



**ENERGY SECURITY BOARD  
INTERIM RELIABILITY MEASURES -  
RELIABILITY RESERVE**

Consultation on Draft Rules  
May 2020

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# 1. Introduction

## Key points

- This document consults on the Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020 that have been developed to implement interim measures that will establish an out-of-market capacity reserve to deliver on community expectations that electricity supply will remain reliable during a “1 in 10” year summer, as required in the COAG EC Terms of Reference.
- The ESB is undertaking this Rule change process in accordance with section 90F of the National Electricity Law (NEL). Under this process the ESB recommends Rule changes to the COAG Energy Council which can then recommend to the South Australian Minister that the amending Rule be made.
- The due date for submissions is the 12<sup>th</sup> June 2020.

## 1.1 Purpose & context

The purpose of this document is to give stakeholders the opportunity to comment on draft amendments to the National Electricity Rules (Rules) that will implement the temporary out-of-market capacity reserve agreed to by Ministers at the March 2020 COAG Energy Council Meeting.

At the COAG Energy Council Meeting in November 2019, Ministers tasked the Energy Security Board (ESB) with providing advice by March 2020 on the implementation of interim measures to preserve reliability and system security in the National Electricity Market (NEM), including reviewing the reliability standard, during the transition to the post-2025 market design.<sup>1</sup>

The ESB undertook a review of the reliability standard between November 2019 and February 2020, during this time it also engaged in targeted consultation. The review examined reliability measures, reliability standards and mechanisms (from a resource adequacy point of view) and the costs and benefits of moving to a higher reliability standard.

In undertaking the review, the ESB commissioned ACIL Allen to undertake analysis to determine the efficient level of the reliability standard using the latest available data on costs and benefits. Ernst and Young (EY) were also engaged to undertake modelling to provide indicative figures on the market price cap required to bring on additional capacity to achieve a higher standard. Both reports and their findings are attached.

At the March 2020 COAG Energy Council Meeting, the ESB presented the findings and recommendations from its Review of the Reliability Standard<sup>2</sup>. The analysis undertaken by the ESB found that:

- Regions that were forecast to just meet the current standard of 0.002% expected unserved energy (USE) should expect that some involuntary load shedding would occur, on average, once out of every three years (absent interventions such as the Reliability and Emergency Reserve Trader (RERT)).
- A tighter standard in the range of 0.0010%-0.0005% expected USE was found to have net positive benefits overall.

<sup>1</sup> <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/Reliability%20and%20Security%20Measures%20-%20Scope%20of%20work.pdf>

<sup>2</sup> <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/ESB%20Post2025%20Directions%20Paper.pdf>

- Moving to a standard of 0.0006% expected USE would best meet the expectation that electricity supply remain reliable during a 1 in 10-year summer that was referred to in the Terms of Reference for the review.
- Estimates of the net benefits are sensitive to the value of customer reliability used in the analysis and the availability and price of demand response.

The ESB recommended that, if Ministers agreed that a higher standard was necessary to meet community expectations (as set out in the COAG EC Terms of Reference for the review), a combination of amended and existing mechanisms were required, including:

- Amending the Retailer Reliability Obligation (RRO) trigger to align with a higher standard.
- Delinking the requirement for a T-3 trigger to enable a T-1 trigger.
- Establish an additional out of market capacity reserve to replace long notice RERT on a temporary basis.
- Continue to use short and medium notice RERT to manage unexpected contingencies under the current RERT framework.
- Leave the market price settings unchanged.

COAG Energy Council Ministers agreed<sup>3</sup> to two interim measures to improve reliability:

- The establishment of an **out of market capacity reserve** triggered to keep unserved energy to no more than 0.0006% in any region in any year that would apply for the 2020-2021 summer and beyond.
- **Amending the triggering arrangements for the RRO** to improve incentives on retailers to contract and support reliability.

#### *Interim Reliability Reserve*

The out of market capacity reserve is an interim measure ahead of the post 2025 market design project making more permanent recommendations. The Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020, provides for the following features:

- The volume of reserve capacity to ensure expected USE is no more than 0.0006% in any region in any year (**the Interim Reliability Measure**) as forecast in the Electricity Statement of Opportunities (ESOO) report or ESOO update.
- AEMO would be responsible for procuring the **Interim Reliability Reserve** following consultation with the relevant Energy Council Minister of directly impacted states and/or territories.
- AEMO should be encouraged to procure at least part of the reserve through a reverse auction process that would allow for the development of standardised contracting.
- Contract terms of up to 3 years would be allowed depending on:
  - whether an exceedance of the interim reliability measure has been forecast for two out of the three years; and
  - the option is more cost effective than entering shorter duration contracts covering the same period.
- The volume procured under a multi-year contract, must be no more than AEMO considers is reasonably necessary to ensure the reliability of supply in the region. In addition, for each year of the contract, the volume is to be no more than AEMO considers to be

<sup>3</sup> <http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/EC%20-%20communique%20-%2020200320.pdf>

reasonably necessary to address the largest **Interim Reliability Exceedance** identified for the contract period.

- The reserve would temporarily replace long notice RERT (with the short and medium notice RERT to remain in place).
- Activation and dispatch of RERT would remain unchanged.
- The last date AEMO can enter into a 3-year contract for **Interim Reliability Reserve** will be 2022 for the 2024/25 summer.
- The commencement of the rule would enable AEMO to procure interim reliability reserves for the coming 2020-21 summer, should they be required.
- The **Interim Reliability Reserve** replaces the need for the Victorian Jurisdictional Derogation final rule for multi-year contracting of RERT, with the deletion of the derogation coinciding with the commencement of this rule, given this rule will have similar effect but apply across the NEM.
- Applies the same comprehensive reporting requirements from the Victorian Jurisdictional Derogation final rule, to ensure there is an appropriate level of transparency over AEMO's decisions to procure reserves under the 0.0006% Interim Reliability Measure.

#### *Amending the Trigger for the Retailer Reliability Obligation*

The contracting requirements for the RRO will be unchanged however the following changes were agreed:

- Align the trigger for the RRO with the new **Interim Reliability Measure** (0.0006% USE).
- Amend the T-1 instrument so that it will no longer require a T-3 instrument to first be made.
- Amendments to the T-3 and T-1 instruments will require changes to the National Electricity Law, which means the earliest possible date for making the T-1 instrument would be in 2021/22 for the following year.

Work to amend the National Electricity Law and Rules to reflect this decision will be subject to a separate process and stakeholders will be updated on this in June 2020, as per the table below.

## **1.2 Legislative basis for this Rule change consultation process**

The ESB is undertaking this Rule change process in accordance with section 90F of the NEL. The ESB may recommend rules to the COAG Energy Council if the following requirements are satisfied:

- the Rules are in connection with energy security and reliability of the NEM or long-term planning for the NEM;
- the Rules are consistent with the national electricity objective; and
- there has been consultation on the Rules in accordance with any requirements determined by the COAG Energy Council.

Any final Rules will be made by the South Australian Minister for Energy on the recommendation of the COAG Energy Council. The COAG Energy Council has provided guidance to the ESB in relation to consultation on the Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020 via a "Rule Recommendation Process Guide". The release of this Consultation Paper and the Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020 is being

carried out in accordance with that guidance which includes public consultation and responses to submissions.

### 1.3 How to make a submission and next steps

The ESB invites comments from interested parties in response to the Draft Interim Reliability Measure Rules and this consultation paper by 12<sup>th</sup> June 2020. Submissions will be published on the COAG Energy Council's website, following a review for claims of confidentiality. All submissions should be sent to [info@esb.org.au](mailto:info@esb.org.au).

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<b>Submission close date</b>	<b>12<sup>th</sup> June 2020</b>
<b>Lodgement details</b>	Email to: <a href="mailto:info@esb.org.au">info@esb.org.au</a>
<b>Naming of submission document</b>	[Company name] Response to Consultation on Draft Interim Reliability Reserve Rules
<b>Form of submission</b>	Clearly indicate any confidentiality claims by noting "Confidential" in document name and in the body of the email.
<b>Late submissions</b>	Late submissions will not be accepted.
<b>Publication</b>	Submissions will be published on the COAG Energy Council's website, following a review for claims of confidentiality.

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Following consideration of submissions made to the consultation on Draft Interim Reliability Measure Rules, the ESB's recommended Rule changes will be finalised and presented to the COAG Energy Council.

<b>Deliverable</b>	<b>Indicative timing</b>
Publish Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020 for consultation	11 <sup>th</sup> May 2020
Submissions due	12 <sup>th</sup> June 2020
Publish Draft Amendments to the Retailer Reliability Obligation	June 2020
Final Interim Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020 package provided to the COAG Energy Council	Mid 2020
Final Amendments to the Retailer Reliability Obligation	August/September 2020

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## 2. Interim Reliability Reserve

### Key points:

- This section outlines the policies contained in the attached draft rule [Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020].
- The draft rule changes establish:
  - a new **Interim Reliability Measure** that would seek to ensure that expected Unserved Energy (USE) is no more than 0.0006% in any region in any year.
  - a mechanism for AEMO to procure reserves if the **Interim Reliability Measure** is expected to be exceeded in any year in any region based on the ES00
  - the requirements that AEMO must meet to procure any **Interim Reliability Reserve**, including the conditions for procuring multi-year reserve contracts
  - the reporting requirements on AEMO when it procures any **Interim Reliability Reserve**
  - transitional arrangements to facilitate the implementation of the **Interim Reliability Reserve**.
- The draft rule change is primarily located in Chapter 11 reflecting that it is an interim measure only.

### 2.1 Interim Reliability Measure

Location in draft Rules: clauses 3.9.3C

At the March 2020 COAG Energy Council, Ministers agreed to establishing a new interim reliability measure that would seek to ensure that maximum expected Unserved Energy (USE) is no more than 0.0006% in any region in any financial year. This measure is intended to supplement the existing reliability standard for a limited period of time by allowing the Retailer Reliability Obligation to be triggered by a forecast exceedance of this measure and allow AEMO to procure reserves in the event that this measure is expected to be exceeded.

This change has been made to clause 3.9.3C, rather than being included in the new transitional rule (11.xxx) because it will also be relevant to the RRO, or in an update to the ES00.

### 2.2 Interim Reliability Exceedance

Location in draft Rules: clauses 11.xxx.1 Definitions

An exceedance of the **Interim Reliability Measure** in any financial year in any region, is to be determined by AEMO in the Electricity Statement of Opportunities (ES00), which is published at least once a year, by 31 August.

It is not proposed that the Medium-Term Projected Assessment of Adequacy (MT PASA) would be used to identify an exceedance of the 0.0006% Interim Reliability Measure. MT PASA currently forecasts system reliability two years in advance (one year short of the forecast horizon needed for a three-year reserve contract). The data currently published from MTPASA does not consider the Interim Reliability Measure and it is not proposed that changes should be made to the Rules governing MTPASA to account for the 0.0006% Interim Reliability Measure.

## 2.3 Interim Reliability Reserve

Location in draft Rules: clauses 11.xxx.1 Definitions

The **Interim Reliability Reserve** consists of reserves contracted to mitigate the risk of exceeding the **Interim Reliability Measure** in any financial year in any region. The Interim Reliability Reserve is intended to replace the existing long-notice RERT mechanism on a temporary basis during the transition to the post-2025 market design.

The Interim Reliability Exceedance and Interim Reliability Reserve do not affect the existing rules and guidelines regarding medium and short notice RERT.

## 2.4 Multi-year Reserve Contract

Location in draft Rules: clauses 11.xxx.1 Definitions

A multi-year contract is a reserve contract with a length greater than 12 months but no more than three years, that is entered into for the provision of interim reliability reserves in any region.

## 2.5 Requiring AEMO to Consult with the Relevant Jurisdictions

Location in draft Rules: 11.xxx.4 application of clauses 3.20.3 (d)

AEMO is required to consult on the expected costs for any reserve contracts entered for the **Interim Reliability Reserve** with the relevant jurisdictions prior to the contracts being entered.

## 2.6 Requirements for Procuring Reserves for the Interim Reliability Reserve

Location in draft Rules: 11.xxx.4 (f)

AEMO may only enter reserve contracts for the **Interim Reliability Reserve** if there is a forecast **Interim Reliability Exceedance** in the first financial year of the contract, the contract is no longer than three years in length, and the term of the reserve contract ends before 1 March 2025.

AEMO must not procure a contract for the **Interim Reliability Reserve** if the exceedance is expected to occur within ten weeks of AEMO's forecast. In this case, AEMO must use medium and short notice RERT in accordance with the existing RERT guidelines.

## 2.7 AEMO must have regard to the RERT Principles, RRO and relative cost

Location in draft Rules: 11.xxx.4 application of clauses 3.20.3 (g)

AEMO must have regard to the RERT principles, which aim to minimise impacts on customer bills and market distortions. AEMO must also have regard to the potential impact on the interaction with the Retailer Reliability Obligation.

AEMO can only procure reserves under the Interim Reliability Reserve for reserves that are out-of-market. Resources that have been scheduled in the last 12 months cannot participate in the Interim Reliability Reserve. In addition, non-scheduled resources in the wholesale energy market, must not offer in resources under the interim reliability reserve, for the same dispatch intervals. These out-of-market rules mirror those that currently apply to resources participating in the

RERT. Provisions relating to out of market reserves were amended under the Enhancement to the RERT rule in 2019 and commenced on 26 March 2020.

## 2.8 Requirements for Procuring Multi-year Reserves

Location in draft Rules: 11.xxx.4 (i)

The maximum period AEMO will be allowed to enter a multi-year reserve contract for the **Interim Reliability Reserve** is three years, and this will only be permitted when there is forecast **Interim Reliability Exceedance** in at least two of the three years including in the first year. In addition, where AEMO is considering entering into a multi-year reserve contract, AEMO must have regard to whether it is a more cost-effective option, compared to procuring single year contracts over the same period.

Multi-year contracting can provide a means for procuring reserves more cost effectively where upfront fixed costs can be spread over a longer duration. The inclusion of the above tests for entering a multi-year contract, combined with the requirement to consult with the relevant jurisdictions and the reporting requirements outlined below, will help to address the risk of unnecessary amounts of emergency reserves being procured.

## 2.9 The Amount of Reserves that can be Procured

Location in draft Rules: 11.xxx.4 (i)

For a single year reserve, the amount of reserve procured is to be no more than AEMO considers is reasonably necessary to address the interim reliability exceedance in that year for that region.

For multi-year contracts, the maximum volume that can be procured by AEMO in any financial year in any region to meet the **Interim Reliability Measure** shall be:

- on an annual basis, no more than is reasonably necessary to address the largest **Interim Reliability Exceedance** identified during the period for which the contract would apply, and
- with respect to the contract term, no more than reasonably necessary to secure reliability of supply in the relevant region.

While it is important that the rules provide AEMO with sufficient flexibility to procure the reserves in the most cost effective way, it is also appropriate that there is an upper limit on the volume that can be procured, in order to help to minimise the costs.

## 2.10 AEMO may vary existing reserve contracts

Location in draft Rules: 11.xxx.4 (j)

AEMO may extend or increase reserve contracts when the conditions to enter new reserve contracts exist.

## 2.11 Reporting Requirements for the Interim Reliability Reserves

Location in draft Rules: 11.xxx.6 application of clauses 3.20.6 (d)

In addition to the current requirements for RERT reporting, for contracts procured under the **Interim Reliability Reserve** by AEMO, AEMO will be required to:

- Identify the contracts entered for the **Interim Reliability Reserve** including if they are multi-year contracts.
- Include an explanation of why AEMO considered the amount procured under each contract was reasonably necessary.
- An explanation of how AEMO had regard to any potential impact on, and interaction with the Retailer Reliability Obligation.
- The basis on which AEMO had regard to the RERT principles.
- An explanation of whether the total payments made by AEMO under the contract are likely to be lower than the aggregate payments AEMO would have made under reserve contracts that are not multi-year reserve contracts for the same period.

This information will be published in AEMO's RERT quarterly reports.

## 2.12 Amending the RERT Guidelines

Location in draft Rules: Clause 11.xxx.7

The Reliability Panel will be required to amend the RERT Guidelines by 14 August 2020 and other than consulting with AEMO, will not be required to comply with the consultation requirements in clause 8.8.3(d)-(1). This is because the changes to the guidelines must be limited to implementing the proposed rule, and so are envisaged to be relatively minimal.

## 2.13 Amending the RERT Procedures

Location in draft Rules: 11.xxx.8

AEMO will be required to amend the RERT Procedures by 28 August 2020 and will not be required to comply with the *Rules consultation procedures*. This is because the changes to the procedures will be limited to implementing the proposed rule.

## 2.14 Amending the Reliability Standard Implementation Guidelines

Location in draft Rules: 11.xxx.9

AEMO will be required to amend the *Reliability standard implementation guidelines* by 28 August 2020 and will not be required to comply with the *Rules consultation procedures*. This is because the changes to the guidelines will be limited to implementing the proposed rule.

## 2.15 Commencement of the rule and AEMO's Preparatory Activities

Location in draft Rules: 11.xxx.10

The timing of the commencement of the Rule is still under review. It is proposed that the rule will commence and that the updated RERT guidelines, Reliability Standard Implementation Guidelines and RERT procedures will be issued by the publication of the ESOO by 31 August 2020.

Prior to the commencement of the rule, AEMO will be able to undertake preparatory activities other than entering into contracts. These could include:

- modelling whether there is an interim reliability exceedance
- publishing the forecast of whether there is an interim reliability exceedance in the ESOO

- issuing procurement documents, including tendering (or equivalent) documents and forms of reserve contracts for interim reliability reserves; and
- negotiating reserve contracts

This is to enable reserves to be procured prior to the 2020-21 summer, should they be required.

## **2.16 Establish for Interim Measures to be Reviewed by 1 July 2023**

Location in draft Rules: 11.xxx.13

The AEMC must conduct a review of the interim reliability measure and the procurement of interim reliability reserves by AEMO by 1 July 2023. This will be conducted in conjunction with the existing review of the RRO.

### 3. Amending the trigger for the Retailer Reliability Obligation

Following consultation on the Draft National Electricity Amendment (Interim Reliability Measure) Rule 2020, the ESB will begin the process for drafting changes to the National Electricity Rules and National Electricity Law to amend the trigger for the Retailer Reliability Obligation (RRO).

At the March 2020 COAG Energy Council Ministers agreed to amend the triggering arrangements for the RRO to improve incentives on retailers to contract and support reliability. These amendments include:

- Align the trigger for the RRO with the new **Interim Reliability Measure** (0.0006% USE).
- Amend the T-1 instrument so that it will no longer require a T-3 instrument to first be made. These amendments will reflect the earliest possible date for making the T-1 instrument would be in 2021/22 for the following year.

The other design features and assessment of compliance with the RRO will otherwise remain unchanged. If triggered, liable entities will be on notice to cover their share of a one-in-two year peak demand. If a reliability gap remains one year out, liable entities must disclose their contract positions to the AER. If actual system peak demand exceeds an expected one-in-two year peak demand in the relevant identified gap periods, the AER will assess the compliance of liable entities.

The ESB recognises that these changes will increase the likelihood of the RRO being triggered. The ESB invites comments from stakeholders on areas where further consideration may be needed to support the implementation of these agreed amendments (For example the role of the Market Liquidity Obligation)

## 4. Assessment framework

Under the National Electricity Law, the ESB may recommend rules to the COAG Energy Council if the following requirements are satisfied:<sup>4</sup>

- the Rules are in connection with energy security and reliability of the NEM or long-term planning for the NEM.
- the Rules are consistent with the national electricity objective; and
- there has been consultation on the Rules in accordance with any requirements determined by the COAG Energy Council.

The national electricity objective 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, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”<sup>5</sup>

Having considered issues during the development of its advice to COAG Energy Council, the ESB’s view is that the Draft Interim Reliability Reserve Rules are consistent with the NEO for the following reasons:

- COAG Energy Council has advised that community expectations support an electricity system that will remain reliable during a “1 in 10” year summer.
- Modelling indicates that the current reliability standard (unserved energy not to exceed 0.002% within a region over a year) is not consistent with the value that consumers place on reliability.
- The Interim Reliability Reserve, an out of market capacity reserve, is designed to keep expected unserved energy at no more than 0.0006% in any region in any year and would improve reliability in the NEM to meet the community expectations.
- An out of market capacity reserve would be more cost effective and able to be implemented sooner than varying the reliability standard and associated market price settings.
- Any distortions to the national energy market are minimised by the:
  - restriction on in-market resources participating in the mechanism,
  - the requirement for AEMO to consider cost minimisation principles, impacts on and interactions with the RRO, as well as any other market distortions prior to entering into contracts and
  - by the fact the rule is intended to be in place for a limited period.
- The procurement of reserves for the Interim Reliability Reserve will need to consider the relative costs to consumers, will be subject to comprehensive public reporting and will continue to have jurisdictional oversight.

**The Draft Interim Reliability Reserve Rules are published in an accompanying document. Stakeholders are invited to provide comments on whether the Draft Interim Reliability Reserve Rules are consistent with the NEO.**

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<sup>4</sup> Section 90F of the National Electricity Law.

<sup>5</sup> Section 7 of the National Electricity Law.

**A Draft National Electricity Amendment (Interim Reliability Measure)  
Rule 2020**

[See attached document.]

## **B ACIL Allen Report to ESB on Reliability**

[See attached document.]

## **C EY Report for ESB - Reliability Modelling**

[See attached document.]

## **D Abbreviations and Technical Terms**

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
COAG EC	Council of Australian Governments Energy Council
ESB	Energy Security Board
ESOO	Electricity Statement of Opportunities
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
RERT	Reliability and Emergency Reserve Trader
RRO	Retailer Reliability Obligation
RSIG	Reliability Standard Implementation Guidelines
USE	Unserviced Energy

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