

National Electricity Amendment (Metrology) Rule 2006 No.17

under the National Electricity Law as applied by:

- (a) the National Electricity (South Australia) Act 1996; and
- (b) the Electricity (National Scheme) Act 1997 of the Australian Capital Territory; and
- (c) the National Electricity (New South Wales) Act 1997 of New South Wales; and
- (d) the Electricity National Scheme (Queensland) Act 1997 of Queensland; and
- (e) the Electricity National Scheme (Tasmania) Act 1999 of Tasmania; and
- (f) the National Electricity (Victoria) Act 2005 of Victoria; and
- (g) the Australian Energy Market Act 2004 of the Commonwealth.

The Australian Energy Market Commission makes the following Rule under the National Electricity Law.

John Tamblyn

Chairman

Australian Energy Market Commission

National Electricity Amendment (Metrology) Rule 2006 No.17

1. Title of Rule

This Rule is the National Electricity Amendment (Metrology) Rule 2006 No.17

2. Commencement

This Rule commences operation on 9 November 2006.

3. Amendment of the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 1.

4. Notes

Notes do not form part of this Rule.

Schedule 1 Amendment of National Electricity Rules

(Clause 3)

[1] Clause 7.1.4 Obligations of Market Participants to establish metering installations

Omit clause 7.1.4(a) and substitute:

- (a) Before participating in the *market* in respect of a *connection point*, a *Market Participant* must ensure that:
 - (1) the *connection point* has a *metering installation* and that the *metering installation* is registered with *NEMMCO*;
 - (2) either:
 - (i) it has become the *responsible person* under clause 7.2.2 and has advised the *Local Network Service Provider*; or
 - (ii) it has sought an offer and, if accepted entered into an agreement under clause 7.2.3, and
 - (3) prior to registration, a *NMI* has been obtained by the *responsible person* for that *metering installation*.

[2] Clause 7.2 Responsibility for Metering Installation

Omit the clauses 7.2.1 - 7.2.3 and substitute:

7.2.1 Responsible person

The *responsible person* is the person responsible for the provision, installation and maintenance of a *metering installation* in accordance with:

- (1) this rule 7.2;
- (2) the *metrology procedure*; and
- (3) Chapter 7 of the *Rules*.

7.2.2 Responsibility of the Market Participant

- (a) A Market Participant may elect to be the responsible person for a type 1, 2, 3 or 4 metering installation except for a joint metering installation where:
 - (1) an agreement has been reached for another *Market Participant*; or

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(2) *NEMMCO* has nominated another *Market Participant*, to be the *responsible person* in accordance with clause 7.2.4.

- (b) A Market Participant is the responsible person for a type 1, 2, 3 or 4 metering installation if:
 - (1) the *Market Participant* elects not to request an offer from, or does not accept the offer of, the *Local Network Service Provider* for the provision of a *metering installation* under clause 7.2.3; or
 - (2) an agreement under clause 7.2.3 is terminated due to a breach by the *Market Participant*.

7.2.3 Responsibility of the Local Network Service Provider

- (a) The Local Network Service Provider is the responsible person for:
 - (1) any type 1, 2, 3 or 4 metering installation connected to, or proposed to be connected to, the Local Network Service Provider's network where the Market Participant has accepted the Local Network Service Provider's offer in accordance with paragraphs (b) and (c); and
 - (2) any type 5, 6 or 7 metering installations connected to, or proposed to be connected to, the Local Network Service Provider's network in accordance with paragraphs (d) to (h).

Types 1 - 4 metering installations

- (b) A *Market Participant* may request in writing an offer from the *Local Network Service Provider* to act as the *responsible person* where a type 1, 2, 3 or 4 *metering installation* is, or is to be, installed.
- (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 *responsible person* in respect of that *metering installation*; and
 - (2) provide to the *Market Participant* the terms and conditions on which the offer is made,

no later than 15 business days after the Local Network Service Provider receives the written request from the Market Participant.

Types 5 -7 metering installations

- (d) A *Market Participant* must request an offer from the *Local Network Service Provider* to act as the *responsible person* where a type 5, 6 or 7 *metering installation* is, or is to be, installed.
- (e) The Local Network Service Provider must, within 15 business days of receipt of the request under paragraph (d), make an offer to a Market Participant setting out the terms and conditions on which it will agree to act as the responsible person.
- (f) The terms and conditions of an offer made under paragraph (e) must:

- (1) be fair and reasonable; and
- (2) not unreasonably discriminate, or have the effect of discriminating unreasonably, between *Market Participants*, or between the customers of any *Market Participant*.
- (g) A *Market Participant* must, in relation to an offer made under paragraph (e):
 - (1) accept the offer; or
 - (2) dispute the offer in accordance with rule 8.2.
- (h) If a *Market Participant* accepts the offer under paragraph (e), the *Local Network Service Provider*:
 - (1) becomes the responsible person; and
 - (2) must provide *NEMMCO* with the *NMI* for the *metering* installation within 10 business days of entry into a connection agreement under clause 5.3.7 with that *Market Participant*.

[3] Clause 7.2.5 Other responsibilities

Omit clause 7.2.5 and substitute:

7.2.5 Role of the responsible person

Engagement of a Metering Provider

- (a) A *responsible person* must for each *metering installation* for which it is responsible:
 - (1) engage a *Metering Provider* for the provision, installation and maintenance of that installation unless the *responsible person* is the *Metering Provider*; or
 - (2) subject to the *metrology procedure*, allow another person to engage a *Metering Provider* to install that installation.
- (b) The responsible person must:
 - (1) enter into an agreement with a *Metering Provider*:
 - (i) for the provision, installation and maintenance of the *metering installation* by the *Metering Provider*, where the *responsible person* has engaged the *Metering Provider* under paragraph (a)(1); or
 - (ii) for the maintenance of the *metering installation*, where another person has engaged the *Metering Provider* under paragraph (a)(2); and
 - (2) provide *NEMMCO* with the relevant details of the *metering installation* as specified in schedule 7.5 within 10 *business days* of obtaining a *NMI* in accordance with 7.3.1(e).

(c) The *responsible person* may elect to terminate an agreement entered into under paragraph (b)(1)(i) after the *metering installation* is installed and if such an agreement is terminated, the *responsible person* must enter into a new agreement with another *Metering Provider* for the maintenance of the *metering installation*.

Metering installations

- (d) The responsible person must, for each of its metering installations:
 - (1) ensure that the installation is provided, installed and maintained in accordance with the *metrology procedure*;
 - (2) ensure that the components, accuracy and testing of the installation complies with the requirements of the *Rules* and the *metrology procedure*;
 - (3) provide and maintain the security control of the installation in accordance with clause 7.8.2;
 - (4) ensure that a *communications link* is installed and maintained to the *telecommunications network* and includes, where required for the *connection* to that *telecommunications network*, a modem and *isolation* equipment approved under telecommunications regulations;
 - (5) provide access to a *telecommunications network* to facilitate the requirement of rule 7.7 and clause 7.12(aa);
 - (6) provide to *NEMMCO* (when requested), the information specified in schedule 7.5 for new or modified installations;
 - (7) not replace a device that is capable of producing *interval* energy data and is already installed in a metering installation, with a device that only produces accumulated energy data unless the metrology procedure permits the replacement to take place;
 - (8) ensure for any type 5 *metering installation* where the annual flow of electricity through the *connection point* is greater than the *type 5 accumulation boundary*, that the *metering data* is extracted or emanates from the *data logger* as *interval energy data*; and
 - (9) allow the alteration of the installation for which that person is responsible with another installation in accordance with clause 7.3.4.
- (e) The Market Settlements and Transfer Solution Procedures may specify that an incoming responsible person is responsible for the metering installation:
 - (1) on the day that a *market load* transfers from one *financially* responsible Market Participant to another financially responsible Market Participant for the period within that day; or

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- (2) on any other day.
- (f) *NEMMCO* must establish guidelines, in accordance with the *Rules* consultation procedures in relation to the role of the responsible person consistent with this Chapter 7.

[4] 7.2A.2 Information Exchange Committee

In clause 7.2A.2(i), omit the word "publish" and substitute the word "publish".

[5] Clause 7.3.1A Metering Installation Requirements

In clause 7.3.1A, omit the words "watthours" and "varhours" respectively and substitute the words "watthour" and "varhour", respectively.

[6] Clause 7.3.1 Metering installation components

Omit clause 7.3.1 and substitute:

7.3.1 Metering installation components

- (a) A metering installation must:
 - (1) either contain a device that has a visible or an equivalently accessible display of the cumulative total *energy* measured by that *metering installation* (at a minimum) or, be classified as an *unmetered connection point* in accordance with schedule 7.2 and in which case such a device is not required;
 - (2) be accurate in accordance with clause 7.3.4;
 - (3) have *electronic data transfer* facilities from the *metering installation* to the *metering database* in accordance with clause 7.3.5;
 - (4) contain a *communications link* in accordance with clause 7.2.5(d)(4);
 - (5) be secure in accordance with rule 7.8;
 - (6) have electronic data recording facilities such that *active energy* can be collated in accordance with clause 7.9.3;

[**Note:** For the avoidance of doubt, clause 7.3.1(a)(6) relates to a metering installation and not a meter.]

- (7) be capable of separately registering and recording flows in each direction where bi-directional *active energy* flows occur;
- (8) if a device is used in accordance with subparagraph (1), have a measurement element for active energy and if required in accordance with schedule 7.2 a measurement element for reactive energy, both of which have an internal or external data logger;

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- (9) be capable of delivering data from the site of the *metering installation* to the *metering database*;
- (10) include facilities on site for storing the *interval energy data* for a period of at least 35 *days* if the *communications link* has a capability for actual *metering data* as required by clause 7.11.1(b) from the site of the *metering point* and the *metering installation* includes the *measurement element(s)* and the *data logger* at the same site;
- (11) include facilities on site for storing the *interval energy data* for a period of at least 200 *days* or such other period as specified in the *metrology procedure* if the *communications link* does not have a capability for actual *metering data* as required by clauses 7.11.1(c) or (d) and the *metering installation* includes the *measurement element(s)* and the *data logger* at the same site;
- (12) include *metering installation* database facilities for storing *energy data* for a period of at least 35 *days* where the *metering installation* provides for a remote *data logger*; and
- (13) include *metering installation* database facilities for storing *energy data* for a period of at least 35 *days* where *metering data* is determined for an *unmetered connection point*.
- (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) an appropriately constructed panel on which the *meter* and the *data logger* are mounted;
 - (5) a *meter* and a *data logger* which may be either internal or external to the *meter* where a *data logger* may be located at a site remote from the site of a *meter* and a *data logger* may consist of a *metering installation* database that is under the control of the *Metering Provider*;
 - (6) communication interface equipment such as a modem, isolation requirements, telephone service, radio transmitter and data link equipment;
 - (7) one or more *communications links* which facilitate the collection of *energy data* from a *data logger* or a *measurement element* so as to enable a remote interface to the *telecommunications network* to be established:
 - (8) data processing facilities, including algorithms for the preparation of a load pattern(s), for the conversion of accumulated energy data or estimated energy data into metering data;

- (9) techniques for the estimation of *market loads* in accordance with schedule 7.2;
- (10) auxiliary electricity supply to the *meter*;
- (11) an alarm circuit and monitoring facility;
- (12) a facility to keep the *metering installation* secure from interference;
- (13) test links and fusing;
- (14) summation equipment; or
- (15) several *metering points* to derive the *metering data* for a *connection point*.
- (c) Either a *Local Network Service Provider* or a *Market Participant* may with the agreement of the *responsible person* arrange for a *metering installation* to contain features in addition to those specified in paragraph (b).
- (d) The responsible person for a metering installation must apply to the Local Network Service Provider for a National Metering Identifier ('NMI').
- (e) The Local Network Service Provider must issue for each metering installation a unique NMI.
- (f) The *responsible person* must register the *NMI* with *NEMMCO* in accordance with procedures from time to time specified by *NEMMCO*.
- (g) Where a *metering installation* is used for purposes in addition to the provision of *metering data* to *NEMMCO* then:
 - (1) that use must not cause an infringement of the requirements of the *Rules*;
 - (2) the *responsible person* must co-ordinate with the persons who use the *metering installation* for such other purposes; and
 - (3) the *metering installation* must comply with the requirements for operational *metering* as detailed in Chapter 4 of the *Rules*.
- (h) A *Metering Provider* is entitled to physical access to the site of a *metering installation* in accordance with clause 5.3.7(e) and schedule 5.6.

[7] Clause 7.3.4 Metering installation types and accuracy

In clause 7.3.4(d), omit the word "applicable".

[8] Clause 7.3.4

Omit clause 7.3.4(e) and substitute:

- (e) Subject to the *metrology procedure* and this clause 7.3.4, a *financially responsible Market Participant* and a *Local Network Service Provider* may make arrangements with the *responsible person* to alter any type 5, 6 or 7 *metering installation* to make the installation capable of *remote acquisition*.
- (f) A Local Network Service Provider may only alter a metering installation in accordance with paragraph (e) where the provider decides that operational difficulties reasonably require the metering installation to be capable of remote acquisition.
- (g) An alteration of a *metering installation* by a *Local Network Service Provider* in accordance with paragraphs (e) and (f) does not alter the classification of that installation to a type 4 *metering installation*.
- (h) For the purposes of paragraph (f), operational difficulties may include locational difficulties where the *metering installation* is:
 - (1) at a site where access is difficult; or
 - (2) on a remote rural property.
- (i) A type 5, 6 or 7 metering installation must not be altered by the financially responsible Market Participant under paragraph (e) until the transfer of the relevant market load has been effected by NEMMCO in accordance with the Market Settlement and Transfer Solution Procedures.
- (j) NEMMCO must develop and publish in accordance with the Rules consultation procedures, guidelines for the financially responsible Market Participant to consider in managing the alteration of a metering installation where one or more devices are to be replaced ('meter churn guidelines').
- (k) *NEMMCO* may from time to time and in accordance with the *Rules* consultation procedures, amend or replace the meter churn guidelines referred to in paragraph (j).
- (1) *NEMMCO* must develop and *publish* the first meter churn guidelines under paragraph (j) by 1 January 2008 and there must be such guidelines available at all times after that date.
- (m) A financially responsible Market Participant who is not the responsible person for a metering installation that is altered under paragraph (e), must:
 - (1) consider and manage meter churn consistently with the meter churn guidelines developed by *NEMMCO* under paragraph (j); and
 - (2) advise the *responsible person* of the proposed date of alteration:
 - (i) prior to that alteration being made; and
 - (ii) in accordance with any time specified in the *Market Settlement and Transfer Solution Procedures*.

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[9] Clause 7.3.6 Payment for metering

Omit clause 7.3.6 and substitute:

7.3.6 Payment for metering

- (a) Subject to paragraph (b), the *financially responsible Market Participant* is responsible for payment of all costs associated with the provision, installation, maintenance, routine testing and inspection of the *metering installation* and includes:
 - (1) the cost of providing *metering data* and *settlements ready data* to the *Local Network Service Provider* and to the *Local Retailer* to enable these parties to fulfill their obligations under the *Rules*;
 - (2) the cost of providing metering data to NEMMCO; and
 - (3) the cost of preparing *settlements ready data* where such costs will not be recovered by *NEMMCO* in accordance with paragraph (c).
- (b) If a responsible person allows another person to engage a Metering Provider to install a metering installation in accordance with clause 7.2.5(a)(2), the financially responsible Market Participant is not responsible for the payment of the costs of installation of the relevant metering installation under paragraph (a).
- (c) When *NEMMCO* 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), *NEMMCO'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 *NEMMCO* must not recover the costs through *Participant fees*.
- (d) Subject to paragraph (a), any costs incurred in gaining access to *metering data* must be paid by the party who obtained the *metering data*.
- (e) The cost of requisition testing and audits must be paid by the party requesting the test or audit, except where the *metering installation* is shown not to comply with this Chapter 7, in which case the *responsible person* in relation to that *metering installation* must bear the cost.
- (f) Paragraph (a) does not apply to the recovery of costs by a *Local Network Service Provider* that are associated with the provision, installation, maintenance, routine testing and inspection of type 5, 6 or 7 *metering installations*, to the extent that these costs can be recovered by the *Local Network Service Provider* in accordance

with a determination made by the AER or a relevant Jurisdictional Regulator.

(g) Where:

- (1) a financially responsible Market Participant alters a type 5, 6 or 7 metering installation to make it capable of remote acquisition under clause 7.3.4;
- (2) the alteration under clause 7.3.4 leads to a change in the classification of that *metering installation*; and
- (3) the Local Network Service Provider was the responsible person for that metering installation,

the parties must negotiate in good faith to ensure the *Local Network Service Provider* is reasonably compensated for the alteration to the *metering installation*.

[10] Clause 7.4.2 Qualifications and registration of Metering Providers

In clause 7.4.2(ca), omit the words "clause 7.2A.3(a)(1)" and substitute the words "the *metrology procedure*".

[11] Clause 7.9.2 Remote acquisition of data

In clause 7.9.2, omit the words "remote acquisition" wherever occurring and substitute the words "remote acquisition".

[12] Clause 7.9.3 Periodic energy metering

Omit clause 7.9.3(a) and substitute:

- (a) Where a device is used as a *data logger* (for types 1 to 5 *metering installations*), *energy data* relating to:
 - (1) the amount of active energy; and
 - (2) reactive energy (where relevant) passing through a connection point,

must be collated in *trading intervals* within a *metering installation* unless it has been agreed between *NEMMCO*, the *Local Network Service Provider* and the *Market Participant* that *energy data* may be recorded in sub-multiples of a *trading interval*.

[13] Clause 7.9.3 Periodic energy metering

In clause 7.9.3(b)(5), omit the word "7.3.6(ab)" and substitute the word "7.3.6(c)".

[14] Clause 7.9.4 Data validation and substitution

Omit clause 7.9.4(b) and substitute:

- (b) *NEMMCO* must develop procedures for *settlements ready data* in accordance with the *Rules consultation procedures* on the following matters:
 - (1) data validation and substitution;
 - (2) data estimation for the purposes of rule 7.11; and
 - (3) in relation to matters specified in the *metrology procedure* in accordance with clause 7.9.3, the method:
 - (i) by which accumulated *metering data* is to be converted into *trading interval* data; and
 - (ii) of managing the first-tier *energy data* that is necessary to enable this conversion to take place.

[15] Clause 7.11 Performance of Metering Installation

Omit clause 7.11 and substitute:

7.11 Performance of Metering Installation

7.11.1 Metering data

- (a) Subject to paragraphs (b) and (c), *metering data* is required for all *trading intervals* where the *metering installation* has the capability for *remote acquisition* of actual *metering data*.
- (b) Where *NEMMCO* requires actual *metering data* to ensure compliance with Chapter 3, the *metering data* required under paragraph (a) must be:
 - (1) at the level of accuracy prescribed in schedule 7.2;
 - (2) within the timeframe required for *settlements* and *prudential* requirements specified in the metrology procedure, and at a level of availability of at least 99% per annum for instrument transformers and other components of the metering installations, not including the communication link;
 - (3) within the timeframe required for *settlements* and *prudential* requirements specified in the procedures established in the *metrology procedure*, and at a level of availability of at least 95% per annum for the *communication link*, and
 - (4) actual or substituted in accordance with the procedures established by *NEMMCO* under clause 7.9.4(b);

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- or as otherwise agreed between NEMMCO and the responsible person.
- (c) Where *NEMMCO* does not require actual *metering data* to ensure compliance with Chapter 3, the *metering data* required under paragraph (a) must be:
 - (1) at the level of accuracy prescribed in schedule 7.2;
 - (2) within the timeframe required for *settlements* specified in the *metrology procedure*;
 - (3) actual, substituted or estimated in accordance with the procedures established by *NEMMCO* under clause 7.9.4(b); and
 - (4) in accordance with the performance standards specified in the *metrology procedure*.
- (d) Where the *metering installation* does not have the capability for *remote acquisition* of actual *metering data*, *metering data* is required:
 - (1) at the level of accuracy prescribed in schedule 7.2;
 - (2) within the timeframe required for *settlements* specified in the *metrology procedure*;
 - (3) as actual, substituted or estimated in accordance with the procedures established by *NEMMCO* under clause 7.9.4(b); and
 - (4) in accordance with the performance standards specified in the *metrology procedure*.

7.11.2 Outages and malfunctions

- (a) If an *outage* or malfunction occurs to a *metering installation*, repairs must be made to the *metering installation* as soon as practicable and in any event within 2 *days* of detection or at such time as detection should have reasonably occurred, unless an exemption is obtained from *NEMMCO*.
- (b) *NEMMCO* must establish and *publish* a procedure applicable to the provision of exemptions in accordance with paragraph (a) and *NEMMCO* may revise the procedure from time to time.
- (c) If an exemption is provided by *NEMMCO* under this clause 7.11.2 then the *Metering Provider* must provide *NEMMCO* with a plan for the rectification of the *metering installation*.
- (d) A Registered Participant who becomes aware of an outage or malfunction of a metering installation must advise NEMMCO as soon as practicable.

[16] Rule 7.13 Evolving Technologies and Processes and Development of the Market

In clause 7.13(c) and (e), omit the word "publish" and substitute the word "publish".

[17] Rule 7.13(f) Evolving Technologies and Processes and Development of the Market

Omit clauses 7.13(f) - (j), and substitute:

- (f) Having regard to the need to remove barriers to the adoption of economically efficient metering solutions and other economically efficient technology ('efficient solutions'), NEMMCO must:
 - (1) monitor developments in the Australian metering standards; and
 - (2) consult with the *participating jurisdictions* and other interested parties on any changes proposed to be made to the Australian metering standards that may have the potential to create such barriers,

and include any relevant findings in its report under paragraph (c)

- (g) The *Ministers of participating jurisdictions* must, by 30 June 2009, conduct and complete a review of type 5 and 6 *metering installations* and the *metrology procedure*.
- (h) In undertaking the review referred to in paragraph (g), the *Ministers* of the participating jurisdictions may:
 - (1) review the outcomes from the *Jurisdictional Regulators*' Joint Jurisdictional Review of Metrology Procedures: Final Report of October 2004 ('the **JJR report**') and identify any outstanding issues from the JJR report;
 - (2) make recommendations to resolve any outstanding issues from the JJR report;
 - (3) identify any additional barriers to the adoption of efficient solutions and make recommendations to reduce those barriers; and
 - (4) have regard to the need to maintain the regulatory certainty, in recognition that regulatory uncertainty is itself a major barrier to the adoption of efficient solutions.

[18] Rule 7.14 Metrology Procedure

After rule 7.13, insert:

7.14 Metrology procedure

7.14.1 Requirements of the metrology procedure

- (a) *NEMMCO* must develop and *publish* the *metrology procedure* that will apply to *metering installations* in accordance with this rule 7.14 and this Chapter 7.
- (b) The *metrology procedure* must be prepared, revised and *published* by *NEMMCO* in accordance with the *Rules consultation procedures* and 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 7.14.4(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 using communication link(s);
 - (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 responsible persons and Metering Providers;
 - (4) details on:
 - (i) the parameters that determine the circumstances when *metering data* must be delivered to *NEMMCO* for the purposes of Chapter 3 and such parameters must include, but are not limited to, the volume limit per annum below which *NEMMCO* will not require *metering data* for those purposes;
 - (ii) the timeframe obligations for the extraction or delivery of *metering data* from 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 7.14.2(d)(2), zero MWh as the specification for the *type 5 accumulation boundary*; and

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(6) any other requirements provided for in this Chapter 7.

7.14.2 Jurisdictional metrology material in metrology procedure

- (a) Subject to this clause 7.14.2, *NEMMCO* 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 NEMMCO for inclusion in the metrology procedure by the Ministers of the MCE.

[Note: For the period until 1 January 2009, a Minister, on behalf of a particular participating jurisdiction, may provide to NEMMCO jurisdictional metrology material in accordance with clause 11.5.5]

- (c) Jurisdictional metrology material submitted to NEMMCO under paragraph (b) must:
 - (1) be in writing;
 - (2) be provided to *NEMMCO* within sufficient time for *NEMMCO* to meet its obligations under this clause 7.14.2;
 - (3) be consistent with the matters contained in clauses 7.14.1 and 7.14.3;
 - (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*, *NEMMCO* must undertake the *Rules consultation procedures* in relation to that material, including in that consultation the reasons referred to paragraph (c)(5).
- (f) At the conclusion of the *Rules consultation procedures* under paragraph (e), *NEMMCO* must provide a final report to the *Ministers of the MCE* in accordance with clause 8.9(k) of the outcome of that procedure and:

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- (1) in the case where the *Ministers of the MCE* do not advise *NEMMCO* of any amendments to the *jurisdictional metrology material*, *NEMMCO* must incorporate that material into a separate part of the *metrology procedure*; or
- (2) in the case where the *Ministers of the MCE* advise *NEMMCO* of amendments to the *jurisdictional metrology material*, *NEMMCO* 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 *NEMMCO*, expires on the review date unless the *Ministers of the MCE* submit to *NEMMCO* new *jurisdictional metrology material* in accordance with this clause 7.14.2.
- (h) The *jurisdictional metrology material* must not prevent the *metering data* from being extracted or emanating from a *data logger* as *interval energy data* if required by the *financially responsible Market Participant* or a *Local Network Service Provider* for any purpose other than for *settlements*.

7.14.3 Additional 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 energy 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*; and
 - (vi) the obligations of responsible persons, NEMMCO, and Metering Providers;
 - (2) specify in greater detail:
 - (i) the accuracy of *metering installations*;
 - (ii) data logger standards;
 - (iii) inspection and testing standards;
 - (iv) Metering Provider accreditation standards;
 - (v) the technical requirements for the database of the *metering installation*; and
 - (vi) 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 5 and 6 *metering installations*, contain requirements:
 - (i) for the engagement and payment of *Metering Providers*; and
 - (ii) for the provision of relevant details of the *metering installation* to the *responsible person*, where applicable;
- (5) in relation to type 5, 6 and 7 metering installations specify in what circumstances energy data held in metering installations within the relevant participating jurisdiction, can be used by Distribution Network Service Providers to calculate charges for distribution services for the purposes of clause 6.16.1(e); and
- (6) contain information to ensure consistency in practice between the *metrology procedure* and other instruments developed and published by *NEMMCO*, including the practices adopted in the *Market Settlement and Transfer Solution Procedures*.
- (b) The *metrology procedure* may not include information relating to consumer protection.

7.14.4 Amendment of the metrology procedure

- (a) Any person ('the **proponent**') may submit to *NEMMCO* a proposal to amend the *metrology procedure* except in relation to the *jurisdictional metrology material* ('the **proposal**'), and must include reasons for the proposed change.
- (b) For proposals submitted under paragraph (a), NEMMCO must:
 - (1) give notice of receipt of the proposal to the proponent; and
 - (2) advise the proponent of the action that *NEMMCO* proposes to undertake under paragraphs (c) or (e).
- (c) Where *NEMMCO*:
 - (1) accepts the proposal, *NEMMCO* 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 *NEMMCO* must either accept, or reject the proposal; or
 - (3) rejects a proposal, *NEMMCO* must advise the proponent of its decision and reasons for the decision in writing.
- (d) *NEMMCO* may at the conclusion of the *Rules consultation* procedures amend the metrology procedure (if necessary).

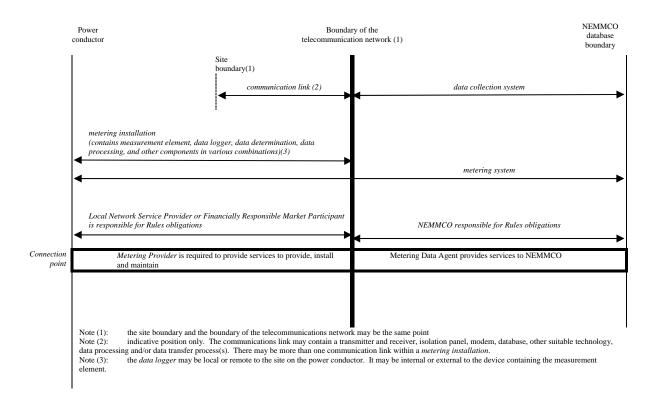
- (e) Where in *NEMMCO's* reasonable opinion, a proposal referred to in paragraph (a) relates to amendments that are of a minor or administrative nature, *NEMMCO* is not required to undertake the *Rules consultation procedures* but must:
 - (1) *publish* the proposal including the accompanying reasons;
 - (2) issue a notice to *Registered Participants*, *Metering Providers*, *Ministers* and *Jurisdictional Regulators* advising that the amendment to the *metrology 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* or *Metering Provider*:
 - (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 *metrology procedure*, reasons for the amendments to the *metrology procedure*.

7.15 Miscellaneous

- (a) NEMMCO 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.

[19] Schedule 7.1 Responsibility for Metering

In Schedule 7.1, omit the diagram and substitute:



[20] S7.2.3 Accuracy requirements for metering installations

Omit Table S7.2.31 including notes and substitute:

Table S7.2.3.1 Overall Accuracy Requirements of Metering Installation Components (Item 1)

Туре	Volume limit per annum per connection point	Maximum allowable overall error (±%) (refer Tables 2 - 5) at full load		Minimum acceptable class or standard of components	Metering installation or data logger Clock Error (Seconds) in reference to EST
1	greater than	Active 0.5	reactive 1.0	0.2 CT/VT/Meter Wh	
1	1000 GWh	0.5	1.0	0.5 Meter varh	±5
2	100 to –	1.0	2.0	0.5 CT/VT/ Meter	±7
	1000 GWh			Wh	
				1.0 Meter varh	
3	0.75 to less	1.5	3.0	0.5 CT/VT	±10
	than 100			1.0 Meter Wh	
	GWh			2.0 Meter varh	
4	less than	1.5	NA	Either 0.5 CT and	±20
	750 MWh			1.0 Meter Wh; or	(Item 2a)

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	(Item 2)			whole current connected General Purpose meter MWh: with a data logger; and meets the requirements of clauses 7.11.1(a) and (b) or 7.11.1(a) or (c).	
Туре	Volume limit per annum per connection point	Maximum allowable overall error (±%) (refer Tables 2 - 5) at full load Active reactive		Minimum acceptable class or standard of components	Metering installation or data logger Clock Error (Seconds) in reference to EST
5	Less than x MWh (Item 3)	1.5 (Item 3b)	NA	Either 0.5CT and 1.0 meter Wh; or whole current connected General Purpose meter Wh; with a data logger; and meets the requirements of clause 7.11.1(d)	±20 (Item 3a)
6	Less than y MWh (Item 4)	1.5 (Item 4b)	NA	CT or whole-current connected General Purpose meter Wh with data processing used to convert accumulated energy data into metering data and to provide estimated energy data where necessary.	(Item 4a)
7	Volume limit not specified (Item 5)	(Item 6)	NA	No meter Techniques for determination of estimated energy data to be included in the metrology procedure.	NA

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Item 1: For types 3, 4, 5 and 6 *metering installations*, it is acceptable to use direct

connected *meters* meeting the relevant requirements of AS 1284.1 "Electricity Metering - General Purpose Watt hour Meters". The *metering installation* must comply with any applicable specifications or guidelines (including any transitional arrangements) specified by the National Measurement Institute under the *National Measurements Act*.

- Item 2: *High Voltage* customers that require a *VT* and whose annual consumption is below 750MWh, must meet the relevant accuracy requirements of Type 3 *metering* for *active energy* only.
- Item 2a: For the purpose of clarification, the clock for a type 4 *metering installation* may be relaxed in the *metrology procedure* to accommodate evolving whole-current technologies that are acceptable in accordance with rule 7.13(a).
- Item 3: The following requirements apply in relation to a type 5 metering installation:
 - (1) the installation must comply with the *metrology procedure* when converting *active energy* into *metering data*;
 - (2) the value of "x" must be determined by each *Minister of a participating jurisdiction* and must be provided to *NEMMCO* for inclusion in the *metrology procedure*;
 - (3) the maximum acceptable value of "x" determined under subparagraph (2) must be 750 MWh per annum;
 - (4) the installation may provide delays in transferring the *interval* energy data to a remote location where access to a telecommunications network has been established;
 - (5) delays under subparagraph (4) must be approved by the relevant *Minister of the participating jurisdiction* and the approval provided to *NEMMCO* for inclusion in the *metrology procedure*; and
 - (6) the *metrology procedure* must record the value of "x" for each *participating jurisdiction*, and indicate how *interval energy data* will be established for a type 5 *metering installation* in that *participating jurisdiction* during the period of delay.
- 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 that are acceptable in accordance with rule 7.13(a).
- 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*.

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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 be provided to *NEMMCO* for inclusion in the *metrology procedure*;
- (3) the maximum acceptable value of "y" determined under subparagraph (2) must be 750 MWh per annum;
- (4) accumulated energy data can be transferred to a remote location where access to a telecommunication network has been established:
- (5) the *metrology procedure* must:
 - (i) record the value of "y" for each participating jurisdiction;
 - (ii) identify the method by which accumulated energy data is to be converted into trading interval data in accordance with clause 7.9.3(b), and
 - (iii) the method by which *estimated energy data* is to be prepared during the period when the *accumulated energy data* is not available; and
- (6) devices within the installation may provide *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 type 7 metering installation applies to the condition where it has been determined by NEMMCO that 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 energy data that is deemed to flow in the power conductor. This condition will only be allowed for a market load that is supplied with electricity and has a load pattern which is the same as or similar to one of the following arrangements:
 - (a) street, traffic, park, community, security lighting;
 - (b) traffic parking meters, community watering systems;

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- (c) special telephone service requirements;
- (d) devices requiring minuscule loads.

The *metrology procedure* must include each *market load* arrangement that has been classified as a type 7 *metering installation*.

The initial use of a type 7 classification does not remove the requirement for these *second tier loads* to be measured using a *meter* at some future time.

Item 6: The accuracy of the calculated *energy data* is to be in accordance with approved techniques for determining the flow of electricity in power conductors. The techniques, including algorithms, are to be included in the *metrology procedure*.

[21] S7.3.2(b) Notes (These are technical guidelines)

In S7.3.2(b), omit the word "Laboratory" and substitute the word "Institute".

[22] S7.4.1 General

In S7.4.1(f), omit the words "a relevant" and substitute the word "the" and omit the words "that has been established by either *NEMMCO* or the *Metrology Coordinator*".

[23] S7.4.2(b) Categories of registration

In S7.4.2(b), omit the words "relevant *metrology procedures*" substitute the words "*metrology procedure*".

[24] S7.4.2(c) Categories of registration

After S7.4.2(b), insert:

(c) NEMMCO may establish Accredited Service Provider categories of registration for a Metering Provider in accordance with clause S7.4.5;

[25] S7.4.3(b)(5) Capabilities of Metering Providers for metering installations types 1, 2, 3 and 4

In S7.4.3(b)(5), omit the words "Measurements Laboratory" and substitute the words "Measurement Institute".

[26] S7.4.4 Capabilities of Metering Providers for metering installations types 5, 6 and 7

In S7.4.4, omit the word "relevant" wherever occurring before the words "metrology procedure".

[27] S7.4.5 Capabilities of Accredited Service Provider

After S7.4.4, insert:

S7.4.5 Capabilities of the Accredited Service Provider category

- (a) The *Accredited Service Providers categories* established by *NEMMCO* under clause S7.4.2(c) may perform work relating to the installation of any types 1, 2, 3, 4, 5 or 6 *metering installations*.
- (b) *NEMMCO* must include *Accredited Service Provider categories* in the accreditation guidelines prepared and *published* under clause 7.4.2(ba).
- (c) NEMMCO may determine:
 - (1) the competencies of a *Metering Provider* registered in each *Accredited Service Provider category* provided that those competencies are consistent with any service requirements 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.

[28] References to "National Standards Commission"

In Chapter 7, omit the words "National Standards Commission" wherever occurring and substitute the words "National Standards Institute".

[29] Rule 9.9A Transitional Arrangements for Chapter 7 – Full Retail Competition

Omit rule 9.9A.

[30] Rule 9.17A Transitional Arrangements for Chapter 7 – Full Retail Competition

Omit rule 9.17A.

[31] Rule 9.24A Transitional Arrangements for Chapter 7 – Full Retail Competition

Omit rule 9.24A.

[32] Clause 9.30 Transitional Provisions

Omit clause 9.30.1(2) - (4).

[33] Chapter 10 New definitions

In Chapter 10 insert, in alphabetical order, the following new definitions:

Accredited Service Provider category

A category of registration of a *Metering Provider* established by *NEMMCO* under S7.4.2(b) as a consequence of requirements of a *participating jurisdiction* to install *metering installations*.

energy data services

The services that involve:

- (1) collation of *energy data* from the *meter* or *meter*/associated *data logger*;
- (2) the processing of the *energy data* in the *metering installation* database;
- (3) storage of the *energy data* in the *metering installation* database; and
- (4) the provision of access to the data for those parties that have rights of access to the data.

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 *NEMMCO* under clause 7.14.2.

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.

National Measurement Act

The National Measurement Act 1960 of the Commonwealth as amended from time to time.

remote acquisition

The acquisition of interval *metering data* from a *metering installation*, where the acquisition process transmits the *metering data* from the site of the *metering point* to the *metering database*, and does not, at any time, require the presence of a person at, or near, the interval *meter* 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 remote acquisition includes but is not limited to methods that transmit *metering data* via:

- (1) direct dial-up;
- (2) satellite;
- (3) the internet;
- (4) a general packet radio service;
- (5) power line carrier; or
- (6) any other equivalent technology.

type 5 accumulation boundary

The volume of *energy* for a *connection point* above which the *metering data* that is extracted or emanates from a type 5 *metering installation* must be extracted or emanate as *interval energy data* for the purpose of producing *settlements ready data*.

[Note: Below the type 5 accumulation boundary, the metering data may be extracted or emanate from the metering installation as accumulated energy data for the purpose of producing settlements ready data, in which case the metering installation must be registered with NEMMCO as a type 6 metering installation. Otherwise the metering data may be extracted or emanate as interval energy data for the purpose of producing settlements ready data in which case the metering installation must be registered with NEMMCO as a type 5 metering installation.]

unmetered connection point

A *connection point* at which a *meter* is not necessary under schedule 7.2.

[34] Chapter 10 Glossary

In Chapter 10 delete the following definitions:

Metrology Coordinator

In relation to a participating jurisdiction, the Jurisdictional Regulator for that participating jurisdiction.

non-metered connection point

A *connection point* at which it is determined that a *meter* is not necessary in accordance with schedule 7.2

[35] Chapter 10 Substituted Definitions

In Chapter 10, omit the current corresponding definitions and substitute the following definitions:

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).

estimated energy data

The data that results from an estimation of the flow of electricity in a power conductor where the data applies to a *trading interval* or a period in excess of a *trading interval*. The estimation is made in relation to a *market load* and would not apply to a *metering point* where *accumulated energy data* or *interval energy data* is not available, or an *unmetered connection point*.

general purpose

The term applied by the National Measurement Institute to refer to the classification of a *meter*.

metering installation

The assembly of components and/or processes that are controlled for the purpose of metrology and which lie between the *metering point(s)* or *unmetered connection point* and the point of connection to the *telecommunications network*, as shown in schedule 7.1.

[Note: The assembly of components may include the combination of several metering points to derive the metering data for a connection point. The metering installation must be classified as a revenue metering installation and/or a check metering installation.]

metrology procedure

The procedure developed and published by *NEMMCO* in accordance with rule 7.14.

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*.

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*.

verifying authorities

Authorities appointed by the National Measurement Institute under the *National Measurement Act*.

[36] Chapter 10 Amended Definition

In Chapter 10, in the definition of **interested parties**, omit paragraph 3 and substitute:

[Deleted]

[37] Chapter 10 Amended Definition

In Chapter 10, in the definition of **time**, omit "National Measurement Act, 1960 (Cth)"

[38] Chapter 11 Savings and Transitional rules

After rule 11.4, insert:

11.5 Rules consequential on the making of the National Electricity Amendment (Metrology) Rule 2006

11.5.1 Definitions

For the purposes of this rule 11.5:

Amending Rule means the National Electricity Amendment (Metrology) Rule 2006.

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commencement date means the day on which the Amending Rule commences operation.

old Chapter 7 means Chapter 7 of the *Rules* as in force immediately before the commencement date.

new Chapter 7 means Chapter 7 of the *Rules* as in force immediately after the commencement date.

11.5.2 Metrology procedures continues to apply until 31 December 2006

A metrology procedure as in force under the old Chapter 7 continues in force in accordance with the old Chapter 7 until 31 December 2006.

11.5.3 Responsible person

A Local Network Service Provider who is the responsible person for a metering installation under Chapter 9 of the Rules immediately before the commencement date continues to be the responsible person for that metering installation for the purposes of clause 7.2.3.

11.5.4 NEMMCO's responsibility to develop a metrology procedure

- (a) Subject to this clause 11.5.4, *NEMMCO* must *publish* an initial metrology procedure by 1 January 2007 in accordance with the new Chapter 7 and this procedure must commence operation on 1 January 2007.
- (b) The requirement in clause 7.14.1(b) that requires a minimum period of 3 months between the date the *metrology procedure* is published and the date the *metrology procedure* commences does not apply to the initial metrology procedure developed and published under this clause 11.5.4.
- (c) Any action taken by *NEMMCO* for the purpose of developing and publishing an initial metrology procedure prior to the commencement date is taken to satisfy the equivalent actions required for a *metrology procedure* under the new Chapter 7.
- (d) *NEMMCO* may dispense with, or not comply with, any relevant action under rule 7.14, if the action duplicates or is consistent with action that has already been taken under paragraph (c).
- (e) An initial metrology procedure developed and published under this clause 11.5.4 is taken to be the *metrology procedure* for the purposes of Chapter 7 of the *Rules*.
- (f) The initial metrology procedure is not required to incorporate the matters referred to in clause 7.14.1(c)(4) until 30 June 2008 and *NEMMCO* may develop a separate procedure for those matters during that period to 30 June 2008.

11.5.5 Jurisdictional metrology material in the metrology procedure

- (a) For the purposes of this clause 11.5.5, **expiry date** means 1 January 2009.
- (b) Until the expiry date, the *Ministers of the MCE* is taken to be each *Minister of the participating jurisdictions*, acting on behalf of that jurisdiction and undertaking the role of the *Ministers of the MCE* in relation to *jurisdictional metrology material* under clause 7.14.2.
- (c) For the avoidance of doubt, a *Minister of a participating jurisdiction* may delegate the role of submitting *jurisdictional metrology material* to *NEMMCO* under paragraph (b) by instrument in writing.
- (d) A certified copy of any delegation given under paragraph (c) must be provided to *NEMMCO* at the time any *jurisdictional metrology material* is submitted to *NEMMCO* under clause 7.14.2.

[Note: Ministers of participating jurisdiction have powers of delegation under their own jurisdictional legislation governing the procedure for conferring such delegations.]

[26] References to "Minister" in the Rules

In the Rules, omit the word "Minister", wherever occurring and substitute the words "Minister of a participating jurisdiction".