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AUSTRALIAN ENERGY MARKET OPERATOR

20 December 2013

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Mr John Pierce
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By online submission

Dear Mr Pierce

Rule Change Request – System Restart Ancillary Services (SRAS)

The Australian Energy Market Operator (AEMO) requests the Australian Energy Market Commission (AEMC) to consider making a rule change under section 91 of the National Electricity Law.

The proposed rule changes seek to improve the SRAS arrangements to deliver value to energy consumers through an appropriate price and service balance.

The proposed rule would:

- Replace the NER Chapter 10 definitions for primary and secondary system restart with a single SRAS definition.
- Make minor amendments to the NER Chapter 10 definition of non-market ancillary service definition and consequential amendments to clauses 3.11.4A(c)(3) and (d) and clauses 8.8.3(aa)(4) and (6).
- Allow AEMO to recover system restart ancillary services costs on a regional basis.
- Allow AEMO to negotiate with preferred tenderers in circumstances where AEMO deems tenders uncompetitive, and have available the National Electricity Rules (NER) Chapter 10 dispute resolution processes where this fails.

For further details or if you would like AEMO to meet with you regarding this proposed rule change please do not hesitate to contact AEMO's Group Manager Systems Capability, Mark Stedwell on (03) 9609 8563.

Yours sincerely

Mike Cleary
Chief Operating Officer

Attachments: Rule Change Request: System Restart Ancillary Services

RULE CHANGE REQUEST: SYSTEM RESTART ANCILLARY SERVICES

PREPARED BY: AEMO

DATE: 20 December 2013

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APPENDIX 1 – DRAFT RULE 17

1 Summary

The Australian Energy Market Operator (AEMO) requests the Australian Energy Market Commission (AEMC) to make a rule amending the National Electricity Rules (NER) to:

- Delete the NER Chapter 10 definitions of primary and secondary system restart and replace with a single SRAS definition.
- Make minor amendments to the NER Chapter 10 definition of non-market ancillary service (NMAS) definition and other consequential amendments.
- Recover system restart ancillary services (SRAS) costs on a regional basis.
- Allow AEMO to negotiate with preferred tenderers on price in circumstances where AEMO deems tenders uncompetitive, and have available the NER Chapter 8 dispute resolution processes where this fails.

The proposed rule changes seek to improve the SRAS arrangements to deliver value to energy consumers through an appropriate price and service balance.

The recommendations from AEMO's 2013 SRAS Review, which identified a number of changes to rules, procedures and procurement practices, are designed to more efficiently meet the System Restart Standard (SRS) and the SRAS objective in the NER.

2 Background

2.1 SRAS

In the event of a black system[1] in the National Electricity Market (NEM), SRAS could be used to restore generation and electricity supply.

SRAS is provided by generating units that can restart without being connected to the grid. Examples of these facilities include (but not limited to):

- Hydro or gas turbines.
- Trip to house load (TTHL) schemes, which can automatically disconnect from the national grid and continue to supply their own auxiliaries.
- Starting from a nearby small power station, such as a thermal power station with an adjacent black start gas turbine generating unit.

2.2 Current regulatory arrangements

2.2.1 SRAS procurement

The NER requires AEMO to procure sufficient SRAS to meet the SRS, which is determined by the Reliability Panel under clause 8.8.3. For each electrical sub-network, AEMO must aim to acquire SRAS to meet the following SRS restoration timeframes:

- Supply is restored to energise significant generation within 90 minutes to provide sufficient capacity to meet 40% of peak demand in that electrical sub-network.

[1] The NER defines this as "*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*".

- Generation and transmission is restored to supply 40% of peak demand within four hours.

The NER states that the SRAS objective "…*is to minimise the expected economic costs to the market in the long term and in the short term, of a major supply disruption, taking into account the cost of supplying system restart ancillary services, consistent with the national electricity objective*."[2]

Under NER clause 3.11.4A, AEMO must develop and publish the Boundaries of Electrical Sub-networks, SRAS Description, SRAS Quantity Guidelines, SRAS Assessment Guidelines, and the SRAS Tender Guidelines (SRAS Procedures). These must be consistent with the SRAS objective and the SRS.

AEMO calls for tenders for SRAS in accordance with clause 3.11.5.

2.2.2 SRAS cost recovery

Under NER clause 3.15.6A, SRAS payments are recovered on a 50/50 basis from Market Generators and Market Small Generation Aggregators, and Market Customers on a NEM wide basis pro-rated to energy consumed and generated. These amounts are settled weekly.

2.2.3 Definition of SRAS

The NER includes two SRAS definitions: a primary and secondary restart service. The SRS specifies that primary and a secondary restart services must have a 90% and 60% reliability level, respectively.

Consistent with NER clause 3.11.4A(d) and the NER definitions, AEMO's SRAS Description defines the technical and availability requirements for each type of service. Under this procedure, a primary restart service is defined as restarting a specified generating unit, as follows:

"*A primary restart service involves supply from the Service Provider's generating units following a major supply disruption to specified generating units using a Restart Path to the Delivery Point.*"

A Delivery Point is defined as:

"*(a) in the case of a primary restart service, the auxiliary power supply point at a specified generating unit; and (b) in the case of a secondary restart service, an agreed point on the power system (which could be the connection point for the Service Provider's generating unit)*".

Together, these definitions require a primary restart service to restart "…*the auxiliary power supply at a specified generating unit*". This means that an SRAS that restarts only the SRAS providers' adjacent generating units within specified timeframes (without energising any part of the transmission system) is still considered a primary restart service.

Secondary restart services can be provided by a facility that can restart itself and energise the local transmission busbar within 30 minutes, but there is no requirement to restart another generating unit within a specified timeframe. Table 1 identifies the other key differences between primary and secondary restart services.

[2] Refer to NER clause 3.11.4A(a).

Table 1: Key differences between primary and secondary restart services

SRAS	SRS RELIABILITY LEVEL	RESTART TIMEFRAME	SIZE OF GENERATING UNIT
Primary	90%	60 minutes	At least 100 MW
Secondary	60%	30 minutes	Less than 100 MW

2.3 Previous SRAS consultations

2.3.1 AEMO's SRAS Review

In January 2013, AEMO initiated its review of the SRAS arrangements. The purpose of the review was to:

- Assess whether the SRAS objective remains appropriate.
- Identify the appropriate number of SRAS and electrical sub-networks to efficiently meet the SRS requirements.
- Assess whether the SRAS procurement assumptions and method are fit for purpose.
- Identify other potential improvements to the SRAS arrangements.
- Identify reasons for increasing costs and appropriate service/cost balance.

Costs have risen with each successive SRAS tender process; from approximately $15 million a year in 2007 to $51 million a year in 2013.

AEMO also found that its procurement practices needed improvement to ensure they were efficiently meeting the SRS and SRAS objective. AEMO engaged an independent consultant, DNV KEMA Energy & Sustainability (DNV KEMA), to review its findings. DNV KEMA concluded that the proposed SRAS approach is reasonable and will meet the technical requirements for SRS given the transmission network topology of the NEM and made additional recommendations to improve SRAS procurement.

AEMO will recommend improvements to its procurement practices to meet the SRS in its SRAS Final Report. Procurement practices can be improved by amending the SRAS Procedures in consultation with stakeholders and could include:

- Assuming a region-wide black system[3] occurs, instead of a NEM-wide black system. This assumption is key in determining the technically efficient level of SRAS to meet the SRS. AEMO considers that assuming a region-wide black system condition is appropriate because there are no plausible scenarios that would result in a NEM-wide black system, rather the grid is very likely to separate at the weak points; at or near the regional boundaries and power could be sourced from the neighbouring region or regions via interconnections.
- Re-defining the electrical sub-networks[4] to reflect realistic break-points in the national grid, reducing their number from 10 to six.

[3] The NER defines this as "*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.*"

[4] The NER defines this as "*a part of the national grid determined by AEMO in accordance with clause 3.11.4B.*"

- Procuring SRAS to meet the SRS after taking into account that supply is available from an adjoining region, except for Tasmania where supply is unavailable through Basslink.[5] This would replace the need to procure two SRAS in an electrical sub-network.
- Creating a single SRAS definition to replace the current definitions of primary and secondary restart services to allow AEMO to procure SRAS that better meets the SRS timeframes.
- AEMO performing dynamic or transient modelling for future tenders to ensure that the SRAS procured can meet or contributes to meeting the SRS.

Section 6 of the SRAS Final Report will also include recommendations designed to better achieve the SRAS objective, including:

- AEMO undertaking SRAS international cost benchmarking to assess the reasonableness of future tenders.
- Rule changes to recover SRAS on a regional basis to improve cost-reflectivity with respect to the benefits of a service.
- Rule changes that allow AEMO to more effectively manage non-competitive outcomes in the SRAS tender process, similar to clauses 3.11.5 (h)-(i) of the NER in relation to procuring network support and control ancillary services (NSCAS).

Further information about the SRAS Review can be found on AEMO's website at: http://www.aemo.com.au/Consultations/National-Electricity-Market/Open/System-Restart-Ancillary-Services-2013-Consultation.

2.3.2 The 2006 rule change

NEMMCO (now AEMO) last reviewed the SRAS arrangements in 2004-5, culminating in a proposed rule change submitted in April 2005. This proposed technical and procedural arrangements to increase the effectiveness of SRAS procurement, including the following:

- Specification: in light of offers received, determine the quantity and type of SRAS to be procured, including primary and secondary restart services.
- Recovery of SRAS on a NEM-wide basis.
- A cost-based procurement model using the following principles to ensure reasonable terms and conditions in procuring SRAS:
    - Tender prices should be based on efficiently incurred long run incremental costs of providing service, while providing a return on risk-adjusted capital close to its opportunity cost.
    - Tenderers must confidentially provide the information necessary to properly inform good faith negotiations.
    - Access to dispute adviser to ensure prices close to outcome that would be obtained in a competitive market.

In April 2006, the AEMC published its final determination and rule. Although it adopted the majority of NEMMCO's proposed changes, the AEMC decided on a competitive procurement model instead of the cost-based procurement approach proposed. The AEMC's determination was informed by a

[5] The technical characteristics of Basslink prevent it being used as a restart source for either Tasmania of Victoria.

report compiled by consultants, Firecone Economics, and rejected the proposed cost-based procurement model on the basis that:

- The current inefficiencies in the tendering process did not justify the proposed interventionist approach.
- A competitive tendering process for SRAS procurement was more appropriate.
- A regulated approach in an apparently competitive market is inappropriate unless there is demonstrated market failure.
- NEMMCO had not demonstrated there was a market failure.

Firecone's report also noted that high prices do not necessarily create a loss in economic efficiency and the magnitude of wealth transfers from consumers to service providers was not sufficient to justify a regulatory response.

3 Issue

3.1 Procurement arrangements

The NER requires AEMO to procure SRAS through tender but does not provide the option to negotiate the price of services where they are deemed to not be providing cost/service balance and value.

AEMO considers that these arrangements have led to the SRAS market failing to replicate competitive outcomes. AEMO's view is based on increases in SRAS costs over the last three tender outcomes, the limited number of tenderers for SRAS in most electrical sub-networks, and little change in the procured SRAS quantities and technical requirements.

Figures 1 and 2 illustrate the SRAS cost increases on a NEM-wide and by region basis. Figure 1 demonstrates that in the last two tenders (2008 and 2012) SRAS costs have increased from approximately $15 million to $51 million. Table 2 demonstrates that New South Wales, Tasmania and Victoria have experienced the most substantial increases.

Figure 1: NEM SRAS costs

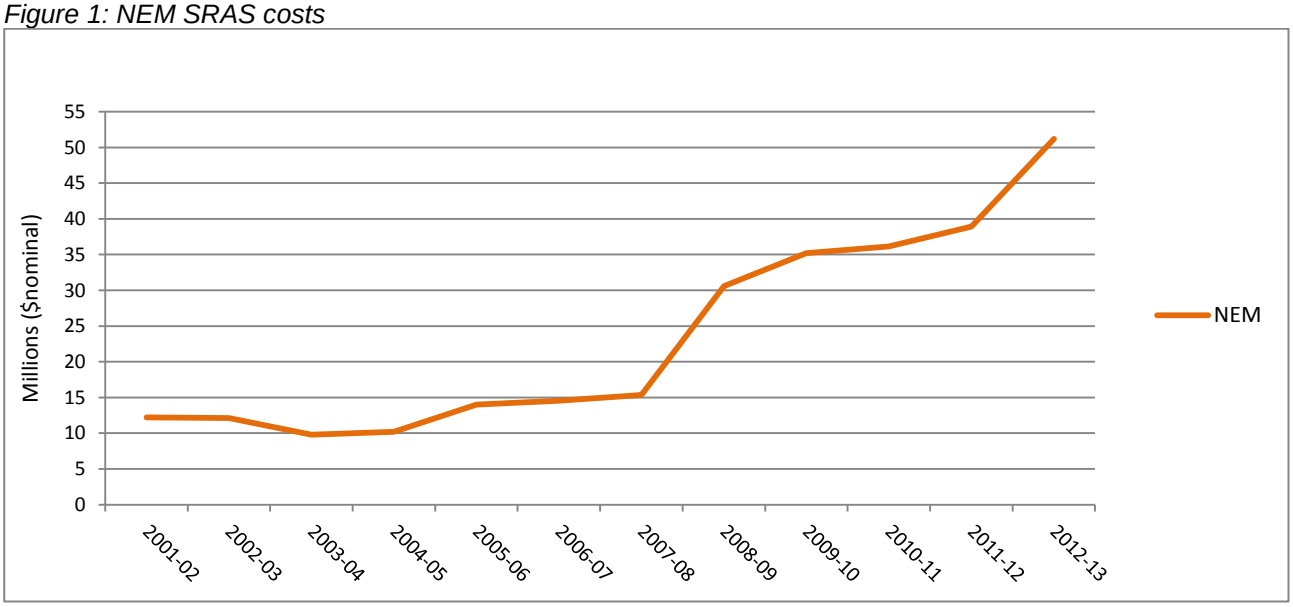


Figure 2: NEM region SRAS costs

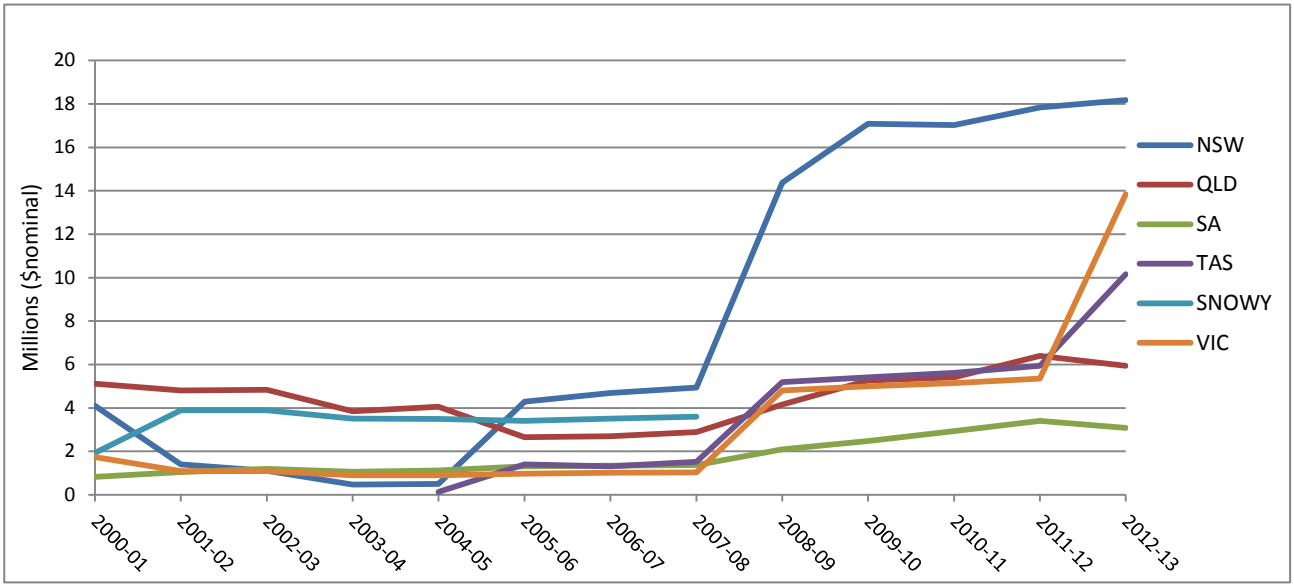


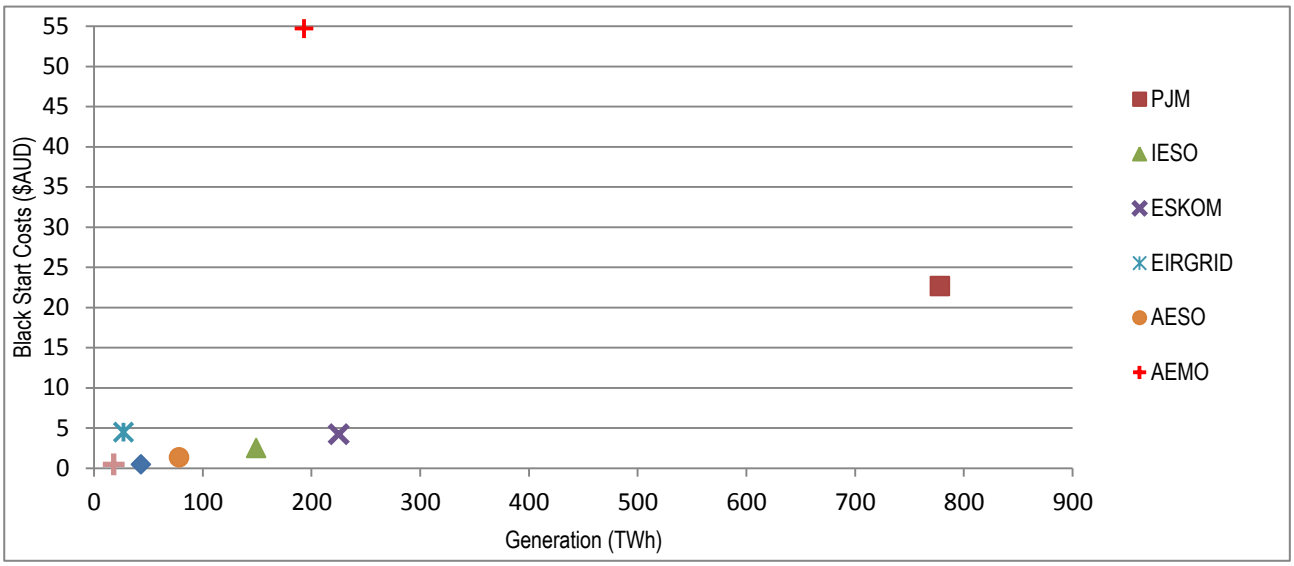
Table 2 demonstrates that between tenders: the overall number of SRAS procured has remained constant for 2008 and 2012. Potential SRAS providers are well informed about the SRAS quantities AEMO will seek and the potential number of tenderers in each electrical sub-network. Where it is known that there will be limited options for suitable SRAS in electrical sub-networks, this lack of competitive pressure provides an opportunity for SRAS providers to tender prices that are above the long-run marginal cost of providing the service.

Table 2: Changes in SRAS quantities, unique tenderers and competitive tender

REGION	SUB-NETWORK	NUMBER OF SRAS PROCURED			NUMBER OF UNIQUE TENDERERS*			COMPETITIVE TENDER		
		2003**	2008	2012	2003	2008	2012	2003	2008	2012
QLD	North	2	2	1	1	1	1	N	N	N
	Central	2	2	3	3	2	2	Y	N	N
	South	2	2	2	2	1	2	N	N	N
NSW	North	3	3	3	3	3	3	Y	N	N
	South	-	3	2	-	2	2	-	N	N
VIC	Latrobe Valley	1	1	2	4	1	3	Y	N	Y
	North and West	-	0	1	-	1	2	-	N	N
SA		2	3	3	2	3	3	N	N	N
TAS	North	2***	3	2	-	1	1	-	N	N
	South	1***	1	1	-	1	1	-	N	N
TOTAL	10	25	20	20						

Note: * The number of unique tenderers is per electrical sub-network and it is invalid to total them.
** The concept of electrical sub-networks became relevant for the 2008 tenders. Prior to this time, AEMO procured on a regional basis. The exceptions were Queensland which was procured on the basis of geographic size and Tasmania where AEMO piloted the electrical sub-network concept.
*** Tasmania became a part of the NEM in 2005 and these reflect the tenders from this year.

Figure 3: International comparison of generation and black start costs



Where it is deemed necessary, AEMO considers that the ability to negotiate tender outcomes would assist in getting quality SRAS at a fair price. This method is consistent with the procurement process for network support and control ancillary services (NSCAS) as defined in the NER, which allows for arbitration on all aspects including price. AEMO would use independent benchmarking information to inform its position on reasonable costs.

AEMO considers that its proposed SRAS quantity changes (to be consulted on in 2014) are likely to promote competition in several electrical sub-networks. Where this does not occur, for example in Tasmania where there is one SRAS provider, AEMO considers it prudent to allow AEMO the ability to negotiate on price where tenders are uncompetitive outcomes subject to the dispute resolution provisions of the NER.

3.1.1 Alternative solutions

Table 3 sets out alternative SRAS procurement approaches to address the issue identified in Section 3.1 and AEMO's reason for not proposing them at this stage.

Table 3: Alternative procurement approaches

ALTERNATIVE SOLUTION	AEMO'S REASONING
Cost of service	AEMO considers that this is a reasonable option but would require a significant change in the current market-based approach for SRAS. At this time, AEMO's views this degree of intervention as unnecessary. AEMO will be engaging a consultant in 2014 to provide internationally benchmarked SRAS costs which take into account factors affecting the Australian context. This will provide further information on the degree of inefficiency in SRAS costs and provide further support for a cost of service based approach. However, it should also be recognised that AEMO will be proposing changes to SRAS quantities and the number of electrical sub-networks. These changes might also increase the level of competition in some electrical sub-networks which might make SRAS tendering more competitive. There are likely to be electrical sub-networks that continue to have little to no competition.
Mandating provision of black start from generating facilities	Mandating provision over a certain generating facility size could lead to an oversupply of restart resources and greater costs to end-use consumers. Further, this is inequitable because only certain generators would be required to provide and pay for it.
No procurement	Not procuring SRAS could result in insufficient investment in black start capability, leaving the NEM incapable of restarting following a black system. In the long term, AEMO understands that generators, end-use consumers and governments want to be assured that the NEM can be restarted. AEMO is best placed to procure SRAS.

3.2 SRAS recovery

AEMO considers that it is inefficient to continue to recover SRAS costs from Market Generators, Market Small Generation Aggregators and Market Customers on a NEM-wide basis. Recovering SRAS on a NEM-wide basis has resulted in cross-subsidisation occurring between some NEM regions. The SRAS costs Market Generators, Market Small Generation Aggregators and Market Customers pay do not always reflect the price or level of service provided in that region.

Table 4 and 5 provide examples of the level of cross-subsidisation between NEM regions. In 2011-12, SRAS costs recovered from participants in Queensland and Victoria cross-subsidised SRAS payments for the remaining regions. In 2012-13, Queensland and South Australia have cross-subsidised the remaining regions.

This is particularly clear for Tasmania where the difference between SRAS recovery and payment in 2011-12 was about $3.9 million and increased to $6.9 million in 2012-13. Market Generators and Market Customers in other regions have cross-subsidised their Tasmanian counterparts. There is no rationale to recover Tasmania's SRAS costs from mainland regions because the Basslink interconnector is a direct current link and cannot be used to assist in a restart. SRAS from Tasmania cannot be used to restart Victoria and vice versa.

Regional recovery, based on the cost of services procured in electrical sub-networks that will directly benefit that region, would remove cross-subsidisation between regions and provide better price signals to Market Generators and Market Customers in each region. This represents a more efficient and cost-reflective means of allocating SRAS costs.

Based on independent analysis of AEMO's draft recommendations it is proposed that a re-defined electrical sub-network would cover south Queensland and north New South Wales. Consistent with SRAS being recovered on a beneficiary-pays basis, AEMO considers that the NER should also be amended to ensure AEMO is able to calculate regional benefit factors to apportion SRAS costs between adjoining regions.

Table 4: 2011-12 differences between NEM SRAS recovery and payment

REGION	SRAS RECOVERED ($M, NOMINAL)	SRAS PAYMENT ($M, NOMINAL)	DIFFERENCE ($M, NOMINAL)
NSW	13.3	17.1	(3.8)
QLD	9.1	4.4	4.7
SA	2.5	2.8	(0.3)
TAS	2.0	5.9	(3.9)
VIC	8.5	5.3	3.2
Total	35.4	35.4	-

Table 5: 2012-13 differences between NEM SRAS recovery and payment

REGION	SRAS RECOVERED ($M, NOMINAL)	SRAS PAYMENT ($M, NOMINAL)	DIFFERENCE ($M, NOMINAL)
NSW	17.6	18.2	(0.6)
QLD	13.8	5.9	7.9
SA	3.5	3.1	0.4
TAS	3.2	10.2	(6.9)
VIC	13.1	13.8	(0.7)
Total	51.2	51.2	-

3.3 Single SRAS definition

While NER Chapter 10 defines a primary and secondary restart service, and the SRS includes high level reliability requirements for each service, their respective technical and availability requirements are defined by the SRAS Description.

The present requirements in the SRAS Description have led to AEMO contracting some SRAS which, although able to energise auxiliaries within their own power stations in 90 minutes (as set out in the SRS), cannot contribute towards restoring 40% of load within the SRS target of four hours. Further, AEMO notes that only one secondary service is currently procured, and that service would not be eligible for renewal because it no longer meets the SRAS Description.

AEMO can consult on appropriate amendments to the SRAS Description, and proposes to do so from June 2014. However, removing the distinction between primary and secondary restart

services in the NER (with consequential amendments to the SRS) would help to provide greater clarity of SRAS requirements for prospective providers. AEMO considers that there is no rationale for retaining two types of service. In order to achieve efficient procurement of SRAS, the same set of reliability, availability and technical requirements should apply to all SRAS, with a focus on the outcomes required to achieve the SRS.

3.4 Minor and consequential issues

3.4.1 NMAS definition

NMAS is currently defined in NER Chapter 10 as:

"*Network support and control ancillary services, system restart 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.*"

This definition incorrectly suggests that:

- SRAS is acquired by transmission network service providers (TNSPs) under connection agreements or network support agreements. This is untrue; AEMO is the sole purchaser of SRAS.
- There could be services other than NSCAS and SRAS. There are currently no other NMAS purchased by TNSPs.

3.4.2 NER clause 3.11.4A(b)

NER clause states that "*AEMO must use reasonable endeavours to acquire system restart ancillary services in accordance with the relevant provisions of clause 3.11.4.A*". AEMO considers this to be an error because NER clause 3.11.4A does not set out how AEMO must acquire SRAS. It seems that NER clause 3.11.5 was intended, consistent with the corresponding NSCAS requirement in clause 3.11.3(c)(4).

3.4.3 Residual matters to be included in procedures

Where the NER describes matters to be included in procedures made by AEMO, in some instances 'catch-all' provisions are included indicating that those procedures may include any other relevant matter in addition to those specifically listed in the NER. In the context of the procedures relevant to this rule change request, those provisions are unnecessary because the relevant rule does not preclude the inclusion of other relevant matters. AEMO suggests that these provisions are removed in:

- NER clause 3.11.4A(d)(3), which states that the SRAS Description may include "*any other matter considered relevant by AEMO*".
- NER clause 3.15.6A(c4), which specifies matters to be set out in AEMO's regional benefit ancillary services procedures, including "*any other relevant factors*".

4 Proposed Rule

4.1 Description of the proposed rule

The proposed rule would:

- Amend NER clause 3.11.4A(b) to delete the reference to clause 3.11.4A and replace this with clause 3.11.5.
- Delete the NER Chapter 10 definitions of primary and secondary restart service (retaining the existing Chapter 10 definition of system restart ancillary service), with consequential changes to:
    - Clauses 3.11.4A(c)(3) and (d).
    - Clauses 8.8.3(aa)(4) and (6).
- Amend clause 3.11.5(h) to:
    - Require AEMO to determine whether SRAS tenders submitted in response to an NMAS invitation to tender for an electrical sub-network are competitive.
    - Where SRAS tenders are deemed uncompetitive, require AEMO and the preferred tenderers to negotiate in good faith and agree reasonable terms and conditions for the SRAS taking into account the SRAS objective.
- Amend clause 3.11.5(i) to allow AEMO or a preferred tenderer to refer any matters where the parties cannot agree on the terms and conditions for an SRAS to the Adviser in accordance with rule 8.2.
- Delete clause 3.11.5(p). This is unnecessary because of the proposed changes to clause 3.11.5(i).
- Amend clause 3.15.6A(c1) to include SRAS in the definition of regional benefit ancillary services procedures and regional benefit factors.
- Amend clause 3.15.6A(c2) to require AEMO to recover SRAS liabilities from Market Generators and Market Small Generation Aggregators.
- Amend clause 3.15.6A(c4) to require AEMO to develop and publish regional benefit ancillary services procedures that take into account the relative benefit of a SRAS provided to each adjoining region.
- Amend clauses 3.15.6A(d) and (e) to allow SRAS costs to be recovered from Market Generators, Market Small Generation Aggregators and Market Customers using regional benefit factors.
- Amend the Chapter 10 NMAS definition to clarify that NMAS includes :
    - NSCAS and other services acquired by TNSPs 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.
    - SRAS and NSCAS are acquired by AEMO under ancillary service agreements.

4.2 Implementation and transition

AEMO considers that transitional arrangements are necessary to facilitate the proposed rule. Implementation of the proposed rule would require AEMO to make changes to existing procedures and systems, and the Reliability Panel to make changes to the SRS. To implement the proposed rule in a timely manner, and to allow the necessary consultation to proceed following publication of the AEMC's Draft Rule, AEMO requests transitional rules to the following effect:

- AEMO must amend the SRAS Description, SRAS Assessment Guidelines, SRAS Quantities Guideline, Boundaries of Electrical Sub-networks, NMAS Tender Guidelines[6], and Regional Benefit Ancillary Services Procedure to be consistent with the amending Rule.
- The Reliability Panel must amend the SRS to be consistent with the amending Rule.
- Steps or actions taken by AEMO or the Reliability Panel for consultation purposes before the amending Rule comes into effect would be taken to have satisfied the equivalent step or action required under the relevant consultation procedures.

5 How the Proposed Rule Contributes to the National Electricity Objective

Before the AEMC can make a rule change it must apply the rule making test set out in the National Electricity Law (NEL), which requires it to assess whether the proposed rule will or is likely to contribute to the National Electricity Objective (NEO). Section 7 of the NEL states the NEO is:

> *… to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to –*
> *(a) price, quality, reliability and security of supply of electricity; and*
> *(b) the reliability, safety and security of the national electricity system.*

AEMO considers the proposed rule would promote efficient investment in, and more efficient operation of electricity services with respect to price, quality, reliability, and security of supply of electricity. AEMO's proposed rule would benefit consumers in the short and long term and meet the NEO. Further details are set out below.

5.1 SRAS procurement

The proposed rule would allow AEMO, as the SRAS procurer, a clear mandate to effectively negotiate outcomes with preferred tenderers where these are deemed non-competitive. AEMO's proposed use of international benchmarked SRAS costs will assist in determining whether offered SRAS prices are reasonable.

In circumstances where there are non-competitive outcomes, a clear ability to negotiate on price would ensure SRAS is procured to efficiently meet the SRS at a reasonable cost. This would benefit consumers with respect to the price of electricity services in the short and long term.

The proposed requirement to negotiate in good faith and access to the dispute resolution processes should give SRAS providers regulatory certainty that there is an independent arbitrator to ensure they would be appropriately remunerated for their services.

5.2 Regional SRAS recovery

The proposed rule to recover SRAS on a regional basis will improve cost-reflectivity of services and will remove cross-subsidisation between NEM regions. This will provide appropriate price signals because Market Generators, Market Small Generation Aggregators, and Market Customers

[6] The SRAS Tender Guidelines can be found at: http://www.aemo.com.au/Consultations/National-Electricity-Market/Closed/SRAS-Tender-Guidelines-Consultation.

would pay for the SRAS that is procured to benefit their region. The beneficiary or causer pays approach (if SRAS is ever used) will encourage a more efficient pricing of SRAS.

5.3 Single SRAS definition and minor amendments

The proposed rule would assist in simplifying the SRAS requirements to be consulted on in relation to AEMO's SRAS Description, and allow for a single reliability standard to be set in the SRS. This will help to provide greater clarity of SRAS requirements for prospective providers and facilitate the efficient procurement of SRAS to meet the SRS. This proposed change will promote efficient investment in, and efficient operation and use of, SRAS for the long term interests of consumers of electricity because AEMO would only procure SRAS that delivers a material market benefit by contributing to the restoration of supply if a black system should occur.

Similarly, the proposed change to the NER Chapter 10 NMAS definition and clause 3.11.4A(b) would create transparency and regulatory certainty for NMAS roles and responsibilities.

6 Expected Benefits and Costs of the Proposed Rule

6.1 SRAS procurement

AEMO expects that the proposed rule would allow AEMO to negotiate reasonable terms and conditions, including price outcomes. AEMO expects that Market Generators, Market Small Generation Aggregators and Market Customers who pay for SRAS will benefit because AEMO would be able to negotiate and receive a better price for services where these are deemed to be uncompetitive. This could benefit Market Generators, Market Small Generation Aggregators and Market Customers through lower prices for the service. AEMO expects that consumers would benefit through these parties passing through reduced costs.

SRAS tenderers might perceive that this creates regulatory uncertainty for them. If SRAS prices are fair and reasonable, the proposed rule would not be exercised and this should not be an issue. Further, being able to refer any unresolvable negotiations to dispute resolution should provide these parties with some assurance.

SRAS providers who are receiving SRAS prices that cannot be reasonably justified are expected to be negatively affected by this proposed rule. AEMO considers this to be appropriate.

AEMO does not expect its implementation costs to be material as it involves minor procedural changes and SRAS tenderers would only incur costs if there was an uncompetitive outcome.

6.2 Regional SRAS recovery

AEMO expects that the proposed rule would ensure the SRAS costs of a region are borne by beneficiaries in that region. This will send a clearer price signal and reduce cross-subsidisation between regions. Based on the current tenders and SRAS recovery, this will benefit Queensland Market Generators, Market Small Generation Aggregators and Market Customers through lower prices for the service. Conversely, these parties in Tasmania will be adversely affected because they would pay the cost of the SRAS procured for Tasmania.

For AEMO, implementing this proposed rule requires system changes and a procedure changes to establish SRAS regional benefit factors. This is expected to cost AEMO around $70,000.

6.2.1 Single SRAS definition and minor amendments

AEMO expects that the proposed rule would increase transparency and regulatory certainty for potential SRAS providers.

In particular, having a single definition for SRAS will make it simpler to understand the technical, reliability and availability requirements for SRAS. This will need to be made clear by amending the SRAS Procedures to replace the primary and secondary restart services definitions with a single definition. The SRS would also need to change to reflect this change. The other minor changes would also add clarity to the NER.

AEMO's costs of implementing these changes are considered to be immaterial as it involves minor procedural changes.

APPENDIX 1 – DRAFT RULE

This draft is based on version 59 of the National Electricity Rules.

3.11.4A Guidelines and objectives for acquisition of system restart ancillary services

…

(b) *AEMO* must use reasonable endeavours to acquire *system restart ancillary services* in accordance with the relevant provisions of clause ~~3.11.4A~~ 3.11.5.

(c) Each of the guidelines and *SRAS* description ~~which~~ *AEMO* is required to develop and *publish* in accordance with clause 3.11.4A must be:

(1) consistent with the *SRAS* objective; and

(2) designed to ensure the *system restart standard* is met. ~~; and~~

~~(3) designed to ensure that the need for *system restart ancillary services* in each *electrical sub-network* is met, to the extent that it is practicable and reasonable to do so, by *AEMO* entering into *ancillary services agreements* for the provision of *primary restart services*.~~

(referred to collectively as the ***SRAS* procurement objectives**).

(d) *AEMO* must develop and *publish* a detailed description of the technical, availability and other relevant requirements for a ~~each type of~~ *system restart ancillary service* in accordance with the guidelines determined by the *Reliability Panel* under clause 8.8.3(aa)(4)~~, which description must identify:~~

~~(1) whether the *system restart ancillary service* is a *primary restart service* or a *secondary restart service*;~~

~~(2) the technical and availability requirements for a of each type of *system restart ancillary service*; and~~

~~(3) any other matter considered relevant by *AEMO*,~~

(the ***SRAS* description**).

…

3.11.5 Tender process for non-market ancillary services

…

(h) ~~Where the call for offers is for the acquisition of *NSCAS*, i~~In assessing any tenders submitted in response to an *NMAS* invitation to tender~~to meet a particular *NSCAS gap*~~, *AEMO* must first determine whether those tenders are competitive. ~~The t~~Tenders submitted to meet a particular *NSCAS gap*, or a need for *system restart ancillary services* in a particular *electrical sub-network*, will be deemed to be competitive if the quantity of *NMAS* ~~*NSCAS*~~ that *AEMO* is seeking can be supplied from the conforming tenders received by *AEMO* with any one

conforming tender discarded or all conforming tenders from any one party discarded. If the tenders submitted ~~to meet a particular *NSCAS gap*~~ are not deemed to be competitive, *AEMO* and its *NMAS* ~~*NSCAS preferred tenderers*~~, must negotiate in good faith to agree reasonable terms and conditions for the supply of the relevant type of ~~*NSCAS*~~*NMAS*, taking into account the need ~~to~~:

(1) ~~subject to subparagraph (h)(2)~~in the case of *NSCAS*, so far as practicable to minimise the overall cost of supply of that service, while appropriately remunerating the providers of the relevant *NSCAS* for that service; and

(2) in the case of *system restart ancillary services*, to meet the *SRAS objective*. ~~appropriately remunerate the providers of the relevant *NSCAS NMAS* for that service.~~

(i) If *AEMO* and a *NMAS* ~~*NSCAS preferred tenderer*~~ cannot agree on the terms and conditions for the supply of a ~~*NSCAS*~~*NMAS* after 21 *business days* from delivery to the preferred tenderer of a written notice from *AEMO* to negotiate, either *AEMO* or the preferred tenderer may refer the matter to the *Adviser* for the determination of a dispute as to those terms and conditions in accordance with rule 8.2.

…

~~(p) A dispute concerning any aspect, (other than the aspect of price), of a *system restart ancillary services* agreement or a call for offers conducted by *AEMO* for the acquisition of *system restart ancillary services*, must be dealt with in accordance with rule 8.2.~~

3.15.6A Ancillary service transactions

…

(c1) In this clause:

Regional benefit ancillary services procedures means the procedures to determine the relative benefit that each *region* is estimated to receive from the provision of *NMAS*~~*NSCAS*~~.

Regional benefit factors means the factors to allocate, between *regions*, the costs associated with the provision of *NMAS*~~*NSCAS*~~ under each *ancillary services agreement* in accordance with the regional benefit ancillary services procedures.

(c2) *AEMO* must recover its liabilities under *ancillary services agreements* for the provision of:

(1) *NSCAS*, from *Market Customers* in each *region* in accordance with paragraphs (c8) and (c9), subject to paragraph (b1); and

(2) *system restart ancillary services*, from *Market Generators* and *Market Small Generation Aggregators* in each *region* in accordance with paragraph (d), subject to paragraph (b1).

(c3) In the statements to be provided under clauses 3.15.14 and 3.15.15 to a *Market Customer*, *AEMO* must separately identify the portion of the total amount payable

by *AEMO* in respect of the relevant *billing period* under *ancillary services agreements* for the provision of *NSCAS* that:

(1) benefits specific *regions* in which there is a *connection point* for which the *Market Customer* is *financially responsible* (being the *regional* amounts given by the first summated term in the paragraph (c7) formula); and

(2) does not benefit specific *regions* (being the amount $TNSCAS_p$ in the paragraph (c9) formula).

(c4) *AEMO* must develop and *publish* the regional benefit ancillary services procedures in accordance with the *Rules consultation procedures*. Without limiting the matters to be included in the regional benefit ancillary services procedures, they must require *AEMO* to take into account:

(1) for a *NSCAS*, the estimated increase for each *region* of the gross economic benefit from increased *power transfer capability*;

(2) for a *system restart ancillary service*, that can be used to restart *generating units* in two adjoining *regions*, the relative benefit provided by that service to each *region*. ~~and any other relevant factors~~.

(c5) Subject to paragraph (c6), *AEMO* may amend the regional benefit ancillary services procedures from time to time.

(c6) *AEMO* may make minor and administrative amendments to the regional benefit ancillary services procedures without complying with the *Rules consultation procedures*.

(c7) From time to time, *AEMO* must determine the regional benefit factors.

(d) In each *trading interval*, in relation to each *Market Generator* and each *Market Small Generation Aggregator* for each *region*, an ancillary services transaction occurs, which results in a *trading amount* for the *Market Generator* or the *Market Small Generation Aggregator* determined in accordance with the following formula:

~~$$TA = \frac{TSRP}{2} \times \frac{TGE + TSGE}{ATGE + ATSGE} \times -1$$~~

$$TA = \sum \left(\frac{TSRP}{2} \times RBF_R \times \frac{TGE_R + TSGE_R}{RATGE_R + RATSGE_R} \right) \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined in respect of the relevant region and trading interval (which is a negative number);
TSRP (in $)	=	the total of all amounts payable by *AEMO* in respect of the *trading interval* under *ancillary services agreements* in respect of the provision of *system restart*

ancillary services;

RBF_R (number)	=	the latest regional benefit factor assigned to the provision of the relevant *system restart ancillary services* under an *ancillary services agreement* in respect of the relevant *region* and *trading interval*, as determined by *AEMO* under paragraph (c7);
TGE_R (in MWh)	=	the *generator energy* for the *Market Generator* for the *trading interval* in that *region*;
$TSGE_R$ (in MWh)	=	the *small generator energy* for the *Market Small Generator Aggregator* for the *trading interval* in that *region*;
$RATGE_R$ (in MWh)	=	the aggregate of the *generator energy* figures for all *Market Generators* for the *trading interval* in that *region*; and
$RATSGE_R$ (in MWh)	=	the aggregate of the *small generator energy* figures for all *Market Small Generator Aggregators* for the *trading interval* in that *region*.

(e) In each *trading interval*, in relation to each *Market Customer*, for each *region*, an ancillary services transaction occurs, which results in a *trading amount* for the *Market Customer* determined in accordance with the following formula:

$$TA = \frac{TSRP}{2} \times \frac{TCE}{ATCE} \times -1$$

$$TA = \sum \left(\frac{TSRP}{2} \times RBF_R \times \frac{TCE_R}{RATCE_R} \right) \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined in respect of the relevant region and trading interval (which is a negative number);
TSRP (in $)	=	has the meaning given in clause 3.15.6A(d);
TCE_R (in MWh)	=	the *customer energy* for the *Market Customer* for the *trading interval* in that *region*; and

$RATCE_R$ (in MWh)	=	the aggregate of the *customer energy* figures for all *Market Customers* for the *trading interval* in that *region*.

8.8.3 Reliability Panel review process

…

(aa) The *system restart standard* must:

…

(4) include guidelines on the required reliability of ~~*primary*~~ *system restart ancillary services* ~~and *secondary restart services*~~;

…

(6) include guidelines specifying the diversity and strategic locations required of ~~*primary*~~ *system restart ancillary services* ~~and *secondary restart services*~~.

10. Glossary

non-market ancillary service or ***NMAS***

Any of the following services:

(a) ~~*Network*~~*network support and control ancillary services*~~, *system restart 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*; and

(b) *system restart ancillary services* and *network support and control ancillary services* acquired by *AEMO* under *ancillary services agreements*.

~~***primary restart service***~~

~~A *system restart ancillary service* that meets the technical and availability requirements of a *primary restart service* specified by *AEMO* under clause 3.11.4A(d).~~

~~***secondary restart service***~~

~~A *system restart ancillary service* that meets the technical and availability requirements of a *secondary restart service* specified by *AEMO* under clause 3.11.4A(d).~~

Part X System Restart Ancillary Services (2013 amendments)

11.X Rules consequent on making of the National Electricity Amendment (System Restart Ancillary Services) Rule 2013

11.X.1 Definitions

In this rule 11.X:

Amending Rule means the National Electricity Amendment (System Restart Ancillary Services) Rule 2014.

Amending Rule commencement date means the date of commencement of the Amending Rule.

existing *NMAS* contract means an *ancillary services agreement* entered into prior to the Commencement Date.

11.X.2 System restart standard

As soon as practicable after the Amending Rule commencement date, the *Reliability Panel* must revise the *system restart standard* to take into account the Amending Rule and provide the revised standard to the *AEMC*.

11.X.3 SRAS description and guidelines

As soon as practicable after the Amending Rule commencement date, *AEMO* must amend and *publish* the SRAS description, SRAS assessment guidelines and SRAS quantity guidelines referred to in clause 3.11.4A to take into account the Amending Rule.

11.X.4 Boundaries of electrical sub-networks

As soon as practicable after the Amending Rule commencement date, *AEMO* must determine and *publish* the boundaries of the *electrical sub-networks* referred to in clause 3.11.4B to take into account the Amending Rule.

11.X.5 NMAS tender guidelines

As soon as practicable after the Amending Rule commencement date, *AEMO* must amend and *publish* the NMAS tender guidelines referred to in clause 3.11.5 to take into account the Amending Rule.

11.X.6 Regional Benefit Ancillary Services Procedures

As soon as practicable after the Amending Rule commencement date, *AEMO* must amend and *publish* the Regional Benefit Ancillary Services Procedures referred to in clause 3.15.6A to take into account the Amending Rule.

11.X.7 Consultation prior to the Amending Rule commencement date

If, prior to the Amending Rule commencement date, and for the purposes of developing any of the amendments or determinations referred to in clauses 11.X.2 to 11.X.5, either *AEMO* or the *Reliability Panel* undertook a consultation, step decision or action equivalent to that consultation, step decision or action as required under:

(a) in the case of *AEMO*, the *Rules consultation procedures*; or

(b) in the case of the *Reliability Panel*, the requirements of clause 8.8.3(d) to (j),

then that consultation, step decision or action is taken to satisfy the relevant requirement for the equivalent consultation, step decision or action.