network~~Network Service Provider's network~~.

Participant compensation fund

The fund of that name referred to in clause 3.16.

participant derogation

Has the meaning given in the *National Electricity Law*. The participant derogations are included in Chapter 8A.

Participant fees

The fees payable by *Registered Participants* described in clause 2.11.

participating jurisdiction

A jurisdiction that is a “participating jurisdiction” under the *National Electricity Law*.

PASA availability

The *physical plant capability* (taking ambient weather conditions into account in the manner described in the procedure prepared under clause 3.7.2(g)) of a *scheduled generating unit*, *scheduled load* or *scheduled network service* available in a particular period, including any *physical plant capability* that can be made available during that period, on 24 hours’ notice.

pass through event

For a distribution determination - the events specified in clause 6.6.1(a1)

For a *transmission determination* – the events specified in clause 6A.7.3(a1).

payment date

The 20th *business day* after the end of a *billing period*.

peak load

Maximum *load*.

performance incentive scheme parameters

For a *service target performance incentive scheme*, those parameters that are *published* by the AER in respect of that scheme pursuant to clause 6A.7.4(c).

performance standard

A standard of performance that:

- (a) is established as a result of it being taken to be an applicable performance standard in accordance with clause 5.3.4A(i) [or clause 5.3C.2\(c\)](#); or
- (b) is included in the register of *performance standards* established and maintained by AEMO under rule 4.14(n),

as the case may be.

performance standards commencement date

For:

- (a) *Generators, Customers and Network Service Providers* who plan, own, operate or control a *facility* located in a *participating jurisdiction* (other than Tasmania), the *performance standards commencement date* is, in relation to that *facility*, 16 November 2003; and
- (b) *Generators, Customers and Network Service Providers* who plan, own, operate or control a *facility* located in Tasmania, the *performance standards commencement date* is, in relation to that *facility*, the date that Tasmania becomes a *participating jurisdiction*.

physical plant capability

The maximum MW output or consumption which an item of electrical equipment is capable of achieving for a given period.

planned network event

An event which has been planned by a *Transmission Network Service Provider*, AEMO or a *Market Participant* that is likely to materially affect *network constraints* in relation to a *transmission system*, including but not limited to:

- (a) a *network outage*;
- (b) the *connection* or *disconnection* of *generating units* or *load*;

- (c) the commissioning or decommissioning of a *network* asset or the provision of new or modified *network support and control ancillary services*; and
- (d) the provision of *network support and control ancillary services* under a *network support agreement*.

plant

- (a) In relation to a *connection point*, includes all equipment involved in generating, utilising or transmitting electrical *energy*.
- (b) In relation to *dispatch bids* and *offers*, controllable generating equipment and controllable *loads*.
- (c) In relation to the *statement of opportunities* prepared by *AEMO*, individually controllable generating facilities registered or capable of being registered with *AEMO*.
- (d) In relation to the *regulatory investment test for transmission*, any of the definitions of *plant* in paragraphs (a) to (c) relevant to the application of the *regulatory investment test for transmission* to a RIT-T project.
- (e) In relation to the *regulatory investment test for distribution*, any of any of the definitions of *plant* in paragraphs (a) to (c) relevant to the application of the *regulatory investment test for distribution* to a RIT-D project.
- (f) In relation to a *system strength remediation scheme*, includes all equipment involved in the implementation of the scheme.

plant availability

The *active power capability* of a *generating unit* (in MW), based on the availability of its electrical power conversion process and assuming no fuel supply limitations on the *energy* available for input to that electrical power conversion process.

plant standard

An Australian or international standard or a part thereof that:

- (a) the *Reliability Panel* determines to be an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*, or
- (b) a schedule in Chapter 5 establishes as an acceptable alternative to a particular *minimum access standard* or *automatic access standard* for a particular class of *plant*.

positive change event

For a *Distribution Network Service Provider*:

- (a) a *pass through event*, other than a *retailer insolvency event*, which entails the *Distribution Network Service Provider* incurring *materially* higher costs in providing *direct control services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger event*; or
- (b) a *retailer insolvency event*.

For a *Transmission Network Service Provider*, a *pass through event* which entails the *Transmission Network Service Provider* incurring *materially* higher costs in providing *prescribed transmission services* than it would have incurred but for that event, but does not include a *contingent project* or an associated *trigger event*.

positive network support event

A *network support event* which entails a *Transmission Network Service Provider* making higher *network support payments* in the preceding *regulatory year* than the amount of the *network support payment allowance* (if any) for that provider for that preceding *regulatory year*.

positive pass through amount

For a *Transmission Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6A.7.3(c).

For a *Distribution Network Service Provider*, an amount (not exceeding the *eligible pass through amount*) proposed by the provider under clause 6.6.1(c).

postage-stamp basis

A system of charging *Network Users* for *transmission service* or *distribution service* in which the price per unit is the same regardless of how much *energy* is used by the *Network User* or the location in the *transmission network* or *distribution network* of the *Network User*.

post-tax revenue model

For a *Transmission Network Service Provider*, the model prepared and *published* by the AER in accordance with clause 6A.5.2.

For a *Distribution Network Service Provider*, the model prepared and *published* by the AER in accordance with clause 6.4.1.

potential value

In relation to a *transaction* for a *Market Participant*, the dollar amount determined by the procedure in clause 3.3.14.

power factor

The ratio of the *active power* to the *apparent power* at a *metering point*.

power station

In relation to a *Generator*, a facility in which any of that *Generator's generating units* are located.

power system

The electricity power system of the *national grid* including associated *generation* and *transmission* and *distribution networks* for the *supply* of electricity, operated as an integrated arrangement.

power system damping

The rate at which disturbances to the *satisfactory operating state* reduce in magnitude.

power system demand

The total *load* (in MW) supplied by the *power system*.

Power System Design Data Sheet

The data sheet *published* by AEMO under clause S5.5.7(a)(1).

Power System Model Guidelines

The guidelines *published* by AEMO under clause S5.5.7(a)(3).

Power System Setting Data Sheet

The data sheet *published* by AEMO under clause S5.5.7(a)(2).

power system frequency risk review

A review described in clause 5.20A.1(c).

power system operating procedures

The procedures to be followed by *Registered Participants* in carrying out operations and/or maintenance activities on or in relation to primary and *secondary equipment connected* to or forming part of the *power system* or *connection points*, as described in clause 4.10.1.

power system reserve constraint

A *constraint* in the *central dispatch* due to the need to provide or maintain a specified type and level of *scheduled reserve*.

power system security

The safe scheduling, operation and control of the *power system* on a continuous basis in accordance with the principles set out in clause 4.2.6.

power system security standards

The standards (other than the *reliability standard* and the *system restart standard*) governing *power system security* and *reliability* of the *power system* to be approved by the *Reliability Panel* on the advice of *AEMO*, but which may include but are not limited to standards for the *frequency* of the *power system* in operation and *contingency capacity reserves* (including guidelines for assessing requirements).

power transfer

The instantaneous rate at which *active energy* is transferred between *connection points*.

power transfer capability

The maximum permitted *power transfer* through a *transmission* or *distribution network* or part thereof.

pre-adjusted locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-adjusted non-locational component

Has the meaning given to it in clause 6A.23.3(a).

pre-dispatch

Forecast of *dispatch* performed one *day* before the *trading day* on which *dispatch* is scheduled to occur.

pre-dispatch schedule

A schedule prepared in accordance with clause 3.8.20(a).

preliminary program

The program to be prepared by a *Network Service Provider* showing proposed milestones for *connection* and access activities as specified in clause 5.3.3(b)(6).

preliminary statement

Has the meaning given in clause 3.15.14(a).

premises connection assets

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

prescribed common transmission services

Prescribed transmission services that provide equivalent benefits to

- (a) all *Transmission Customers* who have a *connection point* with the relevant *transmission network* without any differentiation based on their location within the *transmission system*; and

- (b) *Transmission Network Service Providers* in interconnected regions, without any differentiation based on the location of their direct or indirect connection or interconnection with the relevant transmission system.

prescribed connection services

Services that are either *prescribed entry services* or *prescribed exit services*.

prescribed entry services

Entry services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11.

prescribed exit services

Exit services that are *prescribed transmission services* by virtue of the operation of clause 11.6.11 and *exit services* provided to *Distribution Network Service Providers*.

prescribed shared transmission services

Shared transmission services that are *prescribed TUOS services* or *prescribed common transmission services*.

prescribed transmission service

Any of the following services:

- (a) a *shared transmission service* that:
 - (1) does not exceed such *network* performance requirements (whether as to quality or quantity) as that *shared transmission service* is required to meet under any *jurisdictional electricity legislation*;
 - (2) except to the extent that the *network* performance requirements which that *shared transmission service* is required to meet are prescribed under any *jurisdictional electricity legislation*, does not exceed such *network* performance requirements (whether as to quality or quantity) as are set out in schedule 5.1a or 5.1; or
 - (3) is an *above-standard system shared transmission service*;
- (b) services that are required to be provided by a *Transmission Network Service Provider* under the *Rules*, or in accordance with *jurisdictional electricity legislation*, to the extent such services relate to the provision of the services referred to in paragraph (a), including such of those services as are:
 - (1) required by *AEMO* to be provided under the *Rules*, but excluding those acquired by *AEMO* under rule 3.11; and
 - (2) necessary to ensure the integrity of a *transmission network*, including through the maintenance of *power system security* and assisting in the planning of the *power system*; or

- (c) *connection services* that are provided by a *Transmission Network Service Provider* to another *Network Service Provider* to connect their *networks* where neither of the *Network Service Providers* is a *Market Network Service Provider*,

but does not include a *negotiated transmission service* or a *market network service*.

prescribed TUOS services or prescribed transmission use of system services;

Prescribed transmission services that are not *prescribed common transmission services*, *prescribed entry services* or *prescribed exit services*, and that provide specific benefits to:

- (a) *Transmission Customers* who have a *connection point* with the relevant *transmission network*, based on the location of that *connection point* within the *transmission system*; and
- (b) *Transmission Network Service Providers* who have a direct or indirect *connection* or an *interconnection* with the relevant *transmission network*, based on the location of that *connection* or *interconnection* within the relevant *transmission system*.

price band

A MW quantity specified in a *dispatch bid*, *dispatch offer* or *market ancillary service offer* as being available for *dispatch* at a specified price.

pricing methodology

For a *Transmission Network Service Provider*, means the pricing methodology approved by the AER for that *Transmission Network Service Provider* and included in a *transmission determination* as referred to in rule 6A.24.

pricing methodology guidelines

Guidelines made by the AER under rule 6A.25 that contain the matters set out in clause 6A.25.2.

pricing principles for direct control services

The requirements set out in clause 6.18.5.

Pricing Principles for Prescribed Transmission Services

The principles set out in rule 6A.23.

pricing proposal

A pricing proposal under Part I of Chapter 6.

pricing zone

A geographic area within which *Network Users* are charged a specific set of *distribution service prices*.

Primary Transmission Network Service Provider

The *Transmission Network Service Provider* who operates the largest *transmission network* in each *participating jurisdiction* but does not include a *Transmission Network Service Provider* for a *declared transmission system*.

profile

Metering data or costs for a period longer than a *trading interval* allocated into *trading intervals*.

projected assessment of system adequacy process (“PASA”)

The medium term and short term processes described in clause 3.7 to be administered by *AEMO*.

Proponent

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

proposed contingent capital expenditure

For a *Distribution Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *regulatory proposal* for that project.

For a *Transmission Network Service Provider*, the total forecast capital expenditure for the relevant *proposed contingent project*, as included in the *Revenue Proposal* for that project.

proposed contingent project

A proposal by a *Distribution Network Service Provider* as part of a *regulatory proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a distribution determination accordance with clause 6.6A.1(b)(1).

A proposal by a *Transmission Network Service Provider* as part of a *Revenue Proposal* for a project to be determined by the *AER* as a *contingent project* for the purposes of a *revenue determination* in accordance with clause 6A.8.1(b)(1).

prospective reallocation

A *reallocation transaction* that occurs in a *trading interval* that takes place at a time after the *reallocation request* is made.

protected event

Has the meaning given in clause 4.2.3(f).

protected event EFCS standard

For an *emergency frequency control scheme* means the standard for the scheme determined by the *Reliability Panel* under clause 8.8.4 setting out:

- (a) a general description of the scheme including how it is proposed to operate and the new, existing or modified *facilities* likely to comprise the scheme; and
- (b) the *target capabilities* applicable to the scheme.

protected information

Has the meaning given in the *National Electricity Law*.

protection system

A system, which includes equipment, used to protect a *Registered Participant's facilities* from damage due to an electrical or mechanical fault or due to certain conditions of the *power system*.

prudential requirements

The requirements which must be satisfied as a condition of eligibility to remain a *Market Participant* in accordance with clause 3.3.

Public Register of Exempt System Operators

Has the meaning given in the *National Electricity Law*.

publish/publication

A document is published by the *AER* if it is:

- (a) published on the *AER's* website; and
- (b) made available for public inspection at the *AER's* public offices; and
- (c) in the case of a document inviting submissions from members of the public – published in a newspaper circulating generally throughout Australia.

In Part B of Chapter 5, a document is published by the *Distribution Network Service Provider* if it is published on the *Distribution Network Service Provider's* website.

Otherwise, a document is published by someone else if it is made available to *Registered Participants* electronically.

ramp rate

The rate of change of *active power* (expressed as MW/minute) required for *dispatch*.

Rate of Return Guidelines

Guidelines made by the AER under clause 6.5.2(m) or clause 6A.6.2(m), as the case may be.

rated active power

- (1) In relation to a *generating unit*, the maximum amount of *active power* that the *generating unit* can continuously deliver at the *connection point* when operating at its *nameplate rating*.
- (2) In relation to a *generating system*, the combined maximum amount of *active power* that its in-service *generating units* can deliver at the *connection point*, when its in-service *generating units* are operating at their *nameplate ratings*.

reactive energy

A measure, in varhour (varh), of the alternating exchange of stored energy in inductors and capacitors, which is the time-integral of the product of *voltage* and the out-of-phase component of current flow across a *connection point*.

reactive plant

Plant which is normally specifically provided to be capable of providing or absorbing *reactive power* and includes the *plant* identified in clause 4.5.1(g).

reactive power

The rate at which *reactive energy* is transferred.

Reactive power is a necessary component of alternating current electricity which is separate from *active power* and is predominantly consumed in the creation of magnetic fields in motors and *transformers* and produced by *plant* such as:

- (a) alternating current generators;
- (b) capacitors, including the capacitive effect of parallel *transmission* wires; and
- (c) *synchronous condensers*.

reactive power capability

The maximum rate at which *reactive energy* may be transferred from a *generating unit* to a *connection point* as specified or proposed to be specified in a *connection agreement* (as the case may be).

reactive power reserve

Unutilised sources of *reactive power* arranged to be available to cater for the possibility of the unavailability of another source of *reactive power* or increased requirements for *reactive power*.

reactive power support/reactive support

The provision of *reactive power*.

reactor

A device, similar to a *transformer*, specifically arranged to be *connected* into the *transmission system* during periods of low *load* demand or low *reactive power* demand to counteract the natural capacitive effects of long *transmission lines* in generating excess *reactive power* and so correct any *transmission voltage* effects during these periods.

real estate developer

Has the meaning given in clause 5A.A.1

real estate development

Has the meaning given in clause 5A.A.1

reallocation

A process under which two *Market Participants* request *AEMO* to make matching debits and credits to the position of those *Market Participants* with *AEMO*.

reallocation amount

In respect of a *Market Participant*, the positive or negative dollar amount in respect of a *reallocation transaction* being an amount payable to or by the *Market Participant*.

reallocation procedures

The procedures *published* by *AEMO* under clause 3.15.11A.

reallocation request

A request to *AEMO* for a *reallocation*, pursuant to clause 3.15.11(c).

reallocation transaction

A *transaction* which occurs when the applicable *trading interval* specified in a *reallocation request* occurs and the *reallocation request* has been registered and not deregistered before the expiration of the *trading interval*.

Reallocator

A person registered as a Reallocator by *AEMO* in accordance with rule 2.5B.

rebid

A variation to a bid or offer made in accordance with clause 3.8.22(b).

reconnect, reconnected, reconnection

The operation of switching equipment or other action so as to enable the flow of electricity at a *connection point* following a *disconnection*.

Referred Affected Participant

An *Affected Participant* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

Referred Directed Participant

A *Directed Participant* who has a claim referred to an independent expert pursuant to clauses 3.15.7B(c) or 3.15.7B(d).

Referred Market Customer

A *Market Customer* who has a claim referred to an independent expert pursuant to clauses 3.12.2(l) or 3.12.2(m).

region, regional

An area determined by the *AEMC* in accordance with Chapter 2A, being an area served by a particular part of the *transmission network* containing one or more major *load centres* or *generation centres* or both.

regional benefit directions procedures

Has the meaning given in clause 3.15.8(b2).

regional reference node

A location on a *transmission* or *distribution network* to be determined for each *region* by the *AEMC* in accordance with Chapter 2A.

regional reference price

Spot price at the *regional reference node*.

regional specific power system operating procedures

The procedures described in clause 4.10.1(a)(3).

Regions Publication

The document *published* by *AEMO* under clause 2A.1.3 that provides a list of all *regions*, *regional reference nodes* and the *region* to which each *market connection point* is assigned.

Registered Participant

A person who is registered by *AEMO* in any one or more of the categories listed in rules 2.2 to 2.7. However:

- (a) in the case of a person who is registered by *AEMO* as a *Trader*, such a person is only a *Registered Participant* for the purposes referred to in rule 2.5A;
- (b) in the case of a person who is registered by *AEMO* as a *Metering Coordinator*, such a person is only a *Registered Participant* for the purposes referred to in clause 2.4A.1(d);
- (c) as set out in rule 2.11.1A, for the purposes of rule 2.11 only, *Third Party B2B Participants* (other than *Third Party B2B Participants* who are also *Embedded Network Managers*) are also deemed to be *Registered Participants*;
- (d) as set out in clause 8.2.1(a1) and 8.2A.2(b), for the purposes of some provisions of rule 8.2 only, *AEMO*, *Connection Applicants*, *Metering Providers*, *Metering Data Providers*, [*off-market retailers*](#), *Third Party B2B Participants* and *B2B Change Parties* who are not otherwise *Registered Participants* are also deemed to be *Registered Participants*;
- (e) as set out in clause 8.6.1A, for the purposes of Part C of Chapter 8 only, *Metering Providers*, *Metering Data Providers*, [*off-market retailers*](#) and *Third Party B2B Participants* who are not otherwise *Registered Participants* are also deemed to be *Registered Participants*; and
- (f) as set out in clause 4.8.12(a3), for the purposes of Part C of Chapter 8 only, *Jurisdictional System Security Coordinators* are also deemed to be *Registered Participants*.

Registered Participant Agent

An agent of a *Registered Participant* appointed under clause 4.11.5.

registration category

Has the meaning given in clause 3.15.21(c1)(1).

regulated interconnector

An *interconnector* which is referred to in clause 11.8.2 of the *Rules* and is subject to *transmission service* regulation and pricing arrangements in Chapter 6A.

regulating capability

The capability to perform *regulating duty*.

regulating capability constraints

Constraints on the formulation of a realisable *dispatch* or *predispatch schedule* due to the need to provide for *regulating capability*.

regulating duty

In relation to a *generating unit*, the duty to have its *generated* output adjusted frequently so that any *power system frequency* variations can be corrected.

regulating lower service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from AEMO in order to lower the *frequency* of the *power system*.

regulating raise service

The service of controlling the level of *generation* or *load* associated with a particular *facility*, in accordance with the requirements of the *market ancillary service specification*, in accordance with electronic signals from AEMO in order to raise the *frequency* of the *power system*.

regulation services

The *regulating raise service* and *regulating lower service*.

regulatory change event

A change in a *regulatory obligation or requirement* that:

- (a) falls within no other category of *pass through event*; and
- (b) occurs during the course of a *regulatory control period*; and
- (c) substantially affects the manner in which the *Transmission Network Service Provider* provides *prescribed transmission services* or the *Distribution Network Service Provider* provides *direct control services* (as the case requires); and
- (d) *materially* increases or *materially* decreases the costs of providing those services.

regulatory control period

- (a) In respect of a *Transmission Network Service Provider*, a period of not less than 5 *regulatory years* in which a *total revenue cap* applies to that provider by virtue of a *revenue determination*.
- (b) In respect of a *Distribution Network Service Provider*, a period of not less than 5 *regulatory years* for which the provider is subject to a control mechanism imposed by a distribution determination.

regulatory information instrument

Has the meaning given in the *National Electricity Law*.

regulatory investment test for distribution

The test developed and *published* by the AER in accordance with clauses 5.17.1 and 5.17.2, as in force from time to time, and includes amendments made in accordance with clause 5.17.2.

regulatory investment test for transmission

The test developed and *published* by the AER in accordance with clauses 5.16.1 and 5.16.2, as in force from time to time, and includes amendments made in accordance with clause 5.16.2.

regulatory obligation or requirement

Has the meaning assigned in the Law.

regulatory proposal

A proposal (by a *Distribution Network Service Provider*) under rule 6.8.

regulatory year

Each consecutive period of 12 calendar months in a *regulatory control period*, the first such 12 month period commencing at the beginning of the *regulatory control period* and the final 12 month period ending at the end of the *regulatory control period*. For AEMO, each *financial year* is a *regulatory year*.

related body corporate

In relation to a body corporate, a body corporate that is related to the first-mentioned body by virtue of the *Corporations Act 2001* (Cth).

releasable user guide

A document associated with a functional block diagram and model source code provided under clause S5.2.4(b) (combined, forming the **model**), that contains sufficient information to enable a *Registered Participant* to use model source code provided under clause 3.13.3(l) to carry out *power system* studies for planning and operational purposes. The information in a releasable user guide must include, but is not limited to:

- (1) the **model** parameters and their values;
- (2) information about how the **model** parameter values vary with the operating state or output level of the *plant* or with the operating state or output level of any associated *plant*;
- (3) instructions relevant to the use and operation of the model source code provided under clause 3.13.3(l);
- (4) settings of *protection systems* that are relevant to load flow or dynamic simulation studies;
- (5) information provided in accordance with Schedule 5.5 only to the extent that the information is not a part of the **model** or the **model** parameters and that is reasonably necessary to allow modelling of the *generating unit*, *generating system* or related *plant* in *power system* load flow or dynamic simulation studies;

- (6) *connection point* details including its parameters and values, location, network augmentations or modifications and other relevant connection information;
- (7) in regards to any relevant *generating unit* or *generating system*, the date on which any of the following has occurred or is expected to occur:
 - (i) *an application to connect* is made under clause 5.3.4(a);
 - (ii) *a connection agreement* is entered into under clause 5.3.7;
 - (iii) the *Generator* submits a proposal to alter a *connected generating system* or a *generating system*, for which *performance standards* have previously been accepted by *AEMO*, under clause 5.3.9;
 - (iv) the *Generator* is notified that the *Network Service Provider* and *AEMO* are satisfied with the proposed alterations to the *generating plant* under clause 5.3.10;
 - (v) *connection*;
 - (vi) commencement of commissioning; and
 - (vii) conclusion of commissioning; and
- (8) the date this document was prepared or updated.

relevant AEMO intervention event

A *AEMO intervention event* that involves the exercise of the *reliability and emergency reserve trader* in accordance with rule 3.20 as referred to in paragraph (b) of the definition of *AEMO intervention event*.

relevant tax

Any tax payable by a *Transmission Network Service Provider* or a *Distribution Network Service Provider* other than:

- (a) income tax and capital gains tax;
- (b) stamp duty, financial institutions duty and bank accounts debits tax;
- (c) penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any tax; or
- (d) any tax that replaces or is the equivalent of or similar to any of the taxes referred to in paragraphs (a) to (b) (including any State equivalent tax).

Relevant Transmission Network Service Provider, Relevant TNSP

In respect of clause 5.7.7 has the meaning given in clause 5.7.7(a).

reliability

The probability of a system, device, *plant* or equipment performing its function adequately for the period of time intended, under the operating conditions encountered.

reliability and emergency reserve trader (RERT)

The actions taken by *AEMO* as referred to in clause 3.20.2, in accordance with rule 3.20, to ensure reliability of *supply*.

reliability augmentation

A *transmission network augmentation* that is necessitated principally by inability to meet the minimum *network* performance requirements set out in schedule 5.1 or in relevant legislation, regulations or any statutory instrument of a *participating jurisdiction*.

Reliability Panel

The panel established by the *AEMC* under section 38 of the *National Electricity Law*.

reliability settings

The following market settings:

- (a) the *market price cap*;
- (b) the *cumulative price threshold*;
- (c) the *market floor price*; and
- (d) the *administered price cap*.

reliability standard

The standard specified in clause 3.9.3C.

reliability standard and settings guidelines

The guidelines developed under clause 3.9.3A(a).

reliability standard and settings review

A review of the *reliability standard* and the *reliability settings*, including the manner of indexing the *market price cap* and the *cumulative price threshold*, conducted in accordance with clause 3.9.3A.

reliability standard implementation guidelines

The guidelines developed under clause 3.9.3D.

reliable

The expression of a recognised degree of confidence in the certainty of an event or action occurring when expected.

reliable operating state

In relation to the *power system*, has the meaning set out in clause 4.2.7.

remote acquisition

The acquisition of *interval metering data* from a *telecommunications network* connected to a *metering installation* that:

- (a) does not, at any time, require the presence of a person at, or near, the *interval metering installation* for the purposes of data collection or data verification (whether this occurs manually as a walk-by reading or through the use of a vehicle as a close proximity drive-by reading); and
- (b) includes but is not limited to methods that transmit data via:
 - (1) fixed-line telephone ('direct dial-up');
 - (2) satellite;
 - (3) the internet;
 - (4) wireless or radio, including mobile telephone networks;
 - (5) power line carrier; or
 - (6) any other equivalent technology.

Note:

For the requirements of clause 7.8.9(b) *remote acquisition* may collect data other than *interval metering data*.

remote control equipment

Equipment used to control the operation of elements of a *power station* or *substation* from a *control centre*.

remote monitoring equipment

Equipment installed to enable monitoring of a *facility* from a *control centre*.

representative

In relation to a person, any employee, agent or professional adviser of:

- (a) that person; or
- (b) a *related body corporate* of that person; or

- (c) a third party contractor to that person.

required pass through amount

In respect of a *negative change event* for a *Transmission Network Service Provider*, the costs in the provision of *prescribed transmission services* that, as a result of that *negative change event*, the *Transmission Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
- (b) if the *transmission determination* for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

In respect of a *negative change event* for a *Distribution Network Service Provider*, the costs in the provision of *direct control services* that, as a result of the *negative change event*, the *Distribution Network Service Provider* has saved and is likely to save (as opposed to the revenue impact of that event) until:

- (a) unless paragraph(b) applies – the end of the *regulatory control period* in which the *negative change event* occurred; or
- (b) if the distribution determination for the *regulatory control period* following that in which the *negative change event* occurred does not make any allowance for the pass through of the saved costs (whether or not in the forecast operating expenditure or forecast capital expenditure accepted or substituted by the *AER* for that *regulatory control period*) – the end of the *regulatory control period* following that in which the *negative change event* occurred.

RERT guidelines

The guidelines developed and *published* by the *Reliability Panel* under clause 3.20.8.

RERT principles

The principles referred to in clause 3.20.2(b).

reserve

Scheduled reserve or *unscheduled reserve*.

reserve contract

A *scheduled reserve contract* or an *unscheduled reserve contract*.

reserve level declaration guidelines

The guidelines *published* by AEMO under clause 4.8.4A(a).

response breakpoint

- (a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) above which the amount of response specified in the *offer* reduces with increased *generation* or *load* level; and
- (b) in relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the level of associated *generation* or *load* (in MW) below which the amount of response specified in the *offer* reduces with decreased *generation* or *load* level.

response capability

- (a) In relation to a *market ancillary service offer* to raise the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* below the associated *response breakpoint*; and
- (b) in relation to a *market ancillary service offer* to lower the *frequency* of the *power system*, the amount of the response in (MW) which is specified in the *offer* for every level of associated *generation* or *load* above the associated *response breakpoint*.

responsible person

For the purposes of the *National Energy Retail Law*, the *Metering Coordinator*.

Note:

References to 'responsible person' in the *Rules* or a document produced under the *Rules* are deemed to be references to the *Metering Coordinator* under clause 11.86.4.

restricted asset

An item of equipment that is electrically connected to a *retail customer's connection point* at a location that is on the same side of that *connection point* as the *metering point*, but excludes:

- (a) such an item of equipment where that *retail customer* is a *Distribution Network Service Provider* and that *Distribution Network Service Provider* is the *Local Network Service Provider* for that *connection point*; or
- (b) a *network device*.

restriction demand reduction

The reduction in a *Market Customer's* demand due to the imposition of *mandatory restrictions* as reasonably determined by an independent expert in accordance with clause 3.12A.7. For the avoidance of doubt, the reduction of a

Market Customer's demand due to the imposition of *mandatory restrictions* should exclude any reduction in its demand which the *Market Customer* claims was due to the operation of *generation* and as reasonably verified by the independent expert in a similar manner to that used by the independent expert to determine restrictions due to demand management.

restriction offer

An offer by a *Scheduled Generator* or a *Scheduled Network Service Provider* to provide capacity to *AEMO* for all or part of a *mandatory restriction period* made in accordance with the *restriction offer procedures*.

restriction offer procedures

The procedures developed by *AEMO* in accordance with clause 3.12A.1.

restriction shortfall amount

The amount determined in accordance with clause 3.12A.7(b).

retail billing period

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

retail customer

A *small customer* or a *large customer*.

Note:

In the context of Chapter 5A, the above definition has been supplemented by a definition specifically applicable to that Chapter, See clause 5A.A.1.

Retail Market Procedures

Procedures made under these *Rules* for or in *connection* with the sale and *supply* of electricity to *retail customers* or the operation of retail electricity *markets* including:

- (a) *B2B procedures*; and
- (b) the *Market Settlement and Transfer Solution Procedures*; and
- (c) the *metrology procedures*; and
- (d) other procedures dealing with, or incidental to, the retail sale or *supply* of electricity or related services.

retailer

Has the same meaning as in the *National Electricity Law*.

Otherwise, a *Customer* who engages in the activity of selling electricity to end users.

retailer insolvency costs

For a *Distribution Network Service Provider*:

- (a) *billed but unpaid charges*;
- (b) the actual amount of unbilled *network charges* accrued by a *failed retailer*; and
- (c) other costs that the *Distribution Network Service Provider* has incurred or is likely to incur as a result of a *retailer insolvency event*.

retailer insolvency event

The failure of a *retailer* during a *regulatory control period*, to pay a *Distribution Network Service Provider* an amount to which the service provider is entitled for the provision of *direct control services*, if:

- (a) an *insolvency official* has been appointed in respect of that *retailer*; and
- (b) the *Distribution Network Service Provider* is not entitled to payment of that amount in full under the terms of any *credit support* provided in respect of that *retailer*.

Retailer Member

A person nominated and elected as a *Member* by *Retailer Member Voters* to represent *Retailer Member Voters* in accordance with the *Rules* (including clause 7.17.10(f)) and *Information Exchange Committee Election Procedures*.

Retailer Member Voters

Retailers and *Local Retailers*.

retailer planned interruption

- (a) In a *participating jurisdiction* where the *National Energy Retail Rules* apply as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Rules*.
- (b) Otherwise, if defined in *jurisdictional electricity legislation*, has the meaning given in *jurisdictional electricity legislation*.

revenue determination

A determination referred to in clause 6A.2.2(1) and rule 6A.4 as substituted (if at all) pursuant to clause 6A.7.1 or rule 6A.15 or as amended pursuant to clause 6A.8.2.

Revenue Proposal

For a *Transmission Network Service Provider*, a proposal submitted or resubmitted by the *Transmission Network Service Provider* to the *AER* pursuant to clause 6A.10.1(a), clause 6A.11.2 or clause 6A.12.3(a) (as the context requires).

review

An examination of the specified matters conducted to the standard specified for a "review" in Auditing Standard AUS106: "Explanatory Framework for standards on Audit and Audit Related Services" prepared by the Auditing Standards Board, as varied from time to time.

revised statement

A statement issued by *AEMO* under clause 3.15.19 following the resolution of a dispute regarding a *final statement*.

RMS phase voltage

The *voltage of supply* measured as the average of the root mean square of the *voltages* between each pair of phases.

roll forward model

According to context:

- (a) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *transmission systems* in accordance with clause 6A.6.1;
- (b) the model developed and published by the *AER* for the roll forward of the regulatory asset base for *distribution systems* in accordance with clause 6.5.1.

RoLR cost recovery scheme distributor payment determination

Has the same meaning as in the *National Energy Retail Law*.

RoLR Procedures

Has the same meaning as in the *National Energy Retail Law*.

RoLR

Has the same meaning as in the *National Energy Retail Law*.

routine revised statement

A *settlement statement* issued by *AEMO* under clause 3.15.19(b).

Rule fund

A fund referred to in clause 1.11(a).

Rules

The rules called the National Electricity Rules made under Part 7 of the *National Electricity Law* as amended from time to time in accordance with that Part.

Rules bodies

Any person or body, other than *AEMO*, the *AER*, the *AEMC*, or the *ACCC*, that is appointed or constituted by the *Rules* to perform functions under the *Rules*.

Rules consultation procedures

The procedures for consultation with *Registered Participants* or other persons as set out in clause 8.9.

satisfactory operating state

In relation to the *power system*, has the meaning given in clause 4.2.2.

scheduled generating unit

- (a) A *generating unit* so classified in accordance with Chapter 2.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(iv)) and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

scheduled generating system

A *generating system* comprising *scheduled generating units*.

Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *scheduled generating unit* in accordance with Chapter 2.

scheduled high price

The dollar amount per MWh or MW, as the case may be, determined as such by *AEMO* pursuant to clause 3.3.17.

scheduled load

- (a) A *market load* which has been classified by *AEMO* in accordance with Chapter 2 as a *scheduled load* at the *Market Customer's* request. Under Chapter 3, a *Market Customer* may submit *dispatch bids* in relation to *scheduled loads*.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled loads* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

scheduled low price

The dollar amount per MWh or MW, as the case may be, determined as such by *AEMO* pursuant to clause 3.3.17.

scheduled network service

- (a) A *network service* which is classified as a *scheduled network service* in accordance with Chapter 2.
- (b) For the purposes of Chapter 3 (except clause 3.8.3A(b)(1)(ii)) and rule 4.9, two or more *scheduled network services* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Scheduled Network Service Provider

A *Network Service Provider* who has classified any of its *network services* as a *scheduled network service*.

scheduled plant

In respect of a *Registered Participant*, a *scheduled generating unit*, a *semi-scheduled generating unit*, a *scheduled network service* or a *scheduled load* classified by or in respect to that *Registered Participant* in accordance with Chapter 2.

scheduled reserve

The amount of surplus or unused capacity:

- (a) of *scheduled generating units*;
- (b) of *scheduled network services*; or
- (c) arising out of the ability to reduce *scheduled loads*.

scheduled reserve contract

A contract entered into by *AEMO* for the provision of *scheduled reserve* in accordance with rule 3.20.

scheduling error

Scheduling error means any of the events described in clause 3.8.24(a).

secondary equipment

Those assets of a *Market Participant's facility* which do not carry the *energy* being traded, but which are required for control, protection or operation of assets which carry such *energy*.

Second-Tier Customer

A *Customer* which has classified any *load* as a *second-tier load* in accordance with Chapter 2.

second-tier load

Electricity purchased at a *connection point* in its entirety other than directly from the *Local Retailer* or the *spot market* and which is classified as a *second-tier load* in accordance with Chapter 2.

secure operating level of inertia

For an *inertia sub-network*, the *secure operating level of inertia* determined by AEMO and referred to in clause 5.20B.2(b)(2).

secure operating state

In relation to the *power system* has the meaning given in clause 4.2.4.

self-commitment, self-commit

Commitment, where the decision to *commit* a *generating unit* was made by the relevant *Generator* without instruction or direction from AEMO.

self-decommitment

Decommitment, where the decision to *decommit* a *generating unit* was made by the relevant *Generator* without instruction or direction from AEMO.

semi-dispatch interval

For a *semi-scheduled generating unit*, a *dispatch interval* for which either:

- (a) a *network constraint* would be violated if the *semi-scheduled generating unit's generation* were to exceed the *dispatch level* specified in the related *dispatch instruction* at the end of the *dispatch interval*; or
- (b) the *dispatch level* specified in that *dispatch instruction* is less than the *unconstrained intermittent generation forecast* at the end of the *dispatch interval*,

and which is notified by AEMO in that *dispatch instruction* to be a *semi-dispatch interval*.

self-dispatch level

The level of *generation* in MW, as specified in a *dispatch offer* for a *generating unit* and a *trading interval*, which is the level at which that *generating unit* must be *dispatched* by AEMO in that *trading interval* unless otherwise *dispatched* in accordance with clause 3.8 or unless required to operate under a *direction* issued by AEMO in accordance with clause 4.8.9.

semi-scheduled generating system

A *generating system* comprising *semi-scheduled generating units*.

semi-scheduled generating unit

- (a) A *generating unit* classified in accordance with clause 2.2.7.

- (b) For the purposes of Chapter 3 and rule 4.9, two or more *generating units* referred to in paragraph (a) that have been aggregated in accordance with clause 3.8.3.

Semi-Scheduled Generator

A *Generator* in respect of which any *generating unit* is classified as a *semi-scheduled generating unit* in accordance with Chapter 2.

sensitive loads

Loads defined as sensitive for each *participating jurisdiction* by the *Jurisdictional System Security Coordinator* for that *participating jurisdiction*.

sent out generation

In relation to a *generating unit*, the amount of electricity *supplied* to the *transmission* or *distribution network* at its *connection point*.

Service Applicant

A person who asks a *Distribution Network Service Provider* for access to a *distribution service*.

service level procedures

The procedures established by *AEMO* in accordance with clause 7.16.6.

service standard event

A legislative or administrative act or decision that:

- (a) has the effect of:
 - (i) substantially varying, during the course of a *regulatory control period*, the manner in which a *Transmission Network Service Provider* is required to provide a *prescribed transmission service*, or a *Distribution Network Service Provider* is required to provide a *direct control service*; or
 - (ii) imposing, removing or varying, during the course of a *regulatory control period*, minimum service standards applicable to *prescribed transmission services* or *direct control services*; or
 - (iii) altering, during the course of a *regulatory control period*, the nature or scope of the *prescribed transmission services* or *direct control services*, provided by the service provider; and
- (b) *materially* increases or *materially* decreases the costs to the service provider of providing *prescribed transmission services* or *direct control services*.

service target performance incentive scheme

A For a *Transmission Network Service Provider* – a scheme developed and published by the AER in accordance with clause 6A.7.4.

For a *Distribution Network Service Provider* – a scheme developed and published by the AER in accordance with clause 6.6.2.

settlement amount

The amount calculated by AEMO pursuant to clause 3.15.12.

settlement statement

Includes an *interim statement*, *preliminary statement* and *final statement*.

settlements

The activity of producing bills and credit notes for *Market Participants*.

settlements ready data

The *metering data* that has undergone a validation and substitution process by AEMO for the purpose of *settlements* and is held in the *metering database*.

settlements residue

Any surplus or deficit of funds retained by AEMO upon completion of *settlements* to all *Market Participants* in respect of a *trading interval*, being either *inter-regional settlements residue* or *intra-regional settlements residue*.

settlement residue committee

The committee established by AEMO in accordance with clause 3.18.5.

settlement residue distribution agreement* or *SRD agreement

Has the meaning given in clause 3.18.1(b).

shadow network charges database

The database of that name made under clause 6B.A1.4.

shadow network charges procedure

The procedure of that name made under clause 6B.A1.3.

Shared Asset Guidelines

Guidelines made by the AER under clause 6.4.4(d) or clause 6A.5.5(d), as the case may be.

shared asset principles

Has the meaning given to it by clause 6.4.4(c) or clause 6A.5.5(c), as the case may be.

shared customer

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

shared distribution service

A service provided to a *Distribution Network User* for use of a *distribution network* for the conveyance of electricity (including a service that ensures the integrity of the related *distribution system*).

shared network capability service

Has the meaning given in the *National Electricity Law*.

shared transmission service

A service provided to a *Transmission Network User* for use of a *transmission network* for the conveyance of electricity (including a service that ensures the integrity of the related *transmission system*).

short circuit fault

A fault having a metallic conducting path between any two or more conductors or between any conductor and ground, including touching conductors and faults through earthing facilities, and excluding faults within equipment at a station.

short term PASA

The *PASA* in respect of the period described in clause 3.7.3(b), as described under clause 3.7.3.

short term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.3(d) and (e).

shunt capacitor

A type of *plant connected* to a *network* to generate *reactive power*.

shunt reactor

A type of *plant connected* to a *network* to absorb *reactive power*.

single contingency

In respect of a *transmission* or *distribution network* and *Network Users*, a sequence of related events which result in the removal from service of one *Network User*, *transmission* or *distribution line*, or *transformer*. The sequence of events may include the application and clearance of a fault of defined severity.

slow lower service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation*

or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a rise in that *frequency*.

slow raise service

The service of providing, in accordance with the requirements of the *market ancillary service specification*, the capability of controlling the level of *generation* or *load* associated with a particular *facility* in response to the locally sensed *frequency* of the *power system* in order to stabilise a fall in that *frequency*.

slow start generating unit

A *generating unit* described in clause 3.8.17(a).

slow start reserve generating unit

A *slow start generating unit* providing *scheduled reserve*.

small customer

- (a) In a *participating jurisdiction* where the *National Energy Retail Law* applies as a law of that *participating jurisdiction*, has the meaning given in the *National Energy Retail Law*.
- (b) Otherwise, has the meaning given in *jurisdictional electricity legislation*.

small customer metering installation

A *metering installation* in respect of the *connection point* of a *small customer* which meets the *minimum services specification* or which is required to meet the *minimum services specification* under clause 7.8.3(a), clause 7.8.4(c) or clause 7.8.4(h)(2).

small dedicated connection asset

A *dedicated connection asset* that is not a *large dedicated connection asset*.

small generating unit

A *generating unit*:

- (a) with a *nameplate rating* that is less than 30MW; and
- (b) which is owned, controlled or operated by a person that *AEMO* has exempted from the requirement to register as a *Generator* in respect of that *generating unit* in accordance with clause 2.2.1(c).

Small Generation Aggregator

A person who:

- (a) intends to supply, or supplies, electricity from one or more *small generating units* that are connected to a *transmission or distribution system*; and
- (b) is registered by *AEMO* as a *Small Generation Aggregator* under Chapter 2.

small-scale incentive scheme

A scheme developed and *published* by the *AER* in accordance with clause 6.6.4 or clause 6A.7.5, as the case may be.

Special Participant

A *System Operator* or a *Distribution System Operator*.

special revised statement

A *settlement statement* issued by *AEMO* under clause 3.15.19(a)(3).

spot market

The spot market established and operated by *AEMO* in accordance with clause 3.4.1.

spot market transaction

A transaction as defined pursuant to clause 3.15.6 which occurs in the *spot market*.

spot price

The price for electricity in a *trading interval* at a *regional reference node* or a *connection point* as determined in accordance with clause 3.9.2.

spot price forecast

A forecast of the *spot price*.

SRAS Guideline

The guideline developed and *published* by *AEMO* in accordance with clause 3.11.7(c) as in force from time to time and includes amendments made in accordance with clauses 3.11.7(f) and 3.11.7(g).

SRAS Objective

The objective for *system restart ancillary services* is to minimise the expected costs of a *major supply disruption*, to the extent appropriate having regard to the *national electricity objective*.

SRAS Provider

A person who agrees to provide one or more *system restart ancillary services* to *AEMO* under an *ancillary services agreement*.

SRAS Procurement Objective

Has the meaning given in clause 3.11.7(a1).

SRD unit

A unit that represents a right for an *eligible person* to receive a portion of the net *settlements residue* under clause 3.6.5 allocated to a *directional interconnector* for the period specified in a *SRD agreement* entered into between that *eligible person* and AEMO in respect of that right.

stand-alone amount

For a *category of prescribed transmission services*, the costs of a *transmission system* asset that would have been incurred had that *transmission system* asset been developed, exclusively to provide that *category of prescribed transmission services*.

standard connection service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1.

standard control service

A *direct control service* that is subject to a control mechanism based on a *Distribution Network Service Provider's total revenue requirement*.

Standards Australia

The Standards Association of Australia and includes its heirs or successors in business.

statement of charges

Has (in the context of Chapter 6B) the meaning given in clause 6B.A1.2.

statement of opportunities

A statement prepared by AEMO to provide information to assist *Scheduled Generators*, *Semi-Scheduled Generators*, *Transmission Network Service Providers* and *Market Participants* in making an assessment of the future need for electricity generating or demand management capacity or augmentation of the *power system*.

static excitation system

An *excitation control system* in which the power to the rotor of a *synchronous generating unit* is transmitted through high power solid-state electronic devices.

static VAR compensator

A device specifically provided on a *network* to provide the ability to generate and absorb *reactive power* and to respond automatically and rapidly to *voltage* fluctuations or *voltage* instability arising from a disturbance or disruption on the *network*.

substation

A *facility* at which two or more lines are switched for operational purposes. May include one or more *transformers* so that some *connected* lines operate at different nominal *voltages* to others.

substituted metering data

The substituted values of *accumulated metering data*, *interval metering data* or *calculated metering data* prepared in accordance with the *metrology procedure*. *Substituted metering data* is held in a *metering data services database* and the *metering database*.

super majority

At least 70% of the number of *Members*.

supplementary carbon dioxide equivalent intensity indicator

Any indicators relating to a subset of *scheduled generating units* and *market generating units* published by *AEMO* in accordance with clause 3.13.14(h).

supply

The delivery of electricity.

supply service

Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1

survey period

An agreed sample period used to determine the allocation of costs and prices for use of *transmission network* or *distribution network* assets.

suspended region

A region in which the *spot market* is suspended in accordance with clause 3.14.4.

suspension notice

A notice issued by *AEMO* to a *defaulting Market Participant* pursuant to clause 3.15.21(c) or (c1) under which *AEMO* notifies the *defaulting Market Participant*:

- (a) of the date and time from which it is suspended from specified activities;
- (b) the *registration categories* of the *defaulting Market Participant* to which the suspension relates; and
- (c) in respect of the *registration categories* referred to in paragraph (b), the activities (or subset of activities) of the *Market Participant* that have been suspended.

switchyard

The *connection point* of a *generating unit* into the *network*, generally involving the ability to *connect* the *generating unit* to one or more outgoing *network* circuits.

Sydney time

Eastern Standard Time or *Eastern Daylight Saving Time* as applicable in Sydney.

synchronise

The act of *synchronising* a *generating unit* or a *scheduled network service* to the *power system*.

synchronising, synchronisation

To electrically *connect* a *generating unit* or a *scheduled network service* to the *power system*.

synchronous condensers

Apparatus or equipment similar in construction to a *synchronous generating unit*, which operates at the equivalent speed of the *frequency* of the *power system*.

synchronous generating unit

The alternating current generators of most thermal and hydro (water) driven power turbines which operate at the equivalent speed of the *frequency* of the *power system* in its *satisfactory operating state*.

synchronous generator voltage control

The automatic *voltage control system* of a *generating unit* of the *synchronous generator* category which changes the output *voltage* of the *generating unit* through the adjustment of the generator rotor current and effectively changes the *reactive power* output from that *generating unit*.

System Operator

A person whom *AEMO* has engaged as its agent, or appointed as its delegate, under clause 4.3.3 to carry out some or all of *AEMO*'s rights, functions and obligations under Chapter 4 of the *Rules* and who is registered by *AEMO* as a *System Operator* under Chapter 2.

system restart ancillary service* or *SRAS

A service provided by *facilities* with *black start capability* which allows:

- (a) *energy* to be supplied; and
- (b) a *connection* to be established,

sufficient to restart large *generating units* following a *major supply disruption*.

system restart plan

The plan described in clause 4.8.12(a).

system restart standard

The standard as determined by the *Reliability Panel* in accordance with clause 8.8.3(aa), for the acquisition of *system restart ancillary services*.

system standard

A standard for the performance of the *power system* as set out in schedule 5.1a.

system strength connection works

Investment in a *transmission or distribution system* in order to remedy or avoid an *adverse system strength impact* arising from establishing a *connection* for a *generating system* or *market network service facility* or from any alteration to a *generating system* to which clause 5.3.9 applies.

system strength generating unit

A *generating unit* registered with AEMO under clause 5.20C.4(b).

system strength impact assessment

Power system studies to assess the impact of the *connection* of a new *generating system* or *market network service facility* or of any proposed alteration to a *generating system* to which clause 5.3.9 applies on the ability under different operating conditions of:

- (a) the *power system* to maintain system stability in accordance with clause S5.1a.3; and
- (b) *generating systems* and *market network service facilities* forming part of the *power system* to maintain stable operation including following any *credible contingency event* or *protected event*,

so as to maintain the *power system* in a *secure operating state*.

system strength impact assessment guidelines

The guidelines for conducting *system strength impact assessments* developed by AEMO under clause 4.6.6.

system strength remediation scheme

A scheme agreed or determined under clause 5.3.4B required to be implemented as a condition of a *connection agreement* to remedy or avoid an *adverse system strength impact*.

system strength requirements

The matters determined by AEMO for a *region* under clause 5.20C.1(a).

system strength requirements methodology

The process *AEMO* uses to determine the *system strength requirements* for each region published by *AEMO* under clause 5.20.1(a)(3).

system strength service

A service for the provision of a contribution to the *three phase fault level* at a *fault level node*.

system strength service payment

A payment by a *Transmission Network Service Provider* made under a *system strength services agreement* where:

- (a) the payment is made for *system strength services* to be made available or provided as a service to the *Transmission Network Service Provider* in its capacity as a *System Strength Service Provider* to satisfy an obligation under clause 5.20C.3; and
- (b) the *system strength services* are made available or provided in accordance with applicable technical specifications and performance standards approved by *AEMO*.

System Strength Service Provider

The *System Strength Service Provider* for a *region* as specified under clause 5.20C.3(a).

system strength services agreement

An agreement made under which a person agrees to provide one or more *system strength services* to a *System Strength Service Provider*.

system-wide benefits

Benefits that extend beyond a *Transmission Network User*, or group of *Transmission Network Users*, at a single *transmission network connection point* to other *Transmission Network Users*.

take or pay contract

A contract between a buyer and a seller of an asset-based service under which the buyer undertakes to pay regularly to the seller a fixed or minimum sum regardless of the actual level of consumption of the service by the buyer. The contract has the effect of transferring market risk associated with the assets from the seller (as the owner of the assets) to the buyer.

tap-changing transformer

A *transformer* with the capability to allow internal adjustment of output *voltages* which can be automatically or manually initiated and which is used as a major component in the control of the *voltage* of *transmission* and *distribution networks* in conjunction with the operation of *reactive plant*. The *connection point* of a

generating unit may have an associated tap-changing transformer, usually provided by the *Generator*.

target capabilities

For an *emergency frequency control scheme* means the technical parameters required to define the intended (but not guaranteed) service provided by the scheme which may include:

- (a) *power system* conditions within which the scheme is capable of responding;
- (b) the nature of the scheme's response (*load shedding* or *generation shedding* for the purposes of managing *frequency*);
- (c) the speed of the response;
- (d) the amount of *load shedding* or *generation shedding* that may occur when the scheme responds; and
- (e) capability to dynamically sense *power system* conditions.

tariff class

A class of *retail customers* for one or more *direct control services* who are subject to a particular tariff or particular tariffs.

tariff structure statement

For a *Distribution Network Service Provider*, means the *tariff structure statement* referred to in clause 6.18.1A that has been approved by the AER for that *Distribution Network Service Provider*.

tax

Any tax, levy, impost, deduction, charge, rate, rebate, duty, fee or withholding which is levied or imposed by an *Authority*.

tax change event

A tax change event occurs if:

- (a) any of the following occurs during the course of a *regulatory control period* for a *Transmission Network Service Provider* or a *Distribution Network Service Provider*:
 - (i) a change in a *relevant tax*, in the application or official interpretation of a *relevant tax*, in the rate of a *relevant tax*, or in the way a *relevant tax* is calculated;
 - (ii) the removal of a *relevant tax*;
 - (iii) the imposition of a *relevant tax*; and

- (b) in consequence, the costs to the service provider of providing *prescribed transmission services* or *direct control services* are *materially* increased or decreased.

technical envelope

The limits described in clause 4.2.5.

telecommunications network

A telecommunications network that provides access for public use or an alternate telecommunications network that has been approved by *AEMO* for the *remote acquisition of energy data*.

template for generator compliance programs

The template determined and *published* by the *Reliability Panel* under clause 8.8.3 of the *Rules*.

terms and conditions of access

According to context:

- (a) the terms and conditions described in clause 5.5.1(c); or
- (b) the terms and conditions described in clause 6.1.3.

test program

In respect of an *inter-network test*, means the program and co-ordination arrangements for the test including, without limitation:

- (1) test procedures;
- (2) the proposed timing of the test;
- (3) operational procedures to manage *power system security* during the test;
- (4) required *power system* conditions for conducting the test;
- (5) test facilitation services including, as necessary, *ancillary services* required to achieve those *power system* conditions;
- (6) criteria for continuing or concluding a test and the decision-making process relevant to the test; and
- (7) contingency arrangements.

Third Party B2B Participant

A *B2B e-Hub Participant* who is not also a *Distribution Network Service Provider*, *retailer*, *Local Retailer*, *Metering Coordinator*, *Metering Provider* or *Metering Data Provider*.

Third Party B2B Participant Member

A person who is nominated and elected as a *Member* by *Third Party B2B Participants* to represent *Third Party B2B Participants* in accordance with the *Rules* (including clause 7.17.10(h)) and the *Information Exchange Committee Election Procedures*.

third party DCA

A *dedicated connection asset* for which a person other than the *Primary Transmission Network Service Provider* is registered under Chapter 2.

third party IUSA

Those *contestable IUSA components* of an *identified user shared asset* that are not, or will not be, owned or leased by the *Primary Transmission Network Service Provider*.

three phase fault level

Measured in MVA at a location on a *transmission network* or a *distribution network*, the product of the pre-fault *nominal voltage* (measured in kV between a pair of phases), the fault current in each phase for a three phase fault at the location (measured in kA), and the square root of 3.

tie

Identically priced *dispatch bids* or *dispatch offers*.

time

Eastern Standard Time.

time stamp

The means of identifying the *time* and date at which data is transmitted or received.

timetable

The timetable published by AEMO under clause 3.4.3 for the operation of the *spot market* and the provision of *market information*.

total revenue cap

For a *Transmission Network Service Provider* for a *regulatory control period*, the sum of the *maximum allowed revenues* for that provider for each *regulatory year* of that *regulatory control period* as calculated in accordance with clause 6A.5.3 and set out in a *revenue determination*.

total revenue requirement

For a *Distribution Network Service Provider*, an amount representing revenue calculated for the whole of a *regulatory control period* in accordance with Part C of Chapter 6.

Trader

A person who is registered by *AEMO* as a *Trader* under Chapter 2.

trading amount

The positive or negative dollar amount resulting from a *transaction*, determined pursuant to clauses 3.15.6, 3.15.6A or 3.15.11.

trading day

The 24 hour period commencing at 4.00 am and finishing at 4.00 am on the following *day*.

trading interval

A 30 minute period ending on the hour (*EST*) or on the half hour and, where identified by a time, means the 30 minute period ending at that time.

trading limit

A dollar amount for a *Market Participant*, determined pursuant to clause 3.3.10.

trading margin

Has the meaning given in clause 3.3.15.

transaction

A *spot market transaction*, *reallocation transaction* or any other transaction either in the *market* or to which *AEMO* is a party.

transformer

A *plant* or device that reduces or increases the *voltage* of alternating current.

transformer tap position

Where a tap changer is fitted to a *transformer*, each tap position represents a change in *voltage* ratio of the *transformer* which can be manually or automatically adjusted to change the *transformer* output *voltage*. The tap position is used as a reference for the output *voltage* of the *transformer*.

transmission

Activities pertaining to a *transmission system* including the conveyance of electricity through that *transmission system*.

Transmission Annual Planning Report

A report prepared by a *Transmission Network Service Provider* under clause 5.12.2.

Transmission Confidentiality Guidelines

Guidelines made by the *AER* under clause 6A.16A.

transmission consultation procedures

The procedures set out in Part H of Chapter 6A that must be followed by:

- (a) the *AER* in making, developing or amending guidelines, models or schemes or in reviewing methodologies; or
- (b) the *AEMC* in developing or amending guidelines.

Transmission Customer

A *Customer*, *Non-Registered Customer* or *Distribution Network Service Provider* having a *connection point* with a *transmission network*.

transmission determination

Has the meaning given in the *National Electricity Law*, and includes a determination by the *AER* as described in rule 6A.2.

transmission element

A single identifiable major component of a *transmission system* involving:

- (a) an individual *transmission* circuit or a phase of that circuit;
- (b) a major item of *transmission plant* necessary for the functioning of a particular *transmission* circuit or *connection point* (such as a *transformer* or a circuit breaker).

transmission investment

Expenditure on assets and services which is undertaken by a *Transmission Network Service Provider* or any other person to address an *identified need* in respect of its *transmission network*.

transmission line

A power line that is part of a *transmission network*.

transmission network

A *network* within any *participating jurisdiction* operating at nominal *voltages* of 220kV and above plus:

- (a) any part of a *network* operating at nominal *voltages* between 66 kV and 220 kV that operates in parallel to and provides support to the higher voltage *transmission network*;
- (b) any part of a *network* operating at nominal *voltages* between 66kV and 220 kV that is not referred to in paragraph (a) but is deemed by the *AER* to be part of the *transmission network*.

For a *participating jurisdiction* other than the State of Victoria, an *identified shared user asset* owned, controlled or operated by a *Primary Transmission*

Network Service Provider (including a *third party IUSA* that is the subject of a *network operating agreement*) forms part of that *Primary Transmission Network Service Provider's transmission network*.

transmission network connection point

A connection point on a transmission network.

Transmission Network Service Provider

A person who engages in the activity of owning, controlling or operating a transmission system.

Transmission Network User

In relation to a transmission network, a *Transmission Customer* and:

- (a) a *Generator* whose *generating unit*;
- (b) a *Network Service Provider* whose *network*;
- (c) to the extent that a *Dedicated Connection Asset Service Provider* is not also one of the persons listed above, a *Dedicated Connection Asset Service Provider* whose *dedicated connection asset*,

is connected to the transmission network.

transmission or distribution system

A transmission system or distribution system that:

- 1. is used to convey, and control the conveyance of, electricity to customers (whether wholesale or retail); and
- 2. is connected to another such system.

transmission plant

Apparatus or equipment associated with the function or operation of a transmission line or an associated substation or switchyard, which may include transformers, circuit breakers, reactive plant and monitoring equipment and control equipment.

Transmission Ring-Fencing Guidelines

The Guidelines made under rule 6A.21.

transmission service

The services provided by means of, or in connection with, a transmission system.

transmission services access dispute

A dispute between a *Transmission Network Service Provider* and a *Connection Applicant* as to terms and conditions of access for the provision of prescribed

transmission services or for the provision of *negotiated transmission services* as referred to in clause 5.5.1(c), that is for determination by a *commercial arbitrator* under rule 5.5.

transmission standard control service

Has the meaning given in rule 6.25(a).

transmission standard control service revenue

Has the meaning given in rule 6.26(b)(1).

transmission system

A *transmission network*, together with the *connection assets* associated with the *transmission network*, which is *connected* to another *transmission* or *distribution system*.

For a *participating jurisdiction* other than the State of Victoria, a *transmission system* includes for the purposes of Chapter 2, a *third party DCA*, which is not a Notified Existing DCA within the meaning of clause 11.98.1.

Note

An *identified user shared asset* or a *dedicated connection asset* for which the *Primary Transmission Network Service Provider* is registered will form part of that provider's broader *transmission system* (even if the *dedicated connection asset* is operating at a *distribution voltage*) rather than constituting a separate *transmission system* requiring separate registration under Chapter 2. A person owning, controlling or operating a *third party DCA* is required to be registered under Chapter 2 as a *Transmission Network Service Provider*.

transmission use of system, transmission use of system service

A *Generator transmission use of system service* or a *Customer transmission use of system service*.

trigger event

For a *Distribution Network Service Provider*, in relation to a *proposed contingent project* or a *contingent project*, a specific condition or event described in clause 6.6A.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a distribution determination under clause 6.6A.2.

For a *Transmission Network Service Provider*, in relation to a *proposed contingent project* or a *contingent project*, a specific condition or event described in clause 6A.8.1(c), the occurrence of which, during the relevant *regulatory control period*, may result in the amendment of a *revenue determination* under clause 6A.8.2.

two-terminal link

One or more *network elements* that together enable the transfer of *energy* between two, and only two, *connection points*.

type 5 accumulation boundary

The volume of *energy* for a *connection point* that has a type 5 *metering installation* above which the *metering data* must be collected as *interval metering data* for the purpose of producing *settlements ready data*.

Note:

Below the type 5 accumulation boundary, the metering data may be collected from the metering installation as accumulated metering data for the purpose of producing settlements ready data, in which case the metering installation must be registered with AEMO as a type 6 metering installation. Otherwise, the metering data may be collected as interval metering data for the purpose of producing settlements ready data in which case the metering installation must be registered with AEMO as a type 5 metering installation.

typical accrual

Has the meaning given in clause 3.3.12(a).

uncompleted transaction

Has the meaning given in clause 3.3.16(b).

unconstrained

Free of *constraint*.

unconstrained intermittent generation forecast

The forecast prepared by *AEMO* in accordance with rule 3.7B of the *available capacity* of each *semi-scheduled generating unit*.

under frequency scheme

An *emergency frequency control scheme* with capability to respond when *power system frequency* is below or falling below the *normal operating frequency band*.

under-recovery amount

Any amount by which the sum of the *AARR* in previous *regulatory years* exceeds the revenue earned from the provision of *prescribed transmission services* in those *regulatory years*.

unscheduled reserve

The amount of surplus or unused capacity:

- (a) of *generating units* (other than *scheduled generating units*); or
- (b) arising out of the ability to reduce demand (other than a *scheduled load*).

unscheduled reserve contract

A contract entered into by *AEMO* for the provision of *unscheduled reserve* in accordance with rule 3.20.

unserved energy

The amount of *energy* demanded, but not supplied, in a *region* determined in accordance with clause 3.9.3C(b), expressed as:

- (a) GWh; or
- (b) a percentage of the total *energy* demanded in that *region* over a specific period of time such as a *financial year*.

use of system

Includes *transmission use of system* and *distribution use of system*.

use of system services

Transmission use of system service and *distribution use of system service*.

violation

In relation to *power system security*, a failure to meet the requirements of Chapter 4 or the *power system security standards*.

virtual transmission node

A non-physical node used for the purpose of *market settlements*, having a *transmission loss factor* determined in accordance with clause 3.6.2(b)(3).

voltage

The electronic force or electric potential between two points that gives rise to the flow of electricity.

voltage transformer (VT)

A *transformer* for use with *meters* and/or protection devices in which the *voltage* across the secondary terminals is, within prescribed error limits, proportional to and in phase with the *voltage* across the primary terminals.

Voter Category

Means:

- (a) in respect of the *Distribution Network Service Provider Member*, *Distribution Network Service Providers*;
- (b) in respect of the *Retailer Member*, *Retailer Member Voters*, collectively;
- (c) respect of the *Metering Member*, *Metering Member Voters*, collectively; and
- (d) in respect of the *Third Party B2B Participant Member*, *Third Party B2B Participants*.

CHAPTER 11

11. Savings and Transitional Rules

[Drafting note: In this draft, all parts before proposed Part ZZZS have been removed for convenience.]

Part ZZZS Embedded networks

11.117 Rules consequential on the making of the National Electricity Amendment ([insert name of rule]) Rule [insert year]

11.117.1 Definitions

For the purposes of this rule 11.117:

2-year transition period means the period starting on the effective date and ending on the second anniversary of that date.

9-month transition period means the period starting on the effective date and ending 9 months after that date.

amending rule means the National Electricity Amendment ([insert name of rule]) Rule [insert year].

commencement day means the commencement day as defined in Part 17 of Schedule 3 of the *National Electricity Law*.

effective date means the first anniversary of the commencement day.

establishment date means, for a *distribution system*, the date on which an exemption from the obligation to register under old clause 2.5.1(d) granted to an owner, operator or controller of the *distribution system* first came into effect;

expiring legacy network exemption means a legacy network exemption revoked or to be revoked under clause 11.117.9.

legacy exempt network means a *transmission system* or a *distribution system* owned, controlled or operated by a person under a legacy network exemption, but excluding a *distribution system* in respect of which a legacy network exemption has been revoked under clause 11.117.9.

Legacy Exempt Network Guidelines means the *guidelines* made by the AER under clause 11.117.3.

legacy network exemption means:

(a) a *network exemption* that is a legacy network exemption under Part 17 of Schedule 3 to the *National Electricity Law*; and

(b) a *network exemption* granted under the Legacy Exempt Network Guidelines.

legacy network exemption class is defined in Part 17 of Schedule 3 to the *National Electricity Law*.

new Chapter 2 means Chapter 2 in force immediately after the effective date.

new clause 2.5.1(d) means clause 2.5.1(d) as in force immediately after the effective date.

new clause 2.5.4 means clause 2.5.4 as in force immediately after the effective date.

new clause 2.5.4(j) means clause 2.5.4(j) as in force immediately after the effective date.

new clause 2.14.2 means clause 2.14.2 as in force immediately after the effective date.

new clause 5.3C.1(c) means clause 5.3C.1(c) as in force immediately after the effective date.

new clause 5A.E.3B means clause 5A.E.3B as in force immediately after the effective date.

new clause 6B.A1.3 means clause 6B.A1.3 as in force immediately after the effective date.

new clause 6B.A1.4 means clause 6B.A1.4 as in force immediately after the effective date.

new connection asset definition means the definition of *connection assets* in Chapter 10 as in force immediately after the effective date.

new distribution system definition means the definition of *distribution system* in Chapter 10 as in force immediately after the effective date.

new network exemptions scheme means:

- (a) Division 1A of Part 2 of the *National Electricity Law* as in force on and from the commencement day;
- (b) new clause 2.5.1(d) and Part B of new Chapter 2; and
- (c) instruments made by the AER in the exercise of its functions under the provisions mentioned in paragraphs (a) and (b).

old clause 2.5.1(d) means clause 2.5.1(d) as in force before the effective date.

old clause 2.5.1(e) means clause 2.5.1(e) as in force before the effective date.

old Network Exemption Guidelines means the guidelines made by the AER under old clause 2.5.1(e).

transition period means the period commencing on the commencement day and ending immediately before the effective date.

transitioned off-market retailer means an *off-market retailer* who prior to becoming an *off-market retailer* was the holder of a legacy retail exemption (as defined in Part 11 of Schedule 3 of the *NERR*) subject to revocation under rule 9 of Part 11 of Schedule 3 of the *NERR*.

11.117.2 AER Exempt Network Guidelines and brownfield conversion guidelines

- (a) By the effective date, the *AER* must in accordance with the *Rules consultation procedures* make the initial *AER Exempt Network Guidelines* and the *AER*'s initial determination under new clause 2.14.2.
- (b) By the effective date, the *AER* must in accordance with the *Rules consultation procedures* make the initial guidelines under new clause 2.5.4(j) for the approval of *brownfield conversions*.
- (c) The *guidelines* referred to in paragraphs (a) and (b) must come into effect on and from the effective date.

11.117.3 Legacy Exempt Network Guidelines

- (a) By the effective date, the *AER* must make *guidelines* to be known as the Legacy Exempt Network Guidelines. The Legacy Exempt Network Guidelines must come into effect on and from the effective date and may be made as part of the *AER Exempt Network Guidelines*.
- (b) The Legacy Exempt Network Guidelines must provide for the grant of *network exemptions* to:
 - (1) a person who is a member of a legacy exemption class in respect of a legacy exempt network; or
 - (2) a particular person who owns, operates or controls a legacy exempt network.
- (c) The *AER* may amend the Legacy Exempt Network Guidelines from time to time.
- (d) In making or amending the Legacy Exempt Network Guidelines, the *AER* must comply with the *Rules consultation procedures*.
- (e) The Legacy Exempt Network Guidelines must:
 - (1) provide information about legacy network exemptions and legacy network exemption classes;
 - (2) include the legacy network exemption classes and applicable *exemption conditions*, so far as practicable in a manner consistent with the old Network Exemption Guidelines;

- (3) provide guidance on the revocation of legacy network exemptions under this Part;
 - (4) include the AER's plan for communication with relevant *Exempt System Operators* about the revocation of legacy network exemptions and registration or exemption under the new network exemptions scheme; and
 - (5) include other guidance in relation to legacy network exemptions and legacy network exemption classes as the AER considers appropriate.
 - (f) The Legacy Exempt Network Guidelines must not specify any class of persons for whom a *network exemption* may be granted other than a legacy network exemption class.
 - (g) The AER may, in accordance with the *Rules consultation procedure*, decide to amend a legacy network exemption class or an *exemption condition* applicable to a legacy network exemption class but only:
 - (1) subject to paragraph (f); and
 - (2) in a manner that does not extend the class to a person or *distribution system* that before the amendment, was not or would not have been a member of the class.
 - (h) By the end of the 2-year transition period, the AER must revise the Legacy Exempt Network Guidelines to revoke the legacy network exemption classes listed in clause 11.117.9 such that with effect from the end of the 2-year transition period, no *network exemption* is or may be granted to a person by reason of the person being a member of any of the revoked legacy network exemption classes.
 - (i) The AER may decide to revoke any other legacy network exemption class.

11.117.4 Replacement of legacy network exemptions

- (a) Subject clause 11.117.3(h) and to paragraph (b), on and from the effective date, the AER may continue to grant *network exemptions* in accordance with the Legacy Exempt Network Guidelines.
- (b) The AER must only grant a *network exemption* under the Legacy Exempt Network Guidelines to a person in respect of the person's ownership, operation or control of a legacy exempt network.
- (c) A *network exemption* granted under the Legacy Exempt Network Guidelines to which clause 11.117.9 applies is subject to revocation under that clause.

11.117.5 Transition process for legacy exempt networks

- (a) By the effective date, the AER must amend the *exemption conditions* applicable to legacy network exemptions so as to require an *Exempt System Operator* for an expiring legacy network exemption to:

- (1) provide information to the AER on request about how the *Exempt System Operator* intends to transition to the new network exemptions scheme and the *Exempt System Operator's* proposed timetable and process for that transition;
 - (2) notify the AER when the transition is complete; and
 - (3) inform *retail customers* in the *embedded network* about the transition process and when the transition is complete.
- (b) The *exemption conditions* referred to in paragraph (a) must also provide for audit by the AER or a person approved by the AER of the *Exempt System Operator's* compliance with *exemption conditions* made for paragraph (a).

11.117.6 Network exemptions in the transition period

- (a) During the transition period, the AER:
 - (1) must maintain the old Network Exemption Guidelines; and
 - (2) subject to paragraph (b), may amend the old Network Exemption Guidelines pursuant to the *Rules consultation procedures*.
- (b) The old Network Exemption Guidelines must not specify any class of persons for whom a *network exemption* may be granted under paragraph (c) other than a legacy network exemption class.
- (c) During the transition period, the AER may, in accordance with the old Network Exemption Guidelines and old clause 2.5.1(d), exempt any person who is required to register as a *Network Service Provider* or any person who is a member of a legacy network exemption class from:
 - (1) the requirement to register as a *Network Service Provider*; or
 - (2) the operation of Chapter 5.

11.117.7 Individual network exemptions in the transition period

- (a) The old Network Exemption Guidelines apply to an application made during the transition period for a *network exemption* to be granted to a particular person who owns, operates or controls a *transmission system* or a *distribution system*.
- (b) The *AER Exempt Network Guidelines* may provide for an application for a *network exemption* to be granted under clause 11.117.6(c) made under the old Network Exemption Guidelines and old clause 2.5.1(d) and in respect of which a decision has not been made before the effective date to be determined by the AER after the effective date as if it were an application made under the *AER Exempt Network Guidelines*.

11.117.8 Redundant exemption classes may be revoked

- (a) Where by reason of the new connection asset definition or the new distribution asset definition, members of a legacy exemption class or some members of a legacy exemption class are not required to be registered under the Rules in respect of an activity to which the legacy exemption class applies, the AER may, in accordance with the Rules consultation procedures decide to:
- (1) revoke or amend the legacy exemption class; or
 - (2) revoke a legacy network exemption held by a person who is a member of the revoked class, or who by reason of the amendment ceases to be a member of an amended legacy exemption class.
- (b) Revocation under paragraph (a) must take effect at a time determined by the AER on or after the effective date.

11.117.9 Expiry of legacy network exemptions

- (a) A legacy network exemption that is:
- (1) of a kind listed in paragraph (d); and
 - (2) in respect of a legacy exempt network that has an establishment date falling in the period starting on 1 December 2017 and ending on the effective date,
- is revoked under this paragraph with effect from the date determined under paragraph (b).
- (b) The revocation of a legacy network exemption under paragraph (a) takes effect as follows:
- (1) where the establishment date referred to in subparagraph (a)(2) falls in the period starting on 1 December 2017 and ending on 31 December 2019, revocation takes effect on the last day of the 2-year transition period; and
 - (2) where the establishment date referred to in subparagraph (a)(2) falls in the period starting on 1 January 2020 and ending immediately before the effective date, revocation takes effect on the last day of the 9-month transition period.
- (c) To avoid doubt:
- (1) a legacy network exemption of a kind listed in paragraph (d) in respect of a legacy exempt network that has an establishment date before 1 December 2017 is not revoked under paragraph (a), but this paragraph does not limit the AER's powers to revoke any such legacy network exemption; and

(2) this clause does not limit the AER's powers to revoke a legacy network exemption to which paragraph (a) applies before the date determined under paragraph (b).

(d) Paragraph (a) applies to a legacy network exemption granted to a person on registration as a member of a legacy network exemption class listed in the following table.

<u>Legacy class</u>	<u>Description of the legacy network class in the old Network Exemption Guidelines</u>
<u>NR1</u>	<u>Persons supplying metered or unmetered energy to ten or more small commercial/retail customers within the limits of a site that they own, occupy or operate. Additionally, persons that have appointed an Embedded Network Manager who would otherwise meet the ND1 class activity description.</u>
<u>NR2</u>	<u>Persons supplying metered or unmetered energy to ten or more residential customers within the limits of a site that they own, occupy or operate. Additionally, persons that have appointed an Embedded Network Manager who would otherwise meet the ND2 class activity description.</u>
<u>NR3</u>	<u>Retirement villages supplying metered or unmetered energy to residential customers within the limits of a site that they own, occupy or operate.</u>
<u>NR4</u>	<u>Persons supplying metered or unmetered energy in caravan parks, holiday parks, residential land lease parks and manufactured home estates to residents who principally reside there.</u>
<u>NR5</u>	<u>Persons supplying metered energy to large customers.</u>
<u>NR6</u>	<u>Persons supplying metered or unmetered energy to small customers at a site or premises adjacent to a site that they own, occupy or operate.</u>
<u>NRO3</u>	<u>Ongoing supply to a mining or primary production facility and associated residential, commercial, industrial, processing and ancillary support facilities in areas with restricted access to NEM supply.</u> <u>All bona fide installations, subject to demonstrable circumstances of remoteness from existing NEM supply infrastructure.</u>
<u>NRO4</u>	<u>Industrial, commercial and 'mixed-use' facilities but not including residential or energy generation activity. Includes the metered or unmetered supply of energy under an agreed commercial scheme negotiated with large customers.</u>

11.117.10 Metering coordinator exemption for pre-2017 embedded networks

Clause 7.2.1(e) does not apply to a transitioned off-market retailer in relation to the sale of electricity to a *retail customer* at a *connection point* in a *distribution system* that:

- (a) has an establishment date before 1 December 2017; and
- (b) is owned, controlled or operated by an *Exempt Embedded Network Service Provider* under a legacy network exemption.

11.117.11 AEMO procedures and related matters

- (a) By the effective date, *AEMO* must in accordance with the *Rules consultation procedures* make the *shadow network charges procedure* under new clause 6B.A1.3.
- (b) The *shadow network charges procedure* must come into effect on and from the effective date.
- (c) By the effective date, *AEMO* must:
 - (1) establish the *shadow network charges database* under new clause 6B.A1.4; and
 - (2) for clause 2.9.1(a), prescribe a form of application for *Embedded Network Service Providers* seeking registration under new clause 2.5.4.

11.117.12 Transitional provision for Chapter 5

New clause 5.3C.1(c) does not apply to an *Embedded Network Service Provider* in respect of a *generating system* or *load* that is *connected* to an *embedded network* on or before the effective date until the first anniversary of the effective date.

11.117.13 Transitional provisions for Chapter 5A

- (a) By the effective date, the *AER* must in accordance with the *Rules consultation procedure* develop and *publish* the *embedded network connection policy* under new clause 5A.E.3B.
- (b) The *embedded network connection policy* must come into effect on and from the effective date.

National Energy Retail Rules

Version 14

Note

This is a modified version of Version 14. This version has been modified by incorporating changes to be made when the following rules commence (other than the transitional rules).

Schedules 1 and 2 of the National Energy Retail Amendment (Strengthening protections for customers requiring life support equipment) Rule 2017 No. 3 (commencing on 1 February 2019)

Schedule 1 of the National Energy Retail Amendment (Advance notice of price changes) Rule 2018 No. 3 (commencing on 1 February 2019)

Schedule 1 of the National Energy Retail Amendment (Minor Changes 2) Rule 2018 No. 5 (commenced 9 November 2018)

Schedule 1 of the National Energy Retail Amendment (Strengthening protections for customers in hardship) Rule 2018 No. 6 (commenced 15 November 2018)

Schedules 1, 2 and 3 of the National Energy Retail Amendment (Metering installation timeframes) Rule 2018 No. 7 (commencing on 1 February 2019)

Status Information

This is the latest electronically available version of the National Energy Retail Rules as at 4 October 2018.

This consolidated version of the National Energy Retail Rules was last updated on 4 October 2018 as a result of the commencement of the following amendments:

Schedule 2 of the National Energy Retail Amendment (Advance notice of price changes) Rule 2018 No. 3

Application of the National Energy Customer Framework related Rule

On 27 June 2012, the South Australian Minister introduced the National Energy Retail Rules under section 238 of the National Energy Retail Law (NERL) set out in the Schedule to the National Energy Retail Law (South Australia) Act 2011. These Rules commenced operation as a law of Tasmania, the Australian Capital Territory and the Commonwealth on 1 July 2012; South Australia on 1 February 2013, New South Wales on 1 July 2013 and Queensland on 1 July 2015.

These Rules do not apply in Victoria, Western Australia or the Northern Territory until the NERL is implemented as a law in that jurisdiction.

These Rules can also be found on the Australian Energy Market Commission's website under the 'National Energy Retail Rules', 'Rules made by the SA Ministers' tabs.

Provisions in force

All provisions displayed in this consolidated version of the Rules have commenced. As at the date of this consolidation the Australian Energy Market Commission has made the following Rules under the National Energy Retail Law that have not yet commenced:

Schedules 1 and 2 of the National Energy Retail Amendment (Strengthening protections for customers requiring life support equipment) Rule 2017 No. 3 commence operation on 1 February 2019.

Schedule 2 of the National Energy Retail Amendment (Minor Changes) Rule 2018 No. 1 commences operation on 1 February 2019, immediately after the commencement of Schedule 2 of the National Energy Retail Amendment (Strengthening protections for customers requiring life support equipment) Rule 2017.

Schedule 1 of the National Energy Retail Amendment (Advance notice of price changes) Rule 2018 No. 3 commences operation on 1 February 2019.

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Part 1 Preliminary

Division 1 Introduction and definitions

1 Citation

These Rules may be cited as the *National Energy Retail Rules*.

2 Commencement

These Rules come into operation on [insert date on which the NERL is to commence in the first participating jurisdiction].

3 Definitions

Note—

Words and expressions used in these Rules have the same meanings as they have, from time to time, in *the Law* or relevant provisions of *the Law*, except so far as the contrary intention appears in these Rules. See clause 13 of Schedule 2 to the NGL (as applied by section 8 of *the Law*).

In these Rules—

acceptable identification, in relation to:

- (a) a residential customer—includes any one of the following:
 - (i) a driver licence (or driver's licence) issued under *the law* of a State or Territory, a current passport or another form of photographic identification;
 - (ii) a Pensioner Concession Card or other entitlement card, issued under *the law* of the Commonwealth or of a State or Territory;
 - (iii) a birth certificate; or
- (b) a business customer that is a sole trader or partnership—includes one or more of the forms of identification for a residential customer for one or more of the individuals that conduct the business or enterprise concerned; or
- (c) a business customer that is a body corporate—means Australian Company Number or Australian Business Number of the body corporate;

bill issue date means the date, included in a bill under rule 25 (1) (e), on which the bill is sent by the retailer to a small customer;

cooling off period—see rule 47 (2);

customer authorised representative means a person authorised by a:

- (a) small customer to act on its behalf under rules 56A and 56B; or
- (b) customer to act on its behalf under rule 86A.

disconnection warning notice—see rule 110;

distributor planned interruption—see rule 88;

dual fuel market contract means:

- (a) one market retail contract between a small customer and a retailer for the sale of both electricity and gas by the retailer to the small customer; or
- (b) two market retail contracts with the same small customer, one for the sale of electricity and the other for the sale of gas to the customer, where the prices or conditions of one or both contracts are contingent on the customer entering into both contracts.

embedded network area has the same meaning as in the NER;

embedded network planned interruption—see rule 88;

e-marketing activity has the meaning given by section 109A of the *Telecommunications Act 1997* of the Commonwealth;

good electricity industry practice has the same meaning as in the NER;

interruption:

- (a) in the case of Division 9A of Part 2, means a temporary unavailability or temporary curtailment of the supply of electricity to a customer's premises; and
- (b) in all other cases, means a temporary unavailability or temporary curtailment of the supply of energy to a customer's premises, but does not include unavailability or curtailment in accordance with the terms and conditions of a customer retail contract or customer connection contract, and any applicable tariff, agreed with the customer;

Note:

Rule 107(4) provides that Part 6 (relating to de-energisation or disconnection of premises) does not apply to *interruptions* under Division 6 of Part 4 or under Division 9A of Part 2.

life support equipment means any of the following:

- (a) an oxygen concentrator;
- (b) an intermittent peritoneal dialysis machine;
- (c) a kidney dialysis machine;
- (d) a chronic positive airways pressure respirator;
- (e) crigler najjar syndrome phototherapy equipment;
- (f) a ventilator for life support;
- (g) in relation to a particular customer—any other equipment that a registered medical practitioner certifies is required for a person residing at the customer's premises for life support;

maintenance replacement means the replacement of a small customer's existing electricity *meter* arranged by a retailer that is based on the results of sample testing of a *meter* population carried out in accordance with Chapter 7 of the NER:

- (a) which indicates that it is necessary or appropriate, in accordance with *good electricity industry practice*, for the *meter* to be replaced to ensure compliance with the *metering rules*; and

- (b) details of which have been provided to the retailer under Chapter 7 of the NER, together with the results of the sample testing that support the need for the replacement;

meter, in relation to a customer, means the device that measures the quantity of energy passing through it or records the consumption of energy at the customer's premises;

metering coordinator, in the case of electricity—has the same meaning as "*Metering Coordinator*" in the NER;

metering data has the same meaning as:

- (a) in the case of electricity—in the NER; or
- (b) in the case of gas—in the applicable Retail Market Procedures;

metering data provision procedures has the same meaning as in the NER.

metering installation malfunction has the same meaning as in the NER;

metering rules:

- (a) for electricity—means the applicable Retail Market Procedures and Chapter 7 of the NER;
- (b) for gas—means the applicable Retail Market Procedures;

NEM Representative means a related body corporate (within the meaning of the *Corporations Act 2001* of the Commonwealth) of an electricity retailer that is registered with AEMO as a market customer under the NER and that, directly or indirectly, sells electricity to the retailer for on-sale to customers;

network exemption has the same meaning as in the NEL;

new meter deployment means the replacement of the existing electricity *meter* of one or more small customers which is arranged by a retailer other than where the replacement is:

- (a) at the request of the relevant small customer or to enable the provision of a product or service the customer has agreed to acquire from the retailer or any other person;
- (b) a *maintenance replacement*;
- (c) as a result of a *metering installation malfunction*; or
- (d) required under section 59(2) of the *Law*;

off-market retailer authorisation—see rule 3C;

parent connection point has the same meaning as in the NER;

pay-by date—see rule 26;

relevant authority means:

- (a) AEMO; or
- (b) State or federal police; or
- (c) a person or body who has the power under law to direct a distributor to de-energise premises;

reminder notice—see rule 109;

responsible person, in the case of gas - means the person who, under the applicable Retail Market Procedures, is responsible for *meter* reading;

retailer planned interruption—see rule 59B;

security deposit means an amount of money paid or payable, in accordance with the Rules, to a retailer as a security against non-payment of a bill;

telemarketing call has the same meaning as in the *Telecommunications Act 1997* of the Commonwealth;

the Law means the National Energy Retail Law;

unplanned interruption—see rule 88.

void transfer means the transfer of a small customer from a retailer to another retailer which is void under section 41(1) of *the Law*.

void transfer date means the date of the *void transfer*.

3A Savings and Transitional Rules

Schedule 3 applies.

Division 1A Retailer authorisations

3B Available classes

(1) This rule applies for section 89(4) of *the Law*.

(2) The available classes of retailer authorisation are:

- (a) in the case of electricity and gas, a general retailer authorisation granted on terms and conditions determined by the AER; and
- (b) in the case of electricity, an off-market retailer authorisation granted in accordance with rule 3C and otherwise on terms and conditions determined by the AER.

Note:

In the case of electricity, a general retailer authorisation extends to off-market selling (subject to the conditions of the authorisation) an off-market retailer authorisation extends only to off-market selling to customers at child connection points in embedded networks.

3C Off-market retailer authorisation for sale in embedded networks

(1) The AER may, if requested by the applicant for a retailer authorisation, grant the applicant a retailer authorisation that authorises the retailer to sell electricity only as an off-market retailer (*off-market retailer authorisation*).

(2) An off-market retailer authorisation must be subject to conditions that:

- (a) authorise the retailer to sell electricity as an off-market retailer for premises connected to an embedded network;
- (b) specify that the retailer must not sell electricity to customers for premises except as provided for in paragraph (a); and

- (c) require the retailer to comply with a pricing schedule made by the AER under rule 11 of Part 11 of Schedule 3.
- (3) For subrule (2)(a), an off-market retailer authorisation may extend to embedded networks generally or to a particular embedded network or class of embedded networks.
- (4) An off-market retailer:
 - (a) must not to make an offer to sell electricity to a customer unless that offer includes the network charges and the charges for the provision of customer connection services for the customer's premises; and
 - (b) must comply with the obligations of an off-market retailer under the NER.

3D Variation of the standing offer price at an off-market connection point

- (1) A retailer:
 - (a) subject to paragraph (b), is exempt from the obligation in section 23(3)(b) of the Law to publish a notice about a variation to a standing offer price applicable to an off-market connection point in a newspaper; and
 - (b) must inform each affected customer of the variation.
- (2) For section 23(8) of the Law, the variation to a standing offer price applicable to an off-market connection point takes effect at the later of:
 - (a) the effective time notified to the customer at the off-market connection point; and
 - (b) 10 business days after the customer has been notified of the variation.

Division 2 Consumption threshold matters

4 Business premises—separate application of upper and lower consumption thresholds

- (1) This rule has effect for the purposes of section 6 (3) of *the Law*.
- (2) The upper consumption thresholds and lower consumption thresholds respectively apply separately in relation to each of the business premises of a business customer, except as provided by rule 5.

5 Business premises—aggregated application of upper consumption thresholds by agreement

- (1) This rule has effect for the purposes of section 6 (3) of *the Law*, and applies to the provision or proposed provision by a retailer of customer retail services to 2 or more business premises (the relevant premises) of a business customer, where:
 - (a) the customer is or would be a small customer in relation to at least one of the relevant premises; and

- (b) the aggregate of the actual or estimated annual consumption level for the relevant premises is higher than:
 - (i) in the case of electricity—the upper consumption threshold prescribed by the Regulations in relation to electricity; or
 - (ii) in the case of gas—the upper consumption threshold prescribed by the Regulations in relation to gas.
- (2) The retailer and the business customer may enter into an agreement in writing to the effect that:
 - (a) the relevant premises are to be treated as aggregated for the purposes of Division 3 of this Part, Part 2 of these Rules and Part 2 of *the Law*; and
 - (b) if the parties so agree:
 - (i) Division 3 of this Part and Part 2 of these Rules; or
 - (ii) provisions of Division 3 of this Part and Part 2 of these Rules as specified in the agreement; or
 - (iii) clauses 7.8.10A, 7.8.10B or 7.8.10C of the NER as specified in the agreement,

do not apply to the relationship between the retailer and the business customer in relation to the relevant premises.
- (3) The explicit informed consent of the business customer is required for the transaction of entering into an agreement under this rule.
- (4) If the retailer and the business customer enter into such an agreement and the retailer has obtained the explicit informed consent of the customer, the agreement has effect according to its terms, and accordingly the upper consumption thresholds apply on an aggregated basis to the relevant premises.
- (5) The retailer must not of its own initiative treat the upper consumption thresholds as applying to 2 or more premises of a business customer on the basis of the aggregation of premises.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (6) To avoid doubt, this rule can apply in relation to all business premises of a business customer or to some but not all business premises of a business customer.

Division 3 Classification of customers

6 Classification

Customers are classified as follows:

- (a) retailer classification of a customer as:
 - (i) a residential customer; or

- (ii) a business customer;
- (b) distributor classification of a business customer as:
 - (i) a small customer; or
 - (ii) a large customer;
- (c) distributor classification of a business customer who is a small customer as:
 - (i) a small market offer customer; or
 - (ii) not a small market offer customer.

7 Retailer initial classification of customers

- (1) A customer making a request to a retailer for the sale of energy to premises of the customer under a customer retail contract must, on request by the retailer, provide sufficient information to the retailer for the retailer to classify, on the basis of that information, the customer as a residential customer or a business customer in relation to the premises.
- (2) On receiving the information, the retailer must classify the customer accordingly.
- (3) The retailer must, as soon as practicable, notify the distributor of the classification of the customer under this rule.
- (4) The distributor must keep a record of the classification of the customer.

8 Retailer reclassification of customers

- (1) The financially responsible retailer for the premises of a customer may:
 - (a) of its own initiative; or
 - (b) on application by the customer or the distributor,reclassify the customer as a residential customer or a business customer in relation to the premises after the formation of the customer retail contract for the premises.
- (2) The retailer may decline to accept a reclassification application if the retailer has classified or reclassified the customer in relation to the premises within the previous 12 month period, whether of its own initiative or on application.
- (3) The retailer must, as soon as practicable, notify the customer and the distributor of the reclassification of the customer under this rule or of the retailer's decision to refuse the reclassification application (if any) by the customer or distributor.
- (4) The distributor must keep a record of the reclassification of the customer.
- (5) The reclassification takes effect on the date of notification of both the customer and the distributor or on a later date specified in the notification.

9 Distributor initial classification of business customers

- (1) This rule applies to a customer who is a business customer in relation to premises, where the customer is not currently classified (or reclassified) by the distributor in relation to the premises.
- (2) On being notified by a retailer that the customer is a business customer, the distributor for the premises must classify the customer in relation to those premises:
 - (a) as a large customer or as a small customer; and
 - (b) if a small customer, as or as not a small market offer customer.
- (3) The distributor must, as soon as practicable, notify the retailer for the premises of the classification of the customer under this rule.
- (4) The distributor must keep a record of the classification of the customer.

10 Distributor reclassification of business customers

- (1) The distributor for the premises of a business customer may:
 - (a) of its own initiative; or
 - (b) on application by the customer or the financially responsible retailer for the premises,reclassify the customer as a large customer or small customer or as not a small market offer customer in relation to the premises after the initial classification of the customer by the distributor in relation to the premises under rule 9.
- (2) The distributor may decline to accept a reclassification application if the distributor has classified or reclassified the customer in relation to the premises within the previous 12 month period, whether of its own initiative or on application.
- (3) The distributor must, as soon as practicable, notify the customer and the financially responsible retailer of the reclassification of the customer under this rule or of the distributor's decision to refuse the reclassification application (if any) by the customer or retailer.
- (4) The distributor must keep a record of the reclassification of the customer.
- (5) The reclassification takes effect on the date of notification of both the customer and the financially responsible retailer or on a later date specified in the notification.

11 Distributor classification and reclassification—requirements

- (1) This rule applies where a distributor makes a classification or reclassification in relation to a customer in relation to a premises.
- (2) The distributor must have regard to the annual consumption of energy at the premises during the previous 12 month period.

- (3) The distributor may estimate the likely annual consumption at the premises for the next 12 month period if:
 - (a) consumption data is available to the distributor, but the distributor reasonably considers that the data does not accurately reflect the likely consumption at the premises during the next 12 month period; or
 - (b) no consumption data for the premises is available to the distributor for the whole of the previous 12 month period.
- (4) An estimate under this rule may be based on:
 - (a) the average usage of energy by a comparable customer over a corresponding period; or
 - (b) other information about the customer's likely consumption of energy, whether provided by the customer or the customer's retailer or in accordance with accepted industry practice.

Division 4 Retailer of last resort in embedded networks

11A Determinations under section 122A(3) of the Law

- (1) The AER must only make a determination under section 122A(3) of *the Law* in respect of a retailer if the AER is satisfied that the following requirements are met in relation to the retailer:
 - (a) the retailer does not sell electricity to any small customers; and
 - (b) no related body corporate (within the meaning of the *Corporations Act 2001* of the Commonwealth) of the retailer sells electricity to small customers.
- (2) The AER RoLR Guidelines must specify:
 - (a) the information to be provided to the AER for an application under subrule (1); and
 - (b) information a retailer the subject of a determination under section 122A(3) of *the Law* must provide to the AER to demonstrate that the retailer continues to meet the requirements in subrule (1); and
 - (c) the times when the information in paragraph (b) must be provided, which must be at least once a quarter.
- (3) A retailer the subject of a determination under section 122A(3) of *the Law* must at the times required by the AER RoLR Guidelines provide to the AER information specified in the AER RoLR Guidelines to satisfy the AER that the retailer continues to meet the requirements in subrule (1).
- (4) The AER must revoke a determination under section 122A(3) of *the Law* in respect of a retailer at the request of the retailer.
- (5) The AER must revoke a determination under section 122A(3) of *the Law* in respect of a retailer if:

- (a) the AER ceases to be satisfied that the retailer meets the requirements in subrule (1); or
 - (b) the retailer fails to provide information to the AER in accordance with subule (3).
- (6) Before revoking a determination under subrule (3), the AER must give the retailer a notice that it intends to revoke the determination. The notice must set out the reasons why the AER considers that grounds for revocation exist and must invite the retailer, within 10 business days of the notice, to show cause why the AER should not revoke the determination.

Part 2 Customer retail contracts

Division 1 Standard retail contracts—terms and conditions generally

12 Model terms and conditions for standard retail contracts

- (1) Model terms and conditions for a standard retail contract are set out in Schedule 1.
- (2) A statement in Schedule 1 that is underlined and in square brackets indicates that a required alteration must be made by omitting the statement and substituting the matter referred to in the statement.

13 Application of provisions of these Rules to standard retail contracts

Other provisions of these Rules apply to standard retail contracts to the extent provided by those provisions.

Note 1:

For example, Part 11 makes provision for electricity consumption benchmarks for residential customers under a customer retail contract, which relevantly includes standard retail contracts.

Note 2:

Rule 70 makes provision for the termination of a standard retail contract.

Division 2 Market retail contracts—terms and conditions generally

14 Terms and conditions of market retail contracts

- (1) The terms and conditions of a market retail contract are as agreed between the retailer and the small customer, except as provided by these Rules.
- (2) Nothing in these Rules prevents the inclusion in a market retail contract of a term or condition that is the same or substantially the same as a term or condition of standard retail contracts that is not otherwise applicable to market retail contracts.

15 Application of provisions of these Rules to market retail contracts

- (1) Other provisions of these Rules apply to market retail contracts, to the extent provided by those provisions.
- (2) If a rule provides that a provision of these Rules applies in relation to market retail contracts:
 - (a) the provision is a minimum requirement that is to apply in relation to small customers who purchase energy under a market retail contract; and

Note:

See section 34 (1) (a) of *the Law*.

- (b) the terms and conditions of the contract must not be inconsistent with the provision; and
- (c) the terms and conditions of the contract may supplement or augment the operation of the provision; and
- (d) the terms and conditions of the contract must not diminish the operation of the provision; and
- (e) the provision prevails to the extent of any inconsistency with any other term or condition of the contract.

Division 3 Customer retail contracts—pre-contractual procedures

16 Pre-contractual duty of retailers

- (1) This rule applies where a retailer is contacted by a small customer who is seeking to purchase energy for premises.
- (2) If the retailer is the designated retailer for the premises, the retailer:
 - (a) may elect to offer the customer a market retail contract; and
 - (b) must advise the customer of the availability of the retailer's standing offer, unless the customer is a small market offer customer.

Note:

Subrule (2) (b) is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) If the retailer is not the designated retailer for the premises and the retailer does not elect to offer the customer (whether at the request of the customer or of its own initiative) a market retail contract, the retailer:
 - (a) must refer the customer to the distributor for the premises concerned; and
 - (b) must inform the small customer that the distributor will be able to advise the customer which retailer has an obligation to make a standing offer that is applicable to the customer.

17 Pre-contractual duty of distributors

- (1) This rule applies where a distributor is contacted:
 - (a) directly; or
 - (b) on referral by a retailer,by a small customer for premises who is seeking customer retail services for the premises.

- (2) The distributor must advise the small customer which retailer has an obligation to make a standing offer to the customer, and, if the customer is a move-in customer or is seeking a new connection, also inform the customer that:
 - (a) requests for customer retail services must be made to a retailer; and
 - (b) the customer may be able to choose their retailer; and
 - (c) a list of retailers is available from the AER's website.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

18 Pre-contractual request to designated retailer for sale of energy (SRC)

- (1) A small customer who wishes to purchase energy for premises under a standard retail contract may make a request to the designated retailer for the premises for the sale of energy in accordance with the retailer's standing offer.
- (2) The request may be made by telephone or in writing.
- (3) The small customer must:
 - (a) provide the customer's name and *acceptable identification*; and
 - (b) provide contact details for billing purposes; and
 - (c) ensure that there is safe and unhindered access to the *meter* at the premises.
- (4) Compliance with subrule (3) is a pre-condition to the formation of a standard retail contract (as referred to in section 26 of *the Law*).
- (5) The designated retailer may include in the charges under the standard retail contract any outstanding amounts owed by the small customer to the retailer from an unpaid account (excluding unpaid amounts for premises for which the customer has an ongoing customer retail contract).
- (6) The designated retailer is not entitled to refuse to sell energy to a small customer who is a residential customer on the ground that the customer owes the retailer the outstanding amounts referred to in subrule (5).
- (7) Where:
 - (a) a retailer has arranged for the de-energisation of a small customer's premises (other than where the retailer has arranged for de-energisation due to failure to pay a bill under rule 111); and
 - (b) the customer has not within 10 business days of de-energisation rectified the matter that gave rise to the de-energisation,the retailer may decline to enter into a customer retail contract with the customer and to arrange for energisation of the premises until the matter that gave rise to the de-energisation has been rectified.

19 Responsibilities of designated retailer in response to request for sale of energy (SRC)

- (1) A designated retailer must, as soon as practicable, provide a small customer requesting the sale of energy under the retailer's standing offer with the following information:
 - (a) a description of the retailer's standard retail contract that is formed as a result of the customer accepting the standing offer and how copies of the contract may be obtained;
 - (b) a description of the retailer's and customer's respective rights and obligations concerning the sale of energy under *the Law* and these Rules, including the retailer's standard complaints and dispute resolution procedures;
 - (c) information about the availability of government funded energy charge rebate, concession or relief schemes;
 - (d) information in community languages about the availability of interpreter services for the languages concerned and telephone numbers for the services.

- (2) The retailer must, as soon as practicable (but not later than the end of the next business day) after the request for the sale of energy is properly made (as referred to in subrule (3)):

- (a) if the premises are energised, forward relevant details of the customer to the distributor for the premises concerned, for the purpose of updating the distributor's records; or

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (b) if the premises are not energised, arrange for the energisation of the premises by the distributor or the *metering coordinator* (if permitted in accordance with energy laws).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) A request for the sale of energy is properly made when:
 - (a) the request has been received by the retailer; and
 - (b) the small customer has complied with the requirements under rule 18 (3); and
 - (c) the small customer is otherwise entitled to receive the sale of energy in accordance with the standard retail contract.

Division 4 Customer retail contracts—billing

20 Basis for bills (SRC and MRC)

- (1) A retailer must base a small customer's bill for the customer's consumption of:
 - (a) electricity:
 - (i) on *metering data* provided for the relevant *meter* at the customer's premises provided by the *metering coordinator* and determined in accordance with the *metering rules* and rule 21; or
 - (ii) on any other method agreed by the retailer and the small customer.
 - (b) gas:
 - (i) on an actual reading of the relevant *meter* at the customer's premises provided by the *responsible person* and determined in accordance with the *metering rules*; or
 - (ii) on *metering data* provided for the relevant *meter* at the customer's premises provided by the *responsible person* and determined in accordance with the *metering rules*; or
 - (iii) on an estimation of the customer's consumption of energy, as provided by rule 21; or
 - (iv) on any other method agreed by the retailer and the small customer.
- (2) The retailer must use its best endeavours to ensure that actual readings of the *meter* are carried out as frequently as is required to prepare its bills consistently with the *metering rules* and in any event at least once every 12 months.
- (3) Despite subrules (1) and (2), if there is no *meter* in respect of the customer's premises, the retailer must base the customer's bill on energy data that is calculated in accordance with applicable energy laws.
- (4) **Application of this rule to standard retail contracts**
This rule applies in relation to standard retail contracts.
- (5) **Application of this rule to market retail contracts**
This rule applies in relation to market retail contracts.

21 Estimation as basis for bills (SRC and MRC)

- (1) A retailer may base a small customer's bill on an estimation of the customer's consumption of energy where:
 - (a) the customer consents to the use of estimation by the retailer; or
 - (b) the retailer is not able to reasonably or reliably base the bill on an actual *meter* reading; or
 - (c) *metering data* is not provided to the retailer by the *responsible person* or *metering coordinator* (as applicable).

- (2) Where estimations are permitted to be used as the basis for a small customer's bill, the estimations may be based on:
 - (a) the customer's reading of the relevant *meter*; or
 - (b) historical *metering data* for the customer reasonably available to the retailer; or
 - (c) the average usage of energy by a comparable customer over the corresponding period, if there is no historical *metering data* for the customer.
- (3) The retailer must inform the small customer, on the bill, that the bill is based on an estimation.
- (4) Without affecting rule 20 (2), if the retailer has issued the small customer with a bill based on an estimation and the retailer subsequently issues the customer with a bill that is based on an actual *meter* reading or on *metering data*:
 - (a) the retailer must include an adjustment on the later bill to take account of any overcharging of the customer that has occurred; and
 - (b) unless the actual *meter* reading or *metering data* could not be obtained as a result of an act or omission by the customer, the retailer must, if requested to do so by the customer, offer the customer time to pay any undercharged amount by agreed instalments, over a period being no longer than:
 - (i) the period during which an actual *meter* reading or *metering data* was not obtained, where that period is less than 12 months; or
 - (ii) in any other case, 12 months.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (5) Where an attempt to read the small customer's *meter* is unsuccessful due to an act or omission of the customer, and the customer subsequently requests a retailer to replace an estimated bill with a bill based on an actual *meter* reading, the retailer must comply with that request but may pass through to that small customer any costs it incurs in doing so.

(6) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(7) Application of this rule to market retail contracts

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts), but only to the extent (if any) a contract provides for estimation as the basis for the small customer's bill.

22 Proportionate billing (SRC and MRC)

- (1) If a small customer's bill covers a period other than the customer's usual billing cycle or a period during which the customer's tariff changes, the retailer must

charge in proportion to the relevant periods and clearly show relevant details on the bill.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

23 **Bill smoothing (SRC)**

(1) Despite rules 20 and 21, a retailer may, in respect of any 12 month period, provide a small customer with bills based on an estimation under a bill smoothing arrangement if and only if:

- (a) the amount payable under each bill is initially the same and is set on the basis of the retailer's initial estimate of the amount of energy the customer will consume over the 12 month period; and
- (b) that initial estimate is based on the customer's historical billing data or, where the retailer does not have that data, average usage of energy by a comparable customer calculated over the 12 month period; and
- (c) in the seventh month:
 - (i) the retailer re-estimates the amount of energy the customer will consume over the 12 month period, taking into account any actual *meter* readings or actual *metering data* and relevant seasonal factors; and
 - (ii) if there is a difference between the initial estimate and the re-estimate of greater than 10 per cent, the amount payable under each of the remaining bills in the 12 month period is to be reset to reflect that difference; and
- (d) at the end of the 12 month period, the *meter* is read or *metering data* is obtained and any undercharging or overcharging is adjusted under rule 30 or 31.

(2) The explicit informed consent of the small customer is required for the retailer's billing on the basis referred to in subrule (1).

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts, but this subrule does not prevent a retailer from including bill smoothing arrangements in a market retail contract.

24 **Frequency of bills (SRC)**

(1) A retailer must issue bills to a small customer at least once every 100 days.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) A retailer and a small customer may agree to a billing cycle with a regular recurrent period that differs from the retailer's usual recurrent period where the retailer obtains the explicit informed consent of the small customer.

- (3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

- (4) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

25 Contents of bills (SRC and MRC)

- (1) A retailer must prepare a bill so that a small customer can easily verify that the bill conforms to their customer retail contract and must include the following particulars in a bill for a small customer:
 - (a) the customer's name and account number;
 - (b) the address of the customer's premises for the sale of energy and the customer's mailing address (if different);
 - (c) the *meter* identifier;
 - (d) the billing period;
 - (e) the *pay-by date* for the bill and the *bill issue date*;
 - (f) the total amount payable by the customer, including amounts of any arrears or credits;
 - (g) tariffs and charges applicable to the customer;
 - (h) the basis on which tariffs and charges are calculated;
 - (i) whether the bill was issued as a result of a *meter* reading or an estimation and, if issued as a result of a *meter* reading, the date of the *meter* reading;
 - (j) the values of *meter* readings (or, if applicable, estimations) at the start and end of the billing period;
 - (k) particulars of the average daily consumption during the billing period;
 - (l) if a bill was issued by the same retailer for the corresponding billing period during the previous year, particulars of the average daily consumption during that previous billing period;
 - (m) the estimated date of the next scheduled *meter* reading (if applicable);
 - (n) details of consumption or estimated consumption of energy;
 - (o) for residential customers—energy consumption benchmarks in accordance with Part 11;
 - (p) any amount deducted, credited or received under a government funded energy charge rebate, concession or relief scheme or under a payment plan;

- (q) if the customer has provided a *security deposit*, the amount of that deposit;
- (r) details of the available payment methods;
- (s) reference to the availability of government funded energy charge rebate, concession or relief schemes;
- (t) a telephone number for account enquiries, the charge for which is no more than the cost of a local call;
- (u) a telephone number for complaints (which may be the same as that for account enquiries), the charge for which is no more than the cost of a local call;
- (v) a separate 24 hour telephone number for fault enquiries and emergencies, the charge for which is no more than the cost of a local call, being the telephone number for the distributor and giving the name of the distributor;
- (w) contact details of interpreter services in community languages;
- (x) any proportionate billing information in accordance with rule 22.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) The retailer must include amounts billed for goods and services (other than the sale and supply of energy) in a separate bill or as a separate item in an energy bill.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

- (4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

26 Pay-by date (SRC)

- (1) The *pay-by date* for a bill must not be earlier than 13 business days from the *bill issue date*.

- (2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

- (3) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

27 Apportionment (SRC)

- (1) If a bill includes amounts payable for goods and services other than the sale and supply of energy, any payment made by a small customer in relation to the bill

must be applied firstly in satisfaction of the charges for the sale and supply of energy, unless:

- (a) the customer otherwise directs; or
- (b) another apportionment arrangement is agreed to by the customer.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

28 **Historical billing information (SRC and MRC)**

- (1) A retailer must promptly provide a small customer with historical billing data for that customer for the previous 2 years on request.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) Historical billing data provided to the small customer for the previous 2 years must be provided without charge, but may be provided subject to a reasonable charge where the data requested is for an earlier period or has been requested more than:

- (a) four times in any 12 month period, in the case of the supply of electricity; or
- (b) once in any 12 month period, in the case of the supply of gas.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

29 **Billing disputes (SRC and MRC)**

- (1) A retailer must review a bill if requested to do so by the small customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) The retailer must conduct the review in accordance with the retailer's standard complaints and dispute resolution procedures, including any time limits applicable under those procedures.

- (3) The retailer must inform the small customer of the outcome of the review as soon as reasonably possible but, in any event, within any time limits applicable under the retailer's standard complaints and dispute resolution procedures.
- (4) The retailer may require the small customer to pay:
 - (a) the lesser of:
 - (i) that portion of the bill under review that the customer and the retailer agree is not the subject of review; or
 - (ii) an amount equal to the average amount of the customer's bills in the previous 12 months (excluding the bill in dispute); and
 - (b) any other bills that are properly due.
- (5) If the small customer requests that, in reviewing the bill, the *meter* reading or *metering data* be checked or the *meter* tested:
 - (a) the retailer must, as the case may require:
 - (i) arrange for a check of the *meter* reading or *metering data*; or
 - (ii) request the *responsible person* or *metering coordinator* (as applicable) to test the *meter*; and
 - (b) the customer must pay for the cost of the check or test (which the retailer may request be paid in advance); and
 - (c) if the *meter* or *metering data* proves to be faulty or incorrect, the customer must be reimbursed for the cost of the check or test; and
 - (d) if a retailer is required to reimburse an amount paid in advance for a *meter* check under paragraph (c) and that amount has been paid by the retailer to the *responsible person* or *metering coordinator* (as applicable) to undertake the test, the *responsible person* or *metering coordinator* (as applicable) must reimburse the retailer for that amount.
- (6) Where, after conducting a review of the bill, the retailer is satisfied that it is:
 - (a) correct, the retailer may require the small customer to pay the amount of the bill that is still outstanding; or
 - (b) incorrect, the retailer:
 - (i) must adjust the bill in accordance with rule 30 or 31, as the case requires; and
 - (ii) may require the customer to pay the amount (if any) of the bill that is still outstanding; and
 - (iii) must refund (or set off against the amount in subparagraph (ii)) any amount paid in advance under subrule (5).
- (7) The retailer must inform the small customer that the customer may lodge a dispute with the energy ombudsman after completion of the retailer's review of a bill, where the customer is not satisfied with the retailer's decision in the review and the retailer's action or proposed action under subrule (6).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(8) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(9) Application of this rule to market retail contracts

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

30 Undercharging (SRC and MRC)

(1) Subject to subrule (2), where a retailer has undercharged a small customer, it may recover from the customer the amount undercharged.

(2) Where a retailer proposes to recover an amount undercharged the retailer must:

- (a) unless the amount was undercharged as a result of the small customer's fault or unlawful act or omission, limit the amount to be recovered to the amount undercharged in the 9 months before the date the customer is notified of the undercharging; and
- (b) not charge the customer interest on that amount; and
- (c) state the amount to be recovered as a separate item in a special bill or in the next bill, together with an explanation of that amount; and
- (d) offer the customer time to pay that amount by agreed instalments, over a period nominated by the customer being no longer than:
 - (i) the period during which the undercharging occurred, if the undercharging occurred over a period of less than 12 months; or
 - (ii) 12 months, in any other case.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(3) To avoid doubt, a reference in this rule to undercharging by a retailer includes a reference to a failure by the retailer to issue a bill.

(4) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(5) Application of this rule to market retail contracts

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

31 Overcharging (SRC and MRC)

- (1) Where a small customer has been overcharged by an amount equal to or above the overcharge threshold, the retailer must inform the customer accordingly within 10 business days after the retailer becomes aware of the overcharging.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) If the amount overcharged is equal to or above the overcharge threshold, the retailer must:
- (a) repay that amount as reasonably directed by the small customer; or
 - (b) if there is no such reasonable direction, credit that amount to the next bill; or
 - (c) if there is no such reasonable direction and the small customer has ceased to obtain customer retail services from the retailer, use its best endeavours to refund that amount within 10 business days.

Note:

Money not claimed is to be dealt with by the retailer in accordance with the relevant unclaimed money legislation.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) If the amount overcharged is less than the overcharge threshold, the retailer must:
- (a) credit that amount to the next bill; or
 - (b) if the small customer has ceased to obtain customer retail services from the retailer, use its best endeavours to refund that amount within 10 business days.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) No interest is payable on an amount overcharged.
- (5) If the small customer was overcharged as a result of the customer's unlawful act or omission, the retailer is only required to repay, credit or refund the customer the amount the customer was overcharged in the 12 months before the error was discovered.
- (6) The overcharge threshold is \$50 or such other amount as the AER determines under subrule (7).
- (7) The AER may from time to time determine a new overcharge threshold in accordance with the retail consultation procedure.
- (8) The AER must publish the current overcharge threshold on its website.

(9) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(10) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

32 Payment methods (SRC and MRC)

(1) A retailer must accept payment for a bill by a small customer in any of the following ways:

- (a) in person;
- (b) by telephone;
- (c) by mail;
- (d) by direct debit;
- (e) by electronic funds transfer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(2) A small customer:

- (a) applying for or on a standard retail contract; or
- (b) on a market retail contract,

may request the retailer to permit payment by using Centrepay as a payment option and, subject to rule 74, the retailer may elect to permit this option.

(3) Where a direct debit arrangement is to be entered into between a retailer and a small customer:

- (a) the retailer and the small customer must agree the amount, initial date and frequency of the direct debits; and
- (b) the explicit informed consent of the small customer is required for entering into the arrangement.

(4) Where a direct debit arrangement is entered into between a retailer and a small customer, the retailer must:

- (a) notify the small customer in writing that if the customer requests the retailer to cease to rely on the arrangement, the retailer will no longer rely on the direct debit authority; and
- (b) terminate the arrangement on being requested by the customer to do so.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(5) A retailer must accept payments by a small customer for a bill in advance.

(6) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(7) **Application of this rule to market retail contracts**

This rule (other than subrule (1)) applies in relation to market retail contracts (other than prepayment market retail contracts).

33 Payment difficulties (SRC and MRC)

(1) This rule applies in relation to the obligation under section 50 of *the Law* on a retailer to offer and apply payment plans for:

- (a) hardship customers; and
- (b) other residential customers experiencing payment difficulties if the customer informs the retailer in writing or by telephone that the customer is experiencing payment difficulties.

(2) However, a retailer is not required to offer a payment plan to a customer referred to in subrule (1) if the customer:

- (a) has had 2 payment plans cancelled due to non-payment in the previous 12 months; or
- (b) has been convicted of an offence involving illegal use of energy in the previous 2 years.

(3) A retailer must provide information to a customer referred to in subrule (1) about the availability of government funded energy charge rebate, concession or relief schemes.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(4) Rule 72 applies to a residential customer referred to in subrule (1) (b) in the same way as it applies to a hardship customer.

(5) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(6) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

34 Shortened collection cycles (SRC and MRC)

(1) A retailer may place a small customer on a shortened collection cycle with the agreement of the customer.

(2) Otherwise, a retailer may place a small customer on a shortened collection cycle only if:

- (a) in the case of a residential customer—the customer is not experiencing payment difficulties; and
- (b) the retailer has given the customer a reminder or warning notice for 2 consecutive bills; and
- (c) before the second reminder or warning notice, the retailer has given the customer a notice informing the customer that:
 - (i) receipt of the second reminder or warning notice may result in the customer being placed on a shortened collection cycle; and
 - (ii) being on a shortened collection cycle means the customer will not receive a *reminder notice* until the customer has paid 3 consecutive bills in the customer's billing cycle by the *pay-by date*; and
 - (iii) failure to make a payment may result in arrangements being made for disconnection of the supply of energy without a further *reminder notice*; and
 - (iv) alternative payment arrangements may be available; and
 - (v) the customer may obtain further information from the retailer (on a specified telephone number).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) The retailer must, within 10 business days of placing the small customer on a shortened collection cycle, give the customer notice that:
 - (a) the customer has been placed on a shortened collection cycle; and
 - (b) the customer must pay 3 consecutive bills in the customer's billing cycle by the *pay-by date* in order to be removed from the shortened collection cycle; and
 - (c) failure to make a payment may result in arrangements being made for disconnection of the supply of energy without a further *reminder notice*.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) The retailer must remove the small customer from the shortened collection cycle as soon as practicable after the customer pays 3 consecutive bills in the customer's billing cycle by the *pay-by date*, unless the customer requests that this not be done.

- (5) In this rule:

reminder or warning notice means a *reminder notice* or a *disconnection warning notice*.

- (6) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(7) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

35 Request for final bill (SRC)

- (1) If a customer requests the retailer to arrange for the preparation and issue of a final bill for the customer's premises, the retailer must use its best endeavours to arrange for:

- (a) a *meter* reading; and
- (b) the preparation and issue of a final bill for the premises in accordance with the customer's request.

Note:

Rule 118 makes provision for the issue of a final bill where the customer requests de-energisation of the premises.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

Division 5 Tariff changes

36 Obligations on retailers (SRC)

- (1) Where during a billing cycle a small customer changes from one type of tariff to another type of tariff for customer retail services, the retailer must (if it is necessary to do so due to the change in the type of tariff applying to that small customer):

- (a) obtain a *meter* reading (or *metering data*) at the time the type of tariff changes; and
- (b) calculate the customer's bill using the type of tariff applying:
 - (i) the old type of tariff up to but not including the date of the *meter* reading; and
 - (ii) the new type of tariff from and including the date of the *meter* reading.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

37 Customer request for change of tariff (SRC)

- (1) Where a retailer offers alternative tariffs or tariff options and a small customer:

- (a) requests a retailer to transfer from that customer's current tariff to another tariff; and
 - (b) demonstrates to the retailer that it satisfies all of the conditions relating to that other tariff and any conditions imposed by the customer's distributor,

the retailer must transfer the small customer to that other tariff within 10 business days of satisfying those conditions.
- (2) Where a small customer transfers from one tariff type to another, the effective date of the transfer is:
 - (a) subject to paragraph (b), the date on which the *meter* reading was obtained; or
 - (b) where the transfer requires a change to the *meter* at the small customer's premises, the date the *meter* change is completed.
- (3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.
- (4) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

38 Change in use (SRC)

- (1) A small customer must notify its retailer of a change in use of the customer's premises.
- (2) Where a small customer notifies a retailer of a change in use of the customer's premises, the retailer may require the customer to transfer to a tariff applicable to the customer's use of that premises with effect from the date on which the retailer notifies the customer of the new tariff.
- (3) If a reclassification is necessary as a result of the change in use notified by the customer under subrule (2), the date on which the retailer notifies the customer of the new tariff must not be earlier than the date notice is provided under rule 8 or 10 (as the case requires).
- (4) If a small customer fails to give notice of a change in use of the customer's premises, the retailer may, upon giving notice to the customer, transfer the customer to the applicable tariff with effect from the date on which the change of use occurred.
- (5) Despite rules 8 (5) and 10 (5), if a reclassification is necessary as a result of a change of use under subrule (4), the reclassification takes effect on the date on which the new tariff applies under subrule (4).
- (6) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(7) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

Division 6 Customer retail contracts—security deposits

39 Consideration of credit history

- (1) For the purpose of deciding whether to require a small customer to provide a *security deposit* under rule 40 a retailer must:

- (a) request the customer to provide the retailer with:
 - (i) permission to obtain a credit check of the credit history of the customer; and
 - (ii) other information relating to the credit history of the customer; and
- (b) take into consideration:
 - (i) any credit history obtained as a result of the credit check; and
 - (ii) any credit history provided by the customer; and
 - (iii) any other available information that relates to the credit history of the customer,

that is reasonably required for the retailer to assess the ability of the customer to meet the customer's financial obligations under a customer retail contract.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts, but only to the extent (if any) a contract provides for payment of a *security deposit*.

40 Requirement for security deposit (SRC and MRC)

- (1) Subject to subrules (2)–(4), a retailer may require a small customer to provide a *security deposit*:

- (a) in the case of a residential customer—only at the time the customer requests the sale and supply of energy under a customer retail contract and except in the circumstances specified in subrule (4A) not during the currency of the customer retail contract; and
- (b) in the case of a business customer—at the time the customer requests the sale and supply of energy under a customer retail contract or during the currency of the customer retail contract.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) A retailer cannot require a small customer to provide a *security deposit* unless:
- (a) the customer owes money to that retailer in relation to the sale and supply of energy to any premises, unless the bill relating to the amount owed is:
 - (i) under review by the retailer under rule 29; or
 - (ii) under consideration by the energy ombudsman as referred to in that rule; or
 - (b) the customer has fraudulently acquired or intentionally consumed energy otherwise than in accordance with the energy laws within the past 2 years; or
 - (c) the customer has refused or failed to provide *acceptable identification* to the retailer; or
 - (d) the retailer reasonably considers that the customer has an unsatisfactory credit history; or
 - (e) in the case of a business customer, the retailer reasonably considers that the customer has (in respect of the business):
 - (i) no history of paying energy accounts; or
 - (ii) an unsatisfactory record in relation to the payment of energy accounts; or
 - (f) the customer has refused or failed to provide the retailer with the permission or other information requested under rule 39 (1) (a).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) A retailer cannot require a residential customer to provide a *security deposit* if the customer:
- (a) is identified as a hardship customer by the retailer in relation to any premises; or
 - (b) advises the retailer that the customer was identified as a hardship customer by another retailer in relation to any premises

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) A retailer cannot require a residential customer to provide a *security deposit* unless the retailer has offered the customer the option of a payment plan and the customer has either declined the offer or failed to pay an instalment having accepted the offer.
- (4A) A retailer may require a small customer to provide a *security deposit* during the currency of a customer retail contract if:
- (a) the small customer previously provided a *security deposit* to the retailer in connection with the customer retail contract;

- (b) the *security deposit* was only returned to the small customer under rule 45(1)(b) because the small customer was transferred to another retailer; and
 - (c) the small customer is transferred back to the retailer in accordance with rule 57A(4) because the transfer to another retailer was a *void transfer*.
- (5) If the retailer requires a *security deposit* on the basis that the small customer has an unsatisfactory credit history, the retailer must inform the customer:
 - (a) that the retailer has decided the customer has an unsatisfactory credit history; and
 - (b) the reasons for the retailer's decision; and
 - (c) of the customer's rights to dispute the decision of the retailer.
- (6) A retailer must not refuse to sell energy on the grounds of non-payment or partial payment of a *security deposit* but may:
 - (a) arrange to de-energise (or disconnect) premises under rule 112; or
 - (b) refuse to arrange re-energisation of premises.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (7) Subject to subrule (6), payment or partial payment of a *security deposit* is not a pre-condition to the formation of a standard retail contract (as referred to in section 26 of *the Law*).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(8) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(9) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts, but only to the extent (if any) a contract provides for payment of a *security deposit*.

41 **Payment of security deposit (SRC)**

(1) **Security deposit must be paid**

A small customer who is required under rule 40 to pay a *security deposit* to a retailer is obliged to pay the *security deposit* when requested by the retailer to do so.

(2) **Re-energisation may be refused for non-payment of security deposit**

A retailer may refuse to arrange the re-energisation of a customer's premises if a required *security deposit* remains unpaid and the customer has been de-energised for that reason under rule 112.

(3) Security deposit account

A retailer must keep *security deposits* in a separate account and separately identify in its company accounts the value of *security deposits* that it holds for small customers.

(4) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(5) Application of this rule to market retail contracts

This rule (other than subrule (3)) does not apply in relation to market retail contracts.

42 Amount of security deposit (SRC)

- (1) A retailer must ensure that the amount of a *security deposit* for a small customer is not greater than 37.5% of the customer's estimated bills over a 12 month period, based on:

- (a) the customer's billing history; or
- (b) the average usage of energy by a comparable customer over a comparable 12 month period.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(2) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(3) Application of this rule to market retail contracts

This rule does not apply in relation to market retail contracts.

43 Interest on security deposit (SRC and MRC)

- (1) If a retailer has received a *security deposit* from a small customer, the retailer must pay interest to the customer on the deposit at the bank bill rate.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) Interest is to accrue daily and is to be capitalised (if not paid) every 90 days.
- (3) For the purposes of this rule, bank bill rate means a daily published rate no less than the pre-tax rate of return the retailer would earn over the period the retailer retains the *security deposit* if it were invested in bank bills that have a term of 90 days.

(4) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(5) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts, but only to the extent (if any) a contract provides for payment of a *security deposit*.

44 Use of security deposit (SRC)

(1) A retailer may apply a *security deposit* to offset amounts owed to it by a small customer if and only if:

- (a) the customer fails to pay a bill and the failure results in de-energisation of the customer's premises by the retailer and there is no contractual right to re-energisation; or
- (b) in relation to the issue of a final bill:
 - (i) the customer vacates the premises; or
 - (ii) the customer requests de-energisation of the premises; or
 - (iii) the customer transfers to another retailer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(2) If a final bill includes amounts payable for goods and services provided by the retailer other than for the sale of energy, the retailer must apply the *security deposit* firstly in satisfaction of the charges for the sale of energy, unless:

- (a) the customer otherwise directs; or
- (b) another apportionment arrangement is agreed to by the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(3) The retailer must account to the customer in relation to the application of a *security deposit* amount within 10 business days after the application of the *security deposit*.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(4) A reference in this rule to a *security deposit* includes a reference to any accrued interest on the *security deposit*.

(5) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(6) **Application of this rule to market retail contracts**

This rule does not apply in relation to market retail contracts.

45 Obligation to return security deposit (SRC)

- (1) If a small customer has been required by a retailer to pay a *security deposit*, the retailer must repay to the small customer in accordance with the small customer's reasonable instructions the amount of the *security deposit*, together with accrued interest, within 10 business days after the small customer:
 - (a) completes 1 year's payment (in the case of a residential customer) or 2 years' payment (in the case of a business customer) by the *pay-by dates* for the retailer's bills; or
 - (b) vacates the relevant premises, requests de-energisation of the premises or transfers to another retailer, where the *security deposit* or any part of it is not required in settlement of the final bill referred to in rule 44 (1) (b).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) If no reasonable instructions are given by the small customer, a retailer must credit the amount of the *security deposit*, together with accrued interest, on:
 - (a) in a case to which subrule (1) (a) applies—the customer's next bill; or
 - (b) in a case to which subrule (1) (b) applies—the customer's final bill.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(3) Application of this rule to standard retail contracts

This rule applies in relation to standard retail contracts.

(4) Application of this rule to market retail contracts

This rule does not apply in relation to market retail contracts.

Division 7 Market retail contracts—particular requirements**45A Definitions**

In this Division:

benefit change means:

- (a) a change to, or the expiry of, a benefit (such as a price discount) provided to a customer for a minimum period or a fixed benefit period under a market retail contract during the term of that contract (whether or not as a result of the variation to the contract); and
- (b) a change of the type specified in the benefit change notice guidelines, but does not include an excluded change.

benefit change date means the date on which the benefit change will take effect.

benefit change notice means a notice provided by a retailer to a small customer under rule 48A.

benefit change notice guidelines means the guidelines made by the AER under rule 48B.

dual fuel standing offer means a standing offer for the supply of both electricity and gas.

energy payment means any payment or credit by a retailer to a small customer for products or services provided by the small customer to the retailer under a market retail contract or a standard retail contract, for example a feed-in arrangement or demand reduction arrangement.

energy rate means any tariff or charge that is a component of the market offer prices under a market retail contract, or of the standing offer prices under a standard retail contract, but in each case excluding charges that are fees (including penalties).

Note 1:

Energy rates relate to the period or amount of energy consumption, such as daily charges and kilowatt hour charges.

Note 2:

Examples of fees for the purposes of this definition are account establishment fees, special meter read fees, new meter fees, credit card payment fees, late fees, and early termination fees.

excluded change means a change to the tariffs, charges or benefits to a small customer under a market retail contract that is specified not to be a benefit change under the benefit change notice guidelines.

fixed benefit period means a period of a market retail contract during which a benefit to the customer (such as a price discount) is available and where the end date of that period is:

- (a) specified or ascertainable at the beginning of that period; and
- (b) earlier than the date on which the contract will end.

fixed term retail contract means a market retail contract that contains a term or condition that specifies:

- (a) the date on which the contract will end; or
- (b) a method for calculating the date on which the contract will end and which is ascertainable at the time the contract is being entered into.

GST has the meaning given in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

price comparator has the same meaning as in *the Law*.

relevant benefit period means, in respect of a benefit change notice, the period in which the benefit that is changing was provided to a customer under a market retail contract.

46 Tariffs and charges

- (1) This rule sets out some minimum requirements that are to apply in relation to the terms and conditions of market retail contracts (other than a prepayment *meter* market retail contract).

- (2) A retailer must set out in a market retail contract with a small customer all tariffs and charges payable by the customer.
- (3) The retailer must give notice to the customer of any variation to the tariffs and charges that affects the customer.
- (4) The notice must:
 - (a) be given at least five business days before the variation in the tariffs and charges are to apply to the customer; and
 - (b) be delivered by the customer's preferred form of communication where this has been communicated to the retailer, or otherwise by the same method as that used for delivery of the customer's bill.
- (4A) The notice must:
 - (a) specify that the customer's tariffs and charges are being varied;
 - (b) specify the date on which the variation will come into effect;
 - (c) identify the customer's existing tariffs and charges inclusive of GST;
 - (d) identify the customer's tariffs and charges as varied inclusive of GST;
 - (e) specify that the tariffs and charges identified in subrules (4A)(c) and (d) are inclusive of GST; and
 - (f) specify that the customer can request historical billing data and, if they are being sold electricity, energy consumption data, from the retailer.

Note:

Rules 28 and 56A make provision for customers to request historical billing information and energy consumption data.

- (4B) Notwithstanding this rule 46, a retailer is not required to provide a notice under subrule (3):
 - (a) where the customer has entered into a market retail contract with the retailer within 10 business days before the date on which the variation referred to in subrule (3) is to take effect, and the retailer has informed the customer of such variation pursuant to rule 46A and section 39(1)(a) of the Law;
 - (b) where the variations to the tariffs and charges are a direct result of a benefit change and the retailer has provided the customer with a notice under rule 48A;
 - (c) with respect to a tariff or charge that continually varies in relation to the prevailing spot price of energy. For the avoidance of doubt, this exemption does not apply (and the retailer must provide notice under subrule (3)) with respect to variations to any remaining tariffs and charges that form part of the same market retail contract;
 - (d) where the variations to the tariffs and charges are a direct result of a change to, or withdrawal or expiry of, a government funded energy charge rebate, concession or relief scheme; or

- (e) where the variations to the tariffs and charges are a direct result of a change to any bank charges or fees, credit card charges or fees, or payment processing charges or fees applicable to the customer.
- (4C) Despite subrule (4)(a), a retailer must provide the notice under subrule (3) as soon as practicable, and in any event no later than the customer's next bill, where the variations to the tariffs and charges are a direct result of a tariff reassignment by the distributor pursuant to clause 6B.A3.2 of the NER. For the purposes of providing a notice under this subrule (4C), the reference to:
 - (a) "are being varied" in subrule (4A)(a) is taken to be "are being varied or have been varied (whichever is applicable)"; and
 - (b) "will come into effect" in subrule (4A)(b) is taken to be "will come into effect or has come into effect (whichever is applicable)".
- (5) The retailer must set out in the market retail contract the obligations with regard to notice that the retailer must comply with where the tariffs and charges are to be varied.

46A Explicit Informed Consent – Variation of tariffs, charges or benefits to the customer

- (1) This rule has effect for the purposes of section 39(1)(a) of *the Law*.
- (2) For the purposes of the transaction described in section 38(b) of *the Law*, matters relevant to the consent of the customer will include, without limitation, any term or condition in the market retail contract that provides for the variation of tariffs, charges or benefits to the customer under that contract.

46B Energy rates – discounting practices

- (1) A retailer must not include any term or condition in a market retail contract (other than a *dual fuel market contract*) with a small customer that applies a price discount to an energy rate under the contract if, on the date the small customer enters into the contract:
 - (a) there is an equivalent standing offer, as defined in subrule (3);
 - (b) without taking into account any price discounts, at least one energy rate under the market retail contract exceeds the equivalent component of the energy rate under the equivalent standing offer;
 - (c) without taking into account any price discounts, no energy rate under the market retail contract is lower than the equivalent component of the energy rate under the equivalent standing offer; and
 - (d) the level or rate of every energy payment under the market retail contract (if any) is equal to or lower than the level or rate of the equivalent energy payment under the equivalent standing offer.
- (2) A retailer must not include any term or condition in a *dual fuel market contract* with a small customer that applies a price discount to an energy rate under the contract if, on the date the small customer enters into the contract:

- (a) there is an equivalent standing offer in either of the following forms:
 - (i) a dual fuel standing offer, if the conditions for equivalence specified in subrule (3) are met in relation to that standing offer; or
 - (ii) a standing offer for electricity and a standing offer for gas, if the conditions for equivalence specified in subrule (3) are met in relation to both of those standing offers;
 - (b) without taking into account any price discounts, at least one energy rate in respect of the supply of either electricity or gas under the *dual fuel market contract* exceeds the equivalent component of the energy rate under the equivalent standing offer;
 - (c) without taking into account any price discounts, no energy rate in respect of the supply of either electricity or gas under the *dual fuel market contract* is lower than the equivalent component of the energy rate under the equivalent standing offer; and
 - (d) the level or rate of every energy payment under the *dual fuel market contract* (if any) is equal to or lower than the level or rate of the equivalent energy payment under the equivalent standing offer.
- (3) For the purposes of subrules (1) and (2), a standing offer is an equivalent standing offer with respect to a market retail contract, including a *dual fuel market contract*, if the following conditions are satisfied:
- (a) the retailer making the standing offer is the retailer providing the market retail contract, or is a related body corporate (within the meaning of the *Corporations Act 2001* of the Commonwealth) of that retailer;
 - (b) the standing offer and the market retail contract would be available to the same small customer, if the retailer was the designated retailer for the small customer's premises;
 - (c) in relation to energy rates and energy payments, without taking into account any price discounts, there are no material differences between the tariff structure of the standing offer and the tariff structure of the market retail contract, subject to subrule (4); and
 - (d) without taking into account any price discounts, the market retail contract provides no material additional benefit or service to the customer compared to the standing offer.
- (4) For the purposes of subrule (3)(c), there is a material difference between the tariff structure of a standing offer and the tariff structure of a market retail contract if:
- (a) the standing offer is a dual fuel standing offer and the market retail contract is not a *dual fuel market contract*; or
 - (b) the market retail contract contains provisions that prevent the retailer varying any of the energy rates or energy payments under the market retail contract for a period of at least 12 months from the date of entry into the market retail contract.

47 Cooling off period and right of withdrawal—market retail contracts

(1) Right of withdrawal

A small customer who enters into a market retail contract with a retailer has the right to withdraw from the contract in accordance with this rule.

(2) When right of withdrawal may be exercised

The right of withdrawal may be exercised within the period of 10 business days (the *cooling off period*) commencing with the date the small customer receives the required information under rule 64 about the contract.

(3) Customer's agreement or acceptance is not a bar to withdrawal

The right of withdrawal may be exercised even though the small customer agreed to or accepted the contract.

(4) How right of withdrawal may be exercised

The small customer withdraws from the contract by informing the retailer orally or in writing of the customer's intention to withdraw from the contract.

(5) Rights and obligation to be set out in contract

A retailer must include in each market retail contract it enters into with a small customer express provisions setting out the rights and obligations provided for by this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(6) Record of withdrawal

A retailer must create a record of each withdrawal, and the provisions of section 40 of *the Law* apply in relation to a record of withdrawal as if it were a record of explicit informed consent.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(7) Effect of withdrawal

Withdrawal from a market retail contract operates as a rescission of the contract.

48 Retailer notice of end of fixed term retail contract

(1) This rule applies to a fixed term retail contract.

(2) A retailer must, in accordance with this rule, notify a small customer with a fixed term retail contract that the contract is due to end.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) The notice must be given no earlier than 40 business days and no later than 20 business days before the end date of the contract.
- (4) The notice must state:
 - (a) the date on which the contract will end; and
 - (b) details of the prices, terms and conditions applicable to the sale of energy to the premises concerned under a deemed customer retail arrangement; and
 - (c) the customer's options for establishing a customer retail contract (including the availability of a standing offer); and
 - (d) the consequences for the customer if the customer does not enter into a customer retail contract (whether with that or another retailer), including the entitlement of the retailer to arrange for the de-energisation of the premises and details of the process for de-energisation.
- (5) The retailer is not required to give the notice where the customer has already entered into a new contract with the retailer, or has given instructions to the retailer as to what actions the retailer must take at the end of the contract.
- (6) A retailer must, for a fixed term retail contract, include a term or condition to the effect that the retailer will:
 - (a) notify the customer that the contract is due to end; and
 - (b) give such notice no earlier than 40 business days and no later than 20 business days before the end of the contract.

48A Retailer notice of benefit change - market retail contracts

- (1) If a market retail contract provides for a benefit change, the retailer must, in accordance with this rule, notify the small customer of each benefit change.

Note:

Under rule 46A and *the Law* the retailer is required to fully disclose to the customer any term of a market retail contract that provides for the variation of benefits to the customer prior to the customer's entry into the contract.

- (2) The benefit change notice must be given:
 - (a) in writing;
 - (b) no earlier than 40 business days and no later than 20 business days before the benefit change date; and
 - (c) otherwise in the manner and form required by the benefit change guidelines.
- (3) The benefit change notice must state:
 - (a) the small customer's *metering* identifier;
 - (b) that a benefit change will occur and the benefit change date;

- (c) that the small customer may use the price comparator to compare offers that are generally available to classes of small customers in their area;
- (d) the name and web address of the price comparator;
- (e) that the customer can request historical billing data and, if they are being sold electricity, energy consumption data, from the retailer that will assist it to use the price comparator to compare offers that are generally available to classes of small customers in their area; and

Note:

Rules 28 and 56A make provision for customers to request historical billing information and energy consumption data.

- (f) any early termination charges payable under the contract.
- (4) In addition to the information required by subrule (3), the benefit change notice must contain such other information that the AER specifies in the benefit change notice guidelines in the form and manner specified in those guidelines.

48B Benefit change notice guidelines

- (1) The AER must make guidelines (benefit change notice guidelines) in accordance with the retail consultation procedure.
- (2) The benefit change notice guidelines must specify:
 - (a) the required form of benefit change notices;
 - (b) the manner in which a benefit change notice is to be provided;
 - (c) the information a retailer must include in the benefit change notice in order to enable a small customer to:
 - (i) use the price comparator to compare offers that are generally available to classes of small customers in their area; and
 - (ii) compare the amounts that would be payable by the customer under its existing market retail contract following the benefit change date with the offers referred to in subrule (c)(i); and
 - (d) how a retailer must calculate the amounts required to be included in a benefit change notice.
- (3) In addition to specifying the matters referred to in subrule (2), the benefit change notice guidelines may specify:
 - (a) what constitutes a benefit change for the purposes of subrule (b) of the definition of “benefit change” in rule 45A; and
 - (b) what constitutes an excluded change;
 - (c) any information a retailer must include in the benefit change notice:
 - (i) with respect to the nature of the benefits provided under the market retail contract during the relevant benefit period;
 - (ii) with respect to the nature of the change to the benefits on the benefit change date;

- (iii) to enable a small customer to compare the amount billed for their energy consumption during the relevant benefit period with the amounts referred to in subrule (2)(c);
 - (iv) with respect to *dual fuel market contracts*; and
 - (v) which the AER considers would be reasonably required by a small customer to assess the energy offers available to it and which is held by the retailer.
- (4) The AER may amend the benefit change notice guidelines in accordance with the retail consultation procedure.

49 Termination of market retail contract

- (1) A market retail contract terminates:
 - (a) on a date agreed between the retailer and the customer; or
 - (b) in the case of a prepayment *meter* market retail contract—when the customer withdraws from the contract before the end of the trial period under rule 130; or
 - (c) when the provision of customer retail services to the premises commences under a customer retail contract with a different customer; or
 - (d) when the provision of customer retail services to the premises commences under a different customer retail contract between the customer and the retailer or another retailer; or
 - (e) at the end of the period of 10 business days commencing on the day the customer's premises are de-energised, if there is no contractual right to re-energisation; or
 - (f) subject to subrule (2), on another date or event specified in the market retail contract,

whichever first occurs.
- (1A) For the avoidance of doubt, where a new customer retail contract is made void by section 41(1) of *the Law* the provision of customer retail services under a different customer retail contract is taken never to have commenced for the purposes of subrule (1)(d).
- (2) A term or condition of a market retail contract has no effect to the extent that it requires a customer to give more than 20 business days notice to terminate the contract.
- (3) Termination of a market retail contract does not affect any rights or obligations that have already accrued under the contract.
- (4) This rule has effect subject to section 141 of *the Law*.
- (5) This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a market retail contract.

49A Early termination charges

- (1) A term or condition of a fixed term retail contract has no effect to the extent that it provides for payment of an early termination charge (however described), unless:
 - (a) the contract includes details of the amount or manner of calculation of the early termination charge; and
 - (b) the early termination charge is a reasonable estimate of the costs to the retailer resulting from the early termination.
- (2) For the purposes of subrule (1)(b), the costs to the retailer are the reasonable costs incurred or to be incurred by the retailer, and do not include costs based on lost supply or lost profits.
- (3) Subject to subrule (4), a term or condition of a market retail contract that is not a fixed term retail contract has no effect to the extent that it provides for the payment of an early termination charge (however described).
- (4) Subrules (1) and (3) do not prevent the imposition of an early termination charge due to the early termination of a fixed benefit period, even if this coincides with the termination of the market retail contract.
- (5) An early termination charge (however described), payable where a customer terminates a fixed benefit period early, only has effect if:
 - (a) the contract includes details of the amount or manner of calculation of the early termination charge; and
 - (b) the early termination charge is a reasonable estimate of the costs to the retailer resulting from the early termination.
- (6) For the purposes of subrule (5)(b), the costs to the retailer are the reasonable costs incurred or to be incurred by the retailer, and do not include costs based on lost supply or lost profits.
- (7) This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a market retail contract.

50 Small customer complaints and dispute resolution information

- (1) A retailer must include, as a minimum requirement in relation to the terms and conditions of a market retail contract, provisions to the effect of the following:
 - (a) the small customer may, if they have a query, complaint or dispute, contact the retailer;
 - (b) the retailer is obliged to handle a complaint made by a small customer in accordance with the retailer's standard complaints and dispute resolution procedures, which can be found on the retailer's website or provided to the customer on request;
 - (c) the retailer must inform the small customer of the outcome of the customer's complaint;

- (d) if the small customer is not satisfied with the retailer's response to the customer's complaint, the customer has a right to refer the complaint or dispute to the energy ombudsman.
- (2) The provisions required to be included in the market retail contract must provide the retailer's contact details for the small customer to contact the retailer in connection with a query, complaint or dispute.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

51 Liabilities and immunities

A retailer must not include any term or condition in a market retail contract with a small customer that limits the liability of the retailer for breach of the contract or negligence by the retailer.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

52 Indemnities

A retailer must not include any term or condition in a market retail contract with a small customer under which the customer indemnifies the retailer, so that the retailer may recover from the customer an amount greater than the retailer would otherwise have been able to recover at general law for breach of contract or negligence by the customer in respect of the contract.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Division 8 Deemed customer retail arrangements

53 Obligations of retailers

- (1) As soon as practicable after becoming aware that a small customer is consuming energy under a deemed customer retail arrangement, the financially responsible retailer for the premises concerned must give the customer information about the following:
 - (a) the retailer's contact information;
 - (b) details of the prices, terms and conditions applicable to the sale of energy to the premises concerned under the deemed customer retail arrangement;
 - (c) the customer's options for establishing a customer retail contract (including the availability of a standing offer);
 - (d) the consequences for the customer if the customer does not enter into a customer retail contract (whether with that or another retailer), including the entitlement of the retailer to arrange for the de-energisation of the premises and details of the process for de-energisation.

- (2) If the small customer is a carry-over customer of the retailer, the retailer does not have to give the customer the information required under subrule (1) if the retailer has already given the customer a notice under rule 48 relating to a market retail contract and containing that information.

54 Formation of standard retail contract on incomplete request

The financially responsible retailer for a move-in customer or carry-over customer may treat the customer as requesting the sale of energy under the retailer's standing offer and may take all appropriate steps for the formation of a standard retail contract with the customer, if:

- (a) the customer has provided the retailer with the customer's name and (if required by the retailer) *acceptable identification* and contact details for billing purposes; but
- (b) the customer has not advised the retailer as to the type of customer retail contract under which the customer wishes to be supplied.

Division 9 Other retailer obligations

55 Referral to interpreter services

A retailer must refer a residential customer to a relevant interpreter service if a referral is necessary or appropriate to meet the reasonable needs of the customer.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

56 Provision of information to customers

- (1) A retailer must publish on its website a summary of the rights, entitlements and obligations of small customers, including:
 - (a) the retailer's standard complaints and dispute resolution procedure;
 - (b) the contact details for the relevant energy ombudsman; and
 - (c) in the case of electricity, details of applicable energisation and re-energisation timeframes.
- (2) If a small customer requests information of the kind referred to in subrule (1), the retailer must either:
 - (a) refer the customer to the retailer's website; or
 - (b) provide the information to the customer.
- (3) The retailer must provide a copy of any information of that kind to the customer if the customer requests a copy.
- (4) The information or a copy of the information requested under this rule must be provided without charge, but information requested more than once in any 12 month period may be provided subject to a reasonable charge.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

56A Energy consumption information - supply of electricity only

- (1) A retailer must, on a request by a small customer or a *customer authorised representative*, provide information about that customer's energy consumption for the previous 2 years in the manner and form required by the *metering data provision procedures*.
- (2) Subject to paragraph (3), information referred to in paragraph (1) must be provided without charge.
- (3) Information under paragraph (1) may be provided subject to a reasonable charge where it has been requested:
 - (a) more than four times in any 12 month period;
 - (b) in a different manner or form than that specified in the *metering data provision procedures*; or
 - (c) by a *customer authorised representative* as part of a request for information about more than one small customer.

Application of this rule to standard retail contracts

- (4) This rule applies in relation to standard retail contracts.

Application of this rule to market retail contracts

- (5) This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

56B Historical billing and energy consumption information - supply of electricity only

- (1) A reference to a retailer in rules 28 and 56A is a reference to a small customer's current retailer.
- (2) If a small customer or *customer authorised representative* requests from the small customer's previous retailer historical billing or energy consumption information for a period within two years prior to the date of the request then, even though the small customer's contract with the previous retailer may otherwise have terminated, the previous retailer must provide the person that made the request with any of the information requested that is then retained by, or otherwise available to, the previous retailer, to the extent that information relates to the period in which the small customer was a customer of the previous retailer. The previous retailer may provide this information subject to a reasonable charge.

Application of this rule to standard retail contracts

- (3) This rule applies in relation to standard retail contracts.

Application of this rule to market retail contracts

- (4) This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts).

56C Information on timeframes for installing electricity meters (SRC and MRC)

- (1) A retailer selling electricity to small customers must:
- (a) publish on its website the following information in relation to the timeframes for installing electricity *meters*:
 - (i) where a *meter* is installed for a new connection – the obligations on retailers under clause 7.8.10A of the NER;
 - (ii) where the customer requests a *meter* to be installed and there is no new connection or connection alteration required – the obligations on retailers under clause 7.8.10B of the NER; and
 - (iii) where the customer requests a *meter* to be installed and a connection alteration is required – the obligations on retailers and distributors under clause 7.8.10C of the NER; and
 - (b) when a small customer requests a *meter* to be installed, provide the information set out under subrule 1(a) (as applicable) to the customer in writing.
- (2) This rule applies in relation to standard retail contracts and market retail contracts.

57 Retailer obligations in relation to customer transfer

- (1) A retailer must not submit a request for the transfer of a small customer under the relevant Retail Market Procedures unless:
- (a) the retailer has obtained explicit informed consent from the customer to enter into the relevant customer retail contract; and
 - (b) the retailer has a customer retail contract in place to enable the sale of energy to the customer at their premises.
- (2) A customer transfer under the relevant Retail Market Procedures is permitted prior to the completion of the *cooling off period*, provided that the transfer can be reversed if the customer elects to withdraw from the contract under rule 47.
- (2A) Subrules (1) and (2) do not apply to a transfer of a small customer requested by a retailer under rule 57A(4)(a).

57A Retailer obligations in relation to correction of transfers without consent

- (1) If:
- (a) a small customer contacts a retailer and indicates that it has been transferred to a retailer (the new retailer) without explicit informed consent; and

- (b) the retailer the small customer contacts is not the customer's new retailer, then the retailer the small customer contacts must notify the new retailer in writing within 3 business days of being contacted and request the new retailer to comply with subrule (3).
- (2) If the new retailer is contacted by another retailer under subrule (1) it will be taken, for the purposes of this rule and subrule 116(1)(c1), to have been contacted by the small customer for the purposes of section 41(2)(a) of *the Law*.
- (3) Within 10 business days of receiving a notice from another retailer under subrule (1) or from a small customer (as contemplated by *the Law*), the new retailer must:
- (a) provide the record of the small customer's explicit informed consent to the customer; or
 - (b) if the small customer was transferred to the new retailer more than 12 months before the notification under subrule (1), notify the small customer that the transfer is not void under section 41(1) of *the Law*; or
 - (c) if it is established under section 41(2) of *the Law* that explicit informed consent was not obtained to the transfer of the small customer from a retailer (the original retailer) to the new retailer then, in addition to its obligations under *the Law*, notify the original retailer in writing:
 - (i) that the transfer of the small customer to the new retailer is a *void transfer* and the small customer is taken to have remained a customer of the original retailer despite the transfer of the customer to the new retailer under the Retail Market Procedures; and
 - (ii) of the *void transfer date*.
- (4) Within 3 business days after receiving a notice under subrule (3)(c), the original retailer must:
- (a) submit a request for the transfer of the small customer to the original retailer under the relevant Retail Market Procedures with effect from:
 - (i) the *void transfer date*; or
 - (ii) if the Retail Market Procedures do not permit a transfer date equal to the *void transfer date*, to the earliest transfer date permitted under those procedures; and
 - (b) give notice to the small customer that the transfer to the new retailer was a *void transfer* due to an absence of explicit informed consent and that the customer is taken to have remained a customer of the original retailer.
- (5) A notice to a small customer under subrule (4)(b) must:
- (a) specify that the small customer is on the customer retail contract it was on with the original retailer immediately prior to the *void transfer date* unless:
 - (i) the previous customer retail contract was a market retail contract that has terminated other than as a result of the *void transfer*; or
 - (ii) immediately prior to the *void transfer date* the small customer was on a deemed customer retail arrangement with the original retailer,

- (b) if subrule (a)(i) or (ii) applies, specify:
 - (i) that the small customer is on a deemed customer retail arrangement;
 - (ii) details of the prices, terms and conditions applicable to the sale of energy to the premises concerned under the deemed customer retail arrangement;
 - (iii) the customer's options for establishing a customer retail contract (including the availability of a standing offer); and
 - (iv) the consequences for the customer if the customer does not enter into a customer retail contract (whether with the original retailer or another retailer), including the entitlement of the retailer to arrange for the de-energisation of the premises and details of the process for de-energisation.
- (6) If the original retailer charges a small customer an early termination charge in respect of the termination of a market retail contract and it is later established that the transfer to the new retailer was a *void transfer* the original retailer must credit the amount of any early termination charge paid by the small customer on the first bill after the transfer back to the original retailer in accordance with subrule (4)(a).
- (7) Despite this rule 57A, in the period from the *void transfer date* to the day on which the transfer requested under subrule (4)(a) is completed under the Retail Market Procedures, the new retailer is responsible for complying with these Rules as if it were the retailer of the small customer.
- (8) Rule 58 does not apply to transfers made under subrule (4)(a).

58 Notice to small customers on transfer

A retailer must, within 5 business days of receiving notification that it has become the financially responsible retailer for a small customer as a result of a customer transfer, give notice to the customer:

- (a) that the retailer has commenced selling energy to the customer; and
- (b) of the date on which the retailer commenced selling energy to the customer.

59 Notice to small customers where transfer delayed

Where a retailer has notified a small customer of the expected date of a transfer and that transfer does not occur, the retailer must, within 5 days of becoming aware that a transfer has not occurred on the expected date, notify the customer:

- (a) that the transfer did not occur; and
- (b) of the reason for the delay; and
- (c) of the new expected date of the completion of the transfer, if it is still proceeding.

59A Notice to small customers on deployment of new electricity meters (SRC and MRC)

- (1) If a retailer proposes to undertake a *new meter deployment* the retailer must, subject to subrule (8), permit a small customer of the retailer to elect not to have its *meter* replaced as part of the proposed *new meter deployment* in accordance with this rule (referred to in this rule as the customer's right to **opt out**).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) If a retailer proposes to undertake a *new meter deployment*, the retailer must give to the small customer:
- (a) a notice in writing no earlier than 60 business days and no later than 25 business days before the retailer proposes to replace the small customer's *meter*; and
 - (b) a second notice in writing no earlier than 10 business days after the notice under subrule (2)(a) was given to the customer and no later than 15 business days before the retailer proposes to replace the small customer's *meter*.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) A notice under subrule (2)(a) and (b) must state:
- (a) that the small customer may opt out of having their *meter* replaced by informing the retailer:
 - (i) in writing, electronically or by telephone; or
 - (ii) by any other method made available by the retailer in addition to the methods specified in subrule (3)(a)(i),at any time up to the date specified in the notice as being the last day on which the customer may notify the retailer of its decision to opt out (referred to in this rule as the **last opt-out date**);
 - (b) the expected date and time on which the retailer proposes to replace the customer's *meter*;
 - (c) the last opt-out date, which must be no earlier than 7 business days before the expected date on which the retailer proposes to replace the customer's *meter* (as specified in accordance with subrule (3)(b));
 - (d) any upfront charges the customer will incur under its retail contract as a result of the *new meter deployment*;
 - (e) the retailer's contact details; and
 - (f) contact details of interpreter services in community languages.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) The small customer may opt out of the proposed *new meter deployment* by informing the retailer:
- (a) in writing, electronically or by telephone; or
 - (b) by any other method the retailer specifies in a notice under subrule (2)(a) or (b),
- to the address or other contact details specified in the notice at any time after receiving the first notice up until the last opt-out date.
- (5) Subject to subrule (7), if a small customer does not properly exercise its right to opt out of the *new meter deployment* by the last opt-out date, the retailer may proceed with the replacement of the customer's *meter* as notified to the customer under this rule 59A.
- (6) A small customer's right to opt out of the *new meter deployment* is properly exercised when:
- (a) the request to opt out has been received by the retailer by the last opt-out date; and
 - (b) the small customer has complied with the requirements under subrule (4).
- (7) A retailer must not proceed with the replacement of the *meter* at the premises under the proposed *new meter deployment* if:
- (a) before the date of the *new meter deployment*, the provision of customer retail services to the premises commences under a customer retail contract with a different small customer; and
 - (b) that customer has not been given a right to opt out in accordance with this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (8) The retailer is not required to comply with this rule if, under the terms of the small customer's market retail contract, the retailer is authorised to undertake the *new meter deployment*.
- (9) In subrule (8):
- authorised** means that under the terms and conditions of the small customer's market retail contract the customer has expressly:
- (a) consented to its *meter* being replaced as part of the *new meter deployment*; or
 - (b) waived its rights under this rule to opt out of having their *meter* replaced.

(10) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(11) Application of this rule to market retail contracts

This rule applies in relation to market retail contracts, but only to the extent subrule (8) does not apply.

Division 9A Retailer interruption to supply - electricity**59B Definitions**

In this Division:

retailer planned interruption means an *interruption* of the supply of electricity to a customer that:

- (a) is for the purposes of installing, maintaining, repairing or replacing an electricity *meter*; and
- (b) does not involve either:
 - (i) the distributor effecting the *interruption* under rule 89; or
 - (ii) *interrupting* the supply of electricity to a customer who is not the customer of the retailer arranging the *interruption* (unless the interruption is to the retailer's customer at a parent connection point in an embedded network, and the affected customer is a child connection point within that same embedded network); and
- (c) is not a *distributor planned interruption*.

59C Retailer interruption to supply – electricity (SRC and MRC)

- (1) A retailer may, subject to and in accordance with any requirements of the energy laws, arrange a *retailer planned interruption* by:
 - (a) giving the affected customer the notice under subrule (2); or
 - (b) other than in the circumstances described in paragraph (c), obtaining the affected customer's explicit consent to the *interruption* occurring:
 - (i) on any day within a date range of 5 business days; or
 - (ii) on a specified date,
 in which case subrule (1A) applies; or
 - (c) where a person residing at the premises requires *life support equipment*, obtaining the affected customer's explicit consent to the *interruption* occurring on a specified date, in which case subrule (1A) applies.
- (1A) If the retailer obtains the consent of the affected customer pursuant to subrule (1)(b) or (1)(c):
 - (a) the retailer must retain the record of consent for a period of at least 2 years in a format and including such information to enable the retailer to answer enquiries from the customer relating to the consent; and
 - (b) subrules (2), (3) and (4) regarding planned *interruption* notices will not apply.

- (2) If the retailer has not obtained an affected customer's consent to the *retailer planned interruption* occurring within a date range or on a specified date in accordance with subrule (1) (as applicable), the retailer must notify the affected customer of the *retailer planned interruption* by any appropriate means at least 4 business days before the date of the *interruption*.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) The notice given by a retailer under subrule (2) may be given in the same notice required to be given under rule 59A(2)(b).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) The notification must:

- (a) specify the expected date, time and duration of the *retailer planned interruption*; and
- (b) include a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
- (c) include a statement that any enquiries regarding the *retailer planned interruption* are to be directed to the retailer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (5) In the case of a *retailer planned interruption*, the retailer must use its best endeavours to arrange to restore the customer's supply as soon as possible.

Note:

Rule 107(4) provides that Part 6 (relating to de-energisation or disconnection of premises) does not apply to *interruptions* under this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (6) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

- (7) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

- (8) Despite references to standard retail contracts and market retail contracts in this rule, this rule applies to all customers (including large customers).

Division 10 Energy marketing

Note:

The *Telecommunications Act 1997*, the *Do Not Call Register Act 2006* and the Australian Consumer Law set out in Schedule 2 to the *Competition and Consumer Act 2010* of the Commonwealth may also apply to retail marketers carrying out energy marketing activities.

Subdivision 1 Preliminary

60 Application of Division

This Division applies to retail marketers carrying out energy marketing activities.

Subdivision 2 Providing information to small customers

61 Overview of this Subdivision

- (1) This Subdivision requires a retail marketer to provide specific information to small customers in connection with market retail contracts.
- (2) The information is referred to in this Subdivision as required information.

62 Requirement for and timing of disclosure to small customers

A retail marketer must provide the required information to a small customer in relation to the market retail contract concerned:

- (a) before the formation of the contract; or
- (b) as soon as practicable after the formation of the contract.

63 Form of disclosure to small customers

- (1) Required information provided to a small customer before the formation of the market retail contract may be provided electronically, verbally or in writing.
- (2) Required information provided to a small customer after the formation of the market retail contract must be provided in a single written disclosure statement.
- (3) If required information was provided to a small customer electronically or verbally before the formation of the market retail contract, required information in a single written disclosure statement must also be provided to the customer after the formation of the contract.

64 Required information

- (1) The required information that a retail marketer is to provide to a small customer is information in relation to the following:
 - (a) all applicable prices, charges and benefits to the customer (to the extent both are not otherwise part of prices), early termination payments and penalties, *security deposits*, service levels, concessions or rebates, billing and payment arrangements and how any of these matters may be changed (including, where relevant, when changes to prices will be notified by the retailer to the customer);

- (b) the commencement date and duration of the contract, the availability of extensions, and the termination of the contract if the customer moves out during the term of the contract;
 - (c) if any requirement is to be or may be complied with by an electronic transaction—how the transaction is to operate and, as appropriate, an indication that the customer will be bound by the electronic transaction or will be recognised as having received the information contained in the electronic transaction;
 - (d) the rights that a customer has to withdraw from the contract during the *cooling off period*, including how to exercise those rights;
 - (e) the customer’s right to complain to the retailer in respect of any energy marketing activity of the retail marketer conducted on behalf of the retailer and, if the complaint is not satisfactorily resolved by the retailer, of the customer’s right to complain to the energy ombudsman.
- (2) The required information, when given in a written disclosure statement, must include or be accompanied by a copy of the market retail contract.

Subdivision 3 Energy marketing activities

65 No contact lists

- (1) This rule applies to energy marketing in person at a person’s premises or marketing by mail, but does not apply to *telemarketing calls* or *e-marketing activities*.
- (2) A retailer must ensure that a “no contact list” is created and maintained for its retail marketers, whether by the retailer itself or by a person or organisation on behalf of the retailer.
- (3) A “no contact list” is a list of small customers who indicate they wish to be placed on the list.
- (4) A small customer may give such an indication by applying (in person, electronically, by telephone or in writing) to the retailer or by communicating directly with a retail marketer.
- (5) A retail marketer must not make contact with a small customer whose name is on the relevant no contact list.
- (6) An entry for a particular small customer in a no contact list continues for a period of 2 years, but the period is refreshed each time the customer requests inclusion or maintenance of inclusion.
- (7) A retailer must publish a statement on its website about the existence of its no contact list and the procedures for being placed on the list.

66 No canvassing or advertising signs

In carrying out energy marketing activities a retail marketer must comply with any signs at a person’s premises indicating:

- (a) canvassing is not permitted at the premises; or
- (b) no advertising or similar material is to be left at the premises or in a letterbox or other receptacle at or associated with the premises.

67 Duty of retailer to ensure compliance

A retailer must ensure that a retail marketer who is an associate of the retailer complies with this Subdivision.

68 Record keeping

- (1) A retailer must ensure that records are kept of all energy marketing activities carried out by it or on its behalf by retail marketers, including details of energy marketing visits that have been conducted, and telephone energy marketing calls that have been placed.
- (2) The retailer must ensure that each such record is retained:
 - (a) for the period of 12 months; or
 - (b) where a small customer has within that period made a complaint or referred a dispute to the energy ombudsman in relation to energy marketing activities—for the period the complaint or dispute remains unresolved, whichever is the longer period.
- (3) A retailer must ensure that it and appropriate officers or employees of the retailer, have immediate access, or a right of immediate access, to each such record.

Division 11 Miscellaneous

69 Compliance by small customer who is not owner of premises

If a small customer is unable to fulfill an obligation in respect of:

- (a) premises (including, but not limited to, access to premises) under a customer retail contract; or
- (b) access to premises under these Rules,

because the customer is not the owner of the premises, the customer is not in breach of the contract or the Rules if the customer takes all reasonable steps to ensure that the owner or other person responsible for the premises fulfils the obligation.

70 Termination of standard retail contract (SRC)

- (1) A standard retail contract terminates:
 - (a) subject to subrule (3), in a case where the small customer:
 - (i) gives the retailer a notice (a **termination notice**) stating that the customer wishes to terminate the contract (even if the customer has vacated the premises earlier); or
 - (ii) is reclassified under the Rules as a large customer,

on a date advised by the retailer (which must be at least 5 but not more than 20 business days from the giving of a termination notice or a reclassification); or

- (b) on a date agreed between the retailer and the small customer; or
- (c) when the small customer starts receiving customer retail services for the premises under a different customer retail contract with the retailer or a different retailer; or
- (d) when a different customer starts receiving customer retail services for the premises under a customer retail contract with the retailer or a different retailer; or
- (e) at the end of the period of 10 business days commencing on the day the small customer's premises are de-energised, if there is no contractual right to re-energisation,

whichever first occurs.

- (1A) for the avoidance of doubt, where a new customer retail contract is made void by section 41(1) of *the Law* the small customer is taken never to have received customer retail services under a different customer retail contract for the purposes of subrule (1)(c).
- (2) Where a small customer gives a termination notice and notifies the retailer of a date on which the small customer intends to vacate the premises, the retailer must:
 - (a) use its best endeavours to ensure that the relevant *meters* are read at, or the relevant *metering data* is obtained for, the premises on the date and at the time agreed with the small customer (or as soon as possible after that date if the small customer has not provided access to the relevant *meters* on that date or at that time); and
 - (b) prepare and send to the small customer at the forwarding address provided by the small customer a final bill based on the relevant *meter* reading or *metering data*.
- (3) If the small customer gives a termination notice, or is reclassified under the Rules as a large customer, but does not give safe access to the premises to conduct a final *meter* reading (where relevant), the standard retail contract does not terminate under subrule (1) (a) until the date the retailer issues a final bill and the customer has paid any outstanding balance.
- (4) A retailer must not impose a termination charge (however described) under a standard retail contract in respect of the termination of the contract.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (5) Termination of a standard retail contract does not affect any rights or obligations that have already accrued under the contract.

- (6) Where there is an existing standard retail contract between a retailer and a small customer who is reclassified under the Rules as a large customer, the retailer is no longer obliged to make a standing offer to the customer.
- (7) This rule has effect subject to section 141 of *the Law*.
- (8) **Application of this rule to standard retail contracts**
This rule applies in relation to standard retail contracts.
- (9) **Application of this rule to market retail contracts**
This rule does not apply in relation to market retail contracts.

Part 3 Customer hardship

70A Definitions

In this Part:

customer hardship policy guideline means the guideline made by the AER under rule 75A.

customer hardship policy means a policy as submitted by the retailer to the AER under section 43 of *the Law*.

AER Performance Reporting Procedures and Guidelines means the procedures and guidelines made by the AER under section 286 of *the Law*.

71 Obligation of retailer to communicate customer hardship policy

- (1) A retailer must inform a hardship customer of the retailer of the existence of the retailer's customer hardship policy as soon as practicable after the customer is identified as a hardship customer.
- (2) The retailer must provide the hardship customer with a copy of the customer hardship policy on request and at no expense.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

72 Payment plans

- (1) A payment plan for a hardship customer must:
 - (a) be established having regard to:
 - (i) the customer's capacity to pay; and
 - (ii) any arrears owing by the customer; and
 - (iii) the customer's expected energy consumption needs over the following 12 month period; and
 - (b) include an offer for the customer to pay for their energy consumption in advance or in arrears by instalment payments.
- (2) A retailer who offers a payment plan under this rule for a customer must inform the customer of:
 - (a) the duration of the plan; and
 - (b) the amount of each instalment payable under the plan, the frequency of instalments and the date by which each instalment must be paid; and
 - (c) if the customer is in arrears—the number of instalments to pay the arrears; and
 - (d) if the customer is to pay in advance—the basis on which instalments are calculated.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

73 Waiver of late payment fee for hardship customer

A retailer must waive any fee payable under a customer retail contract with a small customer who is a hardship customer for late payment of a bill for customer retail services.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

74 Payment by Centrepay (SRC and MRC)

- (1) This rule applies where a hardship customer requests a retailer to permit payment by using Centrepay as a payment option (see rule 32).
- (2) If the hardship customer is applying for or on a standard retail contract, the retailer must allow the customer to use Centrepay as a payment option.
- (3) If the hardship customer is on a market retail contract and Centrepay is available as a payment option under that contract, the retailer must allow the customer to use Centrepay as a payment option.
- (4) If the hardship customer is on a market retail contract and Centrepay is not available as a payment option under that contract, the retailer must undertake a review of the market retail contract.
- (5) If, as a result of a review, an alternative customer retail contract is considered to be more appropriate, the retailer must transfer the customer to that alternative contract, where the retailer has obtained the customer's explicit informed consent.
- (6) Any alternative customer retail contract offered to a hardship customer must make Centrepay available as a payment option.
- (7) If, as a result of the review, there is no alternative customer retail contract considered to be more appropriate, the retailer must make Centrepay available as a payment option under the hardship customer's existing market retail contract.
- (8) The retailer must not charge the customer for the review, for any transfer to an alternative retail contract or any early termination charge or other penalty for the early termination of the customer's previous customer retail contract.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

75 Hardship program indicators

- (1) The AER must, in accordance with the retail consultation procedure, determine hardship program indicators, to be included in the AER Performance Reporting Procedures and Guidelines.
- (2) The hardship program indicators must cover the following:
 - (a) entry into hardship programs;
 - (b) participation in hardship programs;
 - (c) assistance available to and assistance provided to customers under customer hardship policies.
- (3) The AER may from time to time amend the hardship program indicators in accordance with the retail consultation procedure.
- (4) In this rule:

hardship program means a program outlined in a customer hardship policy (as referred to in section 44 (e) of *the Law*).

75A Customer hardship policy guideline

- (1) The AER must, in accordance with the retail consultation procedure, develop, maintain and publish a customer hardship policy guideline.
- (2) The customer hardship policy guideline must specify:
 - (a) processes, timeframes and requirements to be complied with by retailers in connection with the approval (or variation) of their customer hardship policies by the AER;
 - (b) standardised statements that retailers must include in their customer hardship policies that:
 - (i) inform their customers of how the retailer will comply with the minimum requirements as set out in section 44 of *the Law*; and
 - (ii) provide guidance to customers on their rights, and retailer obligations, with respect to Part 2, Division 6 of *the Law*.
- (3) The AER may, from time to time, amend the customer hardship policy guideline in accordance with the retail consultation procedure.

75B Customer hardship policies

- (1) A retailer's customer hardship policy (or variation) submitted to the AER must:
 - (a) comply with the customer hardship policy guideline;
 - (b) include the standardised statements referred to in rule 75A(2)(b); and
 - (c) contain clear and specific statements of the actions the retailer will take to meet the minimum requirements for a customer hardship policy in section 44 of *the Law*.

Note:

Section 44 of *the Law* sets out the minimum requirements for a customer hardship policy. Section 44(i) of *the Law* permits the Rules to expand the minimum requirements for customer hardship policies.

- (2) A retailer must:
 - (a) submit a customer hardship policy (or variation) in compliance with subrule (1):
 - (i) in accordance with section 43(2) of *the Law*; and
 - (ii) within 3 months of any amendment to the customer hardship policy guideline made by the AER under rule 75A(3); and
 - (b) implement and publish the customer hardship policy (or variation), as approved by the AER, on the retailer's website as soon as practicable after it has been approved.
- (3) The AER must approve, subject to section 45 of *the Law*, a customer hardship policy (or variation) that complies with subrule (1) within 3 months:
 - (a) of the AER receiving a customer hardship policy for approval under section 43 of *the Law*; and
 - (b) of the AER receiving a customer hardship policy for approval under subrule (2)(a)(ii).

76 Waiver of debt for hardship customer

Nothing in this Part prevents a retailer from waiving any fee, charge or amount of arrears for the provision of customer retail services to a hardship customer in accordance with the retailer's customer hardship policy.

Part 4 Relationship between distributors and customers

Division 1 Preliminary

77 Application of this Part

This Part applies only in relation to:

- (a) customers with an existing connection; and
- (b) deemed standard connection contracts; and
- (c) deemed AER approved standard connection contracts.

78 Variation or exclusion of provisions of this Part by deemed AER approved standard connection contracts

A deemed AER approved standard connection contract may vary or exclude any or all of the other provisions of this Part, whether by express statement or by implication.

Division 2 Customer connection services

79 Application for customer connection services

(1) Application of this rule

This rule applies where a customer is seeking the provision of customer connection services in respect of an existing connection at the customer's premises.

(2) Who may apply

An application for the provision of customer connection services is to be made to a distributor by a retailer on behalf of the customer (but only if the retailer has a relevant contract with the customer in relation to the premises).

(3) Responsibilities of retailer

The retailer must make the application promptly on behalf of the customer.

(4) Responsibilities of distributor

The distributor must, as soon as practicable after the retailer notifies the distributor of the formation of the relevant contract under subrule (2), provide customer connection services in respect of the customer's premises.

(5) Services to be provided in accordance with energy laws

The customer connection services are to be provided subject to and in accordance with any relevant requirements of the energy laws.

(6) Definition

In this rule:

relevant contract means:

- (a) in the case of a small customer—a customer retail contract; or
- (b) in the case of a large customer—a contract for the sale of energy to the customer.

80 Provision of information to customers

- (1) A distributor must publish the following information on its website:
 - (a) a description of the distributor's customer connection contracts and how copies of the contracts may be obtained;
 - (b) details of [applicable](#) distributor service standards and any associated GSL schemes;
 - (c) details of applicable energisation and re-energisation timeframes;
 - (d) notice of a customer's rights in respect of the negotiation of different terms;
 - (e) details of charges for customer connection services;
 - (f) information relating to new connections or connection alterations;
 - (g) a description of the distributor's and customer's respective rights and obligations concerning the provision of customer connection services under the energy laws;
 - (h) a summary of the rights, entitlements and obligations of small customers, including:
 - (i) the distributor's standard complaints and dispute resolution procedure; and
 - (ii) the contact details for the energy ombudsman.
- (2) If a customer requests information of the kind referred to in subrule (1), the distributor must either:
 - (a) refer the customer to the distributor's website; or
 - (b) provide the information to the customer.
- (3) However, the distributor must provide a copy of any information of that kind to the customer if the customer requests a copy.
- (4) The information or a copy of the information requested under this rule must be provided without charge, but information requested more than once in any 12 month period may be provided subject to a reasonable charge.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Division 3 Deemed standard connection contracts

81 Model terms and conditions for deemed standard connection contracts

- (1) Model terms and conditions for a deemed standard connection contract are set out in Schedule 2.
- (2) A statement in Schedule 2 that is underlined and in square brackets indicates that a required alteration must be made by omitting the statement and substituting the matter referred to in the statement.
- (3) Termination of a deemed standard connection contract does not affect any rights or obligations that have already accrued under the contract.

Division 4 Negotiated connection contracts

82 Small customer complaints and dispute resolution information

- (1) A distributor must include, in a negotiated connection contract with a small customer, provisions to the effect of the following:
 - (a) the small customer may, if they have a query, complaint or dispute, contact the distributor;
 - (b) the distributor is obliged to handle a complaint made by a small customer in accordance with the distributor's standard complaints and dispute resolution procedures, which can be found on the distributor's website or provided to the customer on request;
 - (c) the distributor must inform the small customer of the outcome of the customer's complaint;
 - (d) if the small customer is not satisfied with the distributor's response to the customer's complaint, the customer has a right to refer the complaint or dispute to the energy ombudsman.
- (2) The provisions required to be included in the negotiated connection contract must provide the distributor's contact details for the small customer to contact the distributor in connection with a query, complaint or dispute.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

83 Liabilities and immunities

A distributor must not include any term or condition in a negotiated connection contract with a small customer that limits the liability of the distributor for breach of the contract or negligence by the distributor.

Note 1:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Division 5 Distributor obligations to customers**84 Distributor service standards and GSL schemes**

- (1) A distributor must comply with any applicable distributor service standards, including under a GSL scheme.
- (2) The distributor and the retailer must each use their best endeavours to provide each other at no cost and in a timely manner, information or documentation that the other reasonably requires to carry out their obligations to allow a GSL payment to be made to the customer.

- (3) In this rule:

GSL payment means a payment that a distributor is required to make under a GSL scheme.

85 Fault reporting and correction

A distributor must maintain a 24 hour fault information and reporting telephone number (the charge for which is no more than the cost of a local call).

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

86A Provision of information - supply of electricity

- (1) In the case of supply of electricity, a distributor must, on request by a customer, *customer authorised representative* or a customer's retailer, provide information about the;
 - (a) customer's energy consumption for the previous 2 years in the manner and form required by the *metering data provision procedures*; or
 - (b) distributor's charges.
- (2) Subject to paragraph (3), information referred to in paragraph (1) must be provided without charge.
- (3) Information under paragraph (1) may be provided subject to a reasonable charge where it has been requested:
 - (a) directly by a customer more than 4 times in any 12 month period;
 - (b) in a different manner or form than that specified in the *metering data provision procedures*; or
 - (c) by a *customer authorised representative* as part of a request for information about more than one customer.

86B Provision of information - supply of gas

- (1) In the case of supply of gas, a distributor must, on request by a customer or a customer's retailer, provide information about the customer's energy consumption

or the distributor's charges, but information requested more than once in any 12 month period may be provided subject to a reasonable charge.

87 Referral to interpreter services

A distributor must refer a residential customer to a relevant interpreter service if a referral is necessary or appropriate to meet the reasonable needs of the customer.

Division 6 Distributor interruption to supply

88 Definitions

In this Division:

distributor planned interruption means an *interruption* of the supply of energy for:

- (a) the planned maintenance, repair or augmentation of the transmission system; or
- (b) the planned maintenance, repair or augmentation of the distribution system, including planned or routine maintenance of *metering* equipment (excluding a *retailer planned interruption*); ~~or~~
- (c) the installation of a new connection or a connection alteration; or
- (d) in the case of an embedded network, an interruption of the supply of energy by the embedded network service provider for:
 - (i) the planned maintenance, repair or augmentation of the embedded network, including planned or routine maintenance of metering equipment (excluding a retailer planned interruption); or
 - (ii) the installation of a new connection or a connection alteration.

embedded network planned interruption means an *interruption* of the supply of energy on an embedded network due to:

- (a) a retailer planned interruption or a distributor planned interruption at a parent connection point at or through which the embedded network is connected; or
- (b) a distributor planned interruption on a distribution network (including an embedded network) to which the embedded network is connected, either directly at its parent connection point or indirectly through another embedded network.

transmission system:

- (a) for electricity—means a transmission system within the meaning of the NEL; or
- (b) for gas—means a transmission pipeline within the meaning of the NGL;

unplanned interruption means an *interruption* of the supply of energy to carry out unanticipated or unplanned maintenance or repairs in any case where there is an actual or apprehended threat to the safety, reliability or security of the supply of energy, and includes:

- (a) an *interruption* in circumstances where, in the opinion of the distributor, a customer's installation or the distribution system poses an immediate threat of injury or material damage to any person, any property or the distribution system; or
- (b) an *interruption* in circumstances where:
 - (i) there are health or safety reasons warranting an *interruption*; or
 - (ii) there is an emergency warranting an *interruption*; or
 - (iii) the distributor is required to *interrupt* the supply at the direction of a *relevant authority*; or
- (c) an *interruption* to shed demand for energy because the total demand for energy at the relevant time exceeds the total supply available; or
- (d) an *interruption* to restore supply to a customer.

89 Distributor's right to interrupt supply

A distributor may, subject to and in accordance with any requirements of the energy laws, *interrupt* the supply of energy at any time, including for a *distributor planned interruption* or an *unplanned interruption*.

90 Distributor planned interruptions

(1) Planned interruption arrangements

A distributor may arrange a *distributor planned interruption* by:

- (a) giving ~~the~~ its affected customer the notice under subrule (1B); or
- (b) other than in the circumstances described in paragraph (c), obtaining ~~the~~ its affected customer's explicit consent to the *interruption* occurring:
 - (i) on any date within a date range of 5 business days; or
 - (ii) on a specified date,
 in which case subrule (1A) applies; or
- (c) where a person residing at the premises of its affected customer requires *life support equipment*, obtaining the affected customer's explicit consent to the *interruption* occurring on a specified date, in which case subrule (1A) applies.

(1A) Record of consent

If the distributor obtains the consent of ~~the~~ its affected customer pursuant to subrule (1)(b) or (c):

- (a) the distributor must retain the record of consent for a period of at least 2 years in a format and including such information to enable the distributor to answer enquiries from the customer relating to the consent; and
- (b) subrules (1B) and (2) regarding planned *interruption* notices will not apply.

(1B) Notice to be given

If the distributor has not obtained ~~an~~its affected customer's consent to the *distributor planned interruption* occurring within a date range or on a specified date in accordance with subrule (1) (as applicable), the distributor must notify each of its affected customers by any appropriate means of the *interruption* at least 4 business days before the date of the *interruption*.

(2) Contents of notification

The notification must:

- (a) specify the expected date, time and duration of the *interruption*; and
- (b) include a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
- (c) include a statement that any enquiries regarding *distributor planned interruptions* are to be directed to the distributor.

(3) Restoration of supply

In the case of a *distributor planned interruption*, the distributor must use its best endeavours to restore ~~the~~its customer's supply as soon as possible.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

90A Embedded network planned interruptions

- (1) An embedded network service provider must, by any appropriate means, notify each affected customer on its embedded network of an *embedded network planned interruption* as soon as practicable after receipt of a notice of the *interruption* under rule 99B and in any event within 1 business day.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of *the Law*.

- (2) The notification must:

- (a) specify the expected date, time and duration of the *embedded network planned interruption*; and
- (b) include a statement that any enquiries regarding the *embedded network planned interruption* are to be directed to the retailer or distributor responsible for the *embedded network planned interruption*.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of *the Law*.

91 Unplanned interruptions

In the case of an *unplanned interruption*, a distributor must:

- (a) within 30 minutes of being advised of the *interruption*, or otherwise as soon as practicable, make available, by way of a 24 hour telephone service (the charge for which is no more than the cost of a local call), information on the nature of the *interruption* and an estimate of the time when supply will be restored or when reliable information on restoration of supply will be available; and
- (b) if the telephone service is automated—provide options for customers who call the service to be directly connected to a telephone operator if required; and
- (c) use its best endeavours to restore supply to [its](#) affected customers as soon as possible.

Note:

Subrule (c) is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

91A Metering coordinator and distributor to assist and cooperate - electricity

Where:

- (a) the installation, maintenance, repair or replacement of *metering* equipment is to be undertaken by the *metering coordinator*; and
- (b) such installation, maintenance, repair or replacement requires an *interruption* of supply to the customer's premises; and
- (c) a *retailer planned interruption* cannot be undertaken in order to effect the *interruption*,

then:

- (d) the distributor must effect the *interruption* and provide such assistance as the *metering coordinator* may reasonably require to enable the *metering coordinator* to carry out the installation, maintenance, repair or replacement of *metering* equipment; and
- (e) the *metering coordinator* must provide such information and assistance as the distributor may reasonably require to enable the distributor to carry out its obligations under rules 90 and 91; and
- (f) the distributor and the *metering coordinator* must give all other reasonable assistance to each other, and cooperate with each other, in relation to the *interruption* and their respective obligations under these Rules.

Division 7 Miscellaneous

92 Compliance by small customer who is not owner of premises

If a small customer is unable to fulfill an obligation in respect of:

- (a) premises (including, but not limited to, access to premises) under a customer connection contract; or
- (b) access to premises under these Rules,

because the customer is not the owner of the premises, the customer is not in breach of the contract or Rules if the customer takes all reasonable steps to ensure that the owner or other person responsible for the premises fulfils the obligation.

Part 5 Relationship between distributors and retailers—retail support obligations

Division 1 Preliminary

93 Application of this Part

- (1) This Part applies to a distributor and a retailer where they have a shared customer.

(1A) This Part also applies to an exempt system operator and a retailer where they have a shared customer, where the exempt system operator is required to comply with this Part 5 as a condition of its *network exemption*.

- (2) Where a distributor and a retailer have a shared customer, they are respectively referred to in this Part as “the distributor” and “the retailer”.

(3) A reference in this Part to a distributor includes a reference to an exempt system operator who is required to comply with this Part 5 as a condition of its *network exemption*.

Division 2 Assistance and cooperation

94 Assistance and cooperation

- (1) The distributor and the retailer must give all reasonable assistance to each other, and cooperate with each other, in relation to the performance of their respective obligations and the enforcement of their respective rights in respect of the sale and supply of energy to shared customers under *the Law*, the Regulations, these Rules and the Retail Market Procedures.
- (2) In particular, the distributor and the retailer must each use their best endeavours to provide or make available to the other at no cost and in a timely manner information or documentation that the other reasonably requires to carry out its obligations under *the Law*, the Regulations, these Rules and the Retail Market Procedures.
- (3) The distributor and the retailer must each, on becoming aware of any material change in any of the information provided or made available in accordance with this Part, notify the other as soon as reasonably practicable of the change.
- (4) The distributor and the retailer must each take all reasonable steps to ensure that all information that it provides or makes available to the other (irrespective of whether the information is generated by a third person) under this Part is accurate and complete.

Division 3 Information requirements

95 Information about applicable tariffs, connection related information and other information

- (1) This rule applies where, under a customer retail contract or customer connection contract, the retailer or the distributor is required to provide information to the other in relation to the shared customer that is held by that party (including information about applicable tariffs and connection related information).
- (2) Each party must use its best endeavours to provide the information, from time to time as occasion requires, to the other party in an up to date form, at no cost and in a timely manner to allow the other party to carry out its obligations to the customer under the relevant customer contract.

96 Requirements for information

The distributor and the retailer must:

- (a) notify each other of the information referred to in and as required by this Division, except so far as they have already provided the information under the Retail Market Procedures; and
- (b) ensure that the details are at all times current.

97 Distributor and retailer contact details

- (1) The distributor must provide the distributor's contact details to the retailer.
- (2) The retailer must provide to the distributor:
 - (a) the retailer's contact details; and
 - (b) the name and contact details of the retailer's *NEM Representative* (if applicable); and
 - (c) the name and contact details of the *metering coordinator* appointed by the retailer or the large customer in respect of each shared customer (if applicable).

98 Contact details for customers

- (1) The distributor must provide to the retailer a contact telephone number for:
 - (a) customer inquiries, including inquiries to obtain information about *unplanned interruptions*; and
 - (b) fault reporting by customers; and
 - (c) emergency reporting by customers.
- (2) The retailer must provide to the distributor the retailer's contact telephone number for customer inquiries.

99 Information on distributor planned interruptions

- (1) The distributor:
 - (a) must notify the retailer of *distributor planned interruptions* and specify the expected date, time and duration of the *distributor planned interruption*;
 - (b) must provide the notification under paragraph (a) ~~within~~ (as applicable):
 - (i) on the same day the customer provides consent to the distributor under subrule 90(1); or
 - (ii) within the same time period as the distributor is required to notify the customer under subrule 90(1B).
- (2) The information under subrule (1) must also include information regarding the area in which the *distributor planned interruption* is to occur.
- (3) At the request of the retailer, and if the information is readily available, the information must include information regarding specific premises affected.
- (4) If a customer contacts the retailer about a *distributor planned interruption* requested or proposed by the distributor, the retailer must:
 - (a) refer the customer to the distributor; or
 - (b) if the customer does not wish to contact the distributor, give the customer the information provided by the distributor under this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

99A Information on retailer planned interruptions – electricity

- (1) The retailer:
 - (a) must notify the distributor of *retailer planned interruptions* and specify the expected date, time and duration of the *retailer planned interruption*; and
 - (b) must provide the notification under paragraph (a) (as applicable):
 - (i) on the same day the customer provides consent to the retailer under subrule 59C(1); or
 - (ii) within the same time period as the retailer is required to notify the customer under subrule 59C(2).
- (2) The information to be given by the retailer to the distributor under subrule (1) must also include the NMI and the address of the specific premises affected by the *retailer planned interruption*.
- (3) If a customer contacts the distributor about a *retailer planned interruption* requested or proposed by the retailer, the distributor must:
 - (a) refer the customer to the retailer; or
 - (b) if the customer does not wish to contact the retailer, give the customer the information provided by the retailer under this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

99B Planned interruptions within embedded networks

(1) Where a *distributor planned interruption* will interrupt the supply of electricity at a *parent connection point*, the distributor:

- (a) must notify the distributor for the embedded network of the *distributor planned interruption* and include in the notice the expected date, time and duration of the *distributor planned interruption*; and
- (b) must provide the notification under paragraph (a) (as applicable):
 - (i) on the same day the customer provides consent to the distributor under subrule 90(1); or
 - (ii) within the same time period as the distributor is required to notify the customer under subrule 90(1B).

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of *the Law*.

(2) An embedded network service provider:

- (a) must, by any appropriate means, notify each retailer who is the financially responsible retailer for a connection point on the embedded network of an *embedded network planned interruption* and include in the notice the expected date, time and duration of the *distributor planned interruption*; and
- (b) provide the notification under paragraph (a) as soon as practicable after receipt of a notice of the *interruption* under rule 99B(1) and in any event within 1 business day.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of *the Law*.

(3) The notification under subrule (2) must specify the expected date, time and duration of the *embedded network planned interruption*.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of *the Law*.

(4) Where a *retailer planned interruption* will interrupt the supply of electricity at a *parent connection point*, the retailer must also give notice of the *interruption* in accordance with rule 99A to:

- (a) the distributor for each embedded network connected at or through the *parent connection point*; and
- (b) each retailer who is the financially responsible retailer for a connection point on each such embedded network.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of the Law.

Note:

Under the Law, the financially responsible retailer includes the off-market retailer at an off-market connection point in an embedded network.

100 Information on unplanned interruptions

- (1) The distributor:
 - (a) must make available to the retailer all information regarding *unplanned interruptions* due to faults or emergencies that the distributor is required to make available to a customer under rule 91; and
 - (b) must do so within the same time period as the information is required to be made available by the distributor to the customer.
- (2) The information made available by the distributor under subrule (1) is not required to distinguish between faults or emergencies affecting customers of the retailer and faults or emergencies affecting customers of other retailers.
- (3) If a customer contacts a retailer by telephone about a fault or emergency, the retailer must refer the customer to the distributor's fault enquiries or emergency telephone number.

Note:

This subrule is a civil penalty provision for the purposes of the Law. (See the National Regulations, clause 6 and Schedule 1.)

- (4) If a customer contacts a distributor by telephone about a fault or emergency in relation to another distributor's distribution network, the distributor must refer the customer to the relevant distributor's fault enquiries or emergency telephone number.

Note:

The AEMC recommends that this subrule be classified as a civil penalty provision for the purposes of the Law.

Division 4 Shared customer enquiries and complaints**101 Enquiries or complaints relating to the retailer**

- (1) If a shared customer makes an enquiry or complaint to the distributor about an issue relating to the sale of energy, including an enquiry or complaint about the customer's electricity *meter* which relates to any of the matters for which *metering coordinators* are responsible under Chapter 7 of the NER, the distributor must:
 - (a) if the enquiry or complaint is made by telephone—refer the customer to the retailer's enquiry or complaint telephone number where practicable; or
 - (b) otherwise, as soon as practicable, but no later than the next business day after receiving the enquiry or complaint, provide the retailer with the details of the enquiry or the complaint, including contact details of both the

customer making the enquiry or complaint and the person who received the enquiry or complaint.

- (2) The retailer must respond to an enquiry expeditiously.
- (3) The retailer must resolve a complaint expeditiously and in accordance with its standard complaints and dispute resolution procedures.
- (4) The distributor must provide to the retailer on request copies of any documents or written records (including in electronic format) relating to an enquiry or complaint and provide any other assistance reasonably requested by the retailer for the purpose of responding to an enquiry or resolving a complaint.

102 Enquiries or complaints relating to the distributor

- (1) If a person makes an enquiry or complaint to a retailer about an issue relating to a distribution system or customer connection services (other than a fault, an emergency, a *distributor planned interruption* or an *unplanned interruption*), the retailer must:
 - (a) if the enquiry or complaint is made by telephone—refer the person to the relevant distributor's enquiry or complaints telephone number where practicable; or
 - (b) otherwise, as soon as practicable, but no later than the next business day after receiving the enquiry or complaint, provide the relevant distributor with the details of the enquiry or the complaint, including contact details of both the person making the enquiry or complaint and the person who received the enquiry or complaint.
- (2) If a retailer requests a distributor to provide information about a shared customer's energy consumption, the distributor must use its best endeavours to provide the information to the retailer at no cost and in a timely manner to allow the retailer to carry out its obligations to provide information to its customer.
- (3) The distributor must respond to an enquiry expeditiously.
- (4) The distributor must resolve a complaint expeditiously and in accordance with its standard complaints and dispute resolution procedures.
- (5) The retailer must provide to the distributor on request copies of any documents or written records (including in electronic format) relating to an enquiry or complaint and provide any other assistance reasonably requested by the distributor for the purpose of responding to an enquiry or resolving a complaint.

102A Enquiries or complaints relating to an embedded network

- (1) If a person makes an enquiry or complaint to a distributor about an issue relating to another distributor's distribution network (other than a fault, an emergency, a *distributor planned interruption* or an *unplanned interruption*), the distributor must:

- (a) if the enquiry or complaint is made by telephone—refer the person to the relevant distributor’s enquiry or complaints telephone number where practicable; or
- (b) otherwise, as soon as practicable, but no later than the next business day after receiving the enquiry or complaint, provide the relevant distributor with the details of the enquiry or the complaint, including contact details of both the person making the enquiry or complaint and the person who received the enquiry or complaint.

Division 5 De-energisation and re-energisation of shared customer’s premises

103 De-energisation of premises by the distributor

- (1) If the distributor is entitled under the energy laws to refuse a retailer’s request to de-energise a customer’s premises, the distributor must promptly notify the retailer of its reasons for doing so.
- (2) If the distributor is entitled under the energy laws to de-energise a customer’s premises at the customer’s request, the distributor must notify the retailer of the request as soon as practicable.

104 Notification of de-energisation

- (1) If the distributor de-energises a customer’s premises in accordance with the energy laws, the distributor must as soon as practicable after the de-energisation notify the retailer of the de-energisation (including whether the premises were de-energised manually or remotely) and the reason for the de-energisation, except where the de-energisation is as a result of the retailer’s request.
- (2) If the retailer has arranged to de-energise a customer’s premises remotely in accordance with the energy laws, the retailer must as soon as practicable after the de-energisation notify the distributor of the remote de-energisation and the reason for the de-energisation, except where the de-energisation is as a result of the distributor’s request.

105 Liability for ongoing charges

- (1) If a distributor is required to de-energise a customer’s premises within the timeframes for de-energisation in accordance with a distributor service standard, and the distributor fails to do so, the distributor must (unless the failure is due to an act or omission of the customer or retailer):
 - (a) waive any network charges applicable to the premises after the timeframes expire; and
 - (b) pay charges for energy consumed at the premises after the timeframes expire, if the retailer has used all reasonable endeavours to recover the charges from the customer and has been unable to do so.

- (2) If the retailer subsequently recovers from the customer all or any part of any amount that the distributor has waived or paid, the retailer must pay that recovered amount to the distributor.

106 Re-energisation - gas

If, in accordance with the energy laws, the retailer is required to arrange for the re-energisation of a customer's gas supply, the retailer and the distributor must deal with the requirement in accordance with those energy laws.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

106A Re-energisation - electricity

- (1) If, in accordance with the energy laws, the retailer is required to arrange for the re-energisation of a customer's electricity supply, the retailer must deal with the requirement in accordance with those energy laws.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) If the retailer arranges for a person other than the distributor to re-energise a customer's electricity supply, the retailer must as soon as practicable after the re-energisation notify the distributor that the premises have been re-energised.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) A retailer must not arrange re-energisation of a customer's electricity supply by a person other than the distributor if the premises were de-energised by the distributor.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) If, in accordance with energy laws, the distributor is required to re-energise a customer's electricity supply, the distributor must deal with the requirement in accordance with those energy laws.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (5) If the distributor has re-energised a customer's electricity supply, the distributor must notify the retailer that the premises have been re-energised as soon as practicable after the re-energisation.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (6) A distributor must not re-energise a customer's electricity supply if a de-energisation of the premises was arranged by a retailer, unless a retailer requests the distributor to re-energise the premises.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Part 6 De-energisation (or disconnection) of premises—small customers

Division 1 Preliminary

107 Application of this Part

- (1) This Part (except for rules [116 \(1A\)](#), 119 and 120 (1) (a), ~~(2A)~~, (2), ~~(2A)~~ and (3)) applies to small customers only, and references to a customer are to be construed accordingly.

- (2) A retailer must not arrange de-energisation of a customer's premises except in accordance with Division 2.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) A distributor must not de-energise a customer's premises except in accordance with Division 3.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) This Part does not apply to *interruptions* under Division 6 of Part 4 or under Division 9A of Part 2.

- (5) A reference in this Part to the de-energisation or re-energisation of a customer's premises includes arranging for the premises to be de-energised or re-energised remotely.

108 Definitions

In this Part:

disconnection warning period means the period that starts on the date of issue of a *disconnection warning notice* under rule 110, which must be no earlier than the next business day after the end of the *reminder notice* period, and ends no earlier than 6 business days from the date of issue of the *disconnection warning notice*;

extreme weather event means an event declared by a local instrument as an extreme weather event in the jurisdiction in which the customer's premises are located;

protected period means:

- (a) a business day before 8am or after 3pm; or
- (b) a Friday or the day before a public holiday; or
- (c) a weekend or a public holiday; or
- (d) the days between 20 December and 31 December (both inclusive) in any year;

public holiday, in relation to a customer, means a day that is observed as a local public holiday in the area in which the customer's premises are located (including the whole of the State or Territory in which the area is located);

reminder notice period means the period that starts on the date of issue of a *reminder notice* under rule 109, which must be no earlier than the next business day after the *pay-by date*, and ends no earlier than 6 business days from the date of issue of the *reminder notice*.

109 Reminder notices—retailers

(1) Nature of reminder notices

A *reminder notice* is a notice issued by a retailer after the *pay-by date* for a bill to remind the customer that payment is required.

(2) Particulars to be included in reminder notices

A *reminder notice* must:

- (a) state the date of its issue; and
- (b) state the date on which the *reminder notice* period ends; and
- (c) state that payment of the bill must be made during the *reminder notice* period; and
- (d) include details of the retailer's telephone number for complaints and disputes.

110 Disconnection warning notices—retailers and distributors

(1) Nature of disconnection warning notices

A *disconnection warning notice* is a notice issued by a retailer or a distributor as applicable to warn a customer that the customer's premises will or may be de-energised.

(2) Particulars to be included in disconnection warning notices

A *disconnection warning notice* must:

- (a) state the date of its issue; and
- (b) state the matter giving rise to the potential de-energisation of the customer's premises; and
- (c) where the notice has been issued for not paying a bill:
 - (i) state the date on which the disconnection warning period ends; and
 - (ii) state that payment of the bill must be made during the disconnection warning period; and
- (d) for matters other than not paying a bill—allow a period of not fewer than 5 business days after the date of issue for the customer to rectify the matter before de-energisation will or may occur; and
- (e) inform the customer of applicable re-energisation procedures and (if applicable) that a charge will be imposed for re-energisation; and

- (f) include details of the existence and operation of the energy ombudsman, including contact details;
- (g) include details of the telephone number of the retailer and the distributor (as applicable).

Division 2 Retailer-initiated de-energisation of premises

111 De-energisation for not paying bill

- (1) A retailer may arrange de-energisation of a customer's premises if:
 - (a) the customer:
 - (i) has not paid a bill by the *pay-by date*; or
 - (ii) is on a payment plan with the retailer and has not adhered to the terms of the plan; and
 - (b) if the customer is a residential customer, the customer:
 - (i) has not paid a bill by the *pay-by date*; and
 - (ii) has not agreed to an offer to pay the bill by instalments or, having agreed to the offer, has failed to adhere to an instalment arrangement; and
 - (c) the retailer has given the customer a *reminder notice*; and
 - (d) the retailer has given the customer a *disconnection warning notice* after the expiry of the period referred to in the *reminder notice*; and
 - (e) the retailer has, after giving the *disconnection warning notice*, used its best endeavours to contact the customer, in connection with the failure to pay, or to agree to the offer or to adhere to the payment plan or instalment arrangement as referred to in paragraphs (a) (ii) and (b) (ii), in one of the following ways:
 - (i) in person;
 - (ii) by telephone (in which case contact is, if the telephone is unanswered, taken to have occurred only if the customer acknowledges receipt of a message);
 - (iii) by facsimile or other electronic means (in which case contact is taken to have occurred only if the customer acknowledges receipt of the message); and
 - (f) the customer has refused or failed to take any reasonable action towards settling the debt.
- (2) Where a customer is a hardship customer or a residential customer who has informed the retailer in writing or by telephone that the customer is experiencing payment difficulties, a retailer must not arrange for de-energisation of the customer's premises under subrule (1), unless the retailer has offered the customer 2 payment plans in the previous 12 months and:
 - (a) the customer has agreed to neither of them; or

- (b) the customer has agreed to one but not the other of them but the plan to which the customer agreed has been cancelled due to non-payment by the customer; or
 - (c) the customer has agreed to both of them but the plans have been cancelled due to non-payment by the customer.
- (3) A retailer may arrange de-energisation of a customer's premises if:
 - (a) the customer has, while on a shortened collection cycle, not paid a bill by the *pay-by date*; and
 - (b) the retailer has given the customer a *disconnection warning notice* after the *pay-by date*; and
 - (c) the retailer has, after giving the *disconnection warning notice*, used its best endeavours to contact the customer, in connection with the failure to pay, or to agree to the offer or to adhere to the payment plan or instalment arrangement as referred to in subrule (1) (a) (ii) and (b) (ii), in one of the following ways:
 - (i) in person;
 - (ii) by telephone (in which case contact is, if the telephone is unanswered, taken to have occurred only if the customer acknowledges receipt of a message);
 - (iii) by facsimile or other electronic means (in which case contact is taken to have occurred only if the customer acknowledges receipt of the message); and
 - (d) the customer has refused or failed to take any reasonable action towards settling the debt.
- (4) **Application of this rule to standard retail contracts**
 This rule applies in relation to standard retail contracts.
- (5) **Application of this rule to market retail contracts**
 This rule applies in relation to market retail contracts.

112 De-energisation for not paying security deposit

- (1) A retailer may arrange for the de-energisation of a customer's premises if the customer has failed to pay a *security deposit* and if:
 - (a) the retailer has given the customer a notice of its intention to do so; and
 - (b) the retailer has given the customer a *disconnection warning notice* after the expiry of the period referred to in the notice of its intention (being not less than 5 business days after the notice of its intention was given).
- (2) **Application of this rule to standard retail contracts**
 This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts (other than prepayment *meter* market retail contracts), but only to the extent (if any) a contract provides for payment of a *security deposit*.

113 De-energisation for denying access to meter

- (1) A retailer may arrange for de-energisation of a customer's premises if the customer has failed to allow, for 3 consecutive scheduled *meter* readings, access to the customer's premises to read a *meter* and if:
 - (a) the retailer has given the customer an opportunity to offer reasonable alternative arrangements for access that are acceptable to the *responsible person* or *metering coordinator* (as applicable); and
 - (b) the retailer has, on each of the occasions access was denied, arranged for the customer to be given a notice requesting access to the *meter* at the premises and advising of the retailer's ability to arrange for de-energisation; and
 - (c) the retailer has used its best endeavours to contact the customer:
 - (i) in person; or
 - (ii) by telephone (in which case contact is, if the telephone is unanswered, taken to have occurred only if the customer acknowledges receipt of a message); or
 - (iii) by facsimile or other electronic means (in which case contact is taken to have occurred only if the customer acknowledges receipt of the message); and
 - (d) the retailer has given the customer a notice of its intention to arrange for de-energisation; and
 - (e) the retailer has given the customer a *disconnection warning notice* after the expiry of the period referred to in the notice of its intention; and
 - (f) the customer has not rectified the matter that gave rise to the right to arrange for de-energisation.
- (2) A retailer may arrange for de-energisation of a customer's premises if the customer does not provide the retailer or its representatives safe access to the customer's premises in accordance with any requirement under the energy laws or otherwise for the purposes of:
 - (a) testing, maintaining, inspecting or altering any *metering* installation at the premises;
 - (b) checking the accuracy of *metered* consumption at the premises; or
 - (c) replacing *meters*,
 and if:
 - (d) the retailer has given the customer a *disconnection warning notice*; and
 - (e) the customer has not rectified the matter that gave rise to the right to arrange for de-energisation of the premises.

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

114 De-energisation for illegally using energy

(1) A retailer may make immediate arrangements for de-energisation of a customer's premises if there has been:

- (a) fraudulent acquisition of energy at those premises; or
- (b) intentional consumption of energy at those premises otherwise than in accordance with the energy laws.

(2) No *disconnection warning notice* or other notice is required for de-energisation under this rule.

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

115 De-energisation for non-notification by move-in or carry-over customers

(1) The financially responsible retailer for a move-in customer's or carry-over customer's premises may arrange for the de-energisation of the premises if the customer refuses or fails to comply with the requirements of section 54 (6) of *the Law*.

(2) A financially responsible retailer must not arrange for de-energisation under this rule unless:

- (a) the retailer has given the customer a notice of its intention to do so; and
- (b) the retailer has given the customer a *disconnection warning notice* after the expiry of the period referred to in the notice of its intention, not being less than 5 business days after the notice of its intention was given.

(3) The financially responsible retailer may commence de-energisation procedures even if the retailer is unable to ascertain the name or other particulars of the person consuming energy at the premises.

116 When retailer must not arrange de-energisation

(1) **Restrictions on de-energisation**

Despite any other provisions of this Division but subject to subrules (2), (3) and (4), a retailer must not arrange for the de-energisation of a customer's premises to occur:

- (a) where the premises are registered under Part 7 as having *life support equipment*; or
- (b) where the customer has made a complaint, directly related to the reason for the proposed de-energisation, to the retailer under the retailer's standard complaints and dispute resolution procedures, and the complaint remains unresolved; or
- (c) where the customer has made a complaint, directly related to the reason for the proposed de-energisation, to the energy ombudsman, and the complaint remains unresolved; or
- (c1) where the customer has contacted the retailer under section 41(2)(a) of *the Law* and the issue raised by the customer remains unresolved; or
- (d) where the customer is a hardship customer or residential customer and is adhering to a payment plan under rule 33 or 72; or
- (e) where the customer informs the retailer, or the retailer is otherwise aware, that the customer has formally applied for assistance to an organisation responsible for a rebate, concession or relief available under any government funded energy charge rebate, concession or relief scheme and a decision on the application has not been made; or
- (f) on the ground that the customer has failed to pay an amount on a bill that relates to goods and services other than for the sale of energy; or
- (g) for non-payment of a bill where the amount outstanding is less than an amount approved by the AER and the customer has agreed with the retailer to repay that amount; or
- (h) where the customer's premises are to be de-energised under rule 111—during an extreme weather event; or
- (i) during a protected period.

(1A) Restriction on de-energisation of a parent connection point

Despite any other provisions of this Division, a retailer must not arrange for the de-energisation of a parent connection point.

(2) Restrictions not applying for non-access to meter

The restrictions in subrule (1) (d), (e) and (f) do not apply if the reason for de-energisation was failure to provide access to a *meter*.

(3) Non-application of restrictions where de-energisation requested by customer

The restrictions in subrule (1) do not apply if the customer has requested de-energisation.

(4) Non-application of restrictions where illegal use of energy

Apart from the restriction in subrule (1) (a) relating to *life support equipment*, the restrictions in subrule (1) do not apply in relation to de-energisation of a customer's premises for:

- (a) the fraudulent acquisition of energy at those premises; or

- (b) the intentional consumption of energy at those premises otherwise than in accordance with the energy laws.

(5) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(6) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

117 Timing of de-energisation where dual fuel market contract

(1) **Application of this rule**

This rule applies where a retailer and a customer have entered into a *dual fuel market contract* for the customer's premises and the retailer has the right to arrange for de-energisation of the customer's gas supply and the customer's electricity supply under this Division.

(2) **De-energisation of gas supply**

Despite any other provision of this Division, the retailer may exercise the right to arrange for de-energisation of the customer's gas supply in accordance with timing determined under the *dual fuel market contract*.

(3) **De-energisation of electricity supply**

The retailer may exercise the right to arrange for de-energisation of the customer's electricity supply in accordance with timing determined under the *dual fuel market contract* but no earlier than 15 business days after the date of the de-energisation of the customer's gas supply under subrule (2).

(4) **Restrictions on de-energisation not affected**

Nothing in this rule affects the operation of rule 116.

118 Request for de-energisation

- (1) If a customer requests the retailer to arrange for de-energisation of the customer's premises, the retailer must use its best endeavours to arrange for:

- (a) de-energisation in accordance with the customer's request; and
- (b) a *meter* reading; and
- (c) if applicable, the preparation and issue of a final bill for the premises.

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

Division 3 Distributor de-energisation of premises

119 Grounds for de-energisation

(1) Grounds

A distributor may de-energise a customer's premises if:

- (a) the customer's retailer informs the distributor that it has a right to arrange for de-energisation under its contract with the customer and requests the distributor to de-energise the premises; or
- (b) the customer is in breach of subrule (2); or
- (c) the customer fails to pay charges payable by the customer to the distributor under a customer connection contract; or
- (d) the customer has provided false information to the distributor or the customer's retailer, in circumstances where the customer would not have been entitled to have the premises energised if the false information had not been provided; or
- (e) the customer does not provide and maintain space, equipment, facilities or anything else the customer must provide for the customer connection services in accordance with the customer connection contract or any requirement under the energy laws; or
- (f) the customer does not provide the distributor or its representatives safe access in accordance with the customer connection contract or any requirement under the energy laws; or
- (g) there are health and safety reasons warranting de-energisation; or
- (h) there is an emergency warranting de-energisation; or
- (i) the distributor is required to do so at the direction of a *relevant authority*; or
- (j) the distributor is otherwise entitled under the energy laws to de-energise the premises.

(2) Grounds involving illegal use or interference

A customer is in breach of this subrule if the customer does any of the following or does not take reasonable steps to ensure others do not do any of the following:

- (a) fraudulently acquires or allows the fraudulent acquisition of energy at or in connection with the premises in contravention of jurisdictional energy legislation;
- (b) uses or allows the use of energy supplied to the premises or any energy equipment at the premises in a manner that:
 - (i) unreasonably interferes with the connection or supply of energy to another customer; or
 - (ii) causes damage or interference to any third party;
- (c) uses or allows the use of customer connection services provided by the distributor at the premises otherwise than as permitted by law or the customer connection contract;

- (d) interferes or allows interference with any of the distributor's equipment that is at the premises otherwise than as may be permitted by law;
- (e) tampers or allows tampering with any *meters* or associated equipment at the premises.

(3) **Disconnection warning notice required in certain circumstances**

A distributor may de-energise the premises of a customer pursuant to subrule (1) (c), (d), (e) or (f) only if:

- (a) the distributor has given the customer a *disconnection warning notice*; and
- (b) the customer has not rectified the matter that gave rise to the right to de-energise the premises.

120 When distributor must not de-energise premises

(1) **Restrictions on de-energisation**

Despite any other provisions of this Division but subject to subrules (2), (3) and (4), a distributor must not de-energise a customer's premises:

- (a) where the premises are registered under Part 7 as having *life support equipment*; or
- (b) where the customer has made a complaint, directly related to the reason for the proposed de-energisation, to the distributor under the distributor's standard complaints and dispute resolution procedures, and the complaint remains unresolved; or
- (c) where the customer has made a complaint, directly related to the reason for the proposed de-energisation, to the energy ombudsman and the complaint remains unresolved; or
- (d) where the customer's premises are to be de-energised under rule 111—during an extreme weather event; or
- (e) during a protected period.

(2) **Non-application of restrictions where de-energisation requested by customer**

The restrictions in subrule (1) do not apply if the customer has requested de-energisation.

(2A) Restrictions on de-energisation of parent connection point

- (a) Despite any other provisions of this Division but subject to paragraph (b) and subrule (3), a distributor must not de-energise a parent connection point.
- (b) The restriction in paragraph (a) does not apply if the embedded network service provider or exempt system operator for the embedded network connected at the parent connection point has requested de-energisation of the parent connection point.
- (c) If an embedded network has one or more embedded networks connected through its parent connection point, the embedded network service provider must not request de-energisation of the parent connection point under

[paragraph \(b\) unless it has the consent of the embedded network service provider or exempt system operator for each such embedded network.](#)

(3) **Non-application of restrictions where emergency, health or safety issues, emergency or de-energisation direction**

The restrictions in subrule (1) [and \(2A\)](#) do not apply if:

- (a) there are health or safety reasons warranting de-energisation (as referred to in rule 119 (1) (g)); or
- (b) there is an emergency warranting de-energisation (as referred to in rule 119 (1) (h)); or
- (c) the distributor is required to de-energise the premises at the direction of a *relevant authority* (as referred to in rule 119 (1) (i)).

(4) **Non-application of restrictions where illegal use or interference**

Apart from the restriction in subrule (1) (a) relating to *life support equipment*, the restrictions in subrule (1) do not apply in relation to de-energisation of a customer's premises where the customer is in breach of rule 119 (2).

Division 4 Re-energisation of premises

121 Obligation on retailer to arrange re-energisation of premises

- (1) Where a retailer has arranged for the de-energisation of a small customer's premises and the customer has within 10 business days of the de-energisation:
 - (a) if relevant, rectified the matter that led to the de-energisation or made arrangements to the satisfaction of the retailer; and
 - (b) made a request for re-energisation; and
 - (c) paid any charge for re-energisation;

the retailer must, in accordance with any requirements under the energy laws, initiate a request to the distributor for re-energisation of the premises or arrange to re-energise the customer's premises remotely if permitted under energy laws.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(2) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(3) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

122 Obligation on distributor to re-energise premises

(1) **Re-energisation where de-energisation was retailer-initiated**

Where:

- (a) a distributor has de-energised a small customer's premises at the request of a retailer; and
- (b) the retailer has initiated a request to the distributor for re-energisation of the premises,

the distributor must reenergise the premises and must do so, in accordance with any applicable distributor service standards, ~~re-energise the premises~~.

(2) **Re-energisation where de-energisation was not retailer-initiated**

Where a distributor has de-energised a small customer's premises otherwise than at the request of a retailer and the customer has within 10 business days of the de-energisation:

- (a) if relevant, rectified the matter that led to the de-energisation; and
- (b) made a request for re-energisation; and
- (c) paid any charge for re-energisation,

the distributor must reenergise the premises and must do so in accordance with any applicable distributor service standards~~the distributor must, in accordance with the distributor service standards, re-energise the premises.~~

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Part 7 Life support equipment

123 Application of this Part

- (1) This Part applies in relation to a customer who is a party to a contract with a retailer for the sale of energy, and prevails to the extent of any inconsistency with Part 6 except in the case of an emergency warranting de-energisation of the premises of a customer referred to in rule 119.
- (2) Where a distributor and a retailer have a shared customer, they are respectively referred to in this Part as “the distributor” and “the retailer”.

123A Definitions

In this Part:

confirmation reminder notice – see subrule 124A(1)(b);

deregistration or **deregister** means the updating of a retailer’s or distributor’s registration of a customer’s premises under subrules 124(1)(a), 124(3), 124(4)(a) or 124(5) to remove, for that particular premises, the requirement for *life support equipment*;

deregistration notice means a written notice issued by a retailer or distributor to inform a customer that their premises will cease to be registered as requiring *life support equipment* if the customer does not provide medical confirmation by the date specified in that deregistration notice;

Market Settlement and Transfer Solution Procedures has the same meaning as in the NER.

medical confirmation means certification from a registered medical practitioner that a person residing or intending to reside at a customer’s premises requires *life support equipment*;

medical confirmation form means a written form issued by a retailer or distributor:

- (a) when the retailer or distributor receives advice from a customer that a person residing or intending to reside at the customer’s premises requires *life support equipment*; and
- (b) to facilitate the provision of medical confirmation by the customer to the retailer or distributor.

124 Registration of life support equipment

(1) Retailer obligations when advised by customer

When advised by a customer that a person residing or intending to reside at the customer’s premises requires *life support equipment*, a retailer must:

- (a) register that a person residing or intending to reside at the customer’s premises requires *life support equipment* and the date from which the *life support equipment* is required;

- (b) subject to subrule (2), no later than 5 business days after receipt of advice from the customer, provide in writing to the customer:
 - (i) a medical confirmation form;
 - (ii) information explaining that, if the customer fails to provide medical confirmation, the customer's premises may be deregistered and, if so, the customer will cease to receive the protections under this Part;
 - (iii) advice that there may be *retailer planned interruptions* under rule 59C to the supply at the address and that the retailer is required to notify them of these *interruptions* in accordance with rule 124B;
 - (iv) advice that there may be *distributor planned interruptions* or *unplanned interruptions* to the supply at the address and that the distributor is required to notify them of a *distributor planned interruption* in accordance with rule 124B;
 - (v) information to assist the customer to prepare a plan of action in the case of an *unplanned interruption*;
 - (vi) an emergency telephone contact number for the distributor and the retailer (the charge for which is no more than the cost of a local call);
and
 - (vii) advice that if the customer decides to change retailer at the premises and a person residing at the customer's premises continues to require *life support equipment*, the customer should advise their new retailer of the requirement for *life support equipment*; and
 - (viii) if the customer is connected to an embedded network, advice that there may be *embedded network planned interruptions* to the supply at the address and that the retailer is required to notify them of an *embedded network planned interruption* in accordance with rule 124B; and
 - (c) subject to subrule (2), notify the distributor (or, if the customer is connected to the network of an exempt system operator, the exempt system operator) that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required.
- (2) Subrules (1)(b) (other than subrules (1)(b)(iii) and (1)(b)(vi)) and (1)(c) do not apply to a retailer if:
- (a) a customer of that retailer has previously advised the distributor for the premises that a person residing or intending to reside at the customer's premises requires *life support equipment*;
 - (b) the customer advises that retailer that they have already provided medical confirmation to the distributor for the premises; and
 - (c) the retailer confirms with the distributor for the premises that the customer has already provided medical confirmation to the distributor.

(3) **Retailer obligations when advised by distributor**

When notified by a distributor:

- (a) under subrule (4)(c) or (d), a retailer must register that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required; and
- (b) under subrule 124B(2)(b), a retailer must:
 - (i) register that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required; and
 - (ii) no later than 5 business days after receipt of advice from the distributor, provide the customer with the information required by subrules (1)(b)(iii) and (1)(b)(vi), if not already provided by the retailer to the customer in respect of the customer's premises.

(4) Distributor obligations when advised by customer

When advised by a customer that a person residing or intending to reside at the customer's premises requires *life support equipment*, a distributor must:

- (a) register that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required;
- (b) no later than 5 business days after receipt of advice from the customer, provide in writing to the customer:
 - (i) a medical confirmation form;
 - (ii) information explaining that, if the customer fails to provide medical confirmation, the customer's premises may be deregistered and, if so, the customer will cease to receive the protections under this Part;
 - (iii) advice that there may be *retailer planned interruptions* under rule 59C to the supply at the address and that the retailer is required to notify them of these interruptions in accordance with rule 124B;
 - (iv) advice that there may be *distributor planned interruptions* or *unplanned interruptions* to the supply at the address and that the distributor is required to notify them of a distributor planned interruption in accordance with rule 124B;
 - (v) information to assist the customer to prepare a plan of action in the case of an unplanned interruption;
 - (vi) an emergency telephone contact number for the distributor and the retailer (the charge for which is no more than the cost of a local call); and
 - (vii) advice that if the customer decides to change retailer at the premises and a person residing at the customer's premises continues to require *life support equipment*, the customer should advise their new retailer of the requirement for *life support equipment*; and
 - (viii) if the customer is connected to an embedded network, advice that there may be *embedded network planned interruptions* to the supply at the address and that the retailer is required to notify them of an

[embedded network planned interruption in accordance with rule 124B.](#)

- (c) notify the retailer that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required.

[\(4A\) An embedded network service provider advised by a customer or a retailer that a person residing or intending to reside at premises connected to its embedded network requires *life support equipment* must notify the following persons that that a person residing or intending to reside at premises in the embedded network requires *life support equipment* and the date from which the *life support equipment* is required:](#)

- [\(a\) the distributor for the *parent connection point* for that embedded network and each embedded network through which the embedded network is connected; and](#)
- [\(b\) the financially responsible retailer for the *parent connection point* for that embedded network and each embedded network through which the embedded network is connected.](#)

(5) **Distributor obligations when advised by retailer**

When notified by a retailer under subrule (1)(c) [or \(d\)](#), a distributor must register that a person residing or intending to reside at the customer's premises requires *life support equipment* and the date from which the *life support equipment* is required.

(6) **Content of medical confirmation form**

- (a) A medical confirmation form must:
 - (i) be dated;
 - (ii) state that completion and return of the form to the retailer or distributor (as the case may be) will satisfy the requirement to provide medical confirmation under the Rules;
 - (iii) request the following information from the customer:
 - (A) property address;
 - (B) the date from which the customer requires supply of energy at the premises for the purposes of the *life support equipment*; and
 - (C) medical confirmation;
 - (iv) specify the types of equipment that fall within the definition of *life support equipment*;
 - (v) advise the date by which the customer must return the medical confirmation form to the retailer or distributor (as the case may be); and
 - (vi) advise the customer they can request an extension of time to complete and return the medical confirmation form.

(7) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(8) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

124A Confirmation of premises as requiring life support equipment

(1) Where a medical confirmation form is provided under rule 124, the retailer or distributor (as the case may be) must:

- (a) from the date of the medical confirmation form, give the customer a minimum of 50 business days to provide medical confirmation;
- (b) provide the customer at least two written notices to remind the customer that the customer must provide medical confirmation (each a confirmation reminder notice);
- (c) ensure the first confirmation reminder notice is provided no less than 15 business days from the date of issue of the medical confirmation form;
- (d) ensure the second confirmation reminder notice is provided no less than 15 business days from the date of issue of the first confirmation reminder notice; and
- (e) on request from a customer, give the customer at least one extension of time to provide medical confirmation. The extension must be a minimum of 25 business days.

(2) A confirmation reminder notice must:

- (a) be dated;
- (b) state the date by which the medical confirmation is required;
- (c) specify the types of equipment that fall within the definition of *life support equipment*; and
- (d) advise the customer that:
 - (i) the customer must provide medical confirmation;
 - (ii) the premises is temporarily registered as requiring *life support equipment* until the medical confirmation is received;
 - (iii) failure to provide medical confirmation may result in the premises being deregistered; and
 - (iv) the customer can request an extension of time to provide medical confirmation.

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

124B Ongoing retailer and distributor obligations**(1) Retailer obligations**

Where a retailer is required to register a customer's premises under subrule 124(1)(a) or 124(3), the retailer has the following ongoing obligations:

- (a) give the distributor relevant information about the *life support equipment* requirements for the customer's premises and any relevant contact details for the purposes of updating the distributor's registration under subrule 124(4)(a) or 124(5), unless the relevant information was provided to the retailer by the distributor;
- (b) when advised by a customer or distributor of any updates to the *life support equipment* requirements for the customer's premises or any relevant contact details, update the retailer's registration;
- (c) except in the case of a *retailer planned interruption* under rule 59C, not arrange for the de-energisation of the premises from the date the *life support equipment* will be required at the premises; and
- (d) in the case of a *retailer planned interruption* under rule 59C, other than in the circumstances described in paragraph (e), from the date the *life support equipment* will be required at the premises, give the customer at least 4 business days written notice of the *retailer planned interruption* to supply at the premises (the 4 business days to be counted from, but not including the date of receipt of the notice); and
- (e) in the case of a retailer planned interruption where the customer has provided consent to the retailer under subrule 59C(1)(c), give written notice to the customer of the expected time and duration of the retailer planned interruption, and specify a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
- (f) where the customer's premises are connected to an embedded network that is subject to an *embedded network planned interruption*, from the date the *life support equipment* will be required at the premises, give the customer notice of the *interruption* to supply at the premises as soon as practicable, and in any event within 1 business day, after becoming aware of the *interruption*.

(2) Distributor obligations

- (a) Where a distributor is required to register a customer's premises under subrule 124(4)(a) or 124(5), the distributor has the following ongoing obligations:
 - (i) give the retailer relevant information about the *life support equipment* requirements for the customer's premises and any relevant contact details for the purposes of updating the retailer's registration under subrule 124(1)(a) or 124(3), unless the relevant information was provided to the distributor by the retailer;
 - (ii) when advised by a customer or retailer of any updates to the *life support equipment* requirements for the customer's premises or any relevant contact details, update the distributor's registration;

- (iii) except in the case of an *interruption*, not arrange for the de-energisation of the premises from the date the *life support equipment* will be required at the premises;
 - (iv) in the case of an *interruption* that is a *distributor planned interruption* other than in the circumstances described in subparagraph (v), from the date the *life support equipment* will be required at the premises, give the customer at least 4 business days written notice of the *interruption* to supply at the premises (the 4 business days to be counted from, but not including the date of receipt of the notice); and
 - (v) in the case of a distributor planned interruption where the customer has provided consent to the distributor under subrule 90(1)(c), give written notice to the customer of the expected time and duration of the distributor planned interruption, and specify a 24 hour telephone number for enquiries (the charge for which is no more than the cost of a local call); and
 - (vi) where the customer's premises are connected to an embedded network that is subject to an *embedded network planned interruption*, from the date the *life support equipment* will be required at the premises, give the customer notice of the *interruption* to supply at the premises as soon as practicable, and in any event within 1 business day, after becoming aware of the *interruption*.
- (b) In addition to the obligations specified in subrule (2)(a), where a distributor is required to register a customer's premises under subrule 124(4)(a), if the distributor becomes aware (including by way of notification in accordance with the Market Settlement and Transfer Solution Procedures) that the customer has subsequently transferred to another retailer (a new retailer) at that premises, the distributor must notify the new retailer that a person residing at the customer's premises requires *life support equipment*.

(3) **Application of this rule to standard retail contracts**

This rule applies in relation to standard retail contracts.

(4) **Application of this rule to market retail contracts**

This rule applies in relation to market retail contracts.

125 Deregistration of premises

- (1) A retailer or distributor may only deregister a customer's premises in the circumstances permitted under this rule 125.
- (2) If a customer's premises is deregistered:
 - (a) by a retailer, the retailer must, within 5 business days of the date of deregistration, notify the distributor of the date of deregistration and reason for deregistration;
 - (b) by a distributor, the distributor must, within 5 business days of the date of deregistration, notify the retailer of the date of deregistration and reason for deregistration; and

- (c) the retailer and the distributor must update their registrations under subrules 124(1)(a), 124(3), 124(4)(a) and 124(5) as required by rule 126.

Cessation of retailer and distributor obligations after deregistration

- (3) The retailer and distributor obligations under rule 124B cease to apply in respect of a customer's premises once that customer's premises is validly deregistered.

Deregistration where medical confirmation not provided

- (4) Where a customer, whose premises have been registered by a retailer under subrule 124(1)(a) (and subrule 124(2) does not apply), fails to provide medical confirmation, the retailer may deregister the customer's premises only when:
 - (a) the retailer has complied with the requirements under rule 124A;
 - (b) the retailer has taken reasonable steps to contact the customer in connection with the customer's failure to provide medical confirmation in one of the following ways:
 - (i) in person;
 - (ii) by telephone; or
 - (iii) by electronic means;
 - (c) the retailer has provided the customer with a deregistration notice no less than 15 business days from the date of issue of the second confirmation reminder notice issued under subrule 124A(1)(d); and
 - (d) the customer has not provided medical confirmation before the date for deregistration specified in the deregistration notice.
- (5) Where a customer, whose premises have been registered by a distributor under subrule 124(4)(a), fails to provide medical confirmation, the distributor may deregister the customer's premises only when:
 - (a) the distributor has complied with the requirements under rule 124A;
 - (b) the distributor has taken reasonable steps to contact the customer in connection with the customer's failure to provide medical confirmation in one of the following ways:
 - (i) in person;
 - (ii) by telephone; or
 - (iii) by electronic means;
 - (c) the distributor has provided the customer with a deregistration notice no less than 15 business days from the date of issue of the second confirmation reminder notice issued under subrule 124A(1)(d); and
 - (d) the customer has not provided medical confirmation before the date for deregistration specified in the deregistration notice.
- (6) A deregistration notice must:
 - (a) be dated;

- (b) specify the date on which the customer's premises will be deregistered, which must be at least 15 business days from the date of the deregistration notice;
 - (c) advise the customer the premises will cease to be registered as requiring *life support equipment* unless medical confirmation is provided before the date for deregistration; and
 - (d) advise the customer that the customer will no longer receive the protections under this Part when the premises is deregistered.
- (7) A distributor may deregister a customer's premises registered under subrule 124(5) after being notified by the retailer that the retailer has deregistered the customer's premises pursuant to subrule (4).
- (8) A retailer may deregister a customer's premises registered under subrule 124(3) after being notified by the distributor that the distributor has deregistered the customer's premises pursuant to subrule (5).

Deregistration where there is a change in the customer's circumstances

- (9) Where a customer whose premises have been registered by a retailer under subrule 124(1)(a) or 124(3) advises the retailer that the person for whom the *life support equipment* is required has vacated the premises or no longer requires the *life support equipment*, the retailer may deregister the customer's premises on the date specified in accordance with subrule (9)(a)(ii) if:
- (a) the retailer has provided written notification to the customer advising:
 - (i) that the customer's premises will be deregistered on the basis that the customer has advised the retailer that the person for whom the *life support equipment* is required has vacated the premises or no longer requires the *life support equipment*;
 - (ii) the date on which the customer's premises will be deregistered, which must be at least 15 business days from the date of that written notification;
 - (iii) that the customer will no longer receive the protections under this Part when the premises is deregistered; and
 - (iv) that the customer must contact the retailer prior to the date specified in accordance with subrule (9)(a)(ii) if the person for whom the *life support equipment* is required has not vacated the premises or requires the *life support equipment*; and
 - (b) the customer has not contacted the retailer prior to the date specified in accordance with subrule (9)(a)(ii) to advise that the person for whom the *life support equipment* is required has not vacated the premises or requires the *life support equipment*.
- (10) Where a customer whose premises have been registered by a distributor under subrule 124(4)(a) or 124(5) advises the distributor that the person for whom the *life support equipment* is required has vacated the premises or no longer requires the *life support equipment*, the distributor may deregister the customer's premises on the date specified in accordance with subrule (10)(a)(ii) if:

- (a) the distributor has provided written notification to the customer advising:
 - (i) that the customer's premises will be deregistered on the basis that the customer has advised the distributor that the person for whom the *life support equipment* is required has vacated the premises or no longer requires the *life support equipment*;
 - (ii) the date on which the customer's premises will be deregistered, which must be at least 15 business days from the date of that written notification;
 - (iii) that the customer will no longer receive the protections under this Part when the premises is deregistered; and
 - (iv) that the customer must contact the distributor prior to the date specified in accordance with subrule (10)(a)(ii) if the person for whom the *life support equipment* is required has not vacated the premises or requires the *life support equipment*; and
 - (b) the customer has not contacted the distributor prior to the date specified in accordance with subrule (10)(a)(ii) to advise that the person for whom the *life support equipment* is required has not vacated the premises or requires the *life support equipment*.
- (11) A retailer may deregister a customer's premises after being notified by the distributor that the distributor has deregistered the customer's premises pursuant to subrule (10).
- (12) A distributor may deregister a customer's premises after being notified by the retailer that the retailer has deregistered the customer's premises pursuant to subrule (9).
- (13) A retailer or distributor may, at any time, request a customer whose premises have been registered under rule 124 to confirm whether the person for whom *life support equipment* is required still resides at the premises or still requires *life support equipment*.

Deregistration where there is a change in the customer's retailer

- (14) Where a distributor has registered a customer's premises pursuant to subrule 124(5) and the distributor becomes aware (including by way of notification in accordance with the Market Settlement and Transfer Solution Procedures) that the customer has subsequently transferred to another retailer at that premises, the distributor may deregister the customer's premises on the date specified in accordance with subrule (14)(a)(ii) if:
- (a) the distributor has provided written notification to the customer advising:
 - (i) that the customer's premises will be deregistered;
 - (ii) the date on which the customer's premises will be deregistered, which must be at least 15 business days from the date of that written notification;
 - (iii) that the customer will no longer receive the protections under this Part when the premises is deregistered; and

- (iv) that the customer must contact the distributor prior to the date specified in accordance with subrule (14)(a)(ii) if a person residing at the customer's premises requires *life support equipment*; and
 - (b) the customer has not contacted the distributor prior to the date specified in accordance with subrule (14)(a)(ii) to advise that a person residing at the customer's premises requires *life support equipment*.
- (15) Nothing in subrule (14) affects the operation of subrules 124(4)(a) and 124(5) following a customer's transfer to the other retailer.
- (16) **Application of this rule to standard retail contracts**
This rule applies in relation to standard retail contracts.
- (17) **Application of this rule to market retail contracts**
This rule applies in relation to market retail contracts.

126 Registration and deregistration details must be kept by retailers and distributors

Retailers and distributors must:

- (a) Establish policies, systems and procedures for registering and deregistering a premises as requiring *life support equipment* to facilitate compliance with the requirements in this Part.
- (b) Ensure that *life support equipment* registration and deregistration details maintained in accordance with rules 124, 124A, 124B and 125 are kept up to date, including:
 - (i) the date when the customer requires supply of energy at the premises for the purposes of the *life support equipment*;
 - (ii) when medical confirmation was received from the customer in respect of the premises;
 - (iii) the date when the premises is deregistered and the reason for deregistration; and
 - (iv) a record of communications with the customer required by rules 124A and 125.

Part 8 Prepayment meter systems

127 Definitions

In this Part:

additional required information means the information referred to in rule 128 (2), being information that is additional to that required to be disclosed under Division 10 of Part 2;

installation of a standard *meter* to replace a prepayment *meter* system includes the conversion of the prepayment *meter* system to a standard operating mode so that the prepayment *meter* system operates as a standard *meter*;

removal of a prepayment *meter* system includes rendering the system non-operational;

self-disconnection means an *interruption* to the supply of energy because a prepayment *meter* system has no credit (including emergency credit) available;

standard meter, in relation to a particular small customer, means a *metering* installation of the type that would ordinarily be installed at the premises of the customer in accordance with energy laws;

trial period means the trial period referred to in rule 130.

128 Disclosure requirements at energy marketing stage

- (1) Before the formation of a prepayment *meter* market retail contract between a retailer and a small customer, the retailer must provide the additional required information to the customer in relation to the contract.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) The additional required information that the retailer is to provide to a small customer is information in relation to the following:
 - (a) the methods by which the customer can make payments to the prepayment *meter* system account and the locations of payment centres or recharge facilities (if relevant);
 - (b) the amount of emergency credit to be provided in the prepayment *meter* system;
 - (c) details of the trial period at or before the expiry of which the customer may withdraw from the contract;
 - (d) the method by which the customer may receive any rebate, concession or relief available under any government funded energy charge rebate, concession or relief scheme;
 - (e) dispute resolution options available to small customers.
- (3) The additional required information may be provided in writing, electronically or verbally.

- (4) This rule does not affect and is additional to any information required to be provided under Division 10 of Part 2.

129 System requirements

(1) System requirements

A retailer who sells or proposes to sell energy under a prepayment *meter* market retail contract must ensure that the prepayment *meter* system meets the requirements of this rule.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(2) System display

The prepayment *meter* system must display:

- (a) the financial balance of the prepayment *meter* system, accurate to within \$1.00 of the actual balance; and
- (b) whether the prepayment *meter* system is operating in normal credit or emergency credit mode; and
- (c) current consumption information (in both KWh or MJ and \$AUD).

(3) Self-disconnection times

The prepayment *meter* system must not disconnect supply to the small customer as a result of a self-disconnection, otherwise than between the hours of 10am and 3pm on a week day.

(4) Recommencement of supply

Where supply to the small customer has been *interrupted* through self-disconnection, the prepayment *meter* system must be capable of recommencing supply as soon as information is communicated to the system that a payment to the prepayment *meter* system account has been made which exceeds the amount of emergency credit.

(5) Reporting of self-disconnection

The system must be capable of identifying to the retailer every instance of self-disconnection and the duration of that self-disconnection.

(6) Emergency credit

The prepayment *meter* system must provide an amount of emergency credit not less than:

- (a) a level equivalent to the average cost of 3 days of electricity or gas supply (as applicable) to within \$1.00; or
- (b) such other amount as is approved by the AER from time to time in accordance with the requirements (if any) of these Rules.

(7) **Methodology of average costing**

A retailer must:

- (a) provide the AER with a statement of its methodology for determining the average cost of energy supply within 10 days of being required to do so by notice from the AER; and
- (b) if the AER does not approve that methodology—change it within a specified period of being required to do so by notice from the AER in accordance with changes reasonably required by the AER and specified in the notice.

(8) **Rebate, concession or relief schemes**

The prepayment *meter* system must have the technical capacity to deliver to the small customer the benefit of any government funded energy charge rebate, concession or relief scheme to which the customer is entitled.

130 Trial period

- (1) A small customer who enters a prepayment *meter* market retail contract with a retailer has the right to withdraw from the contract at or before the end of the trial period with no penalty, exit or termination charges or *meter* removal or conversion charges.
- (2) The trial period is:
 - (a) a period of 3 months, unless paragraph (b) applies; or
 - (b) a longer period specified in the prepayment *meter* market retail contract, commencing on the date the contract is formed.
- (3) Where the small customer exercises the right of withdrawal under this rule, the retailer must, at no cost to the customer:
 - (a) make immediate arrangements for:
 - (i) the removal of the prepayment *meter* system; and
 - (ii) the installation of a standard *meter*; and
 - (b) provide information about and a general description of the customer retail contract options available to the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (4) The retailer must send a notice to the small customer not more than 20 business days and not less than 10 business days before the expiry of the trial period advising the customer of the date of the expiry of the trial period and the options available to the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (5) Withdrawal from a prepayment *meter* market retail contract operates as a rescission of the contract.
- (6) **Application of this rule to prepayment meter market retail contracts**
This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

131 Operating instructions to be provided

- (1) A retailer must, at no charge, provide the following information on the use of the prepayment *meter* system to a small customer who enters into a prepayment *meter* market retail contract:
 - (a) instructions on how to operate the prepayment *meter* system that are:
 - (i) expressed in clear, simple and concise language; and
 - (ii) in a format that makes it easy for a person not familiar with the operation of a prepayment *meter* system to understand;
 - (b) instructions on how to access the emergency credit facility of the prepayment *meter* system;
 - (c) instructions on how to obtain a refund of remaining credit when the prepayment *meter* market retail contract is terminated;
 - (d) instructions on how and where payments to the prepayment *meter* system account can be made;
 - (e) the retailer's telephone number or numbers for complaints, enquiries and emergencies (the cost for which is no more than the cost of making a local call).

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) If requested by the small customer, the retailer must use its best endeavours to provide the operating instructions in a language other than English requested by the customer.

132 Consumption information to be provided

- (1) On request, a retailer must promptly provide a small customer with the following information:
 - (a) total energy consumption;
 - (b) average daily consumption;
 - (c) average daily cost of consumption,

for the previous 2 years or since the commencement of the prepayment *meter* market retail contract (which ever is the shorter) divided into quarterly segments.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) Information provided to the small customer under subrule (1) for the previous 2 years must be provided without charge, but information requested for an earlier period or more than once in any 12 month period may be provided subject to a reasonable charge.

- (3) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

133 Limitation on recovery of debt

- (1) Where a small customer owes a debt to a retailer, other than of a kind referred to in rule 137 or 138, the retailer must not recover any repayments of the debt under a prepayment *meter* market retail contract or under any other contract or agreement that adjusts the charges in the prepayment *meter* system to recover the amount of the debt.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

134 Credit retrieval

- (1) A prepayment *meter* market retail contract must explain how a small customer can obtain a refund of any credit remaining in the prepayment *meter* system account when the prepayment *meter* market retail contract is terminated or otherwise ends.

- (2) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

135 System testing

- (1) Where a small customer with a prepayment *meter* market retail contract requests the retailer that the whole or part of the prepayment *meter* system be checked or tested, the retailer must make immediate arrangements for one or more of the following:

- (a) a check of the *metering data*;
- (b) a check or test of the prepayment *meter* system;
- (c) a check or test by the *responsible person* or *metering coordinator* (as applicable) for the *meter* installation at the small customer's premises.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) The small customer must pay the retailer in advance the retailer's (and, where appropriate, the *responsible person's* or *metering coordinator's* (as applicable)) reasonable charge for any checks or tests undertaken pursuant to subrule (1).
- (3) If a prepayment *meter* system is found to be inaccurate or not operating correctly following a check or test undertaken pursuant to subrule (1), the retailer must:
 - (a) correct any overcharging or undercharging in accordance with rules 136 and 137; and
 - (b) refund any fee paid in advance under subrule (2); and
 - (c) make immediate arrangements to replace or repair the prepayment *meter* system; and
 - (d) advise the small customer of the existence of its dispute resolution processes.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(4) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

136 Overcharging

- (1) This rule applies where a small customer with a prepayment *meter* market retail contract has been overcharged as a result of:
 - (a) an act or omission of the retailer or distributor; or
 - (b) without limitation, a fault in or incorrect operation of a prepayment *meter* system found following a check or test under rule 135.
- (2) The retailer must:
 - (a) inform the customer of that overcharging within 10 business days of the retailer becoming aware of that overcharging; and
 - (b) ask the customer for instructions as to whether the amount should be:
 - (i) repaid to the small customer; or
 - (ii) added to the balance of the prepayment *meter* system account.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) Where the retailer asks for instructions from a small customer under subrule (2) and no instructions are provided by the customer within 20 business days, the retailer must add to the balance of the prepayment *meter* system account the amount overcharged to the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(4) Application of this rule to prepayment meter market retail contracts

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

137 Undercharging

- (1) This rule applies where a small customer with a prepayment *meter* market retail contract has been undercharged as a result of:

- (a) an act or omission of the retailer or distributor; or
- (b) without limitation, a fault in or incorrect operation of a prepayment *meter* system found following a check or test under rule 135.

- (2) The retailer must inform the small customer within 10 business days of becoming aware of that undercharging and at that time indicate the amount undercharged and whether or not it proposes to recover from the small customer the amount undercharged.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) Where a retailer proposes to recover from a small customer an amount undercharged as a result of a retailer's or distributor's error, the retailer must:

- (a) limit the amount to be recovered to the amount undercharged in the 9 months before informing the customer of the undercharging; and
- (b) provide details and an explanation of the amount to be recovered; and
- (c) not charge the customer any interest on the amount; and
- (d) offer the customer time to pay the amount undercharged, by agreed instalments or by an agreed adjustment to the charges in the prepayment *meter* system, over:
 - (i) if the undercharging occurred over a period of less than 12 months—a period nominated by the customer, being no longer than the period during which the undercharging occurred; or
 - (ii) in any other case—a period of 12 months.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(4) Application of this rule to prepayment meter market retail contracts

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

138 Illegal energy use

- (1) Despite rule 137, if a retailer has undercharged or not charged a small customer as a result of the customer's fraud or intentional consumption of energy otherwise than in accordance with the energy laws, the retailer may estimate the consumption for which the customer has not paid and either:
 - (a) bill the customer for all of the unpaid amount; or
 - (b) make an agreed adjustment to the charges in the prepayment *meter* system to recover the unpaid amount.

- (2) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

139 Life support equipment

- (1) A small customer with a prepayment *meter* market retail contract must inform the retailer if a person residing at the customer's premises has or requires *life support equipment*.
- (2) The retailer must, as soon as practicable after being so informed, advise the small customer of the retailer's obligations under section 59 of *the Law*.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (3) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

140 Customer enquiries and complaints

A retailer must, before commencing to sell energy to small customers under prepayment *meter* market retail contracts, establish and maintain an enquiry, complaints and emergency 24 hour telephone service (the cost for which is no more than the cost of making a local call) to provide information, advice and assistance about the operation of the retailer's prepayment *meter* system.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

141 Payment difficulties and hardship

- (1) **Identification by retailer's management system of self-disconnection**

A retailer offering or selling energy under prepayment *meter* market retail contracts must ensure that the retailer's management system is capable of identifying to the retailer every instance of a small customer's self-disconnection and the duration of that self-disconnection.

(2) Dealing with payment difficulties

If:

- (a) a small customer with a prepayment *meter* market retail contract informs the retailer in writing or by telephone that the customer is experiencing payment difficulties; or
- (b) the retailer's management system identifies to the retailer that a small customer has self-disconnected 3 or more times in any 3 month period for longer than 240 minutes on each occasion,

the retailer must contact the customer as soon as is reasonably practicable:

- (c) to offer to make immediate arrangements for:
 - (i) the removal of the customer's prepayment *meter* system; and
 - (ii) the installation of a standard *meter*,
at no cost to the small customer; and
- (d) to provide information about, and a general description of, the customer retail contract options available to the customer, and
- (e) to provide information about and referral to any government funded energy charge rebate, concession or relief scheme; and
- (f) to provide information about its customer hardship policy; and
- (g) to provide information about available financial counselling services.

(3) Records relating to customers with payment difficulties

The retailer must maintain verifiable records, in relation to small customers facing payment difficulties with prepayment *meter* systems, sufficient to allow the retailer to answer any enquiries by the AER (for example, as part of the AER's performance reporting function against hardship program indicators) or the relevant energy ombudsman.

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

142 Payment towards prepayment meter system account**(1) Recharge facilities, times and locations**

A retailer selling energy under a prepayment *meter* market retail contract must ensure that facilities are in place for the small customer to make payments in relation to the prepayment *meter* system account by at least one of the following methods:

- (a) by cash, at a minimum of 2 locations that are readily accessible to the customer, one of which is open between 9am and 5pm on any day of the week, including Saturdays, Sundays and public holidays (excluding Christmas Day);

- (b) by a 24 hour, 7 days a week telephone service, using credit card, debit card, electronic funds transfer or any other telephone payment method acceptable to the retailer and agreed to by the customer;
- (c) by a 24 hour, 7 days a week electronic or other payment method acceptable to the retailer and agreed to by the customer.

(2) **Minimum payment**

The retailer must ensure the minimum amount that the small customer can pay in relation to the prepayment *meter* system account is an amount between \$1.00 and \$10.00 (both inclusive).

Note:

This rule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

143 Tariffs and charges

- (1) This rule sets out minimum requirements that are to apply in relation to the terms and conditions of prepayment *meter* market retail contracts.
- (2) A retailer must set out in a prepayment *meter* market retail contract with a small customer all tariffs and charges payable by the customer.
- (3) The retailer must give notice of any variation to the tariffs and charges that affect the customer by:
 - (a) either:
 - (i) giving notice to the customer; or
 - (ii) publishing the notice of a variation on the retailer's website and providing separate notice to be displayed clearly at each location where payments to the prepayment *meter* account can be made, and doing so in sufficient numbers such that all customers are able to secure a copy; and
 - (b) where a local instrument so requires, publishing a notice about the variation in a newspaper circulating in the participating jurisdiction in which the retailer has affected customers, notifying customers that:
 - (i) there has been a variation; and
 - (ii) the variation is published on the retailer's website, in accordance with the local instrument.
- (4) The notice must be given as soon as practicable, and in any event no later than the date on which the variation takes effect.
- (5) The retailer must set out in the prepayment *meter* market retail contract the obligations with regard to notice that the retailer must comply with where the tariffs and charges are to be varied.

144 Billing for other goods and services

- (1) If a retailer provides goods and services otherwise than for the sale and supply of energy for a small customer with a prepayment *meter* market retail contract, the retailer:
 - (a) must bill the customer for those goods and services separately; and
 - (b) must not recover any payment for those goods and services under the prepayment *meter* market retail contract or under any other contract or agreement that adjusts the charges in the prepayment *meter* system to recover the amount.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) **Application of this rule to prepayment meter market retail contracts**

This rule is a minimum requirement that is to apply in relation to small customers who purchase energy under a prepayment *meter* market retail contract.

145 Customer termination of contract or request for removal

- (1) **Retailer's obligations**

If a small customer who is a party to a prepayment *meter* market retail contract terminates the prepayment *meter* market retail contract or requests the removal of the prepayment *meter* system, otherwise than in accordance with rule 130, the retailer must make immediate arrangements for:

- (a) the removal of the prepayment *meter* system; and
- (b) the installation of a standard *meter* to replace the prepayment *meter* system; and
- (c) the provision of information about, and a general description of, the customer retail contract options available to the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) **Recovery of charges**

The retailer may recover fair and reasonable termination charges and *meter* removal charges (including, where applicable, conversion charges) from a small customer who was a party to a prepayment *meter* market retail contract if:

- (a) the contract states a date on which the contract will end; and
- (b) the retailer is permitted to do so by the prepayment *meter* market retail contract; and
- (c) the termination occurs or the request for removal is made after the trial period has elapsed.

(3) **Exceptions for charges in certain circumstances**

Subrule (2) does not apply where the termination of the prepayment *meter* market retail contract or removal of the prepayment *meter* system:

- (a) occurs where a small customer has informed the retailer that a person residing at the premises concerned has or requires *life support equipment*; or
- (b) occurs pursuant to an offer made by the retailer under rule 141 (2) (c) to a small customer who is experiencing payment difficulties.

146 Different retailer

- (1) A retailer who has or had a prepayment *meter* market retail contract with a small customer in respect of premises where a prepayment *meter* system is installed must, if requested to do so by another retailer who has entered into a customer retail contract with the customer in respect of the premises at which the prepayment *meter* system is installed, make immediate arrangements for:

- (a) the removal of the prepayment *meter* system at no cost to the other retailer; and
- (b) the installation of a standard *meter* at no cost to the other retailer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

- (2) A retailer may recover from a small customer who was a party to a prepayment *meter* market retail contract, the fair and reasonable costs incurred pursuant to subrule (1) (a) and (b), if permitted to do so by the prepayment *meter* market retail contract and if the termination occurs after the trial period has elapsed.

147 Deemed customer retail arrangements

(1) **Application of this rule to move-in and carry-over customers**

This rule applies to a move-in customer or carry-over customer where the premises concerned are supplied with energy using a prepayment *meter* system.

(2) **Other provisions not affected**

The provisions of this rule are additional to the provisions of Division 8 of Part 2 relating to deemed customer retail arrangements.

(3) **Terms and conditions to be read as applying to prepayment meter systems**

The terms and conditions of the deemed customer retail arrangement between the customer and the financially responsible retailer are, to the extent that they are the terms and conditions of the retailer's standard retail contract, taken to be appropriately modified to take account of differences that arise with the use of prepayment *meter* systems.

(4) **Supplementary terms and conditions**

The terms and conditions of the deemed customer retail arrangement between the customer and the financially responsible retailer are supplemented by the following subrules, which are, to the necessary extent, taken to modify the terms and conditions of the arrangement.

(5) **Fees, charges and costs**

The retailer must not charge the customer any fees, charges or other costs (other than the standing offer price and a fair and reasonable deposit for the use of a smart card or other similar technology if required to access the prepayment *meter* system) for using the prepayment *meter* system.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(6) **Removal and replacement of prepayment meter system on request**

The retailer must, if requested by the customer to do so, make immediate arrangements for:

- (a) the removal of the prepayment *meter* system at no cost to the customer; and
- (b) the installation of a standard *meter* at no cost to the customer.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

(7) **Notice requirements**

The retailer must give the customer the following information:

- (a) information on the terms and conditions of the deemed customer retail arrangements;
- (b) information as to how to operate the prepayment *meter* system and the location of recharge facilities (if relevant);
- (c) information about the ability of the customer to request that the retailer make immediate arrangements for:
 - (i) the removal of the prepayment *meter* system at no cost to the customer; and
 - (ii) the installation of a standard *meter* at no cost to the customer;
- (d) information about the existence and a general description of the retailer's prepayment *meter* market retail contracts, market retail contracts (if any), and if the retailer is the designated retailer in relation to those premises, the retailer's standard retail contract and standing offer prices;
- (e) information as to whether or not the retailer proposes to offer the customer a contract of the kind referred to in paragraph (d);
- (f) information about the ability of the customer to choose a retailer for the purchase of energy;

- (g) information about the retailer's customer hardship policy;
- (h) information about available financial counselling services.

Note:

This subrule is a civil penalty provision for the purposes of *the Law*. (See the National Regulations, clause 6 and Schedule 1.)

Part 9 Exempt selling regime

Division 1 Preliminary

148 Definitions

In this Part:

exempt customer means a person to whom an exempt seller sells energy and who would be a retail customer of the seller if the seller were a retailer;

exempt seller includes an applicant for an exemption.

exemption means an exemption from the requirement to hold a retailer authorisation;

retail customer means a person who is a customer of a retailer.

148A Activities that do not require an exemption or authorisation

For section 88(1A) of *the Law*, the following circumstances are specified:

- (a) a person engaged in the activity of selling energy for a construction project (including general building, industrial, transport and mining projects) where the energy is consumed within the project's construction site or on a site adjacent to the construction site and only where the sale is of energy consumed during the construction or commissioning phases of the project;
- (b) a person engaged in the activity of selling energy to a related body corporate of the person or to an entity controlled by, or under common control with, the person (where "related body corporate" and "control" have the meaning in the *Corporations Act 2001* of the Commonwealth); and
- (c) a federal, state or local government agency or body (including a department, statutory authority or government-owned corporation but excluding a housing authority or an agency or body established for the purpose of the sale, supply or generation of energy) engaged in the activity of selling energy to non-residential customers where the sale of energy is ancillary to the principal functions of the agency or body.

Division 2 AER power to exempt

149 Individual exemptions

- (1) Subject to this rule, the AER may decide to grant an individual exemption to a particular person for the sale of energy for premises at a site or contiguous sites specified in the individual exemption.
- (2) An individual exemption comes into force from the date on which the instrument of exemption is issued by the AER under rule 162 (2) or (if later) conditions of the exemption coming into force are satisfied and may be revoked in accordance with *the Law and the Rules*.

- (3) The AER must not make a decision to grant an individual exemption under subrule (1) unless:
 - (a) (in the opinion of the AER) the grant of the exemption is not inconsistent with the national energy retail objective; and
 - (b) if any exempt customers at the site are small customers, the applicant has demonstrated to the reasonable satisfaction of the AER that the exemption criteria in subrule (5) are satisfied in relation to the site or sites; and
 - (c) the AER is satisfied in all the circumstances that:
 - (i) the grant of the individual exemption would result, or be likely to result, in a benefit to the exempt customers that is not available unless the individual exemption is granted;
 - (ii) the benefit would outweigh the detriments that would result, or be likely to result, from the grant of the individual exemption; and
 - (iii) the grant of an individual exemption is warranted by special circumstances.
- (4) In assessing the detriments that would result, or be likely to result, from the grant of an individual exemption, the AER may take into account:
 - (a) the costs to the exempt customers; and
 - (b) the public costs of individual exemptions including the costs of determining, monitoring and enforcing conditions of individual exemptions.
- (5) The exemption criteria referred to in subrule (3)(b) are:
 - (a) exempt customers will, as far as practicable, be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right; and
 - (b) exempt customers will, as far as practicable, not be denied customer protections afforded to retail customers under the Law and the Rules.

150 — Deemed exemptions

- ~~(1) The AER may, in accordance with the retail consultation procedure, determine a class of persons in respect of whom a deemed exemption is taken to be in force.~~
- ~~(2) A deemed exemption comes into force from the date the determination is made, or on the date specified in the determination, by the AER specifying the class of exempted persons.~~
- ~~(3) The AER may from time to time amend determinations under this rule in accordance with the retail consultation procedure.~~

150 Determination of exemption classes

- (1) The AER may determine a class of persons in respect of whom an exemption applies on registration on the Public Register of Authorised Retailers and Exempt Sellers.

- (2) The AER must only determine a class for the purposes of subrule (1) in respect of persons:
- (a) selling energy to holiday-makers in holiday accommodation (including cabins, recreational vehicles such as motorhomes, campervans, caravans, camper trailers, tent trailers, fifth wheelers and slide-ons, tents and like accommodation);
 - (b) selling energy as a supplementary supply through a power purchase agreement to customers connected to the national grid (as defined in the NER); or
 - (c) selling unmetered gas for consumption at individual premises where:
 - (i) the gas is used for limited purposes (for example, for use in cooking appliances) and is not used for space heating;
 - (ii) the gas is for consumption at premises located within the limits of a site owned, occupied or operated by the seller;
 - (iii) the premises are not separately metered for gas consumption; and
 - (iv) charges for the gas consumed are shown as a separate itemised charge to the buyer;
 - (d) selling electricity supplied within premises used primarily to house equipment used for the supply of television, radio, telecommunications or data centre services (including internet, telephone, mobile phone, fibre optic, hybrid fibre cable or wi-fi services) and where:
 - (i) the sale is in conjunction with, or ancillary to, the supply of the relevant services; and
 - (ii) the distribution system by means of which electricity is distributed within the premises is owned, operated or controlled by the provider of the relevant services.
- (3) In defining a class in a determination under subrule (1), the AER may exclude from the class a person to whom subrule (2) would otherwise apply, including by omitting the class from the determination or specifying:
- (a) the circumstances in which a person qualifies for the class or is excluded from it;
 - (b) criteria that must be satisfied to be a member of the class;
 - (c) restrictions as to the time from which the class is, or ceases to be, available; or
 - (d) any other matters the AER considers appropriate.
- (4) The AER may amend a determination under subrule (1).
- (5) A determination under this rule must specify, for each class of persons, the form of energy to which the class relates.
- (6) In making or amending a determination under this rule, the AER must comply with the retail consultation procedure.

151 Registration for an exemption~~Registrable exemptions and registered exemptions~~

- (1) A particular person is subject to an exemption available to a class of persons specified in a determination made under rule 150 only if:
 - (a) the person is a member of the class; and
 - (b) the person registers in accordance with the determination on the Public Register of Authorised Retailers and Exempt Sellers.
- (2) An exemption comes into force in relation to a member of a class of persons specified in the determination made under rule 150 from the date the person registers for the exemption on the Public Register of Authorised Retailers and Exempt Sellers.
- (3) If a person ceases to be a member of a class of persons for whom an exemption is available under a determination made under rule 150, the exemption is taken to be revoked in respect of that person with effect from the time the person ceases to be a member of the class.
- (4) If a person ceases to be a member of a class of persons for whom an exemption is available by reason of an amendment to a determination made under rule 150, the exemption is taken to be revoked in respect of that person with effect from the time the amendment takes effect or a later time specified in the determination.
- ~~(1) The AER may, in accordance with the retail consultation procedure, determine a class of persons in respect of whom an exemption (a **registrable exemption**) is registrable.~~
- ~~(2) A registrable exemption becomes a registered exemption in respect of a particular person when the person is registered as such on the Public Register of Authorised Retailers and Exempt Sellers.~~
- ~~(3) A registered exemption comes into force from the date the person who is subject to the exemption is registered as such on the Public Register of Authorised Retailers and Exempt Sellers.~~
- ~~(4) The AER may from time to time amend determinations under this rule in accordance with the retail consultation procedure.~~

152 Conditions generally

- (1) The AER may impose conditions in relation to the sale of energy by an exempt seller or class of exempt sellers to exempt customers.
- (2) Conditions may be imposed:
 - (a) in respect of individual exemptions—under rule 158; and
 - (b) in respect of ~~deemed exemptions and~~ registered exemptions—under rule 153.

- (3) Without limitation, a condition may require an exempt seller or class of exempt sellers to abide by specified obligations derived from energy laws and applicable to retailers, with any modifications specified in the condition, as if:
 - (a) an exempt seller were a retailer; and
 - (b) the exempt customers of an exempt seller were retail customers of a retailer.
- ~~(4) Where the AER determines that it is appropriate to impose a condition in relation to prices to be charged to exempt customers at residential premises by an exempt seller, the AER must ensure that those customers are charged no more than the standing offer price of the local area retailer.~~
- (4) The AER may impose conditions on exempt sellers for or with respect to prices to be charged by an exempt seller to small customers who are exempt customers and if the AER does so, any such condition must set a maximum price to be charged to those customers that is:
 - (a) determined in accordance with the condition and may be different for different exempt sellers or classes of exempt sellers; and
 - (b) may be less than, but must not be more than, the standing offer price of the local area retailer.
- (5) The AER may impose conditions on exempt sellers for or with respect to installing, maintaining and reading of *meters* of exempt customers in accordance with jurisdictional energy legislation.

153 Conditions for ~~deemed exemptions and~~ registered exemptions

(1) Conditions

If the AER makes a determination under rule 150 ~~for a class of deemed exemptions or under rule 151~~ for a class of registrable exemptions, the AER may impose conditions in relation to the sale of energy by exempt sellers of that class to exempt customers by specifying the conditions as part of the determination.

(2) When conditions may be imposed

Conditions may be imposed when the determination is first made or during the currency of the determination.

(3) Variation or revocation of condition

The AER may, by way of amendment of the determination, vary or revoke a condition.

(4) Application of new or varied conditions

Subject to the terms of the determination imposing or varying a condition:

- (a) a condition imposed during the currency of the determination applies to persons who already are exempt sellers under the determination (as well as to persons who afterwards become exempt sellers under the determination); and

- (b) a condition varied during the currency of the determination applies as varied to persons who already are exempt sellers under the determination (as well as to persons who afterwards become exempt sellers under the determination).

(5) **Application of revoked conditions**

Subject to the terms of the amending determination that revokes a condition, a revoked condition ceases to apply to persons who already are exempt sellers under the determination (as well as to persons who afterwards become exempt sellers under the determination).

153A Relief from exemptions conditions

- (1) An exempt seller may apply to the AER for a derogation from an exemption condition specified in a determination made under rule 150.
- (2) An application must be made in accordance with the AER Exempt Selling Guidelines.
- (3) The AER may grant a derogation referred to in subrule (1) where (in the AER's opinion) the grant of the derogation is not inconsistent with the national energy retail objective.

Division 3 AER Exempt Selling Guidelines

154 AER Exempt Selling Guidelines

(1) **Application of this rule**

This rule applies to the AER Exempt Selling Guidelines referred to in section 118 of *the Law*.

(2) **Subject matter of AER Exempt Selling Guidelines**

The AER Exempt Selling Guidelines must, in addition to providing information about exemptions, include provisions concerning:

- (a) procedures for applying for the grant, variation or revocation of an individual exemption or a registrable exemption or a derogation under rule 153A; and
- (b) the information that must be provided by an applicant for an individual exemption; and
- (c) requirements relating to registered exemptions under rule 151; and
- (d) guidance on the assessment of applications for a derogation under rule 153A; and
- ~~(d) guidance on the application of the exempt seller related factors (under section 115 of *the Law*) and the customer related factors (under section 116 of *the Law*) in making any decision relating to exemptions; and~~
- (e) the categories of ~~deemed and~~ registrable exemptions, and any associated conditions of exemption that are to apply; and

- (f) any other matters that the AER considers relevant.

Division 4 Provisions relating to individual exemptions

155 Application for individual exemption or variation of individual exemption

(1) Application may be made

A person may apply to the AER for:

- (a) an individual exemption; or
- (b) the variation of an individual exemption granted to the person.

(2) Required information to be provided

The information required by the AER Exempt Selling Guidelines must be provided in the application or, at the request of or with the concurrence of the AER, by way of supplementary advice.

(3) Application to be published

The AER must publish an application on the AER's website.

156 Public notice and submissions

Before deciding an application for an individual exemption or variation of an individual exemption, the AER must:

- (a) publish on the AER's website a notice:
 - (i) setting out a copy of or the details in the application; and
 - (ii) stating that written submissions about the application may be made to the AER within a period of at least 20 business days that is specified in the notice; and
 - (iii) containing such other information as the AER considers appropriate; and
- (b) consider all written submissions received by it within that period before deciding whether to grant or refuse the application.

157 Deciding application

(1) Duty to decide application

The AER must decide whether to grant or refuse an application for an individual exemption or variation of an individual exemption.

(2) Application may be granted if guidelines and principles satisfied

The AER may grant the application if the AER is satisfied that the application meets any applicable requirements of *the Law* and the AER Exempt Selling Guidelines.

158 Conditions for individual exemptions**(1) Conditions**

If the AER grants an application for an individual exemption or variation of an individual exemption, the AER may impose conditions in relation to the sale of energy by the exempt seller to exempt customers.

(2) When conditions may be imposed

Conditions may be imposed when the exemption or variation is granted or during the currency of the exemption as granted or as varied.

(3) Variation or revocation of condition

The AER may vary or revoke a condition.

(4) Variation or revocation of conditions to be treated as variation of exemption

Subject to subrule (5), for~~For~~ the purposes of this Part, a variation or revocation of a condition imposed on an individual exemption is a variation of the exemption, and is to be dealt with accordingly.

(5) Changes to deemed exemption conditions

Subrule (4) does not apply in respect of the variation or revocation of an exemption condition deemed to be imposed on an individual exemption under these Rules.

159 Form of energy to be specified**(1) Form of energy to be specified**

If the AER grants an application for an individual exemption, the instrument of exemption must specify the form of energy to which the exemption relates.

(2) Form of energy cannot be varied

An individual exemption cannot be varied to change or add to the form of energy to which the exemption relates.

Note:

Subrule (2) does not prevent an application for or the grant of another exemption.

160 Notice of decision to grant application

If the AER decides to grant an application for an individual exemption or variation of an individual exemption, the AER must, as soon as practicable, give the applicant a notice:

- (a) stating the decision; and
- (b) specifying the conditions (if any) that the AER has decided to impose on the exemption or variation; and
- (c) stating any other matter relevant to the grant of the exemption or variation.

161 Deemed refusal**(1) Application of this rule**

This rule applies if the AER specifies conditions in a notice under rule 160.

(2) Deemed refusal if applicant does not accept conditions

The AER is taken to have decided to refuse an application for an individual exemption or variation of an individual exemption if, within:

- (a) the period of 20 business days after the day the notice is given by the AER; or
- (b) that period as extended by the AER,

the applicant has not given the AER a notice of acceptance of the conditions specified by the AER or those conditions with changes to which the AER has agreed.

162 Issue and public notice of individual exemption**(1) Application of this rule**

This rule applies if:

- (a) the AER decides to grant an application for an individual exemption or variation of an individual exemption without conditions; or
- (b) the AER decides to grant the application with conditions and the applicant gives the AER a notice of acceptance of the conditions within:
 - (i) the period of 20 business days after the notice of the AER's decision is given by the AER; or
 - (ii) that period as extended by the AER.

(2) Issue and publication of individual exemption or variation

The AER must, as soon as practicable:

- (a) issue to the applicant:
 - (i) an instrument of exemption; or
 - (ii) in the case of a variation—an instrument of variation or an instrument containing the exemption as varied; and
- (b) publish the terms of the exemption or variation on the AER's website.

163 Notice of refusal

If the AER decides or is taken to have decided to refuse an application for an individual exemption or variation of an individual exemption, the AER must, as soon as practicable, give the applicant a notice stating the decision and the reasons for the decision.

Division 5 Public Register of Authorised Retailers and Exempt Sellers

164 Public Register of Authorised Retailers and Exempt Sellers

- (1) For the purposes of section 119 of *the Law*, the Public Register of Authorised Retailers and Exempt Sellers must include the following particulars:
 - (a) the names and business addresses of persons who hold retailer authorisations and the form of energy to which the retailer authorisation applies;
 - (b) the names and business addresses of exempt sellers who are subject to an individual exemption;
 - (c) ~~not used; a list of the classes of persons in respect of whom deemed exemptions are in force;~~
 - (d) a list of the classes of persons in respect of whom an exemption is ~~registrable~~ available on registration;
 - (e) the names and business addresses of exempt sellers who have registered with the AER as belonging to a class of persons subject to a registrable exemption.
- (2) The Public Register of Authorised Retailers and Exempt Sellers may include other particulars and information relating to authorised retailers, exempt sellers and associated matters that the AER considers relevant.

Part 10 Retail market performance reports

165 Purpose of this Part

This Part sets out details of matters to be included in retail market performance reports under Division 2 of Part 12 of *the Law*.

166 Contents of retail market performance report—retail market overview

- (1) A retail market overview in a retail market performance report must include:
 - (a) a statement of the number of retailers and the number of retailers actively selling energy to customers; and
 - (b) an indication of the number of customers of each retailer; and
 - (c) an indication of the total number of customers with standard retail contracts and market retail contracts, respectively, and the numbers by reference to each retailer; and
 - (d) an indication of the numbers of customers who have transferred from one retailer to another retailer; and
 - (e) a report on energy affordability for small customers.
- (2) A retail market overview must provide information under subrule (1) by reference to the following:
 - (a) participating jurisdictions;
 - (b) different categories of customers as determined by the AER, including (but not limited to) small customers and large customers, and residential customers and business customers; [and](#)
 - (c) [different classes of retailers as determined by the AER.](#)

167 Contents of retail market performance report—retail market activities report

- (1) A retail market activities report in a retail market performance report must include information and statistics on the following activities of regulated entities:
 - (a) customer service and customer complaints;
 - (b) the handling of customers experiencing payment difficulties (distinguishing hardship customers and other residential customers experiencing payment difficulties);
 - (c) the provision of prepayment *meter* systems to customers, including (but not limited to) the total number of customers using prepayment *meters*, self-disconnections and numbers of prepayment *meters* removed due to customer payment difficulties;
 - (d) de-energisation of premises for reasons of non-payment (distinguishing hardship customers and other residential customers on payment plans);

- (e) re-energisation of premises referred to in paragraph (d);
 - (f) concessions for customers where retailers administer the delivery of concessions to customers;
 - (g) the number and aggregate value of *security deposits* held by each retailer as at 30 June each year.
- (2) A retail market activities report must provide sufficient detail to explain the key factors relevant to the level of and trends in the performance of regulated entities.
- (3) A retail market activities report must provide information under subrules (1) and (2) by reference to the following:
 - (a) participating jurisdictions;
 - (b) different categories of customers as determined by the AER, including (but not limited to) small customers and large customers, and residential customers and business customers;
 - (c) specific activities where appropriate, such as customer complaints about billing, energy marketing and customer transfers.

Part 11 Customer retail contracts—electricity consumption benchmarks

168 Purpose of this Part

This Part provides for electricity consumption benchmarks for residential customers under a customer retail contract.

169 AER administration of electricity consumption benchmarks

- (1) The AER must provide the initial benchmarks to retailers and publish those benchmarks on its website.
- (2) Following publication of the initial benchmarks under subrule (1), the AER must prepare subsequent benchmarks for the consumption of electricity (electricity consumption benchmarks) by residential customers in accordance with this rule.
- (3) The electricity consumption benchmarks must be based on the following:
 - (a) electricity consumption information received by the AER from distributors pursuant to rule 171;
 - (b) localised zones as determined and notified to the AER by the relevant jurisdictional Minister;
 - (c) household size.
- (4) The AER must:
 - (a) provide the electricity consumption benchmarks to retailers; and
 - (b) publish the electricity consumption benchmarks on the AER website; and
 - (c) provide the information supporting the development of the electricity consumption benchmarks to the MCE.
- (5) The AER must administer the electricity consumption benchmarks and update them at least every 3 years from the date when the initial benchmarks are published.
- (6) The AER may consult on the electricity consumption benchmarks in any manner that it considers appropriate.
- (7) In this rule:

initial benchmarks means the benchmarks for the consumption of electricity by residential customers as provided for by the National Regulations.

170 Retailer obligations—electricity consumption benchmarks

- (1) Without limiting any requirement under rule 25, a retailer must provide the following particulars in a bill for a residential customer:
 - (a) a comparison of the customer's electricity consumption against the electricity consumption benchmarks under rule 169;

- (b) a statement indicating the purpose of the information provided with respect to those benchmarks;
 - (c) a reference to an energy efficiency website.
- (2) A retailer is required to present the information in subrule (1) in a graphical or tabular form, as appropriate, but may do so in a location on the bill that is convenient for the retailer.
- (3) A retailer must present the information in subrule (1) in a manner which is easy for the customer to understand.
- (4) In this rule:
energy efficiency website means a website, containing information about electricity consumption benchmarks, that is prescribed by the National Regulations and notified by the AER on its website.

171 Distributor obligations—electricity consumption information

Distributors must, for the purpose of the electricity consumption benchmarks, provide information to the AER in such manner and form as may be requested by the AER.

Part 12 National energy retail consultation

172 Customer Consultative Group

- (1) The AER must establish and maintain a Customer Consultative Group.
- (2) The function of the Group is to provide advice to the AER in relation to the AER's functions under the energy laws affecting energy consumers across participating jurisdictions.
- (3) The AER may appoint persons as members of the Group after consultation with organisations and groups that the AER considers appropriate.
- (4) The procedure of the Group is to be as determined by the AER.

173 Retail consultation procedure

- (1) If *the Law* or these Rules require the AER to make an instrument (however described) in accordance with the retail consultation procedure, the AER must proceed in accordance with this rule.
- (2) The AER must proceed as follows :
 - (a) the AER must, after such consultation (if any) as the AER considers appropriate, prepare a draft instrument; and
 - (b) the AER must publish, on its website and in any other way the AER considers appropriate, the draft instrument together with a notice:
 - (i) stating why the instrument is required; and
 - (ii) giving reasonable details of the context in which the draft instrument has been prepared, the issues involved and the possible effects of the instrument; and
 - (iii) inviting written submissions and comments on the draft instrument within a period (at least 20 business days) stated in the notice; and
 - (c) the AER must, as soon as reasonably practicable after the end of the period allowed for making submissions and comments on the draft instrument, consider all submissions and comments made within the time allowed and make the instrument in its final form.
- (3) The AER must prepare a written notice stating the reasons for making the instrument in its final form.
- (4) After making an instrument, the AER must, without delay, publish the instrument and the written notice under subrule (3) relating to it on the AER's website.
- (5) Subject to *the Law* and these Rules, an instrument made in accordance with this rule takes effect on the date provided for its commencement under the terms of the instrument or, if no date is so provided, 10 business days after the date the instrument was made.

Schedule 1 Model terms and conditions for standard retail contracts

(Rule 12)

PREAMBLE

This contract is about the sale of energy to you as a small customer at your premises. It is a standard retail contract that starts without you having to sign a document agreeing to these terms and conditions.

In addition to this contract, the energy laws and other consumer laws also contain rules about the sale of energy and we will comply with these rules in our dealings with you. For example, the National Energy Retail Law and the National Energy Retail Rules ('the Rules') set out specific rights and obligations about energy marketing, payment methods and arrangements for customers experiencing payment difficulties.

You also have a separate contract with your distributor, called a customer connection contract. The customer connection contract deals with the supply of energy to your premises and can be found on your distributor's website.

More information about this contract and other matters is on our website [permitted alteration: insert retailer's website address].

1 THE PARTIES

This contract is between:

[Permitted alteration: name of designated retailer] who sells energy to you at your premises (in this contract referred to as "we", "our" or "us"); and

You, the customer to whom this contract applies (in this contract referred to as "you" or "your").

2 DEFINITIONS AND INTERPRETATION

- (a) Terms used in this contract have the same meanings as they have in the National Energy Retail Law and the Rules. However for ease of reference, a simplified explanation of some terms is given at the end of this contract.
- (b) Where the simplified explanations given at the end of this contract differ from the definitions in the National Energy Retail Law and the Rules, the definitions in the National Energy Retail Law and the Rules prevail.

3 DO THESE TERMS AND CONDITIONS APPLY TO YOU?

3.1 These are our terms and conditions

This contract sets out the terms and conditions for a standard retail contract for a small customer under the National Energy Retail Law and the Rules.

3.2 Application of these terms and conditions

These terms and conditions apply to you if:

- (a) you are a residential customer; or
- (b) you are a business customer who is a small customer; and
- (c) you request us to sell energy to you at your premises; and
- (d) you are not being sold energy for the premises under a market retail contract.

3.3 Electricity or gas

Standard retail contracts apply to electricity and gas, but some terms may be expressed to apply only to one or the other. If we are your retailer for both electricity and gas, you have a separate contract with us for each of them.

4 WHAT IS THE TERM OF THIS CONTRACT?

4.1 When does this contract start?

This contract starts on the date you satisfy any pre-conditions set out in the National Energy Retail Law and the Rules, including giving us *acceptable identification* and your contact details for billing purposes.

4.2 When does this contract end?

- (a) This contract ends:
 - (i) if you give us a notice stating you wish to end the contract—subject to paragraph (b), on a date advised by us of which we will give you at least 5 but no more than 20 business days notice; or
 - (ii) if you are no longer a small customer:
 - (A) subject to paragraph (b), on a date specified by us, of which we will give you at least 5 but no more than 20 business days notice; or
 - (B) if you have not told us of a change in the use of your energy—from the time of the change in use; or
 - (iii) if we both agree to a date to end the contract—on the date that is agreed; or
 - (iv) if you start to buy energy for the premises from us or a different retailer under a customer retail contract—on the date the market retail contract starts; or
 - (v) if a different customer starts to buy energy for the premises—on the date that customer's contract starts; or
 - (vi) if the premises are disconnected and you have not met the requirements in the Rules for reconnection—10 business days from the date of disconnection.
- (b) If you do not give us safe and unhindered access to the premises to conduct a final *meter* reading (where relevant), this contract will not end under paragraph (a) (i) or (ii) until we have issued you a final bill and you have paid any outstanding amount for the sale of energy.

- (c) Rights and obligations accrued before the end of this contract continue despite the end of the contract, including any obligations to pay amounts to us.

4.3 Vacating your premises

- (a) If you are vacating your premises, you must provide your forwarding address to us for your final bill in addition to a notice under clause 4.2(a)(i) of this contract.
- (b) When we receive the notice, we must use our best endeavours to arrange for the reading of the *meter* on the date specified in your notice (or as soon as possible after that date if you do not provide access to your *meter* on that date) and send a final bill to you at the forwarding address stated in your notice.
- (c) You will continue to be responsible for charges for the premises until your contract ends in accordance with clause 4.2 of this contract.

5 SCOPE OF THIS CONTRACT

5.1 What is covered by this contract?

- (a) Under this contract we agree to sell you energy at your premises. We also agree to meet other obligations set out in this contract and to comply with the energy laws, including, where we sell you electricity, the provision, installation and maintenance of your *meter*.
- (b) In return, you agree:
 - (i) to be responsible for charges for energy supplied to the premises until this contract ends under clause 4.2 even if you vacate the premises earlier; and
 - (ii) to pay the amounts billed by us under this contract; and
 - (iii) to meet your obligations under this contract and the energy laws.

5.2 What is not covered by this contract?

This contract does not cover the physical connection of your premises to the distribution system, including the maintenance of that connection and the supply of energy to your premises and, where we sell you gas, provision of metering equipment. This is the role of your distributor under a separate contract called a customer connection contract.

6 YOUR GENERAL OBLIGATIONS

6.1 Full information

You must give us any information we reasonably require for the purposes of this contract. The information must be correct, and you must not mislead or deceive us in relation to any information provided to us.

6.2 Updating information

You must tell us promptly if:

- (a) information you have provided to us changes, including if your billing address changes or if your use of energy changes (for example, if you start running a business at the premises); or
- (b) you are aware of any change that materially affects access to your *meter* or to other equipment involved in providing *metering* services at the premises.

6.3 Life support equipment

- (a) If a person living or intending to live at your premises requires *life support equipment*, you must:
 - (i) register the premises with us or your distributor; and
 - (ii) provide *medical confirmation* for the premises.
- (b) Subject to satisfying the requirements in the Rules, your premises may cease to be registered as having *life support equipment* if *medical confirmation* is not provided to us or your distributor.
- (c) You must tell us or your distributor if the *life support equipment* is no longer required at the premises.
- (d) If you tell us that a person living or intending to live at your premises requires *life support equipment*, we must give you:
 - (i) at least 50 business days to provide *medical confirmation* for the premises;
 - (ii) general advice that there may be a *distributor planned interruption*, *retailer planned interruption*, [embedded network planned interruption](#) or *unplanned interruption* to the supply of energy to the premises;
 - (iii) at least 4 business days' notice in writing of any *retailer planned interruption* to the supply of electricity to the premises, [and prompt notice of an embedded network planned interruption](#), unless we have obtained your explicit consent to the *interruption* occurring on a specified date;
 - (iv) information to assist you to prepare a plan of action in case of an *unplanned interruption*; and
 - (v) emergency telephone contact numbers.

6.4 Obligations if you are not an owner

If you cannot meet an obligation relating to your premises under this contract because you are not the owner you will not be in breach of the obligation if you take all reasonable steps to ensure that the owner or other person responsible for the premises fulfils the obligation.

7 OUR LIABILITY

- (a) The quality and reliability of your electricity supply and the quality, pressure and continuity of your gas supply is subject to a variety of factors that are beyond our control as your retailer, including accidents, emergencies, weather conditions, vandalism, system demand, the technical

limitations of the distribution system and the acts of other persons (such as your distributor), including at the direction of a *relevant authority*.

- (b) To the extent permitted by law, we give no condition, warranty or undertaking, and we make no representation to you, about the condition or suitability of energy, its quality, fitness for purpose or safety, other than those set out in this contract.
- (c) Unless we have acted in bad faith or negligently, the National Energy Retail Law excludes our liability for any loss or damage you suffer as a result of the total or partial failure to supply energy to your premises, which includes any loss or damage you suffer as a result of the defective supply of energy.

8 PRICE FOR ENERGY AND OTHER SERVICES

8.1 What are our tariffs and charges?

- (a) Our tariffs and charges for the sale of energy to you under this contract are our standing offer prices. These are published on our website and include your distributor's charges.
- (b) Different tariffs and charges may apply to you depending on your circumstances. The conditions for each tariff and charge are set out in our standing offer prices.

Note:

We do not impose any charges for the termination of this contract.

8.2 Changes to tariffs and charges

- (a) If we vary our standing offer prices, we will publish the variation in a newspaper and on our website at least 10 business days before it starts.

[\[Required alteration: deletion of "in a newspaper and" is a required alteration for an off-market retailer.\]](#)

- (a1) We will also:
 - (i) notify you at least five business days before the variation in the tariffs and charges are to apply to you; and
 - (ii) deliver the notice by your preferred form of communication where you have communicated this to us, or otherwise by the same method as that used for delivery of your bill.
- (a2) The notice must:
 - (i) specify that your tariffs and charges are being varied;
 - (ii) specify the date on which the variation will come into effect;
 - (iii) identify your existing tariffs and charges inclusive of GST;
 - (iv) identify your tariffs and charges as varied inclusive of GST;
 - (v) specify that the tariffs and charges identified in paragraphs (a2)(iii) and (iv) are inclusive of GST; and
 - (vi) specify that you can request historical billing data and, if you are being sold electricity, energy consumption data, from us.

- (a3) Despite clause 8.2 of this contract, we are not required to provide a notice under paragraph (a1):
 - (i) where you have entered into a standard retail contract with us within 10 business days before the date on which the variation referred to in clause 8.2(a) is to take effect, and we have informed you of such variation;
 - (ii) where your standing offer prices are regulated, or are otherwise set by legislation, a government agency or regulatory authority;
 - (iii) where the variations to the tariffs and charges are a direct result of a change to, or withdrawal or expiry of, a government funded energy charge rebate, concession or relief scheme; or
 - (iv) where the variations to the tariffs and charges are a direct result of a change to any bank charges or fees, credit card charges or fees, or payment processing charges or fees applicable to you.
- (a4) Despite paragraph (a1)(i), we will provide you with the notice under paragraph (a1) as soon as practicable, and in any event no later than your next bill, where the variations to your tariffs and charges are a direct result of a tariff reassignment by the distributor pursuant to clause 6B.A3.2 of the NER. For the purpose of providing a notice under this paragraph (a4), the reference to:
 - (i) “are being varied” in paragraph (a2)(i) is taken to be “are being varied or have been varied (whichever is applicable)”; and
 - (ii) “will come into effect” in paragraph (a2)(ii) is taken to be “will come into effect or has come into effect (whichever is applicable)”.
- (b) Our standing offer prices will not be varied more often than once every 6 months.

[\[Required alteration: deletion of paragraph \(b\) is a required alteration for an off-market retailer.\]](#)

8.3 Variation of tariff due to change of use

If a change in your use of energy means you are no longer eligible for the particular tariff you are on, we may transfer you to a new tariff under our standing offer prices:

- (a) if you notify us there has been a change of use—from the date of notification; or
- (b) if you have not notified us of the change of use—retrospectively from the date the change of use occurred.

8.4 Variation of tariff or type of tariff on request

- (a) If you think you satisfy the conditions applying to another tariff or type of tariff under our standing offer prices, you can ask us to review your current circumstances to see whether that tariff or type of tariff can apply to you.
- (b) If you meet the requirements for another tariff or type of tariff and request us to do so, we must:

- (i) transfer you to that other tariff within 10 business days; or
- (ii) transfer you to that other type of tariff from the date the *meter* is read or the type of *meter* is changed (if needed).

8.5 Changes to tariffs or type of tariff during a billing cycle

If a tariff applying to you changes during a billing cycle, we will calculate your next bill on a proportionate basis.

8.6 GST

- (a) Amounts specified in the standing offer prices from time to time and other amounts payable under this contract may be stated to be exclusive or inclusive of GST. Paragraph (b) applies unless an amount is stated to include GST.
- (b) Where an amount paid by you under this contract is payment for a “taxable supply” as defined for GST purposes, to the extent permitted by law, that payment will be increased so that the cost of the GST payable on the taxable supply is passed on to the recipient of that taxable supply.

9 BILLING

9.1 General

We will send a bill to you as soon as possible after the end of each billing cycle. We will send the bill:

- (a) to you at the address nominated by you; or
- (b) to a person authorised in writing by you to act on your behalf at the address specified by you.

9.2 Calculating the bill

Bills we send to you (‘your bills’) will be calculated on:

- (a) the amount of energy consumed at your premises during the billing cycle (using information obtained from reading your *meter* or otherwise in accordance with the Rules); and
- (b) the amount of fees and charges for any other services provided under this contract during the billing cycle; and
- (c) the charges payable for services provided by your distributor, including connection charges if you have asked for a new connection or connection alteration and have not made alternative arrangements with your distributor.

9.3 Estimating the energy usage

- (a) We may estimate the amount of energy consumed at your premises if your *meter* cannot be read, if your *metering data* is not obtained (for example, if access to the *meter* is not given or the *meter* breaks down or is faulty), or if you otherwise consent.
- (b) If we estimate the amount of energy consumed at your premises to calculate a bill, we must:

- (i) clearly state on the bill that it is based on an estimation; and
- (ii) when your *meter* is later read, adjust your bill for the difference between the estimate and the energy actually used.
- (c) If the later *meter* read shows that you have been undercharged, we will allow you to pay the undercharged amount in instalments, over the same period of time during which the *meter* was not read (if less than 12 months), or otherwise over 12 months.
- (d) If the *meter* has not been read due to your actions, and you request us to replace the estimated bill with a bill based on an actual reading of the *meter*, we will comply with your request but may charge you any cost we incur in doing so.

9.4 Your historical billing information

Upon request, we must give you information about your billing history for the previous 2 years free of charge. However, we may charge you if you require information going back more than 2 years or we have already given you this information:

- (a) 4 times in the previous 12 months, where this contract relates to electricity; or
- (b) in the previous 12 months, where this contract relates to gas.

[Required alteration: addition of “where that is available to us” after “free of charge” is a required alteration for an off-market retailer.]

9.4A Your electricity (only) consumption information

Upon request, we must give you information about your electricity consumption for up to 2 years free of charge. However, we may charge you if:

- (a) we have already given you this information 4 times in the previous 12 months; or
- (b) the information requested is different in manner or form to any minimum requirements we are required to meet; or
- (c) the information is requested by a representative you have authorised to act on your behalf, and that request is part of a request the representative makes to us in relation to more than one customer.

9.5 Bill smoothing

We may, where you agree, arrange for you to pay your bills under a bill smoothing arrangement, which is based on a 12 monthly estimate of your energy consumption.

10 PAYING YOUR BILL

10.1 What you have to pay

You must pay to us the amount shown on each bill by the date for payment (the *pay-by date*) on the bill. The *pay-by date* will be no earlier than 13 business days from the date on which we issue your bill.

10.2 Issue of reminder notices

If you have not paid your bill by the *pay-by date*, we will send you a *reminder notice* that payment is required. The *reminder notice* will give you a further due date for payment which will be not less than 6 business days after we issue the notice.

10.3 Difficulties in paying

- (a) If you have difficulties paying your bill, you should contact us as soon as possible. We will provide you with information about payment options.
- (b) If you are a residential customer and have told us that you have difficulty paying your bill, we must offer you the option of paying your bill under a payment plan. However, we are not obliged to do so if you have had 2 payment plans cancelled due to non-payment in the previous 12 months or have been convicted of an offence involving the illegal use of energy in the previous 2 years.
- (c) Additional protections may be available to you under our Customer Hardship Policy and under the National Energy Retail Law and the Rules if you are a customer experiencing payment difficulties due to hardship. A copy of our Customer Hardship Policy is available on our website.

10.4 Late payment fees

If you have not paid a bill by the *pay-by date*, we may require you to pay a late payment fee, which is part of our standing offer prices published on our website.

[Required alteration: deletion of this clause is a required alteration where late payment fees for small customers under a standard retail contract are not permitted by a State or Territory law].

11 METERS

- (a) You must allow us and our authorised representatives safe and unhindered access to your premises for the purposes of (where relevant):
 - (i) reading, testing, maintaining, inspecting or altering any *metering* installation at the premises; and
 - (ii) calculating or measuring energy supplied or taken at the premises; and
 - (iii) checking the accuracy of *metered* consumption at the premises; and
 - (iv) replacing *meters*.
- (b) We will use our best endeavours to ensure that a *meter* reading is carried out as frequently as is needed to prepare your bills, consistently with the *metering rules* and in any event at least once every 12 months.
- (c) If we or our representatives seek access to the premises under paragraph (a), we will:
 - (i) comply with all relevant requirements under the energy laws; and
 - (ii) carry or wear official identification; and
 - (iii) show the identification if requested.

- (d) If we propose to replace your electricity *meter* we must give you a notice with the right to elect not to have your *meter* replaced unless:
 - (i) your *meter* is faulty or sample testing indicates it may become faulty; or
 - (ii) you have requested or agreed to the replacement of your *meter*.

11A INTERRUPTION TO ELECTRICITY SUPPLY

11A.1 Retailer may arrange retailer planned interruptions (maintenance repair etc)

- (a) We may arrange *retailer planned interruptions* to the supply of electricity to your premises where permitted under the energy laws for the purpose of the installation, maintenance, repair or replacement of your electricity *meter*.
- (b) If your electricity supply will be affected by a *retailer planned interruption* arranged by us and clause 6.3(d)(iii) does not apply:
 - (i) we may seek your explicit consent to the *interruption* occurring on a specified date; or
 - (ii) we may seek your explicit consent to the *interruption* occurring on any day within a specified 5 business day range; or
 - (iii) otherwise, we will give you at least 4 business days notice of the *interruption* by mail, letterbox drop, press advertisement or other appropriate means.

11A.2 Your right to information about planned interruptions

- (a) If you request us to do so, we will use our best endeavours to explain a *retailer planned interruption* to the supply of electricity to the premises which was arranged by us.
- (b) If you request an explanation be in writing we must, within 10 business days of receiving the request, give you either:
 - (i) the written explanation; or
 - (ii) an estimate of the time it will take to provide a more detailed explanation if a longer period is reasonably needed.
- (c) For *interruptions* made by [another person such as](#) your distributor, we may refer you to [the other person your distributor](#) to provide information.

12 UNDERCHARGING AND OVERCHARGING

12.1 Undercharging

- (a) If we have undercharged you, we may recover the undercharged amount from you. If we recover an undercharged amount from you:
 - (i) we will not charge interest on the undercharged amount; and
 - (ii) we will offer you time to pay the undercharged amount in instalments over the same period of time during which you were undercharged (if less than 12 months), or otherwise over 12 months.

- (b) The maximum amount we can recover from you is limited to the amount that has been undercharged in the 9 months immediately before we notify you, unless the undercharge is your fault, or results from your unlawful act or omission.

12.2 Overcharging

- (a) Where you have been overcharged by less than [required alteration: insert current overcharge threshold], and you have already paid the overcharged amount, we must credit that amount to your next bill.
- (b) Where you have been overcharged by [required alteration: insert current overcharge threshold] or more, we must inform you within 10 business days of our becoming aware of the overcharge and, if you have already paid that amount, we must credit that amount to your next bill. However, if you request otherwise, we will comply with that request.
- (c) If you have stopped buying energy from us, we will use our best endeavours to pay the overcharged amount to you within 10 business days.
- (d) If you have been overcharged as a result of your own fault or unlawful act or omission, we may limit the amount we credit or pay you to the amount you were overcharged in the last 12 months.

12.3 Reviewing your bill

- (a) If you disagree with the amount you have been charged, you can ask us to review your bill in accordance with our standard complaints and dispute resolution procedures.
- (b) If you ask us to, we must arrange for a check of the *meter* reading or *metering data* or for a test of the *meter* in reviewing the bill. You will be liable for the cost of the check or test and we may request payment in advance. However, if the *meter* or *metering data* proves to be faulty or incorrect, we must reimburse you for the amount paid.
- (c) If your bill is being reviewed, you are still required to pay any other bills from us that are due for payment and the lesser of:
 - (i) the portion of the bill that you do not dispute; or
 - (ii) an amount equal to the average of your bills in the last 12 months.

13 SECURITY DEPOSITS

13.1 Security deposit

We may require that you provide a *security deposit*. The circumstances in which we can require a *security deposit* and the maximum amount of the *security deposit* are governed by the Rules.

13.2 Interest on security deposits

Where you have paid a *security deposit*, we must pay you interest on the *security deposit* at a rate and on terms required by the Rules.

13.3 Use of a security deposit

- (a) We may use your *security deposit*, and any interest earned on the *security deposit*, to offset any amount you owe under this contract:
 - (i) if you fail to pay a bill and as a result we arrange for the disconnection of your premises; or
 - (ii) in relation to a final bill (i.e. a bill we issue when you vacate the premises or when you stop purchasing energy from us at your premises or when you request that your premises be disconnected).
- (b) If we use your *security deposit* or any accrued interest to offset amounts owed to us, we will advise you within 10 business days.

13.4 Return of security deposit

- (a) We must return your *security deposit* and any accrued interest in the following circumstances:
 - (i) you complete 1 years' payment (in the case of residential customers) or 2 years' payment (in the case of business customers) by the *pay-by dates* on our initial bills; or
 - (ii) subject to clause 14.3 of this contract, you stop purchasing energy at the relevant premises under this contract.
- (b) If you do not give us any reasonable instructions, we will credit the amount of the *security deposit*, together with any accrued interest, to your next bill.

14 DISCONNECTION OF SUPPLY

14.1 When can we arrange for disconnection?

Subject to us satisfying the requirements in the Rules, we may arrange for the disconnection of your premises if:

- (a) you do not pay your bill by the *pay-by date* and, if you are a residential customer, you:
 - (i) fail to comply with the terms of an agreed payment plan; or
 - (ii) do not agree to an offer to pay the bill by instalments, or having agreed, you fail to comply with the instalment arrangement;
- (b) you do not provide a *security deposit* we are entitled to require from you; or
- (c) you do not give access to your premises to read a *meter* (where relevant) for 3 consecutive *meter* reads; or
- (d) you fail to give us safe and unhindered access to the premises as required by clause 11 or any requirements under the energy laws; or
- (e) there has been illegal or fraudulent use of energy at your premises in breach of clause 16 of this contract; or
- (f) we are otherwise entitled or required to do so under the Rules or by law.

14.2 Notice and warning of disconnection

Before disconnecting your premises, we must comply with relevant warning notice requirements and other provisions in the Rules, and in relation to safe and unhindered access only, we must use our best endeavours to contact you to arrange an appointment with you for access to your premises in addition to any warning notice. However, we are not required to provide a warning notice prior to disconnection in certain circumstances (for example, where there has been illegal or fraudulent use of energy at your premises or where there is an emergency or health and safety issue).

14.3 When we must not arrange disconnection

- (a) Subject to paragraph (b), your premises may not be disconnected during the following times ('the protected period'):
 - (i) on a business day before 8.00am or after 3.00pm; or
 - (ii) on a Friday or the day before a public holiday; or
 - (iii) on a weekend or a public holiday; or
 - (iv) on the days between 20 December and 31 December (both inclusive) in any year; or
 - (v) if you are being disconnected under clause 14.1(a), during an extreme weather event.
- (b) Your premises may be disconnected within the protected period:
 - (i) for reasons of health and safety; or
 - (ii) in an emergency; or
 - (iii) as directed by a *relevant authority*; or
 - (iv) if you are in breach of clause 6.5 of your customer connection contract which deals with interference with energy equipment; or
 - (v) if you request us to arrange disconnection within the protected period; or
 - (vi) if your premises contain a commercial business that only operates within the protected period and where access to the premises is necessary to effect disconnection; or
 - (vii) where the premises are not occupied.

15 RECONNECTION AFTER DISCONNECTION

- (a) We must arrange for the reconnection of your premises if, within 10 business days of your premises being disconnected:
 - (i) you ask us to arrange for reconnection of your premises; and
 - (ii) you rectify the matter that led to the disconnection; and
 - (iii) you pay any reconnection charge (if requested).
- (b) We may terminate this contract 10 business days following disconnection if you do not meet the requirements in paragraph (a).

16 WRONGFUL AND ILLEGAL USE OF ENERGY

16.1 Use of energy

You must not, and must take reasonable steps to ensure others do not:

- (a) illegally use energy supplied to your premises; or
- (b) interfere or allow interference with any energy equipment that is at your premises except as may be permitted by law; or
- (c) use the energy supplied to your premises or any energy equipment in a manner that:
 - (i) unreasonably interferes with the connection or supply of energy to another customer; or
 - (ii) causes damage or interference to any third party; or
- (d) allow energy purchased from us to be used otherwise than in accordance with this contract and the Rules; or
- (e) tamper with, or permit tampering with, any *meters* or associated equipment.

17 NOTICES AND BILLS

- (a) Notices and bills under this contract must be sent in writing, unless this contract or the National Energy Retail Law and the Rules say otherwise.
- (b) A notice or bill sent under this contract is taken to have been received by you or by us (as relevant):
 - (i) on the date it is handed to the party, left at the party's premises (in your case) or one of our offices (in our case) or successfully faxed to the party (which occurs when the sender receives a transmission report to that effect); or
 - (ii) on the date 2 business days after it is posted; or
 - (iii) on the date of transmission (unless the sender receives notice that delivery did not occur or has been delayed) if sent electronically and the use of electronic communication has been agreed between us.
- (c) Our contact details for you to contact us or send us a notice are as set out in our bill to you, or as notified to you from time to time.

18 PRIVACY ACT NOTICE

We will comply with all relevant privacy legislation in relation to your personal information. You can find a summary of our privacy policy on our website. If you have any questions, you can contact our privacy officer.

19 COMPLAINTS AND DISPUTE RESOLUTION

19.1 Complaints

If you have a complaint relating to the sale of energy by us to you, or this contract generally, you may lodge a complaint with us in accordance with our standard complaints and dispute resolution procedures.

Note:

Our standard complaints and dispute resolution procedures are published on our website.

19.2 Our obligations in handling complaints

If you make a complaint, we must respond to your complaint within the required timeframes set out in our standard complaints and dispute resolution procedures and inform you:

- (a) of the outcome of your complaint and the reasons for our decision; and
- (b) that if you are not satisfied with our response, you have a right to refer the complaint to [required alteration: insert name of relevant energy ombudsman].

20 FORCE MAJEURE**20.1 Effect of force majeure event**

If either party to this contract cannot meet an obligation under this contract because of an event outside the control of that party ('a force majeure event'):

- (a) the obligation, other than an obligation to pay money, is suspended to the extent it is affected by the force majeure event for as long as the force majeure event continues; and
- (b) the affected party must use its best endeavours to give the other party prompt notice of that fact including full particulars of the event, an estimate of its likely duration, the extent to which the affected party's obligations are affected and the steps being taken to remove, overcome or minimise those effects.

20.2 Deemed prompt notice

If the effects of a force majeure event are widespread, we will be deemed to have given you prompt notice if we make the necessary information available by way of a 24 hour telephone service within 30 minutes of being advised of the event or otherwise as soon as practicable.

20.3 Obligation to overcome or minimise effect of force majeure event

A party that claims a force majeure event must use its best endeavours to remove, overcome or minimise the effects of that event as soon as practicable.

20.4 Settlement of industrial disputes

Nothing in this clause requires a party to settle an industrial dispute that constitutes a force majeure event in any manner other than the manner preferred by that party.

21 APPLICABLE LAW

The laws of [required alteration: insert name of the relevant participating jurisdiction where the customer's premises are located] govern this contract.

22 RETAILER OF LAST RESORT EVENT

If we are no longer entitled by law to sell energy to you due to a Retailer of Last Resort (RoLR) event occurring in relation to us, we are required under the National Energy Retail Law and the Rules to provide relevant information (including your name, billing address and *metering* identifier) to the entity appointed as the relevant designated retailer for the RoLR event and this contract will come to an end.

23 GENERAL

23.1 Our obligations

Some obligations placed on us under this contract may be carried out by another person. If an obligation is placed on us to do something under this contract, then:

- (a) we are taken to have complied with the obligation if another person does it on our behalf; and
- (b) if the obligation is not complied with, we are still liable to you for the failure to comply with this contract.

23.2 Amending this contract

- (a) This contract may only be amended in accordance with the procedures set out in the National Energy Retail Law.
- (b) We must publish any amendments to this contract on our website.

Simplified explanation of terms

billing cycle means the regular recurrent period for which you receive a bill from us;

business day means a day other than a Saturday, a Sunday or a public holiday;

customer means a person who buys or wants to buy energy from a retailer;

customer connection contract means a contract between you and your distributor for the provision of customer connection services;

designated retailer means the financially responsible retailer for the premises (where you have an existing connection) or the local area retailer (where you do not have an existing connection) for your premises;

disconnection means an action to prevent the flow of energy to the premises, but does not include an *interruption*;

distributor means the person who operates the system that connects your premises to the distribution network;

distributor planned interruption means an *interruption* for:

- (a) the planned maintenance, repair or augmentation of the transmission system; or
- (b) the planned maintenance, repair or augmentation of the distribution system, including planned or routine maintenance of a *meter* (excluding a *retailer planned interruption*): or

(c) the installation of a new connection or a connection alteration;

embedded network means a distribution network that is connected to the main part of the grid through another distribution network or through another embedded network;

embedded network planned interruption means an interruption to supply in an embedded network due to an interruption to its connection to a distribution network or another embedded network;

emergency means an emergency due to the actual or imminent occurrence of an event that in any way endangers or threatens to endanger the safety or health of any person, or normal operation of the distribution system or transmission system, or that destroys or damages, or threatens to destroy or damage, any property;

energy means electricity or gas;

energy laws means national and State and Territory laws and rules relating to energy and the legal instruments made under those laws and rules;

force majeure event means an event outside the control of a party;

GST has the meaning given in the GST Act (*A New Tax System (Goods and Services Tax) Act 1999* (Cth));

interruption means a temporary unavailability or temporary curtailment of the supply of electricity from a distribution system to a customer, but does not include disconnection;

medical confirmation means certification from a registered medical practitioner of the requirement for *life support equipment* at your premises;

National Energy Retail Law means *the Law* of that name that is applied by each participating State and Territory;

relevant authority means any person or body who has the power under law to direct us, including the Australian Energy Market Operator and State or Federal Police;

residential customer means a person who purchases energy principally for personal, household or domestic use at their premises;

retailer means a person that is authorised to sell energy to customers;

retailer planned interruption means an *interruption* that:

- (a) is for the purposes of the installation, maintenance, repair or replacement of your electricity *meter*; and
- (b) does not involve the distributor effecting the *interruption*; and
- (c) is not an *interruption* which has been planned by your distributor.

RoLR event means an event that triggers the operation of the Retailer of Last Resort scheme under the National Energy Retail Law;

Rules means the National Energy Retail Rules made under the National Energy Retail Law;

security deposit means an amount of money paid to us as security against non-payment of a bill in accordance with the Rules;

small customer means:

- (a) a residential customer; or
- (b) a business customer who consumes energy at or below a level determined under the National Energy Retail Law;

standing offer prices means tariffs and charges that we charge you for or in connection with the sale and supply of energy. These are published on our website.

Schedule 2 Model terms and conditions for deemed standard connection contracts

(Rule 81)

PREAMBLE

This contract is about the services which cover connection of your premises to our distribution system, and the energy supplied to the premises. These services are called “customer connection services”.

In addition to this contract, we are required to comply with energy laws and other consumer laws in our dealings with you.

You also have a separate contract with your retailer dealing with the sale of energy to the premises.

More information about this contract and other matters is on our website [permitted alteration: insert distributor’s website address].

1 THE PARTIES

This contract is between:

[Permitted alteration: name of distributor] who provides you with customer connection services at the premises (in this contract referred to as “we”, “our” or “us”); and

You, the customer to whom this contract applies (in this contract referred to as “you” or “your”).

2 DEFINITIONS AND INTERPRETATION

- (a) Terms used in this contract have the same meanings as they have in the National Energy Retail Law and the National Energy Retail Rules (‘the Rules’). However, for ease of reference, a simplified explanation of some terms is given at the end of this contract.
- (b) Where the simplified explanations in Schedule 1 differ from the definitions in the National Energy Retail Law and the Rules, the definitions in the National Energy Retail Law and the Rules prevail.

3 DO THESE TERMS AND CONDITIONS APPLY TO YOU?

3.1 These are our terms and conditions

This contract sets out the terms and conditions for the standard connection contract for customers under the National Energy Retail Law and the Rules.

3.2 Does this contract apply to you?

This contract applies to you if your premises are connected to our distribution system, and you do not have another customer connection contract with us for those premises.

3.3 What if I need a new connection?

If you require a new connection or an alteration to your existing connection we will provide you with a connection offer in accordance with either the National Electricity Rules (for an electricity connection) or the National Gas Rules (for a gas connection). That offer will contain terms and conditions relevant to the connection, which will form additional terms and conditions to this contract if you agree to the connection offer.

3.4 Electricity or gas

Standard connection contracts apply to electricity and gas, but some terms are expressed to apply only to one or the other. Our distribution system is [insert “a gas” or “an electricity” as relevant] distribution system.

4 WHAT IS THE TERM OF THIS CONTRACT?

4.1 When does this contract start?

If your premises are connected to our distribution system, this contract starts on the date when you start to take supply of energy at those premises.

4.2 When does this contract end?

- (a) This contract ends:
 - (i) if your retailer notifies us that the supply of energy to the premises is to be disconnected (a ‘termination notice’)—subject to paragraph (b), on the date we disconnect the premises, (even if you have vacated the premises earlier); or
 - (ii) if you start receiving supply of energy for the premises under a different customer connection contract—on the date that contract starts; or
 - (iii) if a different customer starts receiving supply of energy for the premises—on the date the connection contract of that customer starts;
 - (iv) if we both agree to a date to end the contract – on the date that is agreed; or
 - (v) 10 business days after we disconnect the premises under the Rules, if you have not within that period asked your retailer to reconnect the premises and met the requirements in the Rules for reconnection.
- (b) If your retailer gives us a termination notice but you do not give safe and unhindered access to your premises to conduct a final *meter* reading (where relevant), this contract will not end under paragraph (a)(i) until a final *meter* reading is carried out.
- (c) Rights and obligations accrued before the end of this contract continue despite the end of this contract.

5 SCOPE OF THIS CONTRACT

5.1 What is covered by this contract?

- (a) Under this contract we agree to provide customer connection services at the premises. We also agree to meet other obligations set out in this contract and to comply with the energy laws.
- (b) Charges for customer connection services will be billed under your contract with your retailer.

5.2 Sale of energy not covered by this contract

This contract does not cover the sale of energy to your premises. This is the role of your retailer.

5.3 Services and your connection point

- (a) We must provide, install and maintain equipment for the provision of customer connection services at your premises safely and in accordance with the energy laws.
- (b) Our obligations extend up to the connection point where energy is to be supplied to the premises (as defined by us) and not beyond.

5.4 Guaranteed service levels

- (a) If you are a small customer, we are required under *the laws* of [required alteration: insert name of the State or Territory] to meet certain guaranteed service levels. These requirements are [required alteration: set out the applicable GSL scheme requirements of that State or Territory]. If we do not meet a relevant guaranteed service level and you are entitled to a payment under those laws, we will make a payment to you in accordance with the relevant laws.
- (b) Nothing in this contract limits our obligations to make payments in accordance with the applicable GSL scheme.

[Note:

Where there is no GSL Scheme in a State or Territory for small customers, [or for the customers of embedded network service providers](#), the deletion of this clause is a required alteration.]

6 YOUR GENERAL OBLIGATIONS

6.1 Full information

You must give us any information we reasonably require for the purposes of this contract. The information must be correct, and you must not mislead or deceive us in relation to any information provided to us.

6.2 Updating information

You must promptly:

- (a) inform your retailer of any change to your contact details; and

- (b) inform your retailer of any change that you are aware of that materially affects access to your *meter* or to other equipment involved in providing customer connection services at the premises; and
- (c) inform us of any proposed change that you are aware of in plant or equipment, including *metering* equipment, or any change to the capacity or operation of connected plant or equipment that may affect the quality, reliability, safety or *metering* of the supply of energy to the premises or the premises of any other person; and
- (d) inform either your retailer or us of any permanent material change to the energy load or pattern of usage at the premises.

6.3 Your obligation to comply with energy laws and our requirements

You must comply with:

- (a) the energy laws relating to the provision of customer connection services we provide to your premises under this contract; and
- (b) our reasonable requirements under the energy laws, including our service and installation rules. This includes a requirement that you provide and maintain at your premises any reasonable or agreed facility required by us to provide customer connection services to the premises.

6.4 Life support equipment

- (a) If a person living or intending to live at your premises requires *life support equipment*, you must:
 - (i) register the premises with your retailer or with us; and
 - (ii) provide *medical confirmation* for the premises.
- (b) Subject to satisfying the requirements in the Rules, your premises may cease to be registered as having *life support equipment* if *medical confirmation* is not provided to us or your retailer.
- (c) You must tell us or your retailer if the *life support equipment* is no longer required at the premises.
- (d) If you tell us that a person living or intending to live at your premises requires *life support equipment*, we must give you:
 - (i) -at least 50 business days to provide *medical confirmation* for the premises; and
 - (ii) general advice that there may be a *distributor planned interruption*, *retailer planned interruption*, *embedded network planned interruption* or *unplanned interruption* to the supply of energy to the premises; and
 - (iii) at least 4 business days' notice in writing of any *distributor planned interruptions* to the supply of energy to the premises, and prompt notice of any *embedded network planned interruption*, unless we have obtained your explicit consent to the *interruption* occurring on a specified date; and
 - (iv) information to assist you to prepare a plan of action in case of an *unplanned interruption*; and

- (v) emergency telephone contact numbers.

6.5 Obligations if you are not an owner

If you cannot meet an obligation relating to your premises under this contract because you are not the owner, you will not be in breach of the obligation if you take all reasonable steps to ensure that the owner or other person responsible for the premises fulfils the obligation.

6.6 Small generators including solar panels

- (a) If you have a small generator connected to our distribution system at the premises, you must comply with the applicable standards in operating and maintaining the generator when you start to take supply of energy under this contract.
- (b) If you no longer want to keep a small generator at the premises connected to our distribution system, you must apply to us for a connection alteration so that any necessary alterations to the connection can be made.
- (c) If you want to connect a small generator at the premises to our distribution system for the purpose of exporting energy (for example, a solar panel), you must apply for a connection alteration under the National Electricity Rules. We will provide you with a copy of the relevant additional terms and conditions at the time when we make our connection offer.

7 WRONGFUL AND ILLEGAL USE OF ENERGY

7.1 Illegal use of energy or interference

You must not and must take reasonable steps to ensure others do not:

- (a) illegally use energy supplied to the premises; or
- (b) interfere or allow interference with any of our equipment at the premises, except as may be permitted by law; or
- (c) use the energy supplied to your premises or any energy equipment in a manner that:
 - (i) unreasonably interferes with the connection or supply of energy to another customer; or
 - (ii) causes damage or interference to any third party; or
- (d) use customer connection services provided by us in a way that is not permitted by law or this contract; or
- (e) tamper with, or permit tampering with, any *meters* or associated equipment.

7.2 Consequences for wrongful or illegal use

If you do not comply with clause 7.1 above, we may, in accordance with the energy laws take any or all of the following actions:

- (a) estimate the amount of energy obtained wrongfully or illegally and take debt recovery action against you for that amount; and

- (b) undertake (or agree that you undertake) any necessary rectification work at your cost; and
- (c) arrange for the immediate disconnection of the premises.

8 OUR LIABILITY

- (a) The quality and reliability of your electricity supply and the quality, pressure and continuity of your gas supply is subject to a variety of factors that may be beyond our control, including accidents, emergencies, weather conditions, vandalism, system demand, the technical limitations of the distribution system and the acts of other persons, including at the direction of a *relevant authority*.
- (b) To the extent permitted by law, we give no condition, warranty or undertaking, and we make no representation to you, about the condition or suitability of energy, its quality, fitness for purpose or safety, other than those set out in this contract.
- (c) Unless we have acted in bad faith or negligently, the National Energy Retail Law excludes our liability for any loss or damage you suffer as a result of the total or partial failure to supply energy to your premises, which includes any loss or damage you suffer as a result of the defective supply of energy.

9 ACCESS TO THE PREMISES

9.1 Your obligations

Under the energy laws, you must provide us and our authorised representatives (together with all necessary equipment) safe and unhindered access to the premises, including taking appropriate action to prevent menacing or attack by animals at the premises, at any reasonable time to allow us to:

- (a) read, test, maintain, inspect or alter any *metering* installation at the premises; and
- (b) calculate or measure energy supplied or taken at the premises; and
- (c) check the accuracy of *metered* consumption at the premises; and
- (d) replace *meters*, control apparatus and other energy equipment of ours; and
- (e) connect or disconnect the premises; and
- (f) examine or inspect an energy installation at the premises; and
- (g) inspect, make safe, operate, change, maintain, remove, repair or replace any of our works at the premises; and
- (h) undertake repairs, testing or maintenance of the distribution system; and
- (i) clear vegetation from the distribution system including any equipment owned by us; and
- (j) take action to determine the appropriate tariff or charging category for the premises; and
- (k) perform services requested by you or your retailer.

9.2 Our obligations

If we or our representatives seek access to the premises under clause 9.1 above, we will:

- (a) comply with all relevant requirements under the energy laws; and
- (b) carry or wear official identification; and
- (c) show the identification if requested.

10 INTERRUPTION TO SUPPLY

10.1 Distributor may interrupt supply

We may *interrupt* the supply of energy to your premises where permitted under the energy laws, including for a *distributor planned interruption* or [an embedded network planned interruption or](#) where there is an *unplanned interruption* or in accordance with the conditions of any applicable tariff or under a contract with your retailer.

10.2 Distributor planned interruptions (maintenance, repair, etc)

- (a) We may make *distributor planned interruptions* to the supply of energy to the premises under the Rules for the following purposes:
 - (i) for the maintenance, repair or augmentation of the transmission system or the distribution system, including maintenance of *metering* equipment; or
 - (ii) for the installation of a new connection or a connection alteration to another customer.
- (b) If your energy supply will be affected by a *distributor planned interruption* and clause 6.4(d)(iii) does not apply:
 - (i) we may seek your explicit consent to the *interruption* occurring on a specified date; or
 - (ii) we may seek your explicit consent to the *interruption* occurring on any day within a specified 5 business day range; or
 - (iii) otherwise, we will give you at least 4 business days notice of the *interruption* by mail, letterbox drop, press advertisement or other appropriate means.

10.3 Unplanned interruptions

- (a) We may *interrupt* the supply of energy to your premises in circumstances where we consider that a customer's energy installation or the distribution system poses an immediate threat of injury or material damage to any person, property or the distribution system, including:
 - (i) for unplanned maintenance or repairs;
 - (ii) for health or safety reasons;
 - (iii) in an emergency;
 - (iv) as required by a *relevant authority*;

- (v) to shed demand for energy because the total demand at the relevant time exceeds the total supply available; or
- (vi) to restore supply to a customer.
- (b) If an *unplanned interruption* is made, we will use our best endeavours to restore energy supply to the premises as soon as possible.
- (c) We will make information about *unplanned interruptions* (including the nature of any emergency and, where reasonably possible, an estimate of when energy supply will be restored) available on a 24 hour telephone information service.

10.4 Your right to information about interruptions

- (a) If you request us to do so, we will use our best endeavours to explain:
 - (i) an *interruption* to the supply of energy to the premises; or
 - (ii) a supply of energy to the premises of a quality in breach of any relevant standards under the energy laws.
- (b) If you request an explanation be in writing we must, within 10 business days of receiving the request, give you either:
 - (i) the written explanation; or
 - (ii) an estimate of the time it will take to provide a more detailed explanation if a longer period is reasonably needed.
- (c) For any *retailer planned interruption* arranged by your retailer, we may refer you to your retailer to provide information.
- (d) For any *embedded network planned interruption*, we may refer you to the retailer or distributor responsible for the *interruption*.

11 OUR CHARGES

11.1 Payment

The amounts you are billed under your contract with your retailer include our charges for customer connection services.

11.2 Determination of our charges

We will determine our charges for a billing cycle in accordance with the energy laws.

11.3 Compliance with tariff requirements

- (a) If there are any conditions that are relevant to any tariff or charging category that applies to you for the supply of energy to your premises we must advise your retailer of those conditions.
- (b) You must comply with any conditions referred to in paragraph (a).
- (c) If you do not comply with the conditions referred to in paragraph (a), we may change the tariff that applies to you.

12 DISCONNECTION OF SUPPLY

12.1 When can we disconnect?

Subject to us satisfying the requirements in the Rules, we may disconnect your premises if:

- (a) your retailer informs us that it has a right to arrange for disconnection under your contract with your retailer and requests that we disconnect the premises; or
- (b) you use energy supplied to the premises wrongfully or illegally in breach of clause 7; or
- (c) if you fail to pay any direct charges (where relevant) to us under this contract; or
- (d) if you provide false information to us or your retailer such that you would not have been entitled to be connected if you had not provided the false information; or
- (e) if you do not provide and maintain space, equipment, facilities or anything else you must provide under the energy laws or this contract in order for us to provide customer connection services; or
- (f) if you fail to give us safe and unhindered access to the premises as required by clause 9 or any requirement under the energy laws; or
- (g) in an emergency or for health and safety reasons; or
- (h) if required to do so at the direction of a *relevant authority*; or
- (i) if we are otherwise permitted by the energy laws to disconnect the premises.

Note:

The energy laws allow distributors and other authorised people to disconnect or arrange the disconnection of premises in circumstances additional to those set out above.

12.2 Notice and warning of disconnection

If you are a small customer, we may disconnect your premises under clauses 12.1(c), 12.1(d), 12.1(e) or 12.1(f) only if:

- (a) we have sent you a *disconnection warning notice* that:
 - (i) requires you to rectify, within 6 business days after the date of issue on the notice, the issue that could lead to disconnection; and
 - (ii) carries a warning of the consequences of failing to comply with the notice; and
- (b) in relation to safe and unhindered access only, we have used our best endeavours to contact you to arrange an appointment with you for access to your premises in addition to providing a *disconnection warning notice*; and
- (c) you fail to comply with the *disconnection warning notice* within 6 business days after the date of issue.

12.3 Life support equipment

If you are a small customer, we must not disconnect your premises if they are registered as having *life support equipment*, except in an emergency.

12.4 When we must not disconnect

- (a) Subject to paragraph (b), and otherwise in accordance with the Rules, if you are a small customer we must not disconnect the premises during the following times ('the protected period'):
 - (i) on a business day before 8.00am or after 3.00pm; or
 - (ii) on a Friday or the day before a public holiday; or
 - (iii) on a weekend or a public holiday; or
 - (iv) on the days between 20 December and 31 December (both inclusive) in any year; or
 - (v) if you are being disconnected for a failure to pay, during an extreme weather event.
- (b) Your premises may be disconnected within the protected period:
 - (i) for reasons of health and safety; or
 - (ii) in an emergency; or
 - (iii) as directed by a *relevant authority*; or
 - (iv) if you are in breach of clause 7 which deals with wrongful and illegal use of energy; or
 - (v) if your retailer makes such a request on your behalf; or
 - (vi) if your premises contain a commercial business that only operates within the protected period and where access to the premises is necessary to effect disconnection; or
 - (vii) where the premises are not occupied.

12.5 Our rights after disconnection

The disconnection of the premises does not limit or waive any of the parties' rights and obligations under this contract arising before disconnection, including any of your obligations to pay amounts to us or your retailer.

12.6 Disconnection fee

If you have not complied with a *disconnection warning notice* and we arrive at the premises to disconnect the premises but do not do so because you rectify the matter referred to in the *disconnection warning notice*, you will be liable to pay a reasonable fee for our attendance at the premises.

13 RECONNECTION AFTER DISCONNECTION

13.1 Where we must reconnect

- (a) If you are a small customer, we must arrange for reconnection of the premises if, within 10 business days of your premises being disconnected:

- (i) where your retailer asked for the disconnection—if we are asked by your retailer to reconnect the premises; or
- (ii) in other circumstances—if:
 - (A) you ask us to arrange for reconnection of your premises; and
 - (B) you rectify the matter that led to the disconnection; and
 - (C) you pay any reconnection charge.
- (b) We may terminate this contract 10 business days following disconnection if the requirements in paragraph (a) are not met.

13.2 Timeframe for reconnection

If you are a small customer and at the time of the request for reconnection:

- (a) you or your retailer have made arrangements for payment of the relevant reconnection charge; and
- (b) you have complied with our requirements under the relevant energy laws; and
- (c) the necessary infrastructure to re-energise the premises remains in place; and
- (d) you provide safe and unhindered access to the premises,

we must re-energise the premises within [required alteration: insert the applicable service standard as to time for re-energisation], unless you request a later time.

13.3 Wrongful disconnection

If we disconnect the premises where we did not have a right to do so, we must reconnect the premises as soon as possible and without charge.

14 NOTICES AND BILLS

- (a) Notices and bills (where relevant) under this contract must be sent in writing, unless this contract or the Rules say otherwise.
- (b) A notice or bill sent under this contract is taken to have been received by you or by us (as relevant):
 - (i) on the date it is handed to the party, left at the party's premises (in your case) or one of our offices (which excludes depots) (in our case) or successfully faxed to the party (which occurs when the sender receives a transmission report to that effect); or
 - (ii) on the date two business days after it is posted; or
 - (iii) on the date of transmission (unless the sender receives notice that delivery did not occur or has been delayed) if sent electronically and the use of electronic communication has been agreed between us.

15 PRIVACY ACT NOTICE AND ACCESS TO INFORMATION

15.1 Privacy of personal information

We will comply with all relevant privacy legislation in relation to your personal information. You can find a summary of our privacy policy on our website. If you have any questions, you can contact our privacy officer.

15.2A Access to information - electricity only

Upon request, we must give you information about your energy consumption or our charges for customer connection services for up to 2 years free of charge. We may charge you a reasonable fee for information requested;

- (a) more than 4 times in the previous 12 months; or
- (b) that is different in manner and form to any minimum requirements we are required to meet; or
- (c) by a representative you have authorised to act on your behalf, and that request is part of a request the representative makes to us in relation to more than one customer.

15.2B Access to information - gas only

Upon request, we must give you information about your energy consumption or our charges for customer connection services. We may charge you a reasonable fee for information requested more than once in any 12 month period.

16 COMPLAINTS AND DISPUTE RESOLUTION

16.1 Complaints

If you have a complaint relating to the supply of energy to the premises, or this contract generally, you may lodge a complaint with us in accordance with our standard complaints and dispute resolution procedures.

Note:

Our standard complaints and dispute resolution procedures are published on our website.

16.2 Our obligations in handling complaints or disputes

If you make a complaint, we must respond to your complaint within the required timeframes in our standard complaints and dispute resolution procedures and inform you:

- (a) of the outcome of your complaint and the reasons for our decision; and
- (b) that, if you are not satisfied with our response and you are a small customer, you have a right to refer the complaint to [required alteration: insert name and contact details of the relevant energy ombudsman].

17 FORCE MAJEURE

17.1 Effect of force majeure event

If, either you or we cannot meet an obligation under this contract because of an event outside the control of the party ('**a force majeure event**');

- (a) the obligation, other than an obligation to pay money (including, in our case, a payment for failure to meet a guaranteed service level), is suspended to the extent it is affected by the event for so long as the event continues; and
- (b) the affected party must use its best endeavours to give the other prompt notice of that fact including full particulars of the event, an estimate of its likely duration, the extent to which its obligations are affected and the steps taken to remove, overcome or minimise those effects.

17.2 Deemed prompt notice

If the effects of a force majeure event are widespread we will be taken to have given you prompt notice if we make the necessary information available by way of a 24 hour telephone service within 30 minutes of being advised of the event or otherwise as soon as practicable.

17.3 Obligation to overcome or minimise effect of force majeure event

A party that claims a force majeure event must use its best endeavours to remove, overcome or minimise the effects of that event as soon as practicable.

17.4 Settlement of industrial disputes

Nothing in this clause requires a party to settle an industrial dispute that constitutes a force majeure event in any manner other than the manner preferred by that party.

18 APPLICABLE LAW

The laws of [required alteration: insert name of participating jurisdiction in which the distributor's distribution system is located] govern this contract.

19 GENERAL

19.1 Our obligations

Some obligations placed on us under this contract may be carried out by another person. If an obligation is placed on us to do something under this contract, then:

- (a) we are taken to have complied with the obligation if another person does it on our behalf; and
- (b) if an obligation is not complied with, we are still liable to you for the failure to comply with this contract.

19.2 GST

- (a) Amounts specified in the standing offer prices from time to time and other amounts payable under this contract may be stated to be exclusive or

inclusive of GST. Paragraph (b) applies unless an amount payable under this contract is stated to include GST.

- (b) Where an amount paid by you or by us under this contract is payment for a “taxable supply” as defined for GST purposes, to the extent permitted by law, that payment will be increased so that the cost of the GST payable on the taxable supply is passed on to the recipient of that taxable supply.

19.3 Amending this contract

- (a) This contract may only be amended from time to time in accordance with the procedures set out in the National Energy Retail Law.
- (b) We must inform you of any material amendments to this contract as required by the National Energy Retail Law.

Simplified explanation of terms

billing cycle means the regular recurrent period for which we charge for customer connection services;

business day means a day other than a Saturday, a Sunday or a public holiday;

connection point means the point at which a distribution system connects to an energy installation or equipment that serves the premises of one or more customers;

customer means a person who buys or wants to buy energy from a retailer;

customer connection services include services relating to the flow of energy to your premises;

disconnection means an action to prevent the flow of energy to the premises, but does not include an *interruption*;

distributor planned interruption means an *interruption* of the supply of energy for:

- (a) the planned maintenance, repair or augmentation of the transmission system; or
- (b) the planned maintenance, repair or augmentation of the distribution system, including planned or routine maintenance of a *meter* (excluding a *retailer planned interruption*); or
- (c) the installation of a new connection or a connection alteration;

embedded network means a distribution network that is connected to the main part of the grid through another distribution network or through another embedded network;

embedded network planned interruption means an interruption to supply in an embedded network due to an interruption to its connection to a distribution network or another embedded network;

emergency means an emergency due to the actual or imminent occurrence of an event that in any way endangers or threatens to endanger the safety or health of any person, or normal operation of the distribution system or transmission system, or that destroys or damages, or threatens to destroy or damage, any property;

energy means electricity or gas (as relevant to this contract);

energy laws means national and State and Territory laws and rules relating to energy and the legal instruments made under those laws and rules;

force majeure event means an event outside the control of a party;

GSL scheme has the meaning given in the National Energy Retail Law;

GST has the meaning given in the GST Act(*A New Tax System (Goods and Services Tax) Act 1999* (Cth));

interruption means a temporary unavailability or temporary curtailment of the supply of energy from a distribution system to a customer, but does not include disconnection;

medical confirmation means certification from a registered medical practitioner of the requirement for *life support equipment* at your premises;

National Energy Retail Law means *the Law* of that name that is applied by each participating State and Territory;

National Electricity Rules means the rules made under the National Electricity Law;

National Gas Rules means the rules made under the National Gas Law;

premises means the address at which customer connection services are provided to you and, to avoid doubt, may include your electrical or gas installation;

relevant authority means any person or body who has the power under law to direct us, including the Australian Energy Market Operator and State or Federal Police;

retailer means a person that is authorised to sell energy to customers;

retailer planned interruption means an *interruption* that:

- (a) is for the purposes of the installation, maintenance, repair or replacement of your electricity *meter*; and
- (b) does not involve the distributor effecting the *interruption*; and
- (c) is not a *distributor planned interruption*.

Rules means the National Energy Retail Rules made under the National Energy Retail Law;

small customer means:

- (a) a residential customer; or
- (b) a business customer who consumes energy at or below a level determined under the National Energy Retail Law;

small generator means an embedded generating unit of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters);

standard connection contract means a contract on the terms and conditions and in the form of this document.

Schedule 3 Savings and Transitional Rules**Part 1 Transitional Rules—NSW gas distributors****Division 1 Application and definitions****1 Application**

During the transition period the Rules apply to, and in relation to, a NSW gas distributor, subject to the exclusions, qualifications and modification in this Part.

2 Definitions

In this Part:

access arrangement has the same meaning as in the NGL.

current access arrangement means an access arrangement that:

- (a) applies to a NSW gas distributor with respect to pipelines located in NSW; and
- (b) is in force on the start date.

expiry date means the date when the current access arrangement no longer applies.

interim deemed standard connection contract means a deemed standard connection contract prepared by a NSW gas distributor in accordance with Division 2 of this Part.

interim NSW connection contract rules means the rules prescribed in this Part.

model deemed standard connection contract means the model terms and conditions for a deemed standard connection contract set out in Schedule 2.

NSW gas distributor means a service provider within the meaning of the NGL that holds a reticulator's authorisation under the *Gas Supply Act 1996* of New South Wales in respect of a pipeline located in NSW, excluding ActewAGL Distribution (partnership of ACTEW Distribution Ltd ACN 073 025 224 and Jemena Networks (ACT) Pty Ltd ACN 008 552 663).

reference services agreement means a contract between a user and a NSW gas distributor, whether described in the relevant current access arrangement as:

- (a) a reference service agreement;
- (b) a standard user agreement;
- (c) a service agreement; or
- (d) a gas transportation agreement.

start date means the date when these interim NSW connection contract rules come into operation.

transition period means the period from the start date to the expiry date.

Division 2 Interim deemed standard connection contract

3 Required Alterations

- (1) During the transition period, a NSW gas distributor must adopt a form of deemed standard connection contract under section 69 of *the Law* in accordance with Schedule 2 of the Rules and subject to this Division (an **interim deemed standard connection contract**).
- (2) The amendments made to an interim deemed standard connection contract under this Division are required alterations as contemplated by section 69(5) of *the Law*.

4 Inconsistency with access arrangements and reference services agreements

- (1) This rule applies where there is an inconsistency between rights and obligations of a NSW gas distributor in relation to:
 - (a) a customer under the model deemed standard connection contract; and
 - (b) the customer's retailer under the distributor's current access arrangement and/or reference services agreement with that retailer.
- (2) Subject to subrule (3), the terms and conditions of the current access arrangement or reference services agreement prevail over the terms and conditions of the model deemed standard connection contract to the extent of the inconsistency.
- (3) If the application of the inconsistent term or condition of the distributor's current access arrangement or reference services agreement would result, or is likely to result, in less favourable terms and conditions for the customer, the terms and conditions of the model deemed standard connection contract prevail over the current access arrangement or reference services agreement (as the case may be) to the extent of the inconsistency.
- (4) During the transition period, a NSW gas distributor must ensure that at all times, its interim deemed standard connection contract complies with subrule (3) including making an amendment to address an inconsistency and must ensure that the effect of the amendment does not result in less favourable terms and conditions for customers.

5 Retailer interface

- (1) This rule applies where the terms and conditions of a current access arrangement or reference services agreement make it necessary for the rights and obligations of a customer under the model deemed standard connection contract to be exercised and discharged for and on behalf of the customer by customer's retailer for the premises.
- (2) The rights and obligations of a customer under the NSW gas distributor's interim deemed standard connection contract must be exercised and discharged for and on behalf of the customer by the customer's retailer.

- (3) A NSW gas distributor must deal with the financially responsible retailer in relation to any matter where the retailer is acting for or on behalf of the customer under subrule (1).
- (4) A retailer will not be liable for any act or omission of the customer when acting in accordance with subrules (2) and (3).
- (5) A retailer will not be liable for any act or omission of a NSW gas distributor when acting in accordance with subrule (2).
- (6) A NSW gas distributor must amend its interim deemed standard connection contract to address the matters referred to in this rule 5.

Division 3 Deemed and existing contractual arrangements with customers and NSW gas distributors

6 Formation of interim deemed standard connection connect contracts on start date

Subject to rule 7 of this Part, if the premises of a customer in NSW are being supplied with gas immediately before the start date without the customer being a party to a contract with a NSW gas distributor in relation to that supply, an interim deemed standard connection contract between the customer and the NSW gas distributor is taken to exist between the customer and the NSW gas distributor from the start date.

7 Existing contracts with large customers

- (1) An interim deemed standard connection contract in existence on or after the start date does not apply to a large customer who immediately before the start date, has a contract in place between that customer and a NSW gas distributor for provision of customer connection services.
- (2) A deemed AER approved standard connection contract in existence immediately after the start date does not apply to a large customer who immediately before the transition date, has a contract in place between that customer and a NSW gas distributor for provision of customer connection services.
- (3) A deemed standard connection contract in existence on or after the expiry date does not apply to a large customer who immediately before the start date has a contract in place between the customer and a NSW gas distributor for provision of customer connection services.

Division 4 Transitional arrangements after the expiry date

8 Deemed standard connection contract to replace interim contract

- (1) Before the expiry date, a NSW gas distributor must prepare a form of deemed standard connection contract in accordance with *the Law* and these Rules to replace the interim deemed standard connection contract after the expiry date.

- (2) Immediately after the expiry date, the terms and conditions of the NSW gas distributor's interim deemed connection contract are taken to be replaced by the terms and conditions of the NSW gas distributor's deemed standard connection contract prepared under subrule 1.

Part 2 Transitional Rules —ACT gas distributor

Division 1 Application and definitions

1 Application

During the transition period the Rules apply to, and in relation to, the ACT gas distributor, subject to the exclusions, qualifications and modification in this Part.

2 Definitions

In this Part:

access arrangement has the same meaning as in the NGL.

ACT gas distributor means ActewAGL Distribution, a partnership of ACTEW Distribution Ltd (ACN 073 025 224) and Jemena Networks (ACT) Pty Ltd (ACN 008 552 663).

current access arrangement means an access arrangement that:

- (a) applies to the ACT gas distributor; and
- (b) is in force on the start date.

expiry date means the date when the current access arrangement no longer applies.

interim deemed standard connection contract means a deemed standard connection contract prepared by an ACT gas distributor in accordance with Division 2 of this Part.

interim ACT connection contract rules means the rules prescribed in this Part.

start date means the date when these interim ACT connection contract rules come into operation.

transition period means the period from the start date to the expiry date.

Transport Services Agreement has the same meaning as in the current access arrangement.

Division 2 Interim deemed standard connection contract

3 Required Alterations

- (1) During the transition period, the ACT gas distributor must adopt a form of deemed standard connection contract under section 69 of *the Law* in accordance with Schedule 2 of the Rules and subject to this Division (an **interim deemed standard connection contract**).

- (2) The amendments made to an interim deemed standard connection contract under this Division are required alterations as contemplated by section 69(5) of *the Law*.

4 Retailer interface

- (1) This rule applies where the terms and conditions of a current access arrangement or reference services agreement make it necessary for the rights and obligations of a customer under the interim deemed standard connection contract to be exercised and discharged for and on behalf of the customer by customer's retailer for the premises.
- (2) The rights and obligations of a customer under the ACT gas distributor's interim deemed standard connection contract must be exercised and discharged for and on behalf of the customer by the customer's retailer.
- (3) The ACT gas distributor must deal with the financially responsible retailer in relation to any matter where the retailer is acting for or on behalf of the customer under subrule (1).
- (4) A retailer will not be liable for any act or omission of the customer when acting in accordance with subrules (2) and (3).
- (5) A retailer will not be liable for any act or omission of the ACT gas distributor when acting in accordance with subrule (2).
- (6) The ACT gas distributor must amend its interim deemed standard connection contract to address the matters referred to in this rule 4.

Division 3 Deemed and existing contractual arrangements with customers and ACT gas distributors

5 Formation of interim deemed standard connection connect contracts on start date

Subject to rule 6 of this Part, if the premises of a customer are being supplied with gas immediately before the start date without the customer being a party to a contract with an ACT gas distributor in relation to that supply, an interim deemed standard connection contract between the customer and the ACT gas distributor is taken to exist between the customer and the ACT gas distributor from the start date.

6 Existing contracts with large customers

- (1) An interim deemed standard connection contract in existence on or after the start date does not apply to a large customer who immediately before the start date, has a contract in place between that customer and the ACT gas distributor for provision of customer connection services.
- (2) A deemed AER approved standard connection contract in existence immediately after the start date does not apply to a large customer who immediately before the

transition date, has a contract in place between that customer and the ACT gas distributor for provision of customer connection services.

- (3) A deemed standard connection contract in existence on or after the expiry date does not apply to a large customer who immediately before the start date has a contract in place between the customer and the ACT gas distributor for provision of customer connection services.

Division 4 Transitional arrangements after the expiry date

7 Deemed standard connection contract to replace interim contract

- (1) Before the expiry date, the ACT gas distributor must prepare a form of deemed standard connection contract in accordance with *the Law* and these Rules to replace the interim deemed standard connection contract after the expiry date.
- (2) Immediately after the expiry date, the terms and conditions of the ACT gas distributor's interim deemed connection contract are taken to be replaced by the terms and conditions of the ACT gas distributor's deemed standard connection contract prepared under subrule 1.

Part 3 Billing-related transitional rules

1 Definitions

In this Part:

billing-related transitional rules means the rules prescribed by this Part.

start date means the date when these billing-related transitional rules come into operation.

transitional liability means a liability incurred before, but continuing after, the start date.

2 Bill smoothing arrangement (Rule 23 NERR)

- (1) A bill smoothing arrangement that was in force immediately before the start date continues in force.
- (2) Rule 23 of the Rules applies to a transitional bill smoothing arrangement as if:
 - (a) the Rules had been in force when the bill smoothing arrangement was made; and
 - (b) the bill smoothing arrangement had then been made with the explicit informed consent of the small customer.
- (3) This rule applies in relation to standard retail contracts but not in relation to market retail contracts.

3 Bill frequency (Rule 24)

- (1) A bill issued to a small customer within 3 months after the start date is taken to have been issued in accordance with rule 24 of the Rules although it may relate to a period of more than 3 months.
- (2) This rule applies in relation to standard retail contracts but not in relation to market retail contracts.

4 Undercharging (Rule 30)

- (1) The provisions of the Rules for recovery by a retailer of amounts the retailer has undercharged a small customer (Rule 30) extend to undercharging occurring before the start date if:
 - (a) the undercharging began before but continued after the start date; or
 - (b) the undercharging occurred wholly before the start date but, as of that date, the retailer had given the small customer no notice of the undercharge, nor had the retailer taken any other action to recover the amount of the undercharge.
- (2) The provision of the Rules limiting recovery to undercharging occurring within 9 months before the date the retailer notifies the customer of the undercharge (rule 30(2)(a)) applies to transitional liabilities as well as liabilities arising after the start date.
- (3) This rule applies in relation to standard retail contracts and also in relation to market retail contracts (other than prepayment meter market retail contracts).

5 Overcharging (Rule 31 NERR)

- (1) The provisions of the Rules requiring a retailer to reimburse amounts the retailer has overcharged a small customer (rule 31) extend to overcharging occurring before the start date if:
 - (a) the overcharging began before but continued after the start date; or
 - (b) the overcharging occurred wholly before the start date but, as of that date:
 - (i) the retailer had not given the small customer notice of the overcharge, nor had the retailer taken any other action to reimburse the amount overcharged; and
 - (ii) the small customer had taken no formal action to recover the amount overcharged.
- (2) It follows that, if overcharging occurred before and after the start date, the references in rule 31 to the amount overcharged is a reference to the aggregate of the amounts overcharged before and after the start date.
- (3) This rule applies in relation to standard retail contracts and also in relation to market retail contracts (other than prepayment meter market retail contracts).

6 Payment methods (Rule 32 NERR)

- (1) If a small customer was using Centrepay as a payment option immediately before the start date, the retailer will be taken to have elected, on the start date, to permit the small customer to use Centrepay as a payment option under rule 32(2) of the Rules.
- (2) This rule applies in relation to standard retail contracts and also in relation to market retail contracts (other than prepayment meter market retail contracts).

7 Shortened collection cycles (Rule 34 NERR)

- (1) If, before the start date, a small customer was placed on a shortened collection cycle and the arrangement was in force immediately before the start date, the arrangement will continue as if made under rule 34 of the Rules.
- (2) In deciding, for the purposes of rule 34(4) whether the customer has paid 3 consecutive bills, payments made before, as well as after, the start date must be taken into consideration.
- (3) This rule applies in relation to standard retail contracts and also in relation to market retail contracts (other than prepayment meter market retail contracts).

8 Enforcement of payment

- (1) The procedures laid down by the Rules for billing and collection of debts owed by a small customer to a retailer extend to transitional liabilities.
- (2) If:
 - (a) the retailer had, before the start date, commenced an action or process to recover the amount of a transitional liability under provisions then in force for the billing and collection of debts; and
 - (b) as at the start date, the action or process remained incomplete,
 the retailer may continue and complete the action or process under the Rules.
- (3) For the purposes of subrule (2), an action or process for the billing or collection of debts, prescribed by provisions in force before the start date, will be taken to be an action or process under analogous provisions of the Rules.
- (4) This rule does not derogate from other provisions for the recovery of transitional liabilities.
- (5) This rule applies in relation to standard retail contracts and also in relation to market retail contracts (other than prepayment meter market retail contracts).

Part 4 Miscellaneous transitional rules—initial NERR**1 Definitions**

In this Part:

miscellaneous transitional rules means the rules prescribed by this Part 4.

start date means the date when these miscellaneous transitional rules come into operation.

2 Life support arrangements

- (1) Any *life support equipment* registered or otherwise identified or notified under jurisdictional energy legislation, or a jurisdictional administrative arrangement, immediately before the start date will be taken to have been the subject of a confirmation provided to the relevant retailer or distributor (or both) under Part 7 of the Rules.
- (2) The premises at which any *life support equipment* is located (as advised in connection with a registration, identification or notification referred to in subrule (1)) will be taken to be the premises to which the arrangements apply for the purposes of Part 7 of the Rules.

3 Classification of customers

A retailer or distributor of gas is not required to comply with the requirements of Division 3 of Part 1 of the Rules relating to the classification of customers until 1 August 2012.

4 Existing aggregation arrangements (Rule 5 NERR)

- (1) This rule applies where, before the start date, a retailer has an agreement with a customer for 2 or more premises to be aggregated so as to be treated as a large customer (an **existing aggregation arrangement**).
- (2) An existing aggregation arrangement continues in force according to its terms, and rule 5 applies to a transitional aggregation arrangement as if:
 - (a) the Rules had been in force when the existing aggregation arrangement was made; and
 - (b) the existing aggregation arrangement had then been made with the explicit informed consent of the customer.

5 Energy consumption benchmarks

A retailer is not required to comply with subrule 25(1)(o) and rule 170 of the Rules until 1 October 2012.

6 Electricity consumption benchmarks not to apply in NSW

In NSW, a retailer is not required to comply with subrule 25(1)(o) and rule 170 of the Rules until 28 February 2014, but is not prevented from doing so before that date.

7 Interim bill benchmarks where legacy billing arrangements

- (1) In this rule:

transition period means the period starting from the start date to 28 February 2014.

interim bill benchmark customer means a residential electricity customer located in Queensland, Victoria, South Australia and the ACT, whose bills are issued under legacy billing arrangements at the start date.

legacy billing arrangements means an agreement between a retailer and a legacy billing service provider under which the billing system is not enabled to include electricity bill benchmarking information on the bill itself.

legacy billing service provider means Essential Energy (established under the *Energy Services Corporation Act 1995* (NSW)).

retailer means the financially responsible retailer for an interim bill benchmark customer.

- (2) During the transition period, an affected retailer is taken to satisfy the requirements of rule 170 and subrule 25(1)(o) of the Rules in relation to an interim bill benchmark customer if the particulars required to be in a bill for those customers are included with their bill.

8 Application of start and end meter reads on small customer bills

- (1) In this rule:
interval meter is a *meter* that measures and records consumption of electricity derived from interval *metering data* (within the meaning of the NER).
- (2) Subrule 25(1)(j) applies without modification if a small customer's *meter* measures and records consumption of energy only on an accumulation basis.
- (3) If a small customer has an interval *meter*, the requirements of subrule 25(1)(j) do not apply unless the required *metering data* is reasonably available.

Part 5 Rules consequential on the making of National Energy Retail Amendment (Customer access to information about their consumption) Rule 2014

1 Definitions

Amending Rule means National Energy Retail Amendment (Customer access to information about their energy consumption) Rule 2014.

required alterations means the amendments set in Schedule 2 of the Amending Rule.

2 Variation date

Retailers and distributors must make the required alterations to their standard retail contracts and standard connection contracts respectively by 28 February 2016.

3 Effective date

The required alterations must take effect no later than 1 March 2016.

**Part 6 Rules consequential on the making of the
National Energy Retail Amendment (Expanding
competition in metering and related services)
Rule 2015****1 Definitions**

In this Part:

Amending Rule means the National Energy Retail Amendment (Expanding competition in metering and related services) Rule 2015.

effective date means 1 December 2017.

required alterations means the amendments set out in Schedule 2 of the Amending Rule.

2 Variation Date

- (1) Retailers and distributors must make the required alterations to their standard retail contracts and standard connection contracts by the effective date.
- (2) Alterations made under subrule (1) must take effect on and from the effective date.

**Part 7 Rules consequential on the making of the
National Energy Retail Amendment (Improving
the accuracy of customer transfers) Rule 2017****1 Definitions**

In this Part:

Amending Rule means the National Energy Retail Amendment (Improving the accuracy of customer transfers) Rule 2017.

commencement date means the date of commencement of Schedule 1 of the Amending Rule.

2 Retail Market Procedures

- (1) By the commencement date AEMO must amend the Retail Market Procedures, as required, to take account of the Amending Rule.

Part 8 Rules consequential on the making of the National Energy Retail Amendment (Notification of end of fixed benefit period) Rule 2017

1 Definitions

In this Part:

Amending Rule means the National Energy Retail Amendment (Notification of end of fixed benefit period) Rule 2017.

2 Benefit change notice guidelines

- (1) By 1 July 2018, the AER must make the benefit change notice guidelines in accordance with the retail consultation procedures.

3 Benefit change notice requirements

- (1) A retailer is not required to comply with rule 48A in respect of a benefit change under any market retail contract if that benefit change will occur less than 20 business days after Schedule 1 of the Amending Rule commences operation.
- (2) Subject to subrule (3), a retailer is not required to comply with rule 48A(2)(c) or rule 48A(4) until 1 October 2018.
- (3) If the AER publishes its first benefit change notice guidelines under this Part 8 before 1 July 2018 a retailer must use its best endeavours to comply with rule 48A(2)(c) and rule 48A(4) as soon as practicable after the AER publishes those guidelines but in any event must comply with rule 48A(2)(c) and rule 48A(4) no later than 1 October 2018.

Part 9 Rules consequential on the making of the National Energy Retail Amendment (Strengthening protections for customers requiring life support equipment) Rule 2017

1 Definitions

- (1) In this Part:

Amending Rule means the National Energy Retail Amendment (Strengthening protections for customers requiring life support equipment) Rule 2017.

deemed life support customer means a customer whose premises are registered as having *life support equipment* as at the start date, but who has not provided a distributor or a retailer with medical confirmation prior to the effective date.

effective date means 1 February 2019.

existing life support customer means a customer whose premises are registered as having *life support equipment* as at the effective date.

medical confirmation in respect of a customer, means confirmation from a registered medical practitioner that a person residing at that customer's premises requires *life support equipment*.

new Part 7 means Part 7 of the Rules as in force immediately after the effective date.

new subrule 124(1)(a) means subrule 124(1)(a) of the Rules as in force immediately after the effective date.

new subrule 124(1)(b) means subrule 124(1)(b) of the Rules as in force immediately after the effective date.

new subrule 124(1)(c) means subrule 124(1)(c) of the Rules as in force immediately after the effective date.

new subrule 124(4)(a) means subrule 124(4)(a) of the Rules as in force immediately after the effective date.

new subrule 124(4)(b) means subrule 124(4)(b) of the Rules as in force immediately after the effective date.

new subrule 124(4)(c) means subrule 124(4)(c) of the Rules as in force immediately after the effective date.

new rule 124A means rule 124A of the Rules as in force immediately after the effective date.

new subrule 125(4) means subrule 125(4) of the Rules as in force immediately after the effective date.

new subrule 125(5) means subrule 125(5) of the Rules as in force immediately after the effective date.

registered life support customer means a customer whose premises are registered as having *life support equipment* as at the start date, but who has not provided a distributor or a retailer with medical confirmation prior to the start date.

required alterations means the amendments set out in Schedule 2 of the Amending Rule.

start date means 1 February 2018.

transition period means the period starting from the start date until, but not including, the effective date.

transitional distributor life support customer means a customer who advises a distributor during the transition period that a person residing at the customer's premises requires *life support equipment*, but does not provide the distributor with medical confirmation prior to the effective date.

transitional retailer life support customer means a customer who advises a retailer during the transition period that a person residing at the customer's premises requires *life support equipment*, but does not provide the retailer with medical confirmation prior to the effective date.

- (2) Italicised terms used in this Part have the same meaning as in new Part 7.

2 Application of Part 7 of Rules during the transition period

- (1) During the transition period, a transitional retailer life support customer is taken to have provided the retailer with medical confirmation for the purposes of subrule 124(1A)(b).
- (2) During the transition period, a transitional distributor life support customer is taken to have provided the distributor with medical confirmation for the purposes of subrule 125(1)(b).
- (3) During the transition period:
 - (a) a registered life support customer is taken to have provided the retailer with medical confirmation for the purposes of subrule 124(1A)(b); and
 - (b) a registered life support customer's retailer is taken to have advised the distributor for the purposes of subrule 125(1)(a) that a person residing at the customer's premises requires *life support equipment*.
- (4) During the transition period, a retailer is not required to comply with subrules 124(1)(b) or 124(1)(e) in respect of registered life support customers.
- (5) During the transition period, a distributor is not required to comply with subrules 125(2)(b) or 125(2)(e) in respect of registered life support customers.

3 Application of new Part 7 of Rules to existing life support customers

- (1) Where an existing life support customer (other than a deemed life support customer, transitional distributor life support customer or transitional retailer life support customer) has provided a retailer with medical confirmation prior to the effective date, on and from the effective date:
 - (a) the customer's premises is taken to be registered in accordance with new subrule 124(1)(a);
 - (b) the retailer is taken to have notified the distributor for the purposes of new subrule 124(1)(c);
 - (c) the customer is taken to have given *medical confirmation* to the retailer for the purposes of new Part 7;
 - (d) the retailer is not required to comply with new subrule 124(1)(b) in respect of that existing life support customer; and
 - (e) new rule 124A and new subrule 125(4) do not apply in respect of that existing life support customer.
- (2) Where an existing life support customer (other than a deemed life support customer, transitional distributor life support customer or transitional retailer life support customer) has provided a distributor with medical confirmation prior to the effective date, on and from the effective date:
 - (a) the customer's premises is taken to be registered in accordance with new subrule 124(4)(a);

- (b) the distributor is taken to have notified the retailer for the purposes of new subrule 124(4)(c);
 - (c) the customer is taken to have given *medical confirmation* to the distributor for the purposes of new Part 7;
 - (d) the distributor is not required to comply with new subrule 124(4)(b) in respect of that existing life support customer; and
 - (e) new rule 124A and new subrule 125(5) do not apply in respect of that existing life support customer.
- (3) Where an existing life support customer is a deemed life support customer or a transitional retailer life support customer, on and from the effective date:
- (a) the customer's premises is taken to be registered in accordance with new subrule 124(1)(a);
 - (b) the retailer is taken to have notified the distributor for the purposes of new subrule 124(1)(c);
 - (c) subject to subrule (3)(f), the retailer is not required to comply with new subrule 124(1)(b) in respect of that existing life support customer;
 - (d) the retailer may deregister a customer's premises pursuant to new subrule 125(4) where a deemed life support customer or transitional retailer life support customer has not provided *medical confirmation* to the retailer;
 - (e) other than where the retailer has determined to deregister the existing life support customer in accordance with subrule (3)(d), the retailer is not required to comply with new rule 124A in respect of that existing life support customer; and
 - (f) where the retailer is required to comply with new rule 124A under subrule (3)(e), the retailer must provide the customer with the information and documentation required by new subrule 124(1)(b)(i)-(vii) prior to seeking *medical confirmation* under new rule 124A.
- (4) Where an existing life support customer is a transitional distributor life support customer, on and from the effective date:
- (a) the customer's premises is taken to be registered in accordance with new subrule 124(4)(a);
 - (b) the distributor is taken to have notified the retailer for the purposes of new subrule 124(4)(c);
 - (c) subject to subrule (4)(f), the distributor is not required to comply with new subrule 124(4)(b) in respect of that existing life support customer;
 - (d) the distributor may deregister a customer's premises pursuant to new subrule 125(5) where a transitional distributor life support customer has not provided *medical confirmation* to the distributor;
 - (e) other than where the distributor has determined to deregister the existing life support customer in accordance with subrule (4)(d), the distributor is not required to comply with new rule 124A in respect of that existing life support customer; and

- (f) where the distributor is required to comply with new rule 124A under subrule (4)(e), the distributor must provide the customer with the information and documentation required by new subrule 124(4)(b)(i)-(vii) prior to seeking *medical confirmation* under new rule 124A.

4 Variation date

- (1) Retailers and distributors must make the required alterations to their standard retail contracts and deemed standard connection contracts by the effective date.
- (2) Alterations made under subrule (1) must take effect on and from the effective date.

Part 10 Rules consequential on the making of the National Energy Retail Amendment (Advance notice of price changes) Rule 2018

1 Definitions

effective date means 1 February 2019.

2 Variation date

- (1) Retailers must make the required alterations to their standard retail contracts by the effective date.
- (2) Alterations made under subrule (1) must take effect on and from the effective date.

Part 11 Rules consequential on the making of the National Energy Retail Amendment ([insert name of rule]) Rule [insert year]

1 Definitions

2-year transition period means the period starting on the effective date and ending on the second anniversary of that date.

9-month transition period means the period starting on the effective date and ending 9 months after that date.

Amending Rule means the National Energy Retail Amendment ([insert name of rule]) Rule [insert year].

commencement day means the commencement day as defined in Part 2 of Schedule 1 of *the Law*.

effective date means the first anniversary of the commencement day.

establishment date has the meaning in Part ZZZS of Chapter 11 of the NER.

expiring legacy retail exemption means a legacy retail exemption revoked or to be revoked under rule 10 of this Part.

former legacy exempt network means a transmission or distribution system that has ceased to be a legacy exempt network (including in accordance with Part ZZZS of Chapter 11 of the *NER*).

legacy deemed retail exemption means a *network exemption* in force in relation to a person under clause 2.

legacy deemed retail exemption class is defined in the *Law*.

legacy exempt network has the meaning in Part ZZZS of Chapter 11 of the *NER*.

legacy network exemption has the meaning in Part ZZZS of Chapter 11 of the *NER*.

legacy exempt seller means a person who holds a legacy retail exemption.

legacy exempt selling regime means:

- (a) Part 5 of the *Law* as in force immediately before the commencement day;
- (b) Part 9 of the Rules as in force immediately before the effective day; and
- (c) the old Guidelines as amended from time to time.

legacy retail exemption is defined in Part 2 of Schedule 2 of the *Law*.

legacy retail exemption class is defined in Part 2 of Schedule 2 of the *Law*.

new exempt selling regime means:

- (a) Part 5 of the *Law* as in force on and from the commencement day;
- (b) Part 9 of the Rules as in force on and from the effective date; and
- (c) the new Guidelines as in force on and from the effective date.

new Guidelines means the AER Exempt Selling Guidelines as in effect on and from the effective date.

new rule 148A means rule 148A of the Rules as in force immediately after the effective date.

old Guidelines means the AER Exempt Selling Guidelines as in effect immediately before the effective date.

retail exemption is defined in Part 2 of Schedule 2 of the *Law*.

transition period means the period commencing on the commencement day and ending immediately before the effective date.

2 AER Guidelines to be updated

- (1) By the effective date, the AER must amend the instruments listed in subrule (3) to take into account:
 - (a) Parts 5 and 6 of the *Law* as in force on and from the commencement day; and
 - (b) the Rules in force on and from the effective date as a result of changes made by the Amending Rule.
- (2) The amended instruments made under subrule (1) must take effect on and from the effective date.

- (3) The instruments are the:
- (a) AER Exempt Selling Guidelines;
 - (b) AER Retailer Authorisation Guidelines;
 - (c) AER Compliance Procedures and Guidelines;
 - (d) AER Performance Reporting Procedures and Guidelines;
 - (e) AER Retail Pricing Information Guidelines; and
 - (f) AER RoLR Guidelines.

3 Legacy Exempt Selling Guidelines

- (1) By the effective date, the AER must make guidelines to be known as the Legacy Exempt Selling Guidelines. The Legacy Exempt Selling Guidelines must take effect on and from the effective date and may be made as part of the new Guidelines.
- (2) The Legacy Exempt Selling Guidelines must provide for the grant of legacy retail exemptions to a person who is a member of a legacy retail exemption class in respect of the sale of energy in a legacy exempt network.
- (3) The AER may amend the Legacy Exempt Selling Guidelines from time to time.
- (4) In making or amending the Legacy Exempt Selling Guidelines, the AER must comply with the retail consultation procedure.
- (5) The Legacy Exempt Selling Guidelines must:
- (a) provide information about legacy retail exemptions and legacy retail exemption classes;
 - (b) include the legacy retail exemption classes and applicable exemption conditions, so far as practicable in a manner consistent with the old Guidelines;
 - (c) provide guidance on the revocation of legacy retail exemptions under this Part;
 - (d) include the AER's plan for communication with relevant exempt sellers about the revocation of legacy retail exemptions and authorisation or exemption under new Part 5; and
 - (e) include other guidance in relation to legacy retail exemptions and legacy retail exemption classes as the AER considers appropriate.
- (4) The Legacy Exempt Selling Guidelines must not specify any class of persons for whom a retail exemption may be granted other than a legacy retail exemption class.
- (5) The AER may, in accordance with the retail consultation procedure, decide to amend a legacy retail exemption class or an exemption condition applicable to a legacy retail exemption class but only:
- (a) subject to subrule (4); and

- (b) in a manner that does not extend the class to a person or activity that before the amendment was not or would not have been a member of the class.
- (6) By the end of the 2-year transition period, the AER must revise the Legacy Exempt Selling Guidelines to revoke the legacy retail exemption classes listed in rule 10 of this Part such that with effect from the end of the 2-year transition period, no retail exemption is or may be granted to a person by reason of the person being a member of any of the revoked legacy retail exemption classes.
- (7) The AER may decide to revoke any other legacy retail exemption class.

4 Replacement of legacy retail exemptions

- (1) Subject to rule 3(6) of this Part and subrule (2), on and from the effective date, the AER may continue to grant retail exemptions in accordance with the Legacy Exempt Selling Guidelines.
- (2) The AER must only grant a retail exemption under the Legacy Exempt Selling Guidelines for the activity of selling energy to a person for premises connected to a legacy exempt network.
- (3) A retail exemption granted under the Legacy Exempt Selling Guidelines to which rule 10 of this Part applies is subject to revocation under that clause.

5 Transition process for legacy retail exempt selling

- (1) By the effective date, the AER must amend the exemption conditions applicable to expiring legacy retail exemptions so as to require the legacy exempt seller to:
 - (a) provide information to the AER on request about how the legacy exempt seller intends to transition to the new exempt selling regime and the legacy exempt seller's proposed timetable and process for that transition;
 - (b) notify the AER when the transition is complete; and
 - (c) inform the customers of the legacy exempt seller about the transition process and when the transition is complete.
- (2) The exemption conditions referred to in paragraph (a) must also provide for audit by the AER or a person approved by the AER of legacy exempt seller's compliance with exemption conditions made for subrule (1).

6 Retail exemptions in the transition period

- (1) During the transition period, the AER:
 - (a) must maintain the old Guidelines; and
 - (b) subject to subrule (2), may amend the old Guidelines pursuant to the retail consultation procedure.
- (2) The old Guidelines must not specify any class of persons for whom a retail exemption may be granted under subrule (3) other than a legacy retail exemption class.

- (3) During the transition period, the AER may, in accordance with the old Guidelines, grant a retail exemption to a particular person or to a person who is a member of a legacy retail exemption class where (in the AER's opinion) the grant of the retail exemption is not inconsistent with the national energy retail objective.

7 Individual retail exemptions in the transition period

- (1) The old Guidelines apply to an application made during the transition period for an individual retail exemption.
- (2) The new Guidelines may provide for an application for an individual retail exemption made under the old Guidelines and in respect of which a decision has not been made before the effective date to be determined by the AER after the effective date as if it were an application made under the new Guidelines.

8 Redundant legacy retail exemption classes may be revoked

Where by reason of new rule 148A members of a legacy retail exemption class or some members of the class are not required to hold a retailer authorisation or a retail exemption in respect of an activity to which the legacy retail exemption class applies, the AER may, in accordance with the retail consultation procedure, decide to:

- (1) revoke or amend the legacy retail exemption class; or
- (2) revoke a legacy retail exemption held by a person who is a member of the revoked class, or who by reason of the amendment ceases to be a member of an amended legacy retail exemption class.

9 Effect of a legacy retail exemption for the sale of electricity

- (1) Subject to the terms of the legacy retail exemption, a person who holds a legacy retail exemption for the sale of electricity is an exempt seller only in relation to the sale of electricity in a legacy exempt network or a former legacy exempt network.
- (2) Subject to the terms of the legacy retail exemption, a person who holds a legacy retail exemption for the sale of electricity in a particular legacy exempt network or particular former legacy exempt network is an exempt seller only in relation to the sale of electricity in the particular legacy exempt network or particular former legacy exempt network.
- (3) To avoid doubt, this rule does not preclude the grant of a retail exemption to a person in respect of the activity of selling energy to a person for premises connected to a legacy exempt network or a former legacy exempt network under the new exempt selling regime.

10 Expiry of legacy retail exemptions

- (1) A legacy retail exemption that is of a kind listed in subrule (4) is revoked under this subrule with effect from the date determined under subrule (2).

Note:

Clause 11.117.10 of the NER exempts off-market retailers from the obligation to appoint a metering co-ordinator in pre-2017 exempt networks.

- (2) The revocation of a legacy retail exemption under subrule (1) takes effect as follows:
- (a) where the legacy retail exemption is for the sale of electricity in a legacy exempt network with an establishment date that falls before 31 December 2019, revocation takes effect on the last day of the 2-year transition period; and
 - (b) where the legacy retail exemption is for the sale of electricity in a legacy exempt network with an establishment date that falls in the period starting on 1 January 2020 and ending immediately before the effective date, revocation takes effect on the last day of the 9-month transition period.
- (3) To avoid doubt, this rule does not limit the AER's powers to revoke a legacy retail exemption to which subrule (1) applies before the date determined under subrule (2).
- (4) Subrule (1) applies to a legacy retail exemption granted to a person on registration as a member of a legacy retail exemption class listed in the following table.

<u>Legacy exemption class</u>	<u>Description of class in the old Guidelines</u>
<u>Class R1</u>	<u>Persons selling metered energy to ten or more small commercial/retail customers within the limits of a site that they own, occupy or operate.</u>
<u>Class R2</u>	<u>Persons selling metered energy to ten or more residential customers within the limits of a site that they own, occupy or operate.</u>
<u>Class R3</u>	<u>Retirement villages selling metered energy to residential customers within the limits of a site that they own, occupy or operate.</u>
<u>Class R4</u>	<u>Persons selling metered energy in caravan parks, residential parks and manufactured home estates to residents who principally reside there (ie long term residents)</u>
<u>Class R5</u>	<u>Persons selling metered energy to large customers.</u>
<u>Class R6</u>	<u>Persons selling metered energy to small customers at a site or premises adjacent to a site that they own, occupy or operate</u>
<u>Class R7</u>	<u>Persons selling unmetered energy to small commercial/retail customers at a site that they own, occupy or operate.</u>

11 Pricing schedule

- (1) The AER may make and may amend a pricing schedule under this rule imposing conditions for or with respect to prices to be charged by an off-market retailer to small customers in a legacy exempt network.
- (2) The conditions in a pricing schedule under subrule (1) may apply to an off-market retailer or a class of off-market retailers.
- (3) The conditions in a pricing schedule under subrule (1) must set a maximum price to be charged to those customers that is:
 - (a) determined in accordance with the pricing schedule and may be different for different off-market retailers or classes of off-market retailers; and
 - (b) may be less than, but must not be more than, the standing offer price of the local area retailer.