

15 December 2017

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By Electronic Submission

Dear Mr Pierce

**Request for Rule – Testing of System Restart Ancillary Services (SRAS)**

AEMO submits the attached proposal requesting the Australian Energy Market Commission (AEMC) to make a Rule under section 91 of the National Electricity Law. AEMO considers that the Rule is necessary to facilitate annual tests of the capability of contracted SRAS at times nominated by AEMO.

AEMO has recently concluded its consultation on a new SRAS Guideline under clause 3.11.7 of the National Electricity Rules (NER).

The final SRAS Guideline is to be published today, and includes enhanced requirements for the testing of contracted SRAS. The revised testing regime should provide greater confidence that restart services will be available if and when needed, consistent with recommendations and findings of the AEMC's Reliability Panel, the Finkel Review, and AEMO's report on the September 2016 South Australian black system event.

One aspect of the testing regime raises the potential for inconsistency with clause 5.7.5(a) of the NER, which requires Registered Participants to give their NSP at least 15 business days' notice of a test of this nature. As set out in the SRAS Guideline, AEMO may require an SRAS Provider to test its service on 5 business days' notice, up to once a year. AEMO will only do this after arranging the test date with the Transmission Network Service Provider.

AEMO requests the AEMC give consideration to making the Rule as proposed, to remove the possibility that SRAS Providers are put in breach of the NER by complying with these enhanced SRAS testing requirements. As the revised regime will apply from 1 July 2018, AEMO would appreciate the AEMC's early consideration of the proposed Rule.

Any queries concerning AEMO's proposal should be directed to Louise Thomson, Principal Corporate Lawyer, on 03 9609 8321 or [louise.thomson@aemo.com.au](mailto:louise.thomson@aemo.com.au).

Yours sincerely



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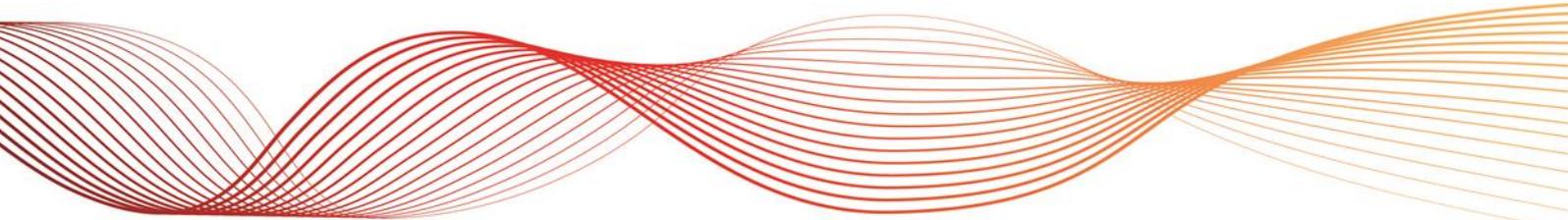
Attachment: Electricity Rule Change Proposal – Testing of System Restart Ancillary Services



# ELECTRICITY RULE CHANGE PROPOSAL

TESTING OF SYSTEM RESTART ANCILLARY SERVICES

**15 December 2017**





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## 1. SUMMARY

AEMO requests the AEMC to make a Rule amending clause 5.7.5(a) of the National Electricity Rules (NER), to facilitate the regime for testing of contracted system restart ancillary services (SRAS) to apply from 1 July 2018. SRAS is provided by registered Generators whose facilities have the capability to start without drawing power from the grid (black start capability).

In the second half of 2017, AEMO consulted on its SRAS Guideline under clause 3.11.7 of the NER. This followed the December 2016 determination of a revised system restart standard by the AEMC's Reliability Panel.

The final SRAS Guideline includes a regime for testing contracted SRAS capability. Under that regime, AEMO proposes to nominate an annual test date in consultation with the local Transmission Network Service Provider (TNSP), with the SRAS Provider receiving 5 business days' notice of the test date.

Clause 5.7.5(a) of the NER requires Registered Participants to give their Network Service Provider at least 15 business days' notice of any test of connected equipment that would require changes to its normal operation at the connection point. A test of the capability of generating plant to provide SRAS would fall within these requirements.

Although the TNSP itself will have been involved in the process of selecting the test date, the SRAS Provider is unlikely to be informed of the test early enough to comply with its obligation to formally notify the TNSP under clause 5.7.5(a). AEMO therefore proposes a limited exception to the obligation, which will apply where AEMO has arranged for a test in accordance with the process contemplated SRAS Guideline.

The testing regime proposed under the SRAS Guideline will replace the current provisions which allow SRAS Providers to nominate their annual test date to AEMO. This change has been made as a result of learnings and recommendations arising out of the black system event in South Australia in September 2016,<sup>1</sup> and is consistent with recommendations of the Independent Review into the Future Security of the National Electricity Market (Finkel Review)<sup>2</sup> and the Reliability Panel's final determination of the system restart standard.<sup>3</sup>

AEMO considers that the amended testing regime will increase the level of assurance that contracted SRAS facilities will respond as required in any major supply disruption, which is in the long term interests of electricity consumers.

AEMO requests the AEMC to consider this proposed Rule if possible within a timeframe that will allow it to be effective by 1 July 2018.

Please note that terms defined in the NER glossary have the same meanings when used in this rule change proposal.

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<sup>1</sup> See AEMO Final Report, at: [http://aemo.com.au/-/media/Files/Electricity/NEM/Market\\_Notices\\_and\\_Events/Power\\_System\\_Incident\\_Reports/2017/Integrated-Final-Report-SA-Black-System-28-September-2016.pdf](http://aemo.com.au/-/media/Files/Electricity/NEM/Market_Notices_and_Events/Power_System_Incident_Reports/2017/Integrated-Final-Report-SA-Black-System-28-September-2016.pdf)

<sup>2</sup> See Independent Panel Final Report at: <https://www.environment.gov.au/system/files/resources/1d6b0464-6162-4223-ac08-3395a6b1c7fa/files/electricity-market-review-final-report.pdf>

<sup>3</sup> Reliability Panel, Review of the System Restart Standard, final determination, 15 December 2016, Sydney

## 2. RELEVANT BACKGROUND

### 2.1 Current framework

Rule 5.7 deals with inspection and testing rights and obligations as between Registered Participants whose facilities are connected with each other. It includes rights for AEMO to require testing, and to require tests to be rescheduled or modified.

Clause 5.7.5(a) has been in effect in its current form since the inception of the NEM. It states:

*A Registered Participant proposing to conduct a test on equipment related to a connection point, which requires a change to the normal operation of that equipment, must give notice in writing to the relevant Network Service Provider of at least 15 business days except in an emergency.*

AEMO currently procures SRAS under ancillary services agreements (SRAS Agreements) in accordance with a suite of guidelines made under the former clause 3.11.4A of the NER (in effect prior to 1 July 2015).

The test provisions in the current SRAS Agreement require the SRAS Provider to conduct an annual test of the nominated SRAS equipment, demonstrating the capability to energise the nominated delivery point within the contracted performance requirements. This will be a test that clearly falls within clause 5.7.5(a) of the NER. Testing of a system restart source generally requires the relevant generating unit(s) to be isolated from the transmission network, and the transmission bus to be de-energised. The SRAS Provider must then demonstrate that the unit can be restarted without external power, and energise a path to the transmission network. If the SRAS facility is connected at the distribution level, coordination of distribution and transmission Network Service Providers (NSPs) will be necessary.

Currently, the SRAS Provider itself will select its proposed test date and is responsible for making appropriate arrangements with the relevant NSP, including giving the required notice under clause 5.7.5(a).

### 2.2 SRAS testing changes

AEMO has recently finalised consultation on the initial SRAS Guideline, under clause 3.11.7 of the NER. In developing the SRAS Guideline, AEMO made changes to the current testing regime to respond to findings and recommendations of AEMO's black system event report, the Finkel Review and the Reliability Panel's final determination of the most recent system restart standard. Those recommendations included:

- Finkel Review recommendation 2.4: AEMO should take steps to ensure the black system restart plan...includes regular testing of black start equipment and processes.<sup>4</sup>
- AEMO Black system final report recommendation 13: Test is to simulate, as far as practicable, the conditions that will be encountered in a real restart situation... in the event of a material change to the equipment or procedures used in the restart of an SRAS source... the annual SRAS test to be repeated to prove this change has not impacted on the capability of the SRAS Provider.
- Reliability Panel recommendation 7.2: AEMO, SRAS Providers and TNSPs should cooperate more fully to identify opportunities to fully test the operation of restart services when this involves normally in service transmission elements. For example, it may be possible to perform a more comprehensive test of a restart service when the associated transmission elements and/or generation are being returned to service following a planned outage.

The final SRAS Guideline includes a requirement that a full SRAS test be carried out:

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<sup>4</sup> Testing of the capability of each SRAS facility to deliver its service to the transmission network is dealt with in the SRAS Guideline and SRAS Agreements, rather than in the system restart plans.



- Annually at a time nominated by AEMO, on not less than 5 business days' notice to the SRAS Provider (Short Notice Test). For these purposes, AEMO will request the relevant TNSP to provide at least four one-week windows, from which AEMO selects the test date and time and notifies the TNSP at least three weeks in advance. The TNSP will be permitted to liaise with any other NSPs on a confidential basis before the SRAS Provider is notified by AEMO.
- Within 20 business days after maintenance causing any major component of the SRAS equipment to be out of service for at least 7 days. The SRAS Provider will schedule this test with the TNSP, subject to AEMO's approval.

In addition, the SRAS Agreement gives AEMO the right to require the SRAS Provider to carry out a test at any time if AEMO has reasonable grounds to believe that the SRAS equipment may not be capable of delivering the service in accordance with all contractual specifications. In these circumstances, the test would again be arranged with the TNSP by the SRAS Provider itself.

This rule change proposal is relevant only to the Short Notice Test.

The Short Notice Test was included in the SRAS Guideline to provide increased confidence that a service is 'always ready' to respond to a disruption or black system that will happen without warning. SRAS is expected to be delivered in circumstances where the SRAS Provider has not had an opportunity to carry out extensive preparations or pre-testing.

AEMO had initially proposed a test on 24 hours' notice to the SRAS Provider, but revised the notice period to 5 business days in its draft determination of the SRAS Guideline after feedback from stakeholders. AEMO considers that 5 business days still provides reasonable assurance of SRAS readiness, while also making reasonable allowances for commercial and operational practicalities, recognising that those considerations will not be relevant in a real black system situation.

AEMO is about to commence its procurement process to acquire SRAS across the NEM for the period commencing 1 July 2018. The revised testing regime, including the Short Notice Test, will apply to SRAS agreements entered into with effect from that date.



### 3. STATEMENT OF ISSUE

In the course of consultation on the SRAS Guideline, Origin Energy and other stakeholders identified that clause 5.7.5(a) presented a potential compliance issue for SRAS Providers in relation to AEMO's proposed Short Notice Test.

As this test would require a change to the normal operation of equipment at a generation connection point, SRAS Providers would be required to give 15 business days' notice of that test to their NSP. They will be unable to comply with that requirement if they only receive 5 business days' notice from AEMO.

AEMO undertook to give the relevant TNSP at least the same period of notice of the Short Notice Test as is required by clause 5.7.5(a). As the TNSP will be closely involved with AEMO in scheduling the test, the objective of this clause would be met; the TNSP would have sufficient advance warning for the test conditions to be accommodated in its operations.

AEMO asked the Australian Energy Regulator (AER) to indicate whether it would be willing to provide 'no action' letters to SRAS Providers in respect of any potential non-compliance with clause 5.7.5(a). The AER indicated that it would not provide a 'blanket' no action letter in lieu of a rule change proposal. The AER considered there should be sufficient time to seek a rule change to avoid any non-compliance before the revised testing regime comes into effect on 1 July 2018. The AER did, however, indicate that it was prepared to consider 'no action' requests from affected SRAS Providers on an interim basis if the AEMC was unable to complete its consideration of the rule change proposal by 1 July 2018.

On this basis, AEMO has decided to submit this rule change proposal to facilitate compliance with the revised SRAS testing regime.

Submissions to AEMO's consultation on the SRAS Guideline, including from the AER, can be found at: <http://aemo.com.au/Stakeholder-Consultation/Consultations/SRAS-Guidelines-2017>. The final SRAS Guideline is published at the same link.

## 4. HOW THE PROPOSAL WILL ADDRESS THE ISSUE

### 4.1 Effect of proposed rule

AEMO is proposing an amendment to clause 5.7.5(a) of the NER, to accommodate Short Notice Test arrangements without resulting in a breach of the existing requirements of that clause.

The proposed change will expressly exclude from the notice requirement any test conducted under an ancillary services agreement that has been scheduled by AEMO in conjunction with the TNSP as contemplated by the SRAS Guideline.

The exclusion is deliberately specific, to avoid the possibility of inadvertently exempting other forms of testing from the existing notice requirement. Because it only covers tests that have been arranged by AEMO with the TNSP, it will not capture other tests under an SRAS Agreement (after maintenance or required by AEMO if it suspects a possible issue). These tests would not be arranged by AEMO, but by the SRAS Provider directly with the TNSP within the parameters in the agreement, which allow for sufficient time to meet the existing 15 business-day notice requirement in clause 5.7.5(a).

A draft of the proposed amendment is provided in section 5. AEMO proposes that, subject to completion of the AEMC's consultation process, the rule change be made effective from 1 July 2018.

### 4.2 Alternatives considered

AEMO also assessed the alternative possibility of expanding the scope of clause 5.7.6 of the NER, which currently contemplates that AEMO may direct an NSP to require a Generator to conduct a test either to determining modelling parameters, or to assess unit performance for the purposes of a connection agreement. AEMO concluded that using this mechanism to facilitate a Short Notice Test would be inconsistent with the SRAS framework. SRAS is a service provided directly to AEMO, rather than the NSP, and the testing requirements are recorded in the SRAS agreement between AEMO and the Generator. On that basis, it seems inappropriate to introduce an intermediate step of directing the NSP to arrange an SRAS test with the Generator. This approach would also require further changes to the SRAS Guideline, and the period of 15 business days in clause 5.7.5(c) would need to be reduced for an SRAS test.

AEMO therefore considers that directly amending clause 5.7.5(a) is the most straightforward way to address the issue.

### 4.3 Stakeholder engagement

As explained in section 3, this proposal arises from stakeholder feedback on AEMO's SRAS Guideline, specifically from:

- Origin Energy (First and second stages of consultation)
- TransGrid (Second stage of consultation)
- AER (Second stage of consultation)

AEMO's final report confirms that it is submitting this rule change proposal to amend clause 5.7.5(a) of the NER. Given the timeframe in which this proposed rule change needs to be implemented, AEMO has not consulted broadly on the content of this rule change proposal. Based on submissions to the SRAS Guideline consultation, however, AEMO considers the proposal is likely to be uncontroversial, and is considered a desirable change by the participants who would be primarily affected by it – namely those Generators who are SRAS Providers, and TNSPs. For example:

- **Origin Energy** noted that it and other participants need to be assured that they are not in breach of the Rules when complying with the revised testing regime. While Origin's primary suggestion was for AEMO to seek advice or acknowledgment from the AER that participants



would not be considered in breach, it noted the alternative of submitting a rule change proposal. Origin's reservations with the rule change options included the potential for delay beyond 1 July 2018, and changing the notice period for other types of work.

- **AEMO** notes the AER is prepared to consider interim assurances of no action to cover any period beyond 1 July 2018 that may be necessary to finalise the AEMC's determination of this proposal. AEMO considers that the proposed drafting addresses Origin's reservation with regard to inadvertently changing the notice periods for other situations.
- **TransGrid** said that it understood the concern of SRAS Providers with regard to the requirements of clause 5.7.5(a), as non-compliance with this clause carries a civil penalty. TransGrid's suggestion was to align the notice period for testing to SRAS Providers with clause 5.7.5(a) to avoid uncertainty [for SRAS Providers]. TransGrid also indicated that it had no objection to the process outlined by AEMO for scheduling Short Notice Tests, and expected to work closely with AEMO to move expeditiously to a confirmed test window.
  - **AEMO** notes AEMO will be required to give TNSPs at least 15 business days' notice of a Short Notice Test date, being not less than they would be entitled to from an SRAS Provider under clause 5.7.5(a) of the NER. AEMO's purpose in consulting with the TNSPs in advance on suitable windows for testing is to ensure timing will minimise disruption to TNSP operations. All SRAS tests will remain, like any other test, subject to overriding considerations of power system security and reliability, including essential network maintenance.
- **The AER** noted, in the context of its preparedness to consider interim 'no action' letters if necessary after 1 July 2018, that the intent of clause 5.7.5(a) would be met so long as AEMO gave appropriate notice to the TNSP and the test occurred at a time agreed between the TNSP and AEMO. The AER also acknowledged that it is appropriate that AEMO undertakes more rigorous testing requirements to better assure itself of the availability of the contracted SRAS Provider (and place a greater incentive on the SRAS Provider to be available at all times when in service).



## 5. PROPOSED RULE

AEMO's proposed rule change is to substitute clause 5.7.5(a) of the NER with the following:

*A Registered Participant* proposing to conduct a test on equipment related to a *connection point*, which requires a change to the normal operation of that equipment, must give notice in writing to the relevant *Network Service Provider* of at least 15 *business days* except:

- (1) in an emergency; or
- (2) in respect of a test arranged by *AEMO* with the *Network Service Provider* in accordance with the requirements of the *SRAS Guideline*, as required by *AEMO* under an *ancillary services agreement* with the *Registered Participant*.



## 6. HOW THE PROPOSED RULE CONTRIBUTES TO THE NATIONAL ELECTRICITY OBJECTIVE

The proposed rule change is required to facilitate Short Notice Tests for SRAS. As explained in section 2.2, the Short Notice Test is part of a number of improvements to the process of contracting for SRAS and preparing for system restart in the event of a major supply disruption.

The purpose of these measures is to provide an increased level of confidence that SRAS will be available and capable of energising the transmission network when required. In these extreme events, available SRAS capability can be expected to enable more supply to be restored more quickly, so that customer load restoration can commence in a shorter timeframe than would otherwise be the case.

Facilitation of Short Notice Tests through this rule can therefore be expected to contribute to the national electricity objective with respect to enhanced security and safety of electricity supply, for the long term interests of consumers.



## 7. EXPECTED BENEFITS AND COSTS OF THE PROPOSED RULE

Some SRAS Providers indicated in submissions to AEMO's consultation on the SRAS Guideline that they may incur additional costs or lost opportunity as a result of the change from the provider-nominated test date to a Short Notice Test. SRAS Providers can, and generally do, propose an SRAS price structure that includes a testing charge, and AEMO expects that charge to reflect a reasonable risk assessment. AEMO is asking TNSPs to propose SRAS test windows that minimise the impact on network operations, and AEMO will work together with TNSPs to ensure that the operational and market impacts of these essential tests are not materially different than they are currently.

AEMO considers there is a net benefit to consumers from Short Notice Tests, as outlined in section 6 above, and that the incremental cost to any particular party is either negligible or managed through the SRAS contracting process.

It is important to bear in mind that these matters have already been determined in making the SRAS Guideline under clause 3.11.7 of the NER. The proposed rule simply permits the procedure in the SRAS Guideline to be implemented. Accordingly the proposed rule itself is not expected to have any cost impact on NEM participants, and accordingly to have no additional costs for consumers.