

Reliability Panel AEMC

FINAL GUIDELINES

Review of the RERT Guidelines

15 December 2016

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About the Reliability Panel

The Panel is a specialist body within the 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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1 Interpretation

These *RERT guidelines* are made under clause 3.20.8 of the National Electricity Rules (*Rules*) and commence on 1 November 2017.

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.

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*.¹ AEMO must take the *RERT guidelines* into account (among other things) when exercising the *RERT*.²

The *Reliability Panel* must develop and *publish* the *RERT guidelines* for or with respect to:³

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. any specific or additional assumptions about key parameters that AEMO must take into account in assessing the cost effectiveness of exercising the *RERT*;
7. matters relevant to AEMO managing a portfolio of *reserve contracts*; and
8. 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*.⁴

1 Rule 3.20 of the *Rules*.

2 Clause 3.20.7(f) of the *Rules*.

3 Clause 3.20.8(a) of the *Rules*.

4 Developed in accordance with Clause 3.20.8 of the *Rules*.

3 Operation of the RERT

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

1. Stage 1: when *AEMO* is determining whether to enter into contracts for the provision of additional *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.

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.

4.1 During Stage 1 of the RERT process

- (a) 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 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.
- (b) Short-notice situations where AEMO has between three hours 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 short-notice situations, AEMO 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.

4.2 During Stage 2 of the RERT process

During Stage 2 of the RERT process, AEMO may 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* 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.

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

Clause 3.20.2(b) of the *Rules* identifies two 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.

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 mechanism to maintain the reliability of *supply* and where practicable, *power system security*.

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*.⁵ The factors that would be relevant to this consideration and consultation include:

⁵ Note that for short-notice situations consultation with the *participating jurisdictions* would be limited to that outlined in section 8.2.

- the cost 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 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 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 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 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.

6 AEMO's use of a RERT panel

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 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 6.2 and 6.3 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 or 8.2 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 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*.

6.2 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;
- 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;
- 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.

6.3 Operation of the RERT panel in short-notice situations (between three hours and seven days of notice)

The Panel considers that, in addition to the requirements in sections 6.1 to 6.2, for situations with between three hours and 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;
- 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;
- 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 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.

7 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 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.

7.1 Medium-notice situations of more than seven days of notice

In situations where there is more than seven days of notice of a projected shortfall in *reserves*, the steps which *AEMO* may take 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;
- 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; 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.⁶

7.2 Short-notice situations with between three hours and seven days of notice

In short-notice situations, with between three hours and seven days of notice of a projected shortfall in *reserves*, the steps that *AEMO* may take 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

⁶ *AEMO* is required to take into account the *RERT guidelines* when it develops its *RERT procedures* in accordance with clause 3.20.7(e).

- 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.

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.⁷

⁷ *AEMO* is required to take into account the *RERT guidelines* when it develops its *RERT procedures* in accordance with clause 3.20.7(e).

8 Process for contracting for reserve contracts

Box 8.1 Explanatory note

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.⁸

8.1 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*;
- 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 the *reserves* are not available to the *market* through any other arrangements except on terms agreed with *AEMO*, taking into account:
 - whether the commercial requirements are met;

⁸ *AEMO* may determine whether a tender process is open to the public or limited to specific potential *reserve* providers.

- 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;
- selecting the *reserve* offers that *AEMO* considers to be the optimal portfolio of *reserve contracts*.

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

- monitoring the *medium term PASA* and the *EAAP* to determine if there have been any changes since the *reserve* offers were prepared and evaluated;
- giving consideration to including an early termination clause in the event that the capacity is not needed; 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.

8.2 Process for contracting for reserve contracts in short-notice situations (between three hours and 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 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 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);
- determining whether to enter into *reserves contracts*;

- consulting in advance with the *participating jurisdictions*⁹ 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*);
- 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*;
- 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 take includes:

- monitoring the *pre-dispatch schedule* and *short term PASA* to determine if there have been any changes to the relevant *reserve* requirements; 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.

⁹ 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*.

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 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.