

Reliability Panel AEMC

DRAFT REPORT

REVIEW OF THE RERT GUIDELINES

23 MAY 2019

REVIEW

INQUIRIES

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ABOUT THE RELIABILITY PANEL

The Panel is a specialist body within the Australian Energy Market Commission (AEMC) and comprises industry and consumer representatives. It is responsible for monitoring, reviewing and reporting on reliability, security and safety on the national electricity system, and advising the AEMC in respect of such matters. The Panel's responsibilities are specified in section 38 of the National Electricity Law.

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SUMMARY

- 1 The Reliability and Emergency Reserve Trader (RERT or emergency reserves) is an existing intervention mechanism under the National Electricity Rules (NER) that allows the Australian Energy Market Operator (AEMO) to contract for emergency reserves such as generation or demand response that are not otherwise available in the market. AEMO can use these emergency reserves in the event that a shortfall in market reserves is forecast. These additional reserves are commonly referred to as “emergency reserves” since they are used as a last resort when the market has not otherwise provided reserves to reduce the likelihood of blackouts, typically during periods when the demand supply balance is tight, for example, summer.
- 2 The NER requires the Reliability Panel (Panel) to develop and publish RERT guidelines (Guidelines). The Guidelines provide additional guidance to AEMO on how to operate the RERT framework, including on the cost-effectiveness of emergency reserves. For example, the Guidelines specify what AEMO may take into account when it is determining whether to enter into contracts for emergency reserves (that is, in procuring the RERT) and in dispatching/activating emergency reserves. AEMO is required under the NER to take into account the Guidelines when exercising the RERT.
- 3 In response to a rule change request from AEMO, on 2 May 2019, the Australian Energy Market Commission (AEMC or Commission) made a final rule determination on the RERT provisions in the NER. Some of the key features of the final rule include:
 - Linking the RERT procurement trigger and volume to the reliability standard, which provides transparency to market participants of when and how the RERT will be used.
 - Providing flexibility to AEMO as to how many emergency reserves it can procure since AEMO - as is appropriate for the system operator - has flexibility and discretion as to how the reliability standard is incorporated in its day-to-day operations, particularly through its modelling and forecasting of the risk to the power system.
 - Increasing the procurement lead time from nine to 12 months, which will broaden the pool of RERT providers, allowing emergency reserves to be procured at lower cost for consumers. This also promotes consistency with the Retailer Reliability Obligation (RRO).¹
 - Clarifying the out-of-market provisions – so that reliability is more likely to be delivered at minimal costs to consumers, including by reducing the risk of gaming by reserve providers.
 - Introducing a new RERT principle to provide additional guidance to AEMO when entering into emergency reserve contracts around the appropriate cost of these reserves.
 - Aligning the cost of emergency reserves with, where possible, those customers who caused the need for the RERT.

¹ The Energy Security Board has prepared a final package of rules to facilitate the commencement of the obligation by 1 July 2019. This package of rules is currently be considered by the COAG Energy Council. The RRO builds on existing spot and financial market arrangements in the electricity market to facilitate investment in dispatchable capacity and demand response. It is designed to incentivise retailers, on behalf of their customers, to support the reliability of the power system through their contracting and investment decisions.

- Increasing transparency and reporting, to assist market participants and consumers in planning for RERT costs.

4 The final rule requires the Panel to amend the Guidelines to reflect the changes made as a result of the final rule. This draft report therefore proposes changes to reflect the final Enhancement to the RERT rule, consistent with the terms of reference issued by the Commission.

5 In light of the tight implementation timeframes associated with the final *Enhancement to the RERT* rule and consistent with the Terms of Reference issued by the Commission, the scope of this review is limited to amending the guidelines so that they are consistent with the final rule. The Panel will undertake a comprehensive review of the RERT guidelines once the enhanced RERT framework has been used, in order to incorporate any lessons learnt.

6 A draft of the Guidelines with the proposed marked-up amendments is provided with this draft report to facilitate stakeholder feedback. The key amendments proposed to the Guidelines reflect:

- updated out-of-market provisions
- additional reporting requirements
- a new RERT principle that provides guidance on RERT costs.

7 The Panel invites submissions on this draft report by 20 June 2019. Following consideration of submissions, the Commission intends to publish the final Guidelines and its final report by 30 August 2019. AEMO will then update its RERT procedures, taking into account the final Enhancement to the RERT rule and the revised Guidelines, prior to the new RERT procurement arrangements coming into effect on 26 March 2020.

8 If any stakeholders wish to discuss aspects of this draft report, please do not hesitate to contact Thomas Lozanov on (02) 8296 7824 or thomas.lozanov@aemc.gov.au to request a meeting.

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1 INTRODUCTION

On 2 May 2019, the Australian Energy Market Commission (AEMC or Commission) made a final rule determination on the Reliability and Emergency Reserve Trader (RERT or emergency reserves) provisions in the National Electricity Rules (Rules). The final rule (RERT final rule) requires the Reliability Panel (Panel) to amend the RERT guidelines (Guidelines) to reflect the changes made to the NER as a result of the RERT final rule.²

This draft report sets out how the Panel has amended the Guidelines to reflect the RERT final rule and is structured as follows:

- Chapter 1 provides background and context for the review and sets out the consultation process.
- Chapter 2 outlines the draft changes made to the Guidelines and provides the Panel's rationale for those changes.
- Appendix A includes a mark-up of the draft Guidelines to facilitate the consultation process.

1.1 Overview of the RERT — existing arrangements

The NER currently provides for a RERT mechanism that enables AEMO to contract for emergency reserves such as generation or demand response that are not otherwise available in the market. AEMO can use these emergency reserves as a safety net in the event that a shortfall in market reserves is forecast. Some form of a regulatory mechanism that allows the operator to contract for emergency reserves has existed since the start of the NEM.

Under existing arrangements, clause 3.20.8 of the NER requires the Panel to develop and publish Guidelines that:

- Provide guidance to AEMO on the relevance of the RERT principles to the exercise of the RERT³ and what must be taken into account in assessing the cost-effectiveness of the RERT.
- Specify what AEMO is required to take into account when deciding whether to exercise the RERT.
- Provide guidance to AEMO as to the process for contracting for reserves in relation to difference notice situations specified in the Guidelines.

The current Guidelines specify that AEMO's operation of the RERT is divided into two stages:

1. Stage 1: when AEMO is determining whether to enter into reserve contracts;

² The requirements for the review are set out in a terms of reference, available on the project page.

³ Clause 3.20.2(b) of the NER sets out the RERT principles which are: (i) actions taken should be those which AEMO reasonably expects, acting reasonably, to have the least distortionary effect on the operation of the market; (ii) actions taken should aim to maximise the effectiveness of reserve contracts at the least cost to end use consumers of electricity. The final RERT rule introduced a third principle which is: the average amount payable by AEMO under reserve contracts for each MWh of reserves for a region should not exceed the estimated average VCR for that region. This last principle is discussed in more detail in Section 2.3.

2. Stage 2: when AEMO is considering whether to dispatch scheduled reserves or activate unscheduled reserves.

The Guidelines also specify the types of information AEMO must take into account in each of these stages, which depends on how much time AEMO has prior to its projected reserve shortfall. Currently, the Guidelines specify the following three timeframes:

1. at least ten weeks' (up to nine months') notice of a projected reserve shortfall (long-notice situation)
2. between one and ten weeks' notice of a projected reserve shortfall (medium-notice situation)
3. between three hours and seven days' notice of a projected reserve shortfall (short-notice situation).

The Guidelines set out the process that AEMO may follow when contracting for reserve contracts under different notice situations. Currently, under the Guidelines:

- AEMO may establish a panel of entities, a RERT panel, that can tender for, and enter into, reserve contracts for medium-notice and short-notice situations. The RERT panel consists of entities that have resolved some of the technical and legal issues that lengthen the time necessary to negotiate a reserve contract. Once reserve providers are members of the RERT panel, reserve contracts can be finalised more quickly than through a full tender process. That said, AEMO is able to procure reserves from parties who are not members of the RERT panel — however, in the case of short-notice RERT, it is unlikely that AEMO would have enough time to run a tender process. As a result, for short-notice situations, AEMO is likely to only use the RERT panel to enter into new contracts (notwithstanding contracts it may have entered into prior).
- AEMO must use a full public tender process when contracting for long-notice situations. There is no panel for the long-notice RERT.

In comparison to the long-notice situations, in short and medium-notice situations AEMO may assess the need for additional capacity and respond accordingly much closer to real time and when projected shortfalls are more accurate. AEMO may also address projected reserve shortfalls that arise at relatively short-notice.

The Guidelines also set out:

- The actions AEMO may take to be satisfied that the reserves it contracts are not otherwise available to the market.
- The circumstances under which the RERT may be dispatched by AEMO to address power system security issues.

AEMO publishes a procedure for the exercise of the RERT under clause 3.20.7(e) of the NER. This procedure takes into account the RERT principles and RERT guidelines. AEMO's procedure for the exercise of the RERT document provides information on AEMO's procedures in relation to the RERT panel, the evaluation of tenders, procurement of the RERT, the publication of information and the activation/dispatch of the RERT. The timing associated with AEMO's review of the procedures is discussed in section 1.2.

1.2 Context of the review

On 9 March 2018, AEMO submitted a rule change request which sought to extend to nine months the period allowed for AEMO to contract for reserves ahead of a projected shortfall in supply to meet demand, in effect, reinstating the long-notice RERT. The Commission considered this an urgent rule and so progressed it under an expedited process, making the final rule on 21 June 2018. As part of the final rule, a transitional rule was introduced that gives effect to amendments to the Guidelines to reflect the reinstatement of the long-notice RERT. The amendments were limited to reintroducing Panel guidance in relation to long-notice situations. The Panel published the amended Guidelines on 13 July 2018.

Also on 9 March 2018, AEMO submitted a rule change request to the Commission seeking broad changes to the RERT. These proposed changes included:

- increasing the amount of time AEMO has to enter into emergency reserve contracts prior to projected shortfalls from nine months to one year (and beyond in some circumstances);
- taking into account a broader risk assessment framework when procuring emergency reserves;
- establishing standardised RERT products, with standardised elements including notification lead times and availability periods.

AEMO considered that these broader changes to the RERT framework would help manage the “risks of unanticipated shortfalls” of supply to meet demand in light of greater uncertainty and a tightening supply-demand balance, “driven by a growing proportion of variable renewable generation, an aging fleet of thermal generation and unexpected retirement of capacity increasing risk of forced outages.

In response to this rule change request, on 2 May 2019, the Commission made a final rule determination on the RERT provisions in the NER. Some of the key features of the final rule include:

- Linking the RERT procurement trigger and volume to the reliability standard, which provides transparency to market participants of when and how the RERT will be used.
- Providing flexibility to AEMO as to how many emergency reserves it can procure since AEMO - as is appropriate for the system operator - has flexibility and discretion as to how the reliability standard is incorporated in its day-to-day operations, particularly through its modelling and forecasting of the risk to the power system.
- Increasing the procurement lead time from nine to 12 months, which will broaden the pool of RERT providers, allowing emergency reserves to be procured at lower cost for consumers. This also promotes consistency with the retailer reliability obligation.
- Clarifying the out-of-market provisions – so that reliability is more likely to be delivered at minimal costs to consumers, including by reducing the risk of gaming by reserve providers.
- Introducing a new RERT principle to provide additional guidance to AEMO when entering into emergency reserve contracts around the appropriate cost of these reserves.

- Aligning the cost of emergency reserves with, where possible, those customers who caused the need for the RERT.
- Increasing transparency and reporting, to assist market participants and consumers in planning for RERT costs.

The final rule requires the Panel to amend the Guidelines to reflect the changes made as a result of the final rule. Via transitional arrangements the final rule requires:

- The Panel to publish its final RERT guidelines, taking into account the amending rule, by 30 August 2019.
- AEMO to publish its RERT procedures, taking into account the amending rule and the updated RERT guidelines, by 26 March 2020.

BOX 1: RECENT RERT USAGE DRIVEN BY CHANGING POWER SYSTEM DYNAMICS

Prior to 2017, AEMO had only entered into RERT contracts three times and it had never been dispatched. This changed in 2017, when AEMO entered into a number of emergency reserve contracts. Since that time, AEMO has used the RERT a number of times, including November 2017, January 2018, and most recently in January 2019.

This increase in use of the RERT reflects changing system needs, including: a growing proportion of variable renewable generation, an aging fleet of thermal generation, a tightening supply-demand balance, peakier demand and higher temperature peaks. Further, a necessary consequence of using emergency reserves more frequently is that there are costs associated with the RERT that have made their way onto consumer bills. Consumers have expressed concerns with the lack of transparency about the procurement and use of emergency reserves and its impact on electricity bills.

In response, the Commission has enhanced the emergency reserve framework to provide AEMO with the flexibility it needs to meet the operational challenges arising from the transition, while containing the increased costs of doing so. The Commission has also improved the transparency of the RERT framework to: increase the understanding of the drivers of RERT actions, help parties explain the benefits and costs of the RERT and to assist consumers (particularly, large users) with budgeting.

Source: AEMC, Enhancement to the Reliability and Emergency Reserve Trader, final rule determination, 02 May 2019

Note: Not all the changing market dynamics noted can be addressed by one part of the market and one regulatory arrangement, the RERT - at the very least it will only help these issues indirectly, at a very high cost.

The terms of reference issued by the Commission for this review clearly sets out the review's scope. The terms of reference states "In accordance with clause 11.115.2, the Commission requests the Panel amend the RERT guidelines to reflect the amending rule... The Commission does not expect the Panel to undertake a comprehensive review of the RERT guidelines at this time given the time constraints associated with the amendment of the [RERT] procedures."⁴ The Panel acknowledges this terms of reference and will undertake a

4 AEMC, Terms of reference for the Review of the Reliability and Emergency Reserve Trader Guidelines, p. 2

comprehensive review of the RERT guidelines once the enhanced RERT framework has been used. A comprehensive review following the use of the enhanced RERT framework, rather than now, allows the Panel to incorporate any lessons from the use of the RERT during the 2019-20 summer and from the implementation of the Enhanced RERT framework from March 2020. To help inform a future holistic review of the RERT guidelines, the Panel encourages stakeholders to record their future experiences with the RERT.

1.3 Consultation process

Clauses 8.8.3(a)(3) and 3.20.8(b) of the NER require the Panel to determine the Guidelines in accordance with the consultation process outlined in clause 8.8.3(d)-(l) of the NER. This consultation process involves

1. The publication of a notice of commencement of the review of the Guidelines.
2. A period of at least four weeks for stakeholders to provide submissions, following publication of the notice.
3. The Panel holding a public meeting (either at its own initiative or if requested).
4. The Panel publishing a report, following its consideration of submissions.

Consistent with this consultation process, clause 11.115.2 of the amending rule requires that the Panel must amend the Guidelines by 30 August 2019.

A timetable for completion of the Guidelines is set out below.

Table 1.1: Project milestones

KEY MILESTONE	DATE
Publish draft report and draft RERT Guidelines — stakeholder submissions invited	23 May 2019
Close of stakeholder submissions	20 June 2019
Public meeting — if required	June 2019
Publish final report and final RERT Guidelines	By 30 August 2019

1.3.1 Submissions

The Panel invites submissions on this draft report by 20 June 2019. All submissions that do not contain confidential information will be published on the AEMC website.

Any person or body may request that the Panel hold a meeting in relation to the draft guidelines. Any request for a meeting must be made in writing and must be received by the Panel no later than 6 June 2019.

Submissions and requests for a meeting should quote project number REL0071 and may be lodged online at www.aemc.gov.au.

All enquiries on this project should be addressed to Thomas Lozanov on (02) 8296 7824 or thomas.lozanov@aemc.gov.au.

2 PROPOSED AMENDMENTS TO THE RERT GUIDELINES

This chapter sets out the key amendments the Panel is proposing to make to the Guidelines so that they reflect the RERT final rule. The proposed amendments relate to:

- updated out-of-market provisions
- additional reporting requirements
- a new RERT principle that provides guidance on RERT costs.

Other minor amendments have also been proposed and are discussed below.

2.1 Clarified out-of-market provisions

In the RERT final rule, out-of-market provisions in relation to RERT providers were strengthened to minimise distortions to the energy market and promote reliability by providing clear signals to the wholesale market that the RERT is only to be used after market responses have been exhausted.⁵

As per clauses 3.20.3(g)-(l) of the RERT final rule, the out-of-market provisions state that:

- scheduled RERT providers⁶ who have been in the market for 12 months prior to signing an emergency reserve contract cannot participate in the RERT
- scheduled RERT providers also cannot participate in the market for the duration of the contract (i.e. from the time the contract is signed to the end of the contract)
- unscheduled RERT providers⁷ cannot participate in the market for the trading intervals to which their contract relates
- AEMO will clearly articulate how it will apply out-of-market provisions for unscheduled emergency reserves to promote transparency and clarity.

The Panel has made draft amendments to Section 5.1 of the Guidelines detailing the clarified out-of-market provisions as these are directly linked to the RERT principle of minimising distortions associated with AEMO's RERT actions.⁸

In relation to out-of-market provisions, most of the proposed changes have been made to Section 7 of the Guidelines as this covers the actions AEMO may take to ensure the out-of-market status of reserves.⁹ While no material changes have been proposed to the actions

5 The clarified provisions limit incentives for potential RERT providers to partake in inefficient behaviour, such as withdrawing capacity from the wholesale market.

6 The NER define scheduled reserves as: the amount of surplus or unused capacity of scheduled generating units, or of scheduled network services, or arising out of the ability to reduce scheduled loads.

7 The NER define unscheduled reserves as: the amount of surplus or unused capacity of generating units (other than scheduled generating units), or arising out of the ability to reduce demand (other than a scheduled load).

8 The Panel notes that under the RERT final rule, RERT providers are obligated to ensure the reserves are out of market during the relevant period of time. However, as the role of the Guidelines is to provide guidance to AEMO, any proposed amendments to the Guidelines relate to the steps AEMO needs to take to ensure it complies with the new provisions rather than the compliance process that participants need to follow.

9 Clause 3.20.8(3) of the NER requires the Panel to develop guidelines with respect to actions that AEMO may take to be satisfied that the reserve that is to be the subject of a reserve contract is not available to the market through any other arrangement.

AEMO may take, references to out-of-market provisions have been revised - with the different provisions that apply to scheduled and unscheduled reserves reinforced. Minor draft amendments to Section 8 on the process for contracting for reserve contracts have also been made so that the steps outlined in the Guidelines accurately reflect the out-of-market provisions.

The Panel considers these amendments:

- improve the clarity of the Guidelines with respect to the revised out-of-market provisions
- promote consistency between the RERT final rule and the Guidelines.

2.2 Additional reporting requirements

In the RERT final rule, the Commission improved the reporting arrangements in relation to the RERT, increasing transparency in order to better inform market participants, policy makers, consumers and other interested parties about the costs and drivers of the RERT. The Commission stated that this increased transparency will enable these entities to better budget for RERT related charges and make more informed operational and investment decisions. The enhanced reporting requirements, established in clause 3.20.6 of the RERT final rule, include:

1. A quarterly RERT report¹⁰ that is:
 - a. forward-looking and details indicative costs of emergency reserves, and analysis of any procurement of emergency reserves;
 - b. backward-looking and details updated emergency reserve costs and volumes, forecasts that indicated RERT intervention was required, and the impact on market reliability.
2. A concise report within five business days of the dispatch/activation of the RERT, that provides a preliminary estimate of the total payments made under RERT contracts (i.e. event-specific costs such as pre-activation and usage charges) and estimated volumes of emergency reserves dispatched/activated.
3. A methodology report, explaining how AEMO determined the amount of emergency reserves to procure, and the appropriate term of RERT contracts, as part of its RERT procedures.

Of the three reporting streams outlined above, the first is of most relevance to the Guidelines.¹¹

The Panel has proposed changes to Section 5.1 of the Guidelines that recognise the interactions between the RERT principle that relates to minimising distortions and the increased reporting requirements. The Panel notes that increasing transparency may reduce distortions associated with the RERT.

¹⁰ Published if necessary due to the availability of new information.

¹¹ Clause 3.20.8(2) of the NER requires the Panel to publish guidelines on the relevance of the RERT principles to the exercise of the RERT.

The Panel considers these amendments clarify how the new reporting requirements directly relate to the RERT principles.

2.3 Introduction of a new RERT principle that provides guidance on RERT costs

In the RERT final rule the Commission introduced an additional RERT principle that the average amount payable by AEMO under reserve contracts for each MWh of reserves for a region should not exceed the estimated average value of customer reliability (VCR)¹² for that region.¹³ This principle provides additional guidance to AEMO on RERT costs and recognises that the costs of emergency reserves should be less than the costs of involuntary load shedding (based on estimates of values of customer reliability).

The RERT final rule requires the RERT guidelines to provide more guidance on how the estimated average VCRs would be determined and applied by AEMO. Clause 3.20.8(a)(5A) of the RERT final rule states that the Panel must publish guidelines with respect to: "the information, assumptions and parameters AEMO must take into account when determining the estimated average VCRs, and the application of those estimated average VCRs for the purposes of the RERT principle in clause 3.20.2(b)(3)".

The Panel has made draft amendments to Section 5.3 of the Guidelines to reflect the introduction of the new RERT principle. To reflect the RERT final rule, the Panel specifies the main input that will inform AEMO's determination of the estimated average VCR is any of the AER's VCR values.¹⁴

While the degree of segmentation of the AER's VCR estimates is not yet known, the Panel has outlined a number of factors in the draft Guidelines that AEMO should consider, to the extent possible, in determining the most appropriate VCR figures for the estimated average VCR, to approximate the value of load shedding. These factors include:

- The jurisdictional load shedding schedules, including the type of customers most likely to be load shed in each region - this is to reflect that involuntary load shedding is determined by the load shedding schedules, which differ from region to region, and indeed, from event-to-event due to the rotating nature of load shedding lists. Moreover, different types of customers (e.g residential, industrial or commercial) use electricity for different purposes which is reflected in the different value they place on reliable supply.
- The location of customers most likely to be load shed, considering cost sharing arrangements.
- The time load shedding is most likely to occur. The Panel notes AEMO has the flexibility to estimate a seasonally weighted average VCR (e.g. based on a summer VCR and winter VCR) or to use multiple VCR figures for different seasons.

12 The final RERT rule defines the "estimated average VCR" for a region as: the average VCR (expressed in \$/MWh) determined by AEMO, having regard to the RERT guidelines and any values of customer reliability developed by the AER under rule 8.12

13 Clause 3.20.2(b)(3) of the final rule.

14 The AER is currently conducting a value of customer reliability review. Its final determination (and final VCR estimates) must be published by December 2019.

Also in Section 5.3 of the draft Guidelines, the Panel has suggested that AEMO may determine the estimated average VCR on a financial year basis to reflect how the reliability standard is operationalised. However, the Panel notes AEMO has the discretion to determine the time frame over which estimated VCR figure applies.

The Panel has also included a draft amendment for AEMO to publish the VCR figures it has used to determine the estimated average VCR. The Panel expects AEMO to update its estimated average VCR figure if the information that it has used to set the figure changes, for example, if the AER updates its VCR estimates or if the load shedding priority list changes.

References to the new RERT principle have also been included in Section 6 on AEMO's use of the RERT Panel and Section 8 where the process for contracting for reserves is set out. AEMO must have regard to the new RERT principle in some cases.

The Panel considers these amendments:

- provide useful guidance to AEMO in determining the estimated average VCR
- promote consistency between the Guidelines and the NER
- improve transparency with regards to how the estimated average VCR is determined and applied.

2.4 Other amendments

The Panel has also proposed a number of other minor amendments to the Guidelines. These amendments have been made to increase the clarity of the Guidelines and improve their consistency with the RERT final rule. They are:

- Removing references to specific data inputs such as MT PASA, and instead focusing on the role of *low reserve* and *lack of reserve* declarations in contracting for reserves (Sections 4 and 8).¹⁵
- Emphasising that AEMO may dispatch the RERT for power system security purposes if emergency reserves have already been procured, but may not procure RERT to meet power system security requirements (Section 4).
- Stating that AEMO "must" rather than "may" (Section 8):
 - publish the name of counter parties to reserve contracts and the volume and timing of reserves, within one month after entering into a reserve contract.
- Reflecting the extension of the procurement lead time — replacing instances of nine months with 12 months, i.e. extending the long-notice RERT lead time rather than introducing a new type of notice (throughout the Guidelines).
- Removing references to a minimum three-hour response time for short-notice RERT situations — this reflects recent experiences that indicate that some reserves are capable of responding at much shorter notice (throughout the Guidelines). For example, as part

¹⁵ These declarations are made under clause 4.8.4 of the NER.

of the AEMO-ARENA demand response trial, AEMO successfully trialled a 10-minute and 60-minute product, i.e. reserves with a response time of 10-minutes or 60-mintues.¹⁶

QUESTION 1: ADDITIONAL DETAIL

Recognising the limited scope of this review, do stakeholders consider it is necessary or desirable for the Panel to include any other detail in the RERT guidelines to assist with the implementation of the RERT final rule?

¹⁶ Noting that the actual lead time may be longer, with some emergency reserves, including the 10-minute product, requiring activation or pre-activation lead times.

ABBREVIATIONS

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ARENA	Australian Renewable Energy Agency
Commission	See AEMC
EAAP	Energy adequacy assessment projection
LOR	Lack of reserve notice
MT PASA	Medium term projected assessment of system adequacy
NEL	National Electricity Law
NEO	National electricity objective
RERT	Reliability and emergency reserve trader
VCR	Value of customer reliability

A DRAFT AMENDMENTS TO THE RERT GUIDELINES

A.1 Interpretation

These *RERT guidelines* are made under clause 11.1~~1507~~.2 of the National Electricity Rules (*Rules*) and commence on ~~13 July 2018~~ 26 March 2020.

Italicised expressions in the *RERT guidelines* have the meaning given to that expression in the glossary in Chapter 10 of the *Rules*.

For the avoidance of doubt, if any inconsistency arises between the *Rules* and the *RERT guidelines*, the *Rules* are to prevail.

A.2 Scope of the RERT guidelines

The *Reliability and Emergency Reserve Trader (RERT)* is a function conferred on AEMO to take all reasonable actions to ensure reliability of supply ~~and where practicable, maintain power system security~~ by negotiating and entering into contracts to secure the availability of reserves under reserve contracts.¹⁷ AEMO must take the *RERT guidelines* into account (among other things) when exercising the *RERT*.¹⁸

The *Reliability Panel* must develop and publish the *RERT guidelines* for or with respect to:¹⁹

1. what information AEMO must take into account when deciding whether to exercise the *RERT*;
2. the relevance of the *RERT principles* to the exercise of the *RERT*;
3. the actions that AEMO may take to be satisfied that the reserves that are to be the subject of a reserve contract are not available to the market through any other arrangement;
4. the process AEMO should undertake in contracting for reserves including the process for tendering for contracts for such reserves;
5. the process AEMO should undertake in contracting for reserves in relation to different notice situations, as described in the *RERT guidelines*, to ensure reliability of supply ~~and, where practicable, maintain power system security~~;
6. the process AEMO should undertake in contracting for reserves in relation to the different types of declarations made under clause 4.8.4 to ensure reliability of supply;
7. any specific or additional assumptions about key parameters that AEMO must take into account in assessing the cost effectiveness of exercising the *RERT*;
8. the information, assumptions and parameters AEMO must take into account when determining the estimated average VCRs, and the application of those estimated average VCRs for the purposes of the *RERT principle* in clause 3.20.2(b)(3);
9. matters relevant to AEMO managing a portfolio of reserve contracts; and

¹⁷ Rule 3.20 of the *Rules*.

¹⁸ Clause 3.20.7(f) of the *Rules*.

¹⁹ Clause 3.20.8(a) of the *Rules*.

10. additional forecasts that AEMO should take into account prior to exercising the RERT. Sections 3 to 9 of this document set out the RERT guidelines developed by the Reliability Panel.²⁰

Explanatory note - Definition of Market

Consistent with the definition in clause 3.20.1(b) of the NER, references to market throughout these guidelines mean a market for the trading of energy only, and for the avoidance of doubt, does not include contractual or other arrangements for the provision of ancillary services.

A.3 Operation of the RERT

The operation of the RERT is divided into the following two stages:

1. Stage 1: when the procurement trigger has been met²¹ and AEMO is determining whether to enter into contracts for the provision of ~~additional~~ emergency reserves under clause 3.20.3; and
2. Stage 2: when AEMO is considering whether to *dispatch scheduled reserves* under *scheduled reserve contracts* or *activate unscheduled reserves* under *unscheduled reserve contracts* under clause 3.20.7.

A.4 Information that AEMO must take into account when deciding whether to exercise the RERT

AEMO should inform itself of the circumstances relating to reliability of supply when deciding whether to exercise the RERT. AEMO should consider the information set out further below at the two key stages in addition to generally monitoring this information.

A.4.1 During Stage 1 of the RERT process (procurement)

(a) Long-notice situations where AEMO determines it has between 12 months and ~~more than~~ ten weeks of notice of a projected shortfall in reserves;

When it is considering whether to enter into *reserve contracts* during Stage 1 of the RERT process for long-notice situations, AEMO must take into account the low reserve condition declared in accordance with clause 4.8.4 of the NER.

AEMO should use the latest available low reserve condition when entering into reserve contracts, unless it is not practicable to do so.

~~may take into account:~~

- ~~• the details of the outcome of the medium term PASA;~~
- ~~• the outcome of the energy adequacy assessment projection (EAAP); and~~
- ~~• any other information that AEMO considers relevant.~~

²⁰ Developed in accordance with Clause 3.20.8 of the Rules.

²¹ In accordance with clause 3.20.3(f) of the NER.

(b) Medium-notice situations where AEMO has between ten weeks and seven days of notice of a projected shortfall in reserves.

When it is considering whether to enter into *reserve contracts* during Stage 1 of the RERT process for medium-notice situations, AEMO must take into account the low reserve condition declared in accordance with clause 4.8.4 of the NER. ~~may take into account the information identified in paragraph (a) above;~~

AEMO should use the latest available low reserve condition when entering into reserve contracts, unless it is not practicable to do so.

(ac) Short-notice situations where AEMO has ~~between three hours and~~ less than seven days of notice of a projected shortfall in reserves.

When it is considering whether to enter into *reserve contracts* during Stage 1 of the RERT process for short-notice situations, AEMO must take into account the lack of reserve condition (LOR2) declared in accordance with clause 4.8.4 of the NER.

AEMO should use the latest available lack of reserve condition when entering into reserve contracts, unless it is not practicable to do so.

~~may take into account:~~

- ~~• the details of the outcome of the short term PASA and pre-dispatch processes; and~~
- ~~• any other information that AEMO considers relevant.~~

A.4.2

During Stage 2 of the RERT process (dispatch or activation)

During Stage 2 of the RERT process, AEMO ~~may~~must review the information it took into account during Stage 1 and also consider for the *period* where reserves may be required to ensure reliability of supply based on the lack of reserve condition (LOR2) declared in accordance with clause 4.8.4 of the NER.-

~~and where practical, maintain power system security:~~

- ~~• the details of the outcome of the short term PASA;~~
- ~~• the details of the pre-dispatch schedule in terms of the anticipated available reserves; and~~
- ~~• any other information that AEMO considers relevant.~~

Use of contracted reserves for security events

AEMO may dispatch or activate reserves under reserve contracts to address a power system security event, if there are suitable reserves that AEMO has contracted under the RERT for long, medium or short-notice situations at an appropriate location, and there is sufficient notice of the power system security event to allow AEMO to dispatch or activate these reserves. For the avoidance of doubt, consistent with clause 3.20.7(a) of the NER, AEMO may dispatch -or activate RERT for power system security purposes if emergency reserves have already been procured in accordance with clause 3.20.3 of the NER, but may not procure RERT for the purpose of meeting power system security requirements.

A.5 Relevance of the RERT principles to the exercise of the RERT

Clause 3.20.2(b) of the *Rules* identifies ~~two~~three principles referred to as the *RERT principles* which AEMO must have regard to in exercising the *RERT*. These principles are:

1. actions taken are to be those which AEMO reasonably expects, acting reasonably to have the least distortionary effect on the operation of the market; ~~and~~
2. actions taken should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity; ~~and~~
3. the average amount payable by AEMO under reserve contracts for each MWh of reserves for a region should not exceed the estimated average value of customer reliability (VCR) for that region.

A.5.1 Actions to have the least distortionary effect on the operation of the market

When exercising the *RERT*, actions should be taken which AEMO reasonably expects to have the least distortionary effect on the operation of the market, both in relation to the short-~~term~~ impact on the *spot prices* and the long-~~term~~ impact on investment signals. In determining the action to take, AEMO must consider:

- how it seeks offers, and contracts, for *reserves*; and
- in relation to ~~scheduled~~ *reserve contracts* and subject to clauses 3.9.3(c) and (d) of the *Rules*, setting the *dispatch price* and *ancillary service prices* for an AEMO *intervention price dispatch interval* at a value which AEMO, in its reasonable opinion, considers would have applied had the AEMO *intervention event* not occurred.

The considerations above aim to reduce the distortionary impacts from AEMO intervening in the market to respond to a projected shortfall in *reserves*, and preserve market signals to foster a market response to those projected shortfalls. It provides an appropriate balance between allowing market responses to projected shortfalls to develop and providing a ~~temporary last resort~~ mechanism to maintain the reliability of *supply* ~~and where practicable, power system security~~.

When AEMO seeks reserve providers it must comply with the out-of-market provisions set out in clauses 3.30.3(g)-(l) of the *NER*. These provisions serve to minimise the distortionary effect of the *RERT* on the market. Under these provisions:

- *Scheduled reserves* cannot participate in *RERT* if they have been in the wholesale market for the past 12 months, and for the duration of the contract.
- *Unscheduled reserves* cannot be both in the wholesale market and in *RERT* for the *trading intervals* to which the contract relates.
- AEMO is required to clearly articulate how it will apply the out-of-market provision for *unscheduled reserves*.

The *RERT* reporting requirements established in clause 3.20.6 of the *NER*, improve transparency with respect to the volumes of *reserves* contracted and their associated costs as well as the reasons *reserves* were *dispatched* or *activated*. This may further reduce potential distortions associated with AEMO's *RERT* actions.

A.5.2 **Actions to maximise the effectiveness of reserve contracts at the least cost to end use consumers of electricity**

Any consideration of the cost effectiveness of exercising the *RERT* must be done by *AEMO* in consultation with the relevant *participating jurisdictions* in accordance with clause 3.20.3 of the *Rules*.²² The factors that would be relevant to this consideration and consultation include:

- the reserve contract costs²³ for stages 1 and 2 (as defined in section 3 of these guidelines); ~~of the reserve contracts for the amount of reserves delivered;~~
- what extra payment is required to be made if the contracted *reserves* are actually *dispatched* or *activated*;
- any penalty costs that *AEMO* would need to pay if it terminates an existing contract early (this is unlikely to apply in short-notice situations);
- the nature of the *reserves* being offered including:
 - how firm the capacity is;
 - the minimum and maximum time the *scheduled reserves* could be *dispatched* under *scheduled reserve contracts* or *unscheduled reserves activated* under *unscheduled reserve contracts*; and
 - how much notice is required to *dispatch* a particular *scheduled reserve* under a *scheduled reserve contract* or *activate* an *unscheduled reserve* under an *unscheduled reserve contract*. For example, some *loads* require twenty four hours of notice so they can adjust the timing of processes, while others may only require a few hours;
- the duration of the projected capacity shortfall;
- the size of the projected capacity shortfall, in megawatts (MW); and
- the likelihood of the proposed capacity shortfall being resolved.

Where *AEMO* has *reserve contracts* in place to meet a projected shortfall in *reserves*, and there is sufficient notice of a material increase in the shortfall, it may seek offers from *RERT* panel members and other potential *reserve* providers in order to achieve the optimal contract portfolio in accordance with the *RERT principles*, which may result in the execution of new *reserve contracts* or the early termination of existing *reserve contracts*.

Under some circumstances *AEMO* will be required to *dispatch* or *activate reserves* that are contracted under the long-notice or medium-notice situations as well as contracting for additional *reserves* under the short-notice situations. Under these circumstances, *AEMO* should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity by selecting the least cost combination of *reserves* contracted under the long, medium and short-notice situations. However, where *AEMO* has only a few hours' notice of a *reserve* shortfall it may have insufficient time to determine the least cost combination of *reserves*. In which case *AEMO* should *dispatch* or *activate* its long-notice and medium-notice *reserve contracts* ahead of contracting for further *reserves* using the short-notice *RERT*. Nevertheless, where *AEMO* has sufficient time to perform the necessary

²² Note that for short-notice situations consultation with the *participating jurisdictions* would be limited to that outlined in section 8.3.

²³ [Contractual costs may include availability, pre-activation and usage charges](#)

analysis it should aim to maximise the cost effectiveness of the *RERT* by selecting the combination of *reserve contracts* that has the lowest incremental cost.

The Panel considers AEMO should standardise RERT products to the extent that standardisation does not lead to a material reduction in RERT providers or inefficient cost outcomes.

A.5.3

RERT costs should not exceed the estimated average VCR

In procuring emergency reserves, AEMO must have regard to the principle that the average amount payable under the terms and conditions of emergency reserve contracts should not exceed an estimated average VCR expressed on a \$/MWh basis, for each region.

This estimated average VCR, should, to the extent possible, reflect that RERT costs should not exceed the costs of load shedding. Therefore, in setting the estimated average VCR, AEMO should consider the following inputs where possible and relevant:

- Jurisdictional load shedding schedules.
- VCR values as calculated by the AER - with AEMO determining which VCRs to use in a specific region, giving consideration, where possible, to:
 - the type (e.g. industrial or residential) and location (e.g. urban or rural) of consumers that are most likely to be load shed in a particular jurisdiction, in accordance with the jurisdictional load shedding schedules
 - The time periods (i.e. season and time of day) of a projected shortfall in reserves or when load shedding is likely to occur
 - Cost sharing arrangements.

AEMO should determine which of the AER's VCR figures it will apply for the purposes of the estimated average VCR (for that financial year) and publish these figures, as needed. For example:

- AEMO may determine the average VCR at the start of each financial year, to reflect how it operationalises the reliability standard.
- AEMO should update its estimated average VCR figure if the information that it has used to set the VCR changes, for example, if the AER updates its VCR figures.

In the event that AEMO seeks to determine the estimated average VCR prior to the AER calculating and publishing VCR figures, AEMO should refer to the figures it calculated as part of its 2014 VCR review.

A.6

AEMO's use of a RERT Panel

A.6.1

Constitution of the RERT panel

AEMO may form a *RERT* panel of entities that may be called upon to make *reserve* offers, and enter into, a contract for *reserves* for medium-notice situations where there is between ten weeks and seven days of notice and short-notice situations ~~where there is less than of between three hours and~~ seven days of notice of a projected shortfall in *reserves*. The

process for submitting expressions of interest for the medium-notice and short-notice *RERT* differ significantly with each process outlined in sections 6.3 and 6.4 of the *RERT guidelines*.

AEMO should:

- inform the market before it forms the *RERT* panel and when it commences negotiations for *reserves contracts*;
- operate the *RERT* panel on a continuous basis and periodically open the *RERT* panel for new members; and
- subject to any decision by *AEMO* under section 8.1, 8.2 or 8.3 to publish relevant details following contracting of *reserves*, treat information on the *RERT* panel membership as confidential information.

Members of the *RERT* panel:

- would negotiate and agree with *AEMO* on technical and legal requirements in sufficient detail for them to be able to enter into *reserve contracts* if *AEMO* uses the *RERT* with less than ten weeks' notice of a projected shortfall in *reserves*;
- do not recover any payments from *AEMO* for being a member of the *RERT* panel;
- are free to contract their capacity with other parties, including *Market Participants*; and
- should advise *AEMO* if their *reserves* are not available to be contracted under the *RERT* at any time over the next twelve months, including due to the fact that it is already contracted to other parties.

When *AEMO* makes a decision to contract for *reserves* with ~~between three hours and less~~ than seven days of notice of a projected shortfall in *reserves*, then it would publish to all eligible members of the *RERT* panel (that is, those with *reserves* in the associated region that can be dispatched or activated within the period of *reserve* shortfall) a schedule of the requirements and request members to confirm by a set deadline:

- the availability of the service for the period covered by the schedule (capacity and minimum/maximum usage times etc);
- the required enablement time;
- confirmation that the service is not already contracted for the period covered by the schedule.

Based on this information *AEMO* would then determine, in accordance with the *RERT principles*, which services should be procured to meet the schedule of requirements and would then contract with these selected *RERT* panel members on the basis of the standard terms and conditions of the short-notice *reserve contract*.

A.6.2 Operation of the *RERT* panel for long-notice situations (~~between 12 months and more than~~ ten weeks of notice)

AEMO should not rely exclusively on the *RERT* panel when it has ~~more than~~ between 12 months' and ten weeks' notice of a projected shortfall in *reserves*. Under these circumstances, *AEMO* is expected use a full tender process, which should include requesting

tender responses from both members of the *RERT* panel and other potential *reserve* providers.

A.6.3 **Operation of the RERT panel for medium-notice situations (between seven days and ten weeks of notice)**

The Panel considers that *AEMO* may operate a *RERT* panel for situations with between seven days and ten weeks of notice of a projected shortfall in *reserves*, and would need to develop a standard form of medium-notice *reserve contract* for use in these situations.

The Panel considers that the expressions of interest from entities that wish to be members of the *RERT* panel for medium-notice situations should conform to the standard form of *reserve contract*.

These expressions of interest should include:

- the location of the service;
- the likely available capacity;
- the minimum and/or maximum period for which the offered service is likely to be continuously available;
- the enablement time required prior to actual usage;
- [for unscheduled reserves](#), any period in the next twelve months during which the service would be unavailable due to the fact that it is already contracted to other parties ([this does not apply for scheduled reserves](#));
- an estimate of the likelihood that the service would be available if the *RERT* panel member was advised of a requirement within between seven days and ten weeks of notice;
- twenty four hour contact details; and
- an undertaking to advise *AEMO* of changes of any of the above details as soon as reasonably practical after the *RERT* panel member becomes aware of the change.

A.6.4 **Operation of the RERT panel in short-notice situations (~~between three hours and~~ less than seven days of notice)**

The Panel considers that, in addition to the requirements in sections 6.1 to 6.3, for situations with ~~between three hours and~~ less than seven days of notice of a projected shortfall in *reserves*:

- *AEMO* would need to develop a standard form of short-notice *reserve contract*; and
- members of the *RERT* panel that are interested in providing *reserves* with less than seven days of notice will be required to provide *AEMO* with confirmation of the location and availability of their *reserves*.

The Panel considers that the expressions of interest from entities that wish to be members of the *RERT* panel for short-notice situations should include:

- the location of the service;
- the likely available capacity;

- the minimum and/or maximum period for which the offered service is likely to be continuously available;
- the enablement time required prior to actual usage;
- the enablement and usage price for the service;
- for *unscheduled reserves*, any period in the next twelve months during which the services would be unavailable due to the fact that it is already contracted to other parties (this does not apply for *scheduled reserves*);
- an estimate of the likelihood that the service would be available if the *RERT* panel member was advised of a requirement with less than seven days of notice;
- twenty four hour contact details; and
- an undertaking to advise *AEMO* of changes of any of the above details as soon as reasonably practical after the *RERT* panel member becomes aware of the change.

Entities that wish to be members of the *RERT* panel for short-notice situations should submit an expression of interest that conforms to the standard form of short-notice *reserve contract*, thus indicating their willingness to participate in an expedited provision of *reserves* if called upon by *AEMO* with less than seven days of notice.

In short-notice situations ~~of between three hours and~~ with less than seven days of notice of a projected shortfall in *reserves*, *AEMO* may decide to only consider reserve offers from *RERT* panel members that agreed to participate in an expedited process and submitted complying *reserve* offers, including short-notice enablement and usage prices.

A.7 Actions that AEMO may take to be satisfied that the reserve that is to be the subject of a reserve contract complies with the out of market provisions in the NER ~~is not available to the market through any other arrangement~~

The out-of-market provisions set out in clauses 3.20.3(g)-(l) of the NER differ in relation to *scheduled and unscheduled reserves*:--

- *AEMO* must not enter contracts in relation to capacity of *scheduled reserves* for which *dispatch offers* or *dispatch bids* have been submitted or are considered by *AEMO* to be likely to be submitted or be otherwise available for *dispatch* at any time during:
 - the period from the date of execution of the *scheduled reserve contract* until the end of its term; and
 - the 12 month period immediately preceding the date of execution of the *scheduled reserve contract*, except where that capacity was *dispatched* under a *reserve contract*.
- *AEMO* may only enter into a *scheduled reserve contract* if the contract contains a provision that the other party to the contract has not and will not otherwise offer the *reserve* the subject of the contract in the market at any time during the period from the date of execution of that contract until the end of its term.

- AEMO may only enter into an *unscheduled reserve contract* if the contract contains a provision that the other party to the contract has not and will not otherwise offer the reserve the subject of the *unscheduled reserve contract* in the market for the *trading intervals* to which the contract with AEMO relates.
- ~~AEMO must take steps to inform itself that the reserves that are to be the subject of a reserve contract between AEMO and a party is not available to the market through any other arrangements.~~

Additionally, in accordance with clause 3.20.7(e)(1) of the *NER*, in its *RERT procedures* AEMO must set out the methodology, information and assumptions that it used to satisfy itself that a provider of *unscheduled RERT reserves* has not offered these reserves to the market for the *trading interval* to which the *RERT contract* with AEMO relates.

A.7.1

Long-notice and medium-notice situations

In order to comply with the out-of-market provision noted above,²⁴ in situations where there is between 12 months and ~~more than~~ seven days of notice of a projected shortfall in reserves, the steps which AEMO may take steps that -to inform itself if the reserves are not the subject of any other arrangements- include:

- requiring a prospective party to a *reserve contract*, at the initial stage for *reserve contracts*, to enter into an undertaking with AEMO which states that the *reserve* is not available to the market through any other arrangement for:
 - *scheduled reserves*, the period from the date of execution of that contract until the end of its term.
 - *unscheduled reserves*, the *trading intervals* to which the *reserve contract* with AEMO relates.
- making reasonable enquiries in the market;
- assessing any information ~~that~~ is available to AEMO and relevant to whether the *reserves* are available to the market through any other arrangement for:
 - *scheduled reserves*, the period from the date of execution of that contract until the end of its term.
 - *unscheduled reserves*, the *trading intervals* to which the *reserve contract* with AEMO relates.~~;~~ and
- improving AEMO's measures when it develops its *RERT procedures* to reduce the likelihood that AEMO will enter into a *reserve contract* with a party who had made the *reserves*, the subject of the *reserve contract*, available to the market through any other arrangements for:
 - *scheduled reserves*, the period from the date of execution of that contract until the end of its term.
 - *unscheduled reserves*, the *trading intervals* to which the *reserve contract* with AEMO relates.²⁴

²⁴ AEMO is required to take into account the *RERT guidelines* when it develops its *RERT procedures* in accordance with clause 3.20.7(e).

A.7.2

Short-notice situations with ~~between three hours and~~ **less than seven days of notice**

In order to comply with the out-of-market provisions noted above, ~~I~~ in short-notice situations, with ~~between less than three hours and~~ seven days of notice of a projected shortfall in reserves, ~~the steps that~~ AEMO may take steps that ~~to inform itself if the reserves are not the subject of other arrangements should~~ include:

- requesting a member of the *RERT* panel to inform *AEMO* when the *reserves* for which the expression of interest related to are no longer available to the market as a result of another arrangement; and
- prior to contracting of *reserves*, *AEMO* should confirm with the *RERT* panel members that the *reserves* for which their expression of interest relates are not available to the market as a result of another arrangement; ~~and for:~~
 - *scheduled reserves*, the period from the date of execution of that contract until the end of its term
 - *unscheduled reserves*, the trading intervals to which the reserve contract with *AEMO* relates.
- after contracting of *reserves*, *AEMO* should assess any information that is available to it and relevant to whether the *reserves* are available to the market through any other arrangement, ~~for:~~
 - *scheduled reserves*, the period from the date of execution of that contract until the end of its term
 - *unscheduled reserves*, the trading intervals to which the reserve contract with *AEMO* relates.

As set out in clause 3.20.7(e)(1) *AEMO* will set out in its *RERT procedures* the measures it will adopt in order to reduce the possibility that *generating units* or *loads* likely to be activated under *unscheduled reserve contracts* are otherwise engaged at the time the *unscheduled reserve contracts* are required to be activated by *AEMO*.

~~*AEMO's RERT procedures* should consider what measures are necessary to reduce the likelihood that *AEMO* will enter into a reserve contract with a party who has made the reserves, the subject of the reserve contract, available to the market through any other arrangements. *AEMO* is required to take into account the *RERT guidelines* when it develops its *RERT procedures* in accordance with clause 3.20.7(e).~~

A.8

Process for contracting for reserve contracts

A.8.1

Process for contracting for reserve contracts in long-notice situations (between 12 months and ~~more than~~ ten weeks of notice)

The relevant actions that *AEMO* may take in relation to the exercise of the *RERT* with between 12 months and ~~more than~~ ten weeks of notice of a projected shortfall in *reserves* include:

- establishing arrangements for contracting *reserves* in situations where there is between 12 months and ~~more than~~ ten weeks of notice of a projected shortfall in *reserves*;

- ~~continually monitoring the medium term PASA and the EAAP, and any other information AEMO considers is relevant, to inform itself of any periods of low reserves;~~
- determining whether to enter into *reserve contracts* [following the declaration of a low reserve condition as defined by clause 4.8.4 of the NER](#)²⁶;
- consulting with persons nominated by the relevant *participating jurisdictions* which AEMO is determining whether to contract for *reserves* in those *participating jurisdictions*;
- calling for tenders in relation to providing *reserves* in the respective *regions* or in some circumstances, combined *regions*;
- ~~evaluating the tenders and~~ dispensing with any tenders that do not provide an undertaking that ~~the~~:
 - ~~-scheduled reserves are not available to the market during the period from the date of execution of that contract until the end of its term through any other arrangements except on terms agreed with AEMO~~
 - [unscheduled reserves are not available to the market for the trading intervals to which the reserve contract with AEMO relates.](#)
- [evaluating the tenders](#),⁷ taking into account:
 - whether the commercial requirements are met;
 - whether the tender is credible, that is, whether it is likely that the tenderer can deliver the offered *reserves*; and
 - the optimal combination of contracts to deliver the *reserves* necessary to meet the shortfall;
- [giving consideration to the estimated average VCR](#);
- selecting the tenders that AEMO considers to be the optimal portfolio of *reserve contracts*;
- giving consideration to including an early termination clause in the event that the capacity is not needed.

Following contracting of reserves, the actions that AEMO ~~may~~[must](#) take includes:

- ~~monitoring the medium term PASA and the EAAP to determine if there have been any changes since the tenders were prepared and evaluated any low reserve condition declarations; and~~
- within one month after entering into a contract for *reserves*, publish the name of the counterparty to the contract and the volume and timing of *reserves* procured under the contract.

[Clauses 3.20.6 and 3.20.7 of the NER set out AEMO's reporting requirements in relation to the RERT.](#)

²⁶ [According to clause 4.8.4 of the NER, a low reserve condition is when AEMO considers that the balance of generation capacity and demand for the period being assessed does not meet the reliability standard as assessed in accordance with the reliability standard implementation guidelines.](#)

Explanatory note - medium-notice situations

In medium-notice situations, *AEMO* may secure *reserve contracts* by seeking:

- *reserve offers from RERT panel members; or*
- *reserve offers from RERT panel members and, at AEMO's discretion, offers from other potential reserve providers, which may include a tender process.*²⁷

A.8.2

Process for contracting for reserve contracts in medium-notice situations (between seven days and ten weeks of notice)

The relevant actions that *AEMO* may take in relation to the exercise of the *RERT* with between seven days and ten weeks of notice of a projected shortfall in *reserves* include:

- establishing arrangements for contracting for *reserves* in situations where there is between seven days and ten weeks of notice of a projected shortfall in *reserves*;
- ~~continually monitoring the medium term PASA and the EAAP, and any other information AEMO considers is relevant, to inform itself of any periods of low reserves;~~
- determining whether to enter into *reserve contracts* following the declaration of a low reserve condition as defined by clause 4.8.4 of the NER;
- consulting with persons nominated by the relevant *participating jurisdictions* which *AEMO* is determining whether to contract for *reserves* in;
- notifying *RERT* panel members in relation to providing *reserves* in the respective *regions* or in some circumstances, combined *regions*;
- calling for *reserve offers* from other potential *reserve providers* in relation to providing *reserves* in the respective *regions* or in some circumstances, combined *regions*;
- ~~evaluating the reserve offers and~~ dispensing with any *reserve offers* that do not provide an undertaking that-:
 - scheduled reserves are not available to the market during the period from the date of execution of that contract until the end of its term
 - unscheduled reserves are not available to the market for the trading intervals to which the reserve contract with AEMO relates.
 - ~~the reserves are not available to the market through any other arrangements except on terms agreed with AEMO,~~
- evaluating the reserve offers taking into account:
 - whether the commercial requirements are met;
 - whether the *reserve offer* is credible, that is, whether it is likely that the *RERT* panel member or other potential *reserve provider* can deliver the offered *reserves*; and
 - the optimal combination of contracts to deliver the *reserves* necessary to meet the shortfall;
- giving consideration to the estimated average VCR;

²⁷ *AEMO* may determine whether a tender process is open to the public or limited to specific potential reserve providers.

- selecting the *reserve* offers that AEMO considers to be the optimal portfolio of *reserve contracts*; ~~and~~
- giving consideration to including an early termination clause in the event that the capacity is not needed.

Following contracting of *reserves*, the actions that AEMO ~~may~~must take includes:

- monitoring ~~ing the medium term PASA and the EAAP to determine if there have been any changes since the reserve offers were prepared and evaluated~~ any low reserve condition declarations; ~~and~~
- within one month after entering into a contract for *reserves*, publish the name of the counterparty to the contract and the volume and timing of *reserves* procured under the contract.

Clauses 3.20.6 and 3.20.7 of the NER set out AEMO's reporting requirements in relation to the RERT.

A.8.3

Process for contracting for reserve contracts in short-notice situations (~~between three hours and less than seven days of notice~~)

Explanatory note

~~The execution of short-notice reserve contracts would need to be a simplified process but it is likely to be more involved than a simple telephone call for reasons of probity. Therefore execution of short-notice reserve contracts would require a minimum 3 hour response time.~~

The relevant actions that AEMO may take in relation to the exercise of the RERT for situations with ~~between three hours and less than~~ seven days of notice of a projected shortfall in *reserves*, as defined in clause 3.20.8(a)(6), include:

- establishing arrangements for contracting for *reserves* in situations where there is ~~between three hours less than - and~~ seven days of notice of a projected shortfall in *reserves*;
- continually monitoring the *pre-dispatch schedule* and *short term PASA*, for periods of ~~low reserves or lack of reserve (LOR2)~~²⁸;
- determining whether to enter into *reserves contracts* following the declaration of a LOR2 condition;
- consulting in advance with the *participating jurisdictions*²⁹ to determine a maximum average price threshold (in \$/MWh) that AEMO should pay to *dispatch* or *activate reserve contracts* in the relevant region under the short-notice RERT (reflecting the opportunity cost of shedding customer load in that region) - reflecting the RERT principle in clause 3.20.2(b)(3);

²⁸ According to clause 4.8.4 of the NER, a lack of reserve condition is when AEMO determines, in accordance with the reserve level declaration guidelines, that the probability of load shedding (other than the reduction or disconnection of interruptible load) is, or is forecast to be, more than remote.

²⁹ Given the reduced timeframe for the short-notice RERT, it would not be possible to fully consult with affected *participating jurisdictions* on all matters considered when executing the *reserve contracts*.

- excluding in advance entities from the *RERT* panel for short-notice situations that have an average cost (in \$/MWh) that is greater than the maximum average price threshold approved by the respective *participating jurisdiction*, [having regard to the *RERT* principle in clause 3.20.2\(b\)\(3\)](#);
- [giving consideration to the estimated average VCR](#);
- agreeing in advance with the *participating jurisdiction* as to the cost sharing arrangements between *participating jurisdictions* in short-notice *reserve* shortfall situations;
- using a *RERT* panel arrangement to identify which panel members are technically able, on the basis of their expressions of interest, to provide *reserves* within the applicable notice period and in the required *regions* or in some circumstances, combined *regions*;
- contacting those eligible *RERT* panel members to confirm the quantity of *reserve* available and period for which it is available;
- evaluating the *reserve* offers from the eligible list of *RERT* panel members; **and**
- selecting the optimal portfolio of *reserve contracts* to meet a shortfall from the available expressions of interest using reasonable endeavours and subject to practical limitations including the extent of notice available of an impending reliability ~~or power system security~~ event.

Following contracting of reserves, the actions that AEMO ~~may~~**must** take includes:

- ~~monitoring the pre-dispatch schedule and short term PASA to determine if there have been any changes to the relevant reserve requirements~~ [any lack of reserve conditions](#); **and**
- within one month after entering into a contract for *reserves*, publish the name of the counterparty to the contract and the volume and timing of *reserves* procured under the contract.

[Clauses 3.20.6 and 3.20.7 of the *NER* set out AEMO's reporting requirements in relation to the *RERT*.](#)

A.9

Use of contracted reserves for security events

~~AEMO may dispatch or activate reserves under reserve contracts to address a power system security event in a transmission network that it has oversight for, if there are suitable reserves that AEMO has contracted under the *RERT* for long, medium or short-notice situations at an appropriate location, and there is sufficient notice of the power system security event to allow AEMO to dispatch or activate these reserves.~~

[\[this section has been moved to section 4.2\]](#)