

7 May 2014

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By online submission

Dear Mr Pierce

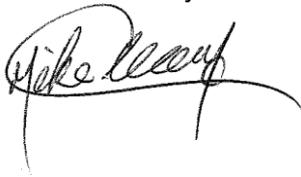
### **National Electricity Amendment (System Restart Ancillary Services) Rule 2014**

AEMO appreciates the opportunity to respond to the AEMC's Consultation Paper on the National Electricity Amendment (System Restart Ancillary Services) Rule 2014, published on 27 March 2014.

As the proponent of one of the rule change requests under consideration, AEMO makes this submission to respond to a number of issues arising from the alternative SRAS proposal from generators, to clarify certain aspects of AEMO's own rule change request, and to propose an implementation approach that provides certainty for SRAS providers wishing to tender in the 2015 procurement process.

If AEMO can assist the AEMC in any way as it works through consideration of these rule change requests, we would be very happy to do so. Should you need further information or wish to discuss this submission further, please contact Mark Stedwell on (03) 9609 8563 or [mark.stedwell@aemo.com.au](mailto:mark.stedwell@aemo.com.au).

Yours sincerely



Mike Cleary  
**Chief Operating Officer**

Attachment: AEMO Submission in response to AEMC Consultation Paper: National Electricity Amendment (System Restart Ancillary Services) Rule 2014

## **AEMO Submission in response to AEMC Consultation Paper: National Electricity Amendment (System Restart Ancillary Services) Rule 2014**

This submission adopts the same abbreviations and definitions used in the AEMC's Consultation Paper.

### **Executive Summary**

In this submission AEMO seeks to:

- respond to issues arising from the rule change proposal submitted by the Private Generators' Group and National Generators Forum on 11 November 2013 (Generator proposal);
- clarify aspects of its own rule change proposal that, based on the Consultation Paper, may be unclear; and
- propose a basis for implementation of any resulting rule changes that will give prospective SRAS providers sufficient certainty to tender in the 2015 procurement process.

A key premise of the Generator proposal is that there is a "*perception of a conflict of interest with AEMO determining by default what is an acceptable cost of a major supply disruption and appropriate cost of procuring SRAS*"<sup>1</sup>. The proposed means of addressing this perceived conflict is to enshrine fairly extensive principles and requirements in the NER to impose more rigid parameters on both the SRS and SRAS Guidelines.

AEMO considers that the NER already establish an appropriate separation of decision-making between these two elements of the SRAS framework. In the SRS, the Reliability Panel effectively determines the acceptable cost to the market of a major supply disruption, by setting the target timeframes by which a defined proportion of peak load should be restored. The responsibility for procuring restart services with the capability to meet that target then rests with AEMO. It performs that function as the system operator charged with maintaining power system security. AEMO is guided by specific SRAS procurement objectives in the NER, and more broadly by the national electricity objective (NEO).

AEMO supports greater clarity in the NER, both in relation to the objectives and principles for procuring SRAS and as to the purpose and content of the SRS. While not directly a matter for a rule change proposal, AEMO also supports a major review of the SRS, with wide stakeholder consultation, to better articulate the extent of the risks that SRAS should be procured to address. However, the benefits of clarity should not be negated by over-prescription and inflexibility that could result in highly inefficient outcomes for the market, and increased risk for generators, networks and customers. In AEMO's view, this is the potential outworking of some of the suggestions in the Generator proposal.

As noted in the Consultation Paper, AEMO is in the process of consulting on proposed SRAS Guidelines amendments for the tender process for the provision of SRAS from 1 July 2015.

AEMO acknowledges that the AEMC's rule change consultation could result in substantive changes to the SRAS procurement objectives or principles, and notes that this may in turn require a significant review of the SRS, which is likely to take some time. In the interim period, the NER require AEMO to procure SRAS through a tender process, based on SRAS Guidelines that meet the SRAS procurement objectives.

To give tenderers in the forthcoming process greater certainty, AEMO requests the AEMC to consider transitional implementation provisions, such that any changes to the NER and SRS would only take effect in respect of SRAS to be procured from the expiry or termination of the 2015 SRAS contracts.

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<sup>1</sup> Generator proposal, p.3

## **1. Issues arising from Generator proposal**

In this section AEMO has identified potential misconceptions or adverse consequences arising from some elements of the Generator proposal.

### **1.1. Major supply disruption to include NEM-wide black system event**

AEMO's SRAS review, supported by DNV KEMA's independent report, concluded that the probability of a NEM-wide black system event is negligible. It is important to emphasise that, under the current framework, AEMO's obligation is to procure sufficient SRAS to meet the SRS *for every electrical sub-network*. This remains the same regardless of the extent of the disruption – even NEM-wide.

Going forward, AEMO considers that the SRAS framework, specifically the SRS, should seek to minimise the overall cost of a range of potential major supply disruptions based on a probabilistic assessment. Generally speaking, the more extensive the risk to be insured against, the higher the cost of the insurance (in this case, the cost of procuring SRAS). In determining how much insurance should be bought, it is necessary to consider the remoteness of the risk and the likely effectiveness of SRAS and other available mechanisms in addressing it. This involves:

- technical analysis (that could change over time as the power system develops)
- qualitative consideration of the potential costs and benefits of the extent of coverage sought.

If the AEMC is considering the inclusion of additional guidance for the Reliability Panel in the NER, AEMO recommends that it should be flexible enough to accommodate these considerations.

### **1.2. Redefine SRS restoration timeframes as explicit operational standards**

The SRS currently defines restoration timeframes as targets for the procurement of SRAS, explicitly *not* as operational standards. This reflects the practical reality that a real black system condition will have an unpredictable cause and unpredictable consequences. In setting procurement timeframes, certain assumptions must be made about power system conditions and the availability of equipment. Those assumed conditions may or may not eventuate for any given incident and location.

AEMO has extensive responsibilities under the NEL and NER to establish (or-re-establish) and maintain power system security and reliability in accordance with all applicable standards. In a black system condition, AEMO will seek to restore the power system as quickly as practicable, but must do so in an orderly way to meet system security requirements. AEMO must have the flexibility to make appropriate operational decisions to respond to developing or unforeseen circumstances, otherwise it cannot properly discharge its statutory functions. SRAS represent one of a number of options AEMO can deploy in restoring supply, based on the conditions at the time. From a purely operational perspective, mandatory restoration timeframes in operational standards would be inappropriate and potentially in conflict with AEMO's power system security obligations.

AEMO is also concerned that the costs of this proposal outweigh any potential benefits it may have. Defining timeframes as operational standards in the NER would create a perverse incentive for AEMO to over-acquire services in order to reduce the risk of not meeting those standards. AEMO would also have no option but to require SRAS providers to guarantee to meet their specified energising timeframes, adding to generators' risk profile. This is likely to result in a higher price outcome without necessarily providing commensurate (or any) value to consumers.

Periodic reviews of the SRS may help to ensure that it reflects target restoration timeframes that appropriately minimise the economic costs to the market of a range of black system events on a probabilistic basis, having regard to the likely cost of the services. Regular review may also provide an opportunity to investigate developing technologies and other innovations with the potential to contribute to overall efficiency.

### **1.3. Require AEMO to provide information on restoration capacity**

AEMO supports transparency in relation to the procurement of SRAS, subject to considerations of commercial confidentiality and the costs and benefits of making information available. It must also be recognised that AEMO necessarily relies extensively on information and data supplied by SRAS providers and NSPs when evaluating SRAS during the procurement process.

AEMO wishes to make clear that, subject to its evaluation of tenders offered, it will seek to procure sufficient SRAS within each sub-network with the capability to meet the SRS for that sub-network.

#### **1.4. AEMO's role and accountability**

AEMO does not consider that any conflict of interest arises between its SRAS procurement role and its obligations to determine the parameters for those services within NER and SRS requirements. The basic premise of procurement in any market is that the person with a need for goods or services seeks to acquire them from potential providers on terms that most efficiently meet the user-defined need for the services. In this case, AEMO has no financial interest in any particular outcome; its decisions are driven only by the NEO, the SRAS procurement objectives in the NER and the guidance in the SRS.

In the context of the NEM governance framework, AEMO as the independent power system operator is best positioned to make the necessary decisions, and is accountable under the NEL framework for compliance with the requirements in the NER and the SRS. Moreover, AEMO's own governance structure, not-for-profit status and statutory responsibilities ensure that it has no obligation or incentive to act other than independently in accordance with the NEO.

In determining and amending the SRAS Guidelines, AEMO has the same obligations and responsibilities as it does in relation to the many other procedures and guidelines AEMO makes under the NER, including for power system security and other matters that, directly or indirectly, affect the commercial position of registered participants. AEMO must comply with well-established consultation procedures (in rule 8.9 of the NER), and all other relevant requirements in the NER and the SRS. Anyone who believes AEMO has made a determination that is inconsistent with those requirements can ask the AER to investigate a potential breach of the NER, or seek judicial review of AEMO's determination if they have been affected by it.

#### **1.5. SRAS assessment information**

The Generator proposal suggests a range of measures designed to demonstrate how AEMO has assessed the capability of proposed SRAS. As noted above, AEMO supports transparency in relation to the procurement of SRAS, but notes that it will be necessary to examine considerations of confidentiality, cost, and the source of information.

In relation to NSP consultation, the onus is currently on prospective SRAS providers to arrange for testing of any network elements within a specified restart service. Clause 3.11.5(f) of the NER obliges NSPs to negotiate with prospective tenderers and participate in or facilitate SRAS testing, as required by the SRAS tender guidelines and at the SRAS provider's cost. AEMO currently requires NSPs to endorse testing procedure documentation, in order to assess how SRAS can be provided using a network as part of its restart path.

In forums recently held by AEMO on its current SRAS Guidelines consultation, generators and NSPs have raised issues of costs and liability in relation to NSP participation in testing and assessment of SRAS capability. Any additional NER requirements involving consultation or participation of NSPs will need to deal with the legitimate concerns of NSPs and generators, so the expectations of all parties are very clear, with an efficient allocation of risks and responsibilities. It must be recognised, however, that testing of SRAS capability is an essential part of the procurement process.

## **2. Clarification of AEMO's proposal**

AEMO would like to take this opportunity to clarify two statements in the AEMC's Consultation Paper about AEMO's SRAS review reports and its rule change request respectively.

### **2.1. Quantity and number of SRAS procured**

In section 5.4.1 of the Consultation Paper, the AEMC notes an apparent discrepancy between statements made by AEMO about SRAS quantities:

*"AEMO's rule change request states that "the overall number of SRAS procured has remained constant for 2008 and 2012".<sup>34</sup> However, in the draft report of its SRAS review, AEMO previously reported that "there has been a net increase in the quantity of SRAS procured to meet the standards over the two SRAS contract periods".<sup>35</sup> It is also not clear whether a distinction should be drawn between the number of services procured and the amount in MW."*

In 2012 AEMO procured 20 restart services, compared with 19 in 2008.

The capacity in MW of an individual service is not particularly relevant to any evaluation. Rather, it is the capability of that service to enable other generation of sufficient size and strategic location to restart that matters. For example, AEMO could contract with the operator of a 50MW unit that can restart itself and energise a path to the auxiliaries of a 1000MW power station, or it could directly contract with the operator of the 1000MW station that uses the same 50MW unit as a restart source under a commercial arrangement. Both services would deliver the same outcome, but in terms of contracted SRAS one has a 50MW capacity and the other 1000MW.

## **2.2. Cost of service approach**

In section 5.4.2 of the Consultation Paper, the AEMC notes (based on statements in AEMO's SRAS Review final report and its rule change request) that AEMO views a cost of service approach to procurement as unnecessary.

In fact, AEMO proposed to further evaluate a potential cost of service approach by seeking more information, including cost benchmarking for different black start technologies in Australia. AEMO has not identified sufficient benefits of alternatives to a market procurement process to recommend any material change *at this stage*, but the possibility should remain open if competitive procurement appears to be ineffective in some areas.

In the AEMC's consideration of potential improvements to the procurement structure, it seems relevant to examine the objectives to be achieved by the promotion of competition in the supply of SRAS, and whether the market for SRAS can in fact be competitive across the NEM. For example, is a competitive market the best way to reduce costs in the medium to long term? Is new investment in black start capability necessary to meet demand? If so, will the current structure of the market actually encourage generators to make that investment where it is needed?

## **3. Implementation and transitional issues – 2015 SRAS tender**

As noted in the Consultation Paper, AEMO is in the process of consulting on proposed SRAS Guidelines amendments. Any revisions to those Guidelines would take effect prior to the tender process for SRAS which AEMO is required to procure from 1 July 2015.<sup>2</sup> The consultation is being conducted in order to comply with AEMO's NER obligations, because AEMO believes the current SRAS Guidelines may be inconsistent with the SRAS objectives in the NER.

AEMO recognises that the current AEMC consultation could result in significant changes to SRAS procurement objectives or principles. If that happens, it is likely that the SRS in turn would need to undergo a full review. That review would need to reconcile a number of different technical opinions and will therefore require time. Until all necessary reviews are complete and changes are brought into effect, SRAS can only be acquired under the current framework.

To give tenderers in the forthcoming process greater certainty, AEMO proposes that the AEMC consider transitional provisions to the effect that changes to the NER and SRS would be implemented for the procurement of SRAS commencing after the expiry of the 2015 SRAS contracts. In other words, any changes to the requirements for the provision of services would not affect those contracts.

AEMO has proposed that the term of the 2015 contracts would be 2 years plus an option to extend for a further one year, allowing a realistic time for all reviews to be completed. However, AEMO is open to discussion of alternative contract terms if likely to lead to more efficient market outcomes.

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<sup>2</sup> The procurement process will need to commence in September/October 2014 in order to have contracts in place by 30 June 2015. Existing contracts have already been extended in accordance with their terms, therefore AEMO can only acquire SRAS through a tender process (NER 3.11.5(a1)).

## **4. Responses to Consultation Paper Questions**

In this section we have responded to those questions in the Consultation Paper where AEMO is in a position to provide supplementary information to that contained in its rule change request.

### **4.1. Question 1 – Clarity and guidance in the SRAS frameworks**

- Q1.1 Do the current SRAS frameworks, including the NER, SRS and SRAS Guidelines, provide adequate guidance to the market regarding the objective and economic basis of SRAS?
- Q1.2 If further guidance is required regarding the objective and economic basis of SRAS, what changes should be made to the frameworks?

AEMO addressed these issues in its SRAS review and makes no further comment at this stage, except to reiterate the importance of avoiding potential conflict with AEMO's power system security responsibilities (refer to section 1.2 of this submission).

### **4.2. Question 2 – Potential analytical approaches**

- Q2.1 What analytical approaches could be used to inform any required changes to the SRAS frameworks to provide improved guidance regarding the objective and economic basis of SRAS?
- Q2.2 Are there particular strengths or weaknesses associated with any of these potential analytical approaches?

AEMO considers that in the current framework, one of the key functions of the SRS is to set the target parameters for SRAS procurement that would be consistent with the SRAS objective. The procurement targets appear to represent the Reliability Panel's assessment of the maximum economic costs the market could reasonably bear in any major supply disruption.

As currently defined, a 'major supply disruption' covers an enormous range of scenarios – from the very remote possibility of a NEM-wide blackout, to an absence of voltage affecting only one power station and potentially no load at all. In each of these scenarios there are infinite variables in terms of physical system impact.

If a 'major supply disruption' remains the identified need for which SRAS will be procured, it may be beneficial for the SRAS framework to provide more targeted guidance on a range of scenarios, taking into account the probability and potential impact of events of varying severity. AEMO acknowledges, however, that the determination of probabilities and impacts for a high-impact, low-probability outage will be challenging.

### **4.3. Question 3 – Allocation of responsibilities**

- Q3.1 Does AEMO face conflicts or difficulties in reconciling its role as procurer of SRAS and its role in determining certain aspects of the SRAS frameworks?
- Q3.2 Would there be benefits in additional oversight of AEMO in its development of the various SRAS Guideline documents?

AEMO does not consider that it faces any conflicts or difficulties reconciling its roles, or that additional oversight is necessary or desirable (refer to section 1.4 of this submission for more detail).

### **4.4. Question 4 – Reliability Panel's process**

- Q4.1 Is it necessary to include a specific requirement in the NER for the Reliability Panel to consult with certain stakeholders, or are existing provisions sufficient to ensure adequate consultation?
- Q4.2 Is there merit in requiring a periodic review of the SRS by the Reliability Panel? If so what might be an appropriate time period for such a review?

AEMO sees merit in a periodic review of the SRS, given the rapidly changing power system environment in terms of generating technologies, and increasing distributed generation and demand side participation.

#### **4.5. Question 5 – Restoration timeframes**

- Q5.1 Would there be any benefits associated with making the restoration targets in the SRS operational standards?
- Q5.2 Are there specific classes of participants who may face significant costs associated with a power failure and who may benefit in having a “firmer” restoration timeframe?
- Q5.3 Are there likely to be any cost or implementation issues related to turning the restoration timeframes into operational standards?
- Q5.4 Is AEMO’s proposal to undertake transient or dynamic modelling of SRAS a relevant consideration? Would such modelling provide the market with improved certainty regarding the capacity of procured SRAS to restore power?

As explained in section 1.2 of this submission, converting the current targets into operational standards would deliver no benefits given the unpredictable causes and consequences of any major supply disruption, while at the same time putting upward pressure on the costs of providing the SRAS. It also could conflict with the performance of AEMO’s power system security responsibilities. AEMO supports a procurement standard that is independent of AEMO’s responsibility to recover the system when a disruption actually occurs, using whatever means are necessary in the circumstances.

Similarly, if special standards were applied to particular customers or classes of participants, it is likely that AEMO would be unable to balance conflicting priorities with its power system security obligations, creating additional uncertainty and risk for the market.

#### **4.6. Question 6 – Definition of primary and secondary restart services**

- Q6.1 Is it appropriate to remove the definition of primary and secondary restart services from the NER?
- Q6.2 What impact would the removal of these definitions have and would it be necessary to develop some other guidance regarding what forms of restart services should be procured?

AEMO refers to its rule change request in relation to these proposals.

#### **4.7. Question 7 – Competition in SRAS markets**

- Q7.1 Do SRAS markets display characteristics which would imply ineffective or limited levels of competition? Do increases in SRAS costs identified by AEMO reflect such an outcome in SRAS markets?
- Q7.2 To what extent have or would changes to the quantity of SRAS procured influence the price of SRAS?
- Q7.3 Have increases in the price of SRAS driven new entry or new investment in SRAS in recent years? If not, why is this the case?

AEMO’s views on the limited competition in the SRAS market and the increasing costs in successive tender rounds since NEM start were expressed in the papers issued during its 2013 SRAS review. It is possible that a reduction in the number of electrical sub-networks across the NEM may increase direct competitive bidding.

There is insufficient experience in the NEM to draw any conclusions about whether the price of SRAS has driven new investment, or failed to do so. The few new SRAS facilities installed since NEM start may also have been installed in the absence of an SRAS market. Over the last two tender processes:

- In 2008, AEMO contracted two new SRAS for which facilities were under construction; and
- In 2012, one new SRAS service was tendered and accepted, but subsequently withdrawn due to the reduced contract period.

#### **4.8. Question 8 – Potential price arbitration in SRAS procurement**

- Q8.1 Would price arbitration or regulation effectively address any inefficiencies in the SRAS procurement process? Is the Dispute Resolution Adviser an appropriate body to administer such regulation?

- Q8.2 Would a price arbitration option influence SRAS providers' decisions to enter an SRAS tender? Would it influence their decision to invest in new SRAS facilities?
- Q8.3 Have the arbitration provisions included in the NSCAS procurement processes ever been utilised? Are these processes applicable to SRAS?
- Q8.4 Are there any other alternative solutions that should be considered?

AEMO refers to its rule change request in relation to these proposals. In relation to NSCAS tenders (for which the NER include an ability to refer disputes on price matters to dispute resolution), the dispute resolution processes have not been utilised to date.

#### **4.9. Question 9 – Recovery of SRAS costs**

- Q9.1 Does the current smeared, NEM-wide approach to SRAS cost recovery result in any inefficiencies? Would there be benefits associated with the recovery of SRAS costs on a regional basis?
- Q9.2 Would the establishment of sub-networks that span multiple NEM regions create disproportionate complexity in the implementation of regional SRAS cost recovery?

AEMO refers to its rule change request in relation to these proposals. AEMO considers that the existing procedure applicable to cost allocation for NSCAS that benefits more than one region could be applied to SRAS without adding any material complexity.

#### **4.10. Question 10 – Minor and consequential changes**

- Q10.1 Is AEMO's proposed amendment to clarify that SRAS is procured by AEMO rather than TNSPs appropriate?
- Q10.2 Is it necessary to specify that AEMO should consider any other matters in NER clauses 3.11.4A(d)(3) and 3.15.6A(c4)(2)?

AEMO refers to its rule change request in relation to these proposals.