Australian Energy Market Commission

RULE CHANGE

DRAFT RULE DETERMINATION

National Electricity Amendment (Extension of the Reliability and Emergency Reserve Trader) Rule 2016

Rule Proponent
COAG Energy Council

7 April 2016

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

Summary

The Australian Energy Market Commission (AEMC or Commission) has made a draft Rule, which is a more preferable draft Rule in relation to the COAG Energy Council's rule change request regarding the expiry of the Reliability and Emergency Reserve Trader (RERT) arrangements under the NER.

The more preferable draft Rule:

- preserves the safety net feature of the RERT, and complements the suite of permanent intervention tools available to manage reliability (reliability directions and clause 4.8.9 instructions), in the event that market responses are insufficient;
- minimises potential market distortions by:
    - providing market participants greater time and opportunity to respond to a projected shortfall, before AEMO enters into RERT contracts;
    - minimising the likelihood that, in contracting for reserves, AEMO may crowd out potential market-based arrangements (such as retailers seeking to engage with their customers to reduce load); and
    - ensuring that by only being able to act closer to real time, AEMO can utilise new and more up-to-date information to inform both its assessments of capacity adequacy, and its decisions on whether to enter reserve contract. This can reduce the likelihood that reserve contracts are entered into, but not dispatched; and
- provides regulatory certainty about the range of intervention tools available to manage reliability in the NEM.

Background information

A reliable power system is one that has a high likelihood of fully servicing the electricity needs of customers. An important component in determining the reliability of the National Electricity Market (NEM) is the reliability standard, which is the maximum allowable level of electricity at risk of not being supplied to consumers in any NEM region. The two other components for maintaining the NEM's reliability are the price mechanisms and the reliability intervention mechanisms.

The price mechanisms (referred to in this paper as the "reliability settings") aim to balance supply and demand by providing price signals to enable market responses that deliver capacity to meet the reliability standard, while minimising the creation of unmanageable price risks for market participants.

Reliability intervention mechanisms are powers given to the Australian Energy Market Operator (AEMO) to maintain power system reliability, in the event that market responses to projected reserve shortfalls are insufficient. The three intervention mechanisms that AEMO can use to maintain power system reliability are:

1. reliability directions;
2. dispatching or activating reserves procured under the RERT; and
3. clause 4.8.9 instructions.

AEMO may also use network support and control ancillary services to the extent that the projected reserve shortfall is affected by a network limitation that can be addressed by such services.

Before intervening in the market, AEMO may initiate informal negotiations with market participants to shift planned outages or take other steps to maintain power system reliability.

The RERT is a mechanism that allows AEMO to contract for reserves up to nine months ahead of a period where AEMO projects there to be reserve shortfalls. AEMO is also able to dispatch these additional reserves to maintain power system reliability and, where practicable, security.

Rule Change Request

On 10 December 2015, the Council of Australian Governments' Energy Council (COAG Energy Council) submitted a rule change request to the AEMC. The rule change request seeks to extend the operation of the RERT from its current expiry of 30 June 2016 to 30 June 2019. There are no other changes proposed to the scope or operation of the RERT.

The COAG Energy Council has proposed that the RERT be extended in order to address the uncertainty in the market which exists for two broad reasons:

1. demand side policies remain less than fully completed or resolved; and

2. a changing generation mix, in which renewable generation is installed and conventional generators exit, has increased the likelihood of insufficient generation capacity being available.

Commission's analysis and conclusion

Having regard to the issues raised in the rule change request, the Commission is satisfied that the more preferable draft Rule will, or is likely to, better contribute to the achievement of the NEO for the following reasons:

- the likelihood and materiality of potential market distortions and costs created by the RERT are outweighed by the benefits of maintaining the RERT indefinitely;

    - while the RERT may create the potential for market distortions, these distortions appear minimal and are even further reduced by the draft amendment to clause 3.20.3(d). Taking into account this amendment, on balance, the costs of the RERT are outweighed by its benefits; and

- the permanent retention of the RERT provides regulatory certainty to the market and to AEMO about the range of intervention tools available to manage

reliability in the NEM. Making the RERT a permanent feature of the market provides AEMO and other market participants the opportunity to consider changes that may improve the operation of the RERT.

Additionally, the Commission is satisfied that the more preferable draft Rule will, or is likely to, contribute to the achievement of the NEO for the following reasons:

- market uncertainty is likely to always be a feature of the NEM, with its consequential impact on generation investment decisions. In recent times, this uncertainty has been associated with:

    - the extent and impact of changes in the generation mix associated with an increasing penetration of renewables in the NEM. The change in the generation mix, in particular the exit of conventional generation has occurred at a faster pace than the market has anticipated, especially in South Australia; and

    - the mechanisms needed to achieve Australia's post-2020 carbon reduction targets, and the impact of these targets and mechanisms on generation capacity.

    This ongoing uncertainty raises the likelihood of projected reserve shortfalls and the likelihood that the ensuing market responses to address these projected shortfalls may be insufficient; and

- the RERT is a more efficient intervention mechanism than reliability directions or clause 4.8.9 instructions. The efficacy of reliability directions is influenced by the physical and technical limits of plants (for example, the effectiveness of directions to wind generators to increase generation may be limited by the intermittent nature of that plant). In the context of an increasing penetration of intermittent renewable generation in the NEM, reliability directions regarding such plant may be ineffective. Furthermore, there is an economic inefficiency associated with clause 4.8.9 instructions, as involuntary load shedding does not differentiate between customers who place a very high value on continuing supply and customers who place a lower value on continuing supply. In contrast, load curtailment under the RERT is on a voluntary basis.

Draft Rule

Given the above conclusions, the more preferable draft Rule will amend the NER to:

- omit the RERT's sunset clause (clause 3.20.1 which provides for the expiry of rule 3.20 on 30 June 2016). The effect of this amendment is that the RERT provisions will continue unless and until a rule change amends or omits those provisions;1

- reduce the timeframe in which AEMO may contract for reserves ahead of a projected shortfall in reserves from nine months, to ten weeks (by amending clause 3.20.3(d)); and

- impose (through transitional rules) requirements on the Reliability Panel to amend its RERT guidelines, and AEMO to AEMO its RERT procedures, to reflect these changes. The transitional rules provide sufficient time for the Reliability Panel to amend the RERT guidelines, and for AEMO to amend its RERT procedures.

The Commission invites submissions on this draft determination and the more preferable draft Rule by 19 May 2016.

1 In order to retain the RERT in the NER, the un-commenced provisions in Schedules 2 and 3 of National Electricity Amendment (Expiry of the Reliability and Emergency Reserve Trader) Rule 2012 No.1 have been repealed as those provisions, if not repealed, would have the effect of removing all RERT related provisions in the Rules on 1 July 2016.

Contents

1 Background

On 10 December 2015, the Council of Australian Governments' Energy Council (COAG Energy Council, or Council) submitted a rule change request to the Australian Energy Market Commission (AEMC or Commission). The rule change request sought to extend the operation of the Reliability and Emergency Reserve Trader (RERT) from its current expiry of 30 June 2016 to 30 June 2019.

This chapter sets out the following background information to the rule change request:

- a discussion of power system reliability and security;
- the reliability standard and reliability settings, including the various intervention mechanisms that AEMO can use to assist it maintain power system reliability; and
- an overview of the scope and operation of the RERT, including the context for the RERT's existing expiry date.

1.1 Power system reliability and security

To understand the role of the RERT, it is useful to distinguish between power system reliability and security. A reliable power system is one that has a high likelihood of fully servicing the electricity needs of customers. A reliable power system is one which is in a secure operating state, has sufficient generation capacity, and a reliable transmission and distribution network.

A secure operating state is one where the power system is in, or can be returned within 30 minutes, to a satisfactory operating state.[2]

A reliable power system is also a secure power system. However, the converse is not necessarily true; a power system can be secure even when it is not reliable. The Rules allow AEMO to undertake involuntary load shedding, potentially compromising reliability, in order to return the power system to a secure operating state.

The RERT is principally a reliability intervention mechanism. The RERT's ability to manage power system security is largely incidental, in that a reliable power system is also a secure power system. That said, AEMO is able to dispatch reserves procured under reserves contracts to address either reliability or security issues. This gives AEMO flexibility to dispatch reserves to address supply-demand imbalances that impact either reliability, security, or both. This flexibility was not present under the prior reserve trader provisions, which referred only to power system reliability.

The RERT is discussed in more detail in section 1.4.

2 Clause 4.2.4A: A satisfactory operating state is defined in NER clause 4.2.2. The power system is in a satisfactory operating state when all vital technical parameters (such as voltage, frequency, and equipment loads) are within their design limits and ratings.

1.2 The reliability standard and reliability settings

Power system reliability has two aspects: the reliability standard, and the reliability settings.

1.2.1 The reliability standard

Clause 3.9.3C of the National Electricity Rules (NER or Rules) defines the reliability standard for generation and inter-regional transmission elements in the NEM to be a maximum expected unserved energy (USE) in each NEM region of 0.002 per cent of the total energy demanded in that region for a given financial year.

The reliability standard is an expression of the maximum allowable level of electricity at risk of not being supplied to consumers in any NEM region. It is also consumer-focused; the level of maximum expected USE is based on comparing the benefits of a more reliable power system to customers against the costs incurred by customers in providing that level of reliability.

1.2.2 The reliability settings

The reliability settings are the various price mechanisms used in the NEM. They aim to balance supply and demand by providing price signals to enable market responses that deliver capacity to meet the reliability standard, while minimising the creation of unmanageable price risks for market participants. The four price mechanisms are the:

1. market price cap (MPC);
2. cumulative price threshold (CPT);
3. market floor price; and
4. administered price cap.

The level of the MPC, set at $13,800 per MWh for the 2015-16 financial year,[3] is important in providing price signals for supply and demand side investment and usage.

The CPT is an explicit risk management mechanism designed to limit NEM participants' exposure to protracted stress in the wholesale spot market.[4] Under clause 3.14.2 of the NER, if the sum of the spot prices ($/MWh) in the previous 336 trading intervals[5] exceeds the CPT, or if the sum of ancillary services prices ($/MWh) in the previous 2,016 dispatch intervals[6] exceeds six times the CPT, then an Administered Price Period (APP) is declared. During an APP, if the spot price calculated normally

3 The MPC for 2016-17 is set at $14,000 per MWh.

4 The CPT is calculated as per the formula defined in clauses 3.14.1(e) and 3.14.1(f) of the NER. It is reviewed annually and applies from 1 July each year. For the 2015-16 financial year, the CPT is $207,000 (in 2016-17, the CPT will be $210,100).

5 This is equivalent to a consecutive seven day period.

6 This is also equivalent to a consecutive seven day period.

exceeds the Administered Price Cap (APC),[7] the price is set at the APC. Similarly, if, during the APP, the spot price is less than the Administered Floor Price (AFP),[8] the price is set to the AFP.[9]

1.2.3 The reliability standard and reserve margins

The interaction between the reliability standard and reserve margins is illustrated in Figure 1.1. The figure includes three variables:

1. Reserve margin: this is the level of generation capacity available less the maximum demand, in each and every NEM region.

2. Maximum demand: this is the level of demand for which future actual demand has only a 10% probability of exceeding.

3. Minimum reserve level (MRL): this is an amount of reserve margin required to meet the reliability standard. MRLs form the basis of AEMO's operational and long-term planning assessments of system reliability, and are essentially a translation of the reserve margin.[10]

As the reserve margin falls relative to the MRL, the likelihood that the reliability standard may be breached increases. When the reserve margin falls below the MRL, as is the case in Figure 1, this indicates a "reserve shortfall" for that NEM region. Reserve margins shrink when conditions of supply-demand balance tighten. Factors that may cause the supply-demand balance to tighten include insufficient investment in generation capacity, extreme weather conditions such as drought, and unplanned outages.

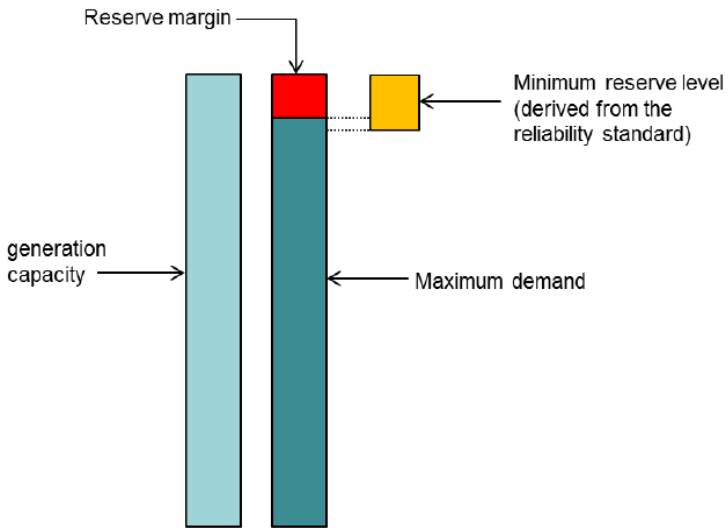
7 As per clause 3.14.1(a) of the NER, the APC for each NEM region is $300/MWh.

8 As per clause 3.14.1(b), the AFP for each NEM region for energy is the negative of the value of the APC; that is, -$300/MWh. The AFP for market ancillary service prices is zero.

9 See clauses 3.14.2 (d)(1) and 3.14.2(d)(2) of the NER.

10 MRLs are calculated by AEMO using detailed time sequential Monte Carlo simulations of the NEM to determine the MRLs for each NEM region. For more details, see AEMO, 2012, Assessing Reserve Adequacy in the NEM, 10 September 2012.

Figure 1.1 Interaction of reliability standard with reserve capacity



An insufficient reserve margin is an early warning indicator that the reliability standard may not be met. To quantify the size of this potential breach of the reliability standard, AEMO uses reliability simulation tools, which provide an expected unserved energy (USE) output, rather than a reserve margin output. These tools are also used for the Energy Adequacy Assessment Projection (EAAP) and the Electricity Statement of Opportunities (ESOO).

AEMO's projections of reserves provide market signals that future investment in either generation capacity or demand side participation may be required, in addition to the signals provided by existing and expected future prices. In the event that a market solution to a projected reserve shortfall is, or is expected to be, insufficient, AEMO may choose to intervene in the market to minimise the likelihood of load shedding events, and seek to maintain the reliability standard.

1.3 Reliability intervention mechanisms

Reliability intervention mechanisms refer to AEMO's powers to intervene in the market to address potential shortfalls of supply against the NEM reliability standard. As a precursor to considering the use of reliability intervention mechanisms, AEMO may conduct informal negotiations with market participants.[11] Furthermore, AEMO can use network support and control ancillary services to the extent that the reserve shortfall is affected by a network limitation that can be addressed by such services.

If informal negotiations and network control ancillary services do not resolve the shortfall, there are three intervention mechanisms that AEMO can use to maintain power system reliability:

11 For example, projected shortfalls may arise due to scheduled plant outages. If the market fails to resolve the projected shortfall, AEMO may initiate informal negotiations with plant owners to shift their planned outage to a period where demand is expected to be lower.

1. Reliability directions: under NER cl. 4.8.9(a), AEMO may direct a Registered Participant12 to do any act or thing if AEMO is satisfied that it is necessary to do so to maintain or re-establish the power system to a reliable operating state.

2. Exercising the RERT, by entering into reserve contracts and possibly also dispatching these reserves (the RERT is discussed in the next section).

3. Clause 4.8.9 instructions: AEMO can instruct Registered Participants with non-market, non-scheduled generating units or loads to maintain or re-establish the power system to a reliable operating state.13 These instructions include shedding and restoring load (according to the Sensitive Loads and Priority Load Shedding Schedule procedure for the affected region).

The issuing of reliability directions and the dispatching (or activation) of reserves procured under the RERT are defined in the Rules as an AEMO intervention event. For an AEMO intervention event, AEMO sets the dispatch and ancillary service prices for that corresponding dispatch interval (known as the intervention price dispatch interval), in the relevant NEM region, at the value which AEMO considers would have applied had the AEMO intervention event not occurred.[14] This 'what-if' pricing methodology is used to minimise the market distortions caused by the AEMO intervention event

Directed Participants[15] are paid compensation for the provision of energy or market ancillary services, according to clause 3.15.7(c) of the Rules. Directed Participants may also make a claim for additional compensation for lost revenue and additional net direct costs incurred, such as fuel or maintenance costs, where these costs exceed $5,000 for a single trading interval, under clause 3.15.7B. There is no upper limit for claims of such costs.[16]

In contrast, there is no compensation paid to Registered Participants who receive clause 4.8.9 instructions.

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12 A Registered Participant is defined in the Rules as a person who is registered by AEMO in any one or more of the categories listed in rules 2.2 to 2.7 (in the case of a person who is registered by AEMO as a Trader, such a person is only a Registered Participant for the purposes referred to in rule 2.5A).

13 As per the definition in NER cl. 4.2.7, the power system is assessed to be in a reliable operating state when: (a) AEMO has not disconnected, and does not expect to disconnect, any points of load connection under cl. 4.8.9; (b) no load shedding is occurring or expected to occur anywhere on the power system under cl. 4.8.9; and (c) in AEMO's reasonable opinion, the power system meets, and is projected to meet, the reliability standard, having regard to the reliability standard implementation guidelines.

14 Clause 3.9.3(b).

15 A Registered Participant that receives a direction is defined as a Directed Participant. Directed Participants can be either a: Scheduled Generator; Semi-Scheduled Generator; Market Generator; Scheduled Network Service Provider; or Market Customer.

16 AEMC Reliability Panel, Review of the Reliability and Emergency Reserve Trader, Final Report, 21 April 2011, Sydney.

In deciding on the type of intervention to use, AEMO considers the cost of each type of intervention against its potential benefit. While clause 4.8.9 instructions are typically the last resort, the ordering of reliability directions and the RERT presented above is illustrative; the actual ordering would depend on the context and situation at hand.

1.4 The Reliability and Emergency Reserve Trader

Since the commencement of the National Electricity Market (NEM) in December 1998, the market operator has had the power to contract for reserves. Over time, periodic reviews of the reserve trader provisions have led to various amendments, including postponing its expiry date, as well as changes to its scope and operation. The RERT was developed as part of the Reliability Panel's (the Panel's) 2007 review[17] of the reliability standard and reliability settings, and was incorporated into the rules in June 2008. The RERT replaced the reserve trader provisions.[18]

The RERT is a mechanism under the NER that allows AEMO to contract for additional reserves up to nine months ahead of a period where reserves are projected to be insufficient to meet the reliability standard. AEMO is also able to dispatch these additional reserves to assist it to maintain power system reliability and, where practicable, assist it to maintain power system security. AEMO can enter into reserve contracts with both demand-side and supply-side participants.

Rule 3.20 of the NER outlines AEMO's obligations in relation to the RERT. Clause 3.20.8 requires the Reliability Panel (the Panel) to develop guidelines (the RERT guidelines)[19] with respect to the scope and principles to be employed by AEMO when procuring reserve capacity. Clause 3.20.7 requires AEMO to develop procedures[20] for exercising the RERT, including the process for selecting participants for the RERT panel. In developing its procedures for exercising the RERT, AEMO must take account of the RERT guidelines and the RERT principles (in clause 3.20.2(b)).

The RERT guidelines provide direction for AEMO's operation of the RERT, which is divided into two stages:

1. Stage 1: when AEMO is determining whether to enter into reserve contracts.[21]
2. Stage 2: when AEMO is considering whether to dispatch scheduled reserves or activate unscheduled reserves.[22]

17 AEMC Reliability Panel, Comprehensive Reliability Review, Final Report, 21 December 2007.

18 Appendix B provides a summary of the amendments to the reserve trader provisions since the commencement of the NEM in 1998.

19 AEMC Reliability Panel, Reliability and Emergency Reserve Trader (RERT) Guidelines, 16 June 2010.

20 AEMO, Procedure for the Exercise of Reliability and Emergency Reserve Trader (RERT), 17 October 2014.

21 Clause 3.20.3.

22 Clause 3.20.7.

The RERT guidelines also specify the types of information AEMO must take into account in each of these stages. The types of information depend on how much time AEMO has prior to its projected reserve shortfall. The RERT guidelines specify three timeframes:

1. at least ten weeks' (up to nine months) notice of a projected reserve shortfall (a long-notice situation);

2. between ten and one week's notice of a projected reserve shortfall (a medium-notice situation); and

3. between seven days and three hours' notice of a projected reserve shortfall (a short-notice situation).

Under the RERT 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 in advance with AEMO some of the technical and legal issues that lengthen the time taken to negotiate reserve contracts under a full tender process. Once reserve providers are members of the RERT panel, reserve contracts can be finalised more quickly than through a full tender process.

The RERT guidelines specify that AEMO is expected to use a full tender process, rather than the RERT panel, when contracting for a long-notice situation. In contrast, for short- and medium-notice situations, AEMO can procure reserve contracts from members of the RERT panel.

The full tender process includes requesting responses from members of the RERT panel and other potential reserve providers. This process also involves consultation between AEMO and representatives of affected jurisdictions prior to procuring reserve contracts.

In comparison to the long-notice situation, the short- and medium-notice situations provide AEMO with the opportunity to:

- assess the need for additional capacity and respond accordingly much closer to real time; and

- address projected reserve shortfalls that arise at a relatively short notice (that is, the timing of the projected shortfall is close to the time that the shortfall was first projected).

The RERT guidelines also specify that no payments are to be made to parties appointed to the RERT panel, unless AEMO enters into a reserve contract, and if this is a short-notice reserve contract, then payments are only for reserves actually used.

Under AEMO's RERT procedures, it procures additional capacity that may not otherwise be available to the market according to the following processes:

- parties who have non-market generation capacity make themselves known to AEMO and declare what price those parties wish to be paid to use that capacity; and

- individuals or groups of consumers declare what remuneration they would seek to reduce their demand in excess of the saving in energy cost.

The RERT guidelines specify that AEMO must take steps to inform itself that the reserves underpinning a RERT contract are not otherwise available to the market, in order to minimise the RERT's potential distortionary market impacts. The steps that AEMO must take to minimise the likelihood of such "double dipping" differ depending on the notice situation. For example, for long-notice and medium-notice situations, AEMO requires each reserve contract tenderer to enter into an undertaking with AEMO which states that the reserve is not available to the market through any other arrangement.

The RERT guidelines specify that 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 those reserves available to the market through any other arrangements.[23]

The Rules require AEMO to consult on costs and cost-sharing arrangements with affected participating jurisdictions that stand to benefit from additional reserves before entering into a reserve contract, or prior to exercising the short-notice RERT.[24] The NER allows AEMO to recover the costs of reserve contracts from market customers, such as retailers.[25] The AEMC understands that most retailers have a clause in their large-customer contracts for "unexpected market fees" to enable the retailer to pass-through the costs to end consumers, but that there is some discretion over the extent to which these costs are passed through.

Since the commencement of the NEM, the market operator has entered into reserve contracts the following three times[26] (all for the Victoria and South Australia NEM regions):

1. 15 January 2014 to 17 January 2014, with 650MW of reserve capacity contracted on each of these three days.

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

24 Clause 3.20.3(c).

25 Clause 3.15.9(e).

26 The information for 2005 and 2006 is from, respectively, National Electricity Market Management Company (NEMMCO), Communication No. 1937, Reserve Trading Financial Year 2004/05; and NEMMCO, Communication No. 2203, Reliability Safety Net Financial Year 2005/06. Information for 2014 is available from http://www.aemo.com.au/Electricity/Market-Operations/Reserve-Management/Publication-of-RERT-contracts-procured-by-AEMO-for-15-16-and-17-January-2014 (accessed 16 December 2015).

2. 16 January 2006 to 10 March 2006 (54 days), where a total of 375MW of reserve capacity was contracted (based on a projected shortfall of 530MW).

3. 31 January 2005 to 4 March 2005 (33 days), where a total of 84MW of reserve capacity was contracted (based on a projected shortfall of 195MW). AEMO contracted for reserves under the short-notice RERT, to deal with a Lack of Reserve 2 (LOR2) condition[27] that arose at very short notice.

In all of these cases, the market operator was not required to dispatch or activate[28] these reserves.

1.4.1 AEMO's projections and its exercise of the RERT

The RERT guidelines specify the types of information AEMO must take into account for each of the three notice situations when deciding whether to enter into reserve contracts. This information includes AEMO's projections.

For example, during Stage 1 of long-notice situations, AEMO may take into account the information provided in its Medium Term Projected Assessment of System Adequacy (MTPASA), the EAAP and any other information that AEMO reasonably identifies to be necessary, such as the ESOO. In contrast, during Stage 1 of short-notice situations, AEMO may take into account the information provided in its short term PASA (STPASA), and pre-dispatch process (which includes AEMO's pre-dispatch schedule) and any other information AEMO identifies to be necessary.

During Stage 2, that is, when AEMO is considering whether to dispatch or activate reserves, the RERT guidelines specify that AEMO may consider its STPASA, as well as the information used in Stage 1 for the corresponding notice situation.

In this way, these AEMO projections and reserve forecasts inform AEMO's decisions on whether to enter reserve contracts and, if reserve contracts are entered into, whether to dispatch these reserves.

Figure 1.2 shows the timing of the first projected reserve shortfall, if applicable, in each NEM region, under each of AEMO's projections and reserve forecast processes. Also shown in the figure is the date when the projection was made.

27 LOR2 occurs when AEMO considers that the occurrence of a critical single credible contingency event is likely to require involuntary load shedding.

28 The NER defines the activation of an unscheduled reserve as either: an increase in the loading level of a generating unit which is not a scheduled generating unit; or a decrease in the demand of a load which is not a scheduled load; in response to a request by AEMO in accordance with an unscheduled reserve contract.

Figure 1.2 Timing of first reserve shortfall projected by AEMO

Region	EAAP (2-year outlook; March 2016 projection)	ST PASA (7-day outlook; 30 March 2016 projection)	MT PASA (2-year outlook; 30 March 2016 projection)	ESOO (10-year outlook, medium demand scenario; October 2015 projection)
NSW	No shortfall	No shortfall	No shortfall	Shortfall 2022-23
South Australia	No shortfall	No shortfall	Shortfall summer 2016-17	Shortfall 2019-20
Victoria	No shortfall	No shortfall	No shortfall	Shortfall 2024-25
Queensland	No shortfall	No shortfall	No shortfall	Shortfall 2021-22 (high demand scenario only)
Tasmania	No shortfall	No shortfall	No shortfall	No shortfall

According to the most recent MTPASA, there are no projected medium term shortfalls in Victoria, NSW, Queensland, or Tasmania. However, the MTPASA shows reserve shortfalls in South Australia in summer 2016-17 and summer 2017-18.[29] This has occurred in every MTPASA run from 13 October 2015, following Alinta's 7 October 2015 announcement that it will cease operation of Northern and Playford B power stations from 31 March 2016.

In contrast, the EAAP indicates that these projected reserve shortfalls in South Australia are not expected to result in reliability standard breaches over the next two years.[30,31]

While AEMO's MTPASA and EAAP processes both have a two-year outlook, and use similar inputs, these two processes are not the same. One difference between these processes is their outputs; the EAAP's output is an expected USE, while MTPASA's output is based on reserve margins (reserve margins were illustrated in Figure 1.1).

The MTPASA is run at least weekly and, as part of a broader process, provides a timely and up-to-date assessment of supply adequacy. The MTPASA assists AEMO to identify potential reserve shortfalls in the NEM, by comparing reserve margins against MRLs (see Figure 1.1, and accompanying discussion). This provides a fast and timely assessment of supply adequacy, without the need to compute the expected USE (which is done by the EAAP).[32]

To confirm its MTPASA findings, and to help inform its decisions on whether to utilise the RERT or another reliability intervention mechanism, AEMO uses its

29 AEMO, Reserve Notice MT PASA Publication, Market Notice, 30 March 2016.

30 However, AEMO notes that some USE (0.001 percent) may occur in South Australia during summer 2017-18, once Torrens Island Power Station is withdrawn.

31 AEMO, Energy Adequacy Assessment Projection, March 2016, p. 6.

32 See discussion in AEMO's Energy Adequacy Assessment Projection for more detail on the differences between MTPASA and the EAAP (AEMO, Energy Adequacy Assessment Projection, March 2016, p. 6).

probabilistic-based processes, such as its EAAP. In the event that its MTPASA projects reserve shortfalls, AEMO applies its EAAP to both estimate the expected USE implied by its MTPASA projections.[33] A projected reserve shortfall in MTPASA is not an automatic trigger for AEMO to use a reliability intervention mechanism, such as the RERT.

1.5 Context for the rule change request

In accordance with clause 3.20.1 of the Rules, the RERT arrangements under the Rules expire on 30 June 2016.[34] Over time, the power of AEMO to operate the RERT has been reviewed and its expiry date extended in response to the particular market conditions. For example, the current RERT expiry date of 30 June 2016 is based on a rule change submitted by the Reliability Panel to the Commission on 1 July 2011. Although the Panel's rule change sought a one year extension of the (then) RERT expiry date of 30 June 2012, the Commission made a final rule determination on 15 March 2012 to postpone the RERT's expiry for a period of four years, to 30 June 2016 (the 2012 Rule determination).[35]

The Commission also determined to remove the requirement placed on the Panel to review the RERT a year prior to its expiry. The rule as made also provided for the removal of all RERT-related provisions from the Rules as at 1 July 2016.[36]

In its 2012 Rule determination, the Commission noted that market uncertainty may potentially delay investment in generation capacity in some regions of the NEM, such that the reliability standard may be breached. Several factors were considered to contribute to that uncertainty, including:

- the impacts of carbon pricing legislation, including periods of policy uncertainty leading to its implementation; and
- the impact of renewable energy generation on wholesale prices that may dampen investment signals for generation capacity in some NEM regions.

The Commission considered that uncertainty regarding the introduction of a carbon pricing regime may have potentially delayed investment in the NEM, and market participants may have required some time to respond to these new policy settings. There may also have been ongoing market uncertainty relating to the impacts of a carbon pricing regime, such as the transition from a fixed carbon price to an emissions trading scheme. The proposed and final Rule was made on the expectation that this type of market uncertainty would abate by 2016.

33 AEMO, Reliability Standard Implementation Guidelines, December 2015.

34 The RERT provisions are set out in Rule 3.20 of the NER.

35 For more information, see AEMC, 2012, Expiry of the Reliability and Emergency Reserve Trader, Final Determination, 15 March 2012.

36 National Electricity Amendment (Expiry of the Reliability and Emergency Reserve Trader) Rule 2012 No. 1.

In addition, policy initiatives were being developed at that time, aimed at reducing barriers to demand-side participation. Reducing barriers to demand-side participation could result in attracting additional capacity to the primary market for reserves, and therefore reduce the need for the RERT.

The Commission considered that it would take some time for these policy changes to be implemented, with their full impact unlikely until after the Australian Energy Regulator (AER) had completed its distribution determinations, in 2016, for each NEM jurisdiction.

For these reasons, the Commission determined to make a Rule that extended the RERT to 30 June 2016.

In making its determination, the Commission also noted that AEMO's 2011 Electricity Statement of Opportunities (ESOO) had projected reserve shortfalls in some NEM regions in 2013-14 or 2014-15, partly reflecting the impact of the above-mentioned uncertainty on investment in generation capacity.[37]

37 AEMO's 2011 ESOO projected a breach of the reliability standard for Queensland in 2013-14, and for Victoria and South Australia in 2014-15. For more details, see AEMO, 2011 Electricity Statement of Opportunities, 30 August 2011.

2 COAG Energy Council's rule change request

This chapter sets out the COAG Energy Council's rationale for the rule change request and the solution it has proposed. This chapter also sets out:

- the Commission's rule making process to date; and
- the consultation process for making submissions on the Commission's draft determination.

2.1 Rationale for the current rule change request

In its rule change request,[38] the COAG Energy Council proposed that the RERT be extended to 30 June 2019, to address uncertainty in the market.

The COAG Energy Council considers uncertainty exists for two broad reasons:

1. Demand-side policies remain less than fully completed or resolved; and
2. A changing generation mix, in which renewable generation is installed and conventional generators exit, has increased the risk of insufficient generation capacity being available.

2.1.1 Demand-side policies

The COAG Energy Council argued that some demand-side policies have not progressed as quickly as was earlier envisaged. The Council identified three such policies:[39]

1. Demand response mechanism (DRM):[40] the Council argued that implementation of a DRM may reduce the need for the RERT, and that the time needed to implement this potential policy is likely to extend beyond the RERT's current expiry date;
2. Smart metering and associated market protocols:[41] the Council argues that potential benefits from the use of smart meters, such as the reduced risk of reserve shortfalls, are likely to be realised after 2016; and

38 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015.

39 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, 10 December 2015, pp. 4-6.

40 The COAG Energy Council has submitted a rule change request to the AEMC for the introduction of a DRM (COAG Energy Council, Demand Response Mechanism, Rule Change Request, 30 March 2015).

41 The COAG Energy Council submitted a rule change request to the AEMC in October 2013 to allow expansion in competition in metering and related services to all customers. The Commission's final

3. Demand Management Incentive Scheme:[42] the Council states that these arrangements can incentivise the uptake of demand management and lessen the need for the RERT. However, the Council argues that any impact the Rule may have is unlikely to be felt until after the RERT's expiry in 2016.

2.1.2 Changing generation mix

The COAG Energy Council notes that certain conventional generation is beginning to exit the NEM as downward pressure on wholesale electricity prices has made operations increasingly uneconomic,[43,44] and at the same time, South Australia's reliance on renewable generation has increased.

The Council argues that a changing generation mix may present challenges for the management of power system security and reliability. In particular, in the absence of the RERT, there is a "risk that current system standards and mechanisms may not be adequate to respond to power system events such as contingencies and changes in demand."[45]

The COAG Energy Council cites the 15-17 January 2014 period, when AEMO contracted for reserves of 650MW, on each day, due to a projected reserve shortfall in Victoria and South Australia. The projected shortfall was a result of record high temperatures and near-record maximum demand in those States. The Council argues that, although AEMO did not engage in load shedding during this period, there were periods with low reserves where the failure of any single major generator or transmission asset could have potentially resulted in load shedding. The low reserve levels reflected a combination of high demand, as well as generator and transmission outages.[46]

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rule determination was made in November 2015, with the new metering rules to commence on 1 December 2017 (AEMC, Expanding Competition in Metering and Related Services, Rule Determination, 26 November 2015).

42 On 20 August 2015, the Commission made a final rule determination that amends and strengthens the existing Demand Management and Embedded Generation Connection Incentive Scheme arrangements. The revised scheme and allowance mechanism will not be in place until 1 December 2016 (AEMC, Demand Management Incentive Scheme, Rule Determination, 20 August 2015).

43 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, p. 3.

44 On 7 October 2015, Alinta Energy announced that two of its conventional generators, Northern and Playford B, in South Australia will cease generation by 31 March 2016.

45 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, p. 3 & 7.

46 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, p. 3.

2.2 Solution proposed in the rule change request

The COAG Energy Council has sought to resolve the issues discussed above by proposing a rule to extend the operation of the RERT from its current expiry of 30 June 2016 to 30 June 2019 by amending clause 3.20.1. The Council has not proposed any other amendments to the NER in relation to the scope or operation of the RERT.

The Council argues that the RERT helps address the potential impact of market uncertainty on power system reliability, in the event that market responses to an uncertainty-induced projected reserve shortfall may not fully address that projected shortfall. Consequently, extending the RERT reduces the likelihood that the reliability standard may be breached, and therefore is consistent with the national electricity objective (NEO).

2.3 The rule making process to date

On 14 January 2016, the Commission published a notice advising of its commencement of the rule making process and the first round of consultation in respect of the rule change request.[47] A consultation paper prepared by AEMC staff identifying specific issues and questions for consultation was also published with the notice. Submissions closed on 11 February 2016.

The Commission received five submissions on the rule change request as part of the first round of consultation. They are available on the AEMC website.[48] A summary of the issues raised in submissions and the Commission's response to each issue is contained in Appendix A.

2.4 Consultation on draft rule determination

The Commission invites submissions on this draft rule determination, including the more preferable draft rule by 19 May 2016.

Any person or body may request that the Commission hold a hearing in relation to the draft rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 14 April 2016.

Submissions and requests for a hearing should quote project number "ERC0198" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

47 This notice was published under section 95 of the National Electricity Law (NEL).

48 www.aemc.gov.au

3 Draft rule determination

The Commission's draft rule determination is to make a more preferable draft Rule. The more preferable draft Rule:

- omits clause 3.20.1 of the National Electricity Rules (NER) which provides for the expiry of the RERT provisions in rule 3.20 on 30 June 2016. The effect of this amendment is that the RERT provisions will continue unless and until a rule change amends or omits those provisions;

- amends clause 3.20.3(d) to provide that AEMO must not enter into or renegotiate contracts for reserves more than ten weeks ahead of a projected shortfall. Clause 3.20.3(d) currently prohibits AEMO from entering into or renegotiating contracts for reserves more than nine months ahead of a projected shortfall in reserves. It is proposed that this amendment would not commence until 1July 2017 in order to provide sufficient time for the Reliability Panel to amend the RERT guidelines, and for AEMO to amend its RERT procedures, to comply with the amended Rule;

- amends clause 3.20.8(a)(4A) to change the obligation on the Reliability Panel to include in its RERT guidelines the process AEMO should undertake in contracting for reserves. Currently, the obligation is in relation to *long, medium and short notice situations*. The draft Rule replaces this with an obligation on the Reliability Panel to include in its RERT guidelines the process AEMO should undertake in contracting for reserves in *different notice situations*;

- repeals the un-commenced provisions in Schedules 2 and 3 of National Electricity Amendment (Expiry of the Reliability and Emergency Reserve Trader) Rule 2012 No.1. These Rules were made in 2012 when the Commission determined that the RERT provisions would expire on 30 June 2016. If these provisions are not repealed then, with effect from 1 July 2016, these provisions would have the effect of removing all RERT related provisions in the Rules and providing for transitional arrangements needed as a consequence of the expiry of the RERT; and

- imposes (through transitional rules) requirements on the Reliability Panel to amend its RERT guidelines, and AEMO to amend its RERT procedures, to reflect the Amending Rule. The Commission seeks stakeholder feedback on the time required for the Reliability Panel to amend the RERT guidelines, and for AEMO to amend its RERT procedures, to comply with the amended Rule.

The more preferable draft Rule made by the Commission is attached to and published with this draft rule determination.

This Chapter outlines the Commission's:

- rule making test for changes to the NER;
- assessment framework for considering the rule change request; and
- consideration of the more preferable rule against the national electricity objective.

Further information on the legal requirements for making this draft rule determination is set out in Appendix C.

3.1 Rule making test

Under the NEL, the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO).

The NEO is:

> "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system."

The AEMC can make a rule that is different (including materially different from the proposed rule if it is satisfied that, having regard to the issues raised in the rule change request, it will or is likely to better contribute to the NEO than the proposed rule.[49]

3.2 Assessment framework

In assessing the rule change request against the NEO, we consider whether or not the proposed rule:

- could improve the reliability of the electricity system; and
- provides any incremental efficiency gains as a safety net, compared to the potential impact on the market and costs associated with the RERT.

Specifically, the Commission considers:

- market uncertainty, partly driven by a changing generation mix, and the potential for this uncertainty to result in projected reserve shortfalls. In this

49 See section 91A of the NEL.

context, we consider the extent to which the RERT has value as an intervention mechanism (a "safety net") to assist AEMO to maintain power system reliability and security, to the extent that market solutions to address these potential reserve shortfalls prove to be insufficient;

- the distortionary impacts of the RERT on the market, such as the potential for the RERT to create a parallel market for reserves, and the ways in which the RERT's design and scope can be modified to minimise these potential market distortions, whilst preserving much of its benefits; and

- the value of greater regulatory certainty: repeated temporary extensions of the RERT create uncertainty about the RERT's future status, and generate doubt about whether the RERT is truly temporary in nature. Ongoing extensions to the RERT's operation also suggest that it is required as an intervention mechanism.

3.2.1 Market uncertainty and the role of intervention mechanisms

As outlined in section 1.3, the RERT is one type of intervention mechanism that AEMO can use to maintain power system reliability, in the event that market mechanisms are insufficient to address potential reserve shortfalls. Allowing the RERT to expire would mean AEMO would be more reliant on reliability directions or clause 4.8.9 instructions, or its relatively informal negotiations with market participants, to maintain reliability.

Consequently, in evaluating the RERT's contribution to the NEO, the Commission considers whether, in the absence of the RERT, AEMO's powers to intervene in the market to meet the reliability standard are likely to be sufficient. The relevance and importance of these issues increase when viewed in the context of a changing generation mix in the NEM.

3.2.2 Distortionary impacts of the RERT

The RERT enables AEMO to contract for reserves with any Registered Participant, not just Directed Participants.[50] In comparison to reliability directions, the RERT broadens the range of entities able to provide reserve contracts, increasing competition and reducing the cost of procuring reserves.

The RERT also provides AEMO with the ability to enter into reserve contracts up to nine months ahead of a projected reserve shortfall, a period of time greater than reliability directions, which can also reduce the costs of procuring reserves. However, procuring reserves too far in advance of a projected shortfall may result in market distortions on both the supply side and demand side.

On the demand side, these distortions relate to constraining the ability of market-based reserve contracts, such as demand-side response. In terms of market responses to a projected reserve shortfall, the Commission understands that some market-based reserve contracts are arranged weeks before the projected reserve shortfall. There is the

50 See footnote 15 for definitions of Registered Participants and Directed Participants.

chance that, by this stage, the customer's reserve is already contracted via the RERT, particularly for long-notice situations. Consequently, the RERT may create a parallel market for reserves, and represent a barrier to market responses to reserve shortfalls.

3.2.3 Regulatory certainty in the context of the RERT

The reserve trader was introduced into the NEM at the time of the NEM's commencement (in December 1998). The proposed Rule represents the seventh extension of the RERT, and its prior reserve trader provisions, during its 17½ years of operation in the NEM.

Ongoing extensions, of a temporary nature, to the RERT's expiry date create regulatory uncertainty about the RERT's future status. The Commission considers that regulatory certainty would be improved if the RERT were either extended indefinitely, or allowed to expire as per its existing sunset clause.

3.3 Summary of reasons

Under section 91A of the NEL, the Commission may make a Rule that is different (including materially different) from a market-initiated rule (a more preferable Rule) if the AEMC is satisfied that, having regard to the issues that were raised by the proposed Rule (to which the more preferable Rule relates), the more preferable Rule will, or is likely to better contribute to the achievement of the NEO.

Having regard to the issues raised in the rule change request, the Commission is satisfied that the more preferable draft Rule will, or is likely to, better contribute to the achievement of the NEO for the following reasons:

- the likelihood and materiality of potential market distortions and costs created by the RERT are outweighed by the benefits of maintaining the RERT indefinitely;
    - while the RERT may create the potential for market distortions, these distortions appear minimal and are even further reduced by the draft amendment to clause 3.20.3(d).[51] Taking into account this amendment, on balance, the costs of the RERT are outweighed by its benefits; and
- the permanent retention of the RERT provides regulatory certainty to the market and to AEMO about the range of intervention tools available to manage reliability in the NEM. Making the RERT a permanent feature of the market provides AEMO and other market participants the opportunity to consider changes that may improve the operation of the RERT.

Additionally, the Commission is satisfied that the more preferable draft Rule will, or is likely to, contribute to the achievement of the NEO for the following reasons:

51 See section 5.4 for discussion of the proposed amendment to clause 3.20.3(d).

- market uncertainty is likely to always be a feature of the NEM, with its consequential impact on generation investment decisions. In recent times, this uncertainty has been associated with:

  - the extent and impact of changes in the generation mix associated with an increasing penetration of renewables in the NEM. The change in the generation mix, in particular the exit of conventional generation, has occurred at a faster pace than the market has anticipated, especially in South Australia; and

  - the mechanisms needed to achieve Australia's post-2020 carbon reduction targets, and the impact of these targets and mechanisms on generation capacity.

    This ongoing uncertainty raises the likelihood of projected reserve shortfalls and the likelihood that the ensuing market responses to address these projected shortfalls may be insufficient; and

- the RERT is a more efficient intervention mechanism than reliability directions or clause 4.8.9 instructions. The efficacy of reliability directions is influenced by the physical and technical limits of plants (for example, the effectiveness of directions to wind generators to increase generation may be limited by the intermittent nature of that plant). In the context of an increasing penetration of intermittent renewable generation in the NEM, reliability directions regarding such plant may be ineffective. Furthermore, there is an economic inefficiency associated with clause 4.8.9 instructions, as involuntary load shedding does not differentiate between customers who place a very high value on continuing supply and customers who place a lower value on continuing supply. In contrast, load curtailment under the RERT is on a voluntary basis.

For these reasons, it is appropriate that the RERT continue to complement other reliability intervention mechanisms.

3.4 Strategic priority

This rule change request relates to the AEMC's strategic priority relating to market arrangements that encourage efficient investment and flexibility. This strategic priority emphasises the importance of market and regulatory arrangements that are predictable, transparent and responsive to changing market and external circumstances.

4 Market uncertainty and the role of intervention mechanisms

This chapter discusses a number of factors that may potentially contribute to market uncertainty, and the extent to which this uncertainty is impacting generation capacity and resulting in potential reserve shortfalls. In light of this uncertainty, the Commission has considered the role of the existing intervention mechanisms to manage reliability, in the event that market responses to address these potential reserve shortfalls are insufficient.

4.1 COAG Energy Council's view

As discussed in Chapter 2, the COAG Energy Council (Council) argues uncertainty exists for two broad reasons:

1. Uncertainty about the extent and timing of implementation, and uncertainty about the impact, of three specific demand-side policies. The Council argues that these policies' impacts are likely to be felt after the RERT's existing expiry date. This uncertainty can limit the market's response to potential reserve shortfalls; and

2. Uncertainty about potential changes in the generation mix. In particular, an increasing penetration of intermittent, renewable generation and the exit of synchronous generation, with the chance of insufficient generation capacity in some NEM regions. While this changing generation mix principally impacts security it can also impact reliability if AEMO is required to shed load to maintain security.

In both cases, the COAG Energy Council argued that market responses to potential reserve shortfalls may be insufficient, thereby necessitating the (temporary) retention of the RERT.

4.1.1 Demand-side participation

The Council argues that policies to encourage demand-side participation (DSP) could assist in managing periods of high demand, reducing the likelihood of load shedding events, and therefore lessening the need for the RERT.[52] However, there is uncertainty associated with the implementation, uptake, and impact of these policies, which can impact the market's ability to address projected reserve shortfalls. The Council proposes a 3-year extension of the RERT, which, it argues, provides sufficient time to resolve the uncertainty associated with these DSP policies.

52 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, pp. 4-5.

4.1.2 Changing generation mix

The Council argues that there has been a surplus of generation in the market, due to a combination of decreasing demand and an increase in renewable generation (wind and solar PV). The Council argues that, in response to the increase in renewable energy generation:

> "…certain conventional generation is beginning to exit the market as downward pressure on wholesale prices has made operations increasingly uneconomic…This changing generation mix, as more renewable generation is installed and conventional generators exist, is likely to present challenges for the management of power system reliability."[53]

The Council argues that their proposed 3-year extension should provide sufficient additional time to consider and respond to the impacts of a changing generation mix on power system reliability.

4.2 Stakeholder views

4.2.1 Demand-side participation

Some stakeholders disagree with the COAG Energy Council's argument that DSP policies remained less than fully completed or resolved. ERM Power argues that this aspect of the COAG Energy Council's argument was a misconception due to the decentralised and non-reportable nature of demand response in the NEM. ERM Power states that:

> "…simply because demand response is not centrally dispatched or routinely reported to AEMO, does not equate to a lack of demand response in the NEM. Demand response is alive and well and efficiently dispatched in the NEM."[54]

The AEC also "disagree with [the COAG Energy Council]'s contention that the delay in the implementation of a demand response mechanism into the wholesale dispatch market is a factor in retaining the RERT".[55] In addition, GDFSAE states that:

> "the lack of demand side participation is not considered a sufficient driver of itself to retain the RERT…None of these [demand side participation] issues impact the rationale for extending or not extending the RERT. As such, GDFSAE does not consider the references to the RERT extension being

53 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, p. 3.

54 ERM Power, Submission to the Consultation Paper, 10 February 2016, p. 3.

55 Australian Energy Council, Submission to the Consultation Paper, 10 February 2016, p. 2.

needed because of demand side management policies not being fully resolved as legitimate."[56]

4.2.2 Changing generation mix

Stakeholders generally agree that there is significant generation mix-induced market uncertainty in the NEM at present, especially in South Australia. The differences in stakeholder views relate to:

- the potential impact of this uncertainty on generation capacity and power system reliability; and
- the extent to which market responses to potential reserve shortfalls may be insufficient.

On the first point, AGL Energy notes that it is clear that significant investment in renewable energy capacity in the NEM, coupled with the retirement of generation capacity, is impacting market outcomes, especially in South Australia. This view is supported by GDFSAE and the AEC.[57]

GDFSAE provides analysis of the changes in peak demand in South Australia showing a decrease of around 600 MW between 2010 and 2015. GDFSAE considers these market changes are sending strong signals for retirement (or mothballing) of plant as baseload generators and scheduled generators struggling to cover their costs.[58]

In contrast, ERM Power considers that the market is responding to changes in the generation mix in a manner consistent with the reliability standard. On the second point, and in relation to the closure of Northern Power Station in South Australia, ERM Power argues that the market is responding appropriately to this closure. Load serving entities have considered this closure and the required characteristics of replacement supply as part of their risk management and investment strategies.

ERM Power also states that retirements of synchronous generation will most likely lead to the provision of additional small distributed generation or fast-start open-cycle gas turbines in South Australia when required to meet projected customer load.[59] ERM Power states that:

"no actual analysis indicating a credible reliability issue in the future has been supplied by the Proponent to justify why the RERT should be extended past 30 June 2016."[60]

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56 GDFSAE, Submission to Consultation Paper, 16 February 2016, pp. 4-5

57 See GDFSAE, Submission to Consultation Paper, 16 February 2016, p. 1 & AEC, Submission to Consultation Paper, 16 February 2016, p. 1.

58 GDFSAE, Submission to Consultation Paper, 16 February 2016, p. 2-4.

59 ERM Power, Submission to Consultation Paper, 11 February 2016

60 ERM Power, Submission to Consultation Paper, 11 February 2016, p5

In contrast, GDFSAE argues that, while market responses are superior to the RERT, such responses may be insufficient for South Australia, due to a lack of synchronous generation in that NEM region. For this reason, GDFSAE argues for:

> "extending the RERT as an emergency measure that is likely to provide a low cost option to avoid failure is better than taking no action at this time."[61]

4.2.3 Adequacy of alternative intervention mechanisms

In addition, stakeholder feedback was sought on whether, in the event that the RERT expired and market responses to potential reserve shortfalls were deemed to be insufficient, AEMO's other intervention mechanisms would be sufficient in maintaining the reliability standard. GDFSAE states that it is:

> "strongly of the view that directions are not sufficient to manage reliability in the [NEM]. Furthermore, the ability to direct plant decreases commensurate with the general availability of that specific plant in the market as merchant plant….Leaving strict legal provisions aside, the complexity of trying to direct plant in the current environment, and where that plant's commercial interests are best served by not being available in the market, weakens any case that directions can be relied upon to manage reliability."[62]

4.3 Analysis

4.3.1 Demand-side participation

DSP policies potentially provide a tool to manage periods of high demand and reduce the risk of load shedding events. These policies may provide incentives to:

- distributed generation to provide additional generation; and
- consumers to reduce demand.

To enter into reserve contracts, AEMO must first project a reserve shortfall. To date, the market operator has entered into reserve contracts on three occasions. On all three of those occasions, the contracted reserves were, ultimately, not dispatched, as earlier projections of reserve shortfalls were revised down to zero once the market operator became aware of the market response to those shortfalls.

This suggests that improving the accuracy of AEMO's projections may increase the chance that reserve contracts, when entered into, are dispatched. Improving projections accuracy may also reduce the likelihood of the RERT being exercised altogether. In

61 GDFSAE, Submission to Consultation Paper, 10 February 2016, p. 5.

62 GDFSAE, Submission to Consultation Paper, 10 February 2016, p. 4.

terms of demand forecasts, one way of improving the accuracy of projections could be through incorporating more information about DSP.

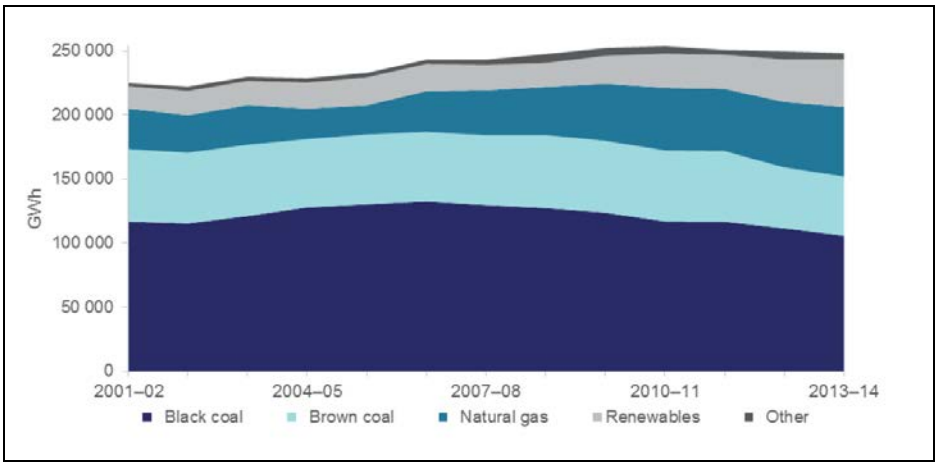
AEMO will be able to obtain DSP information from Registered Participants from September 2016.[63] This may provide AEMO with a better understanding of the nature and extent of demand response, which may improve the precision of its demand projections and, in turn, potentially reduce the size and/or likelihood of projected reserve shortfalls and consequent need for the RERT.

The Commission notes that the DSP policies referred to by the COAG Energy Council have not progressed as far as anticipated at the time of the 2012 Rule determination. While these policies may increase consumer engagement in relation to demand response and provide incentives to increase the uptake of demand management in the NEM, there remains uncertainty about the timing and implementation of these policies.

4.3.2 Changing generation mix

Between 2012 and 2014, renewables increased their share of electricity generation, from 11 percent to 15 percent (Figure 4.2). At the same time there was a decline in coal fired generation from 68 percent to 61 percent of total generation.

Figure 4.2 Generation mix since 2001-02[64]



Renewable generation is expected to continue to play a significant role in the generation mix in the future. At the same time, around 4,550 MW of capacity is planned to be withdrawn by 2020, across the NEM.[65] Around 1,500 MW is planned to be withdrawn from South Australia, by 2017 (Table 4.1).[66]

63 AEMC, National Electricity Amendment (Improving demand side participation information provided to AEMO by registered participants) Rule 2015, Final Determination, 26 March 2015.

64 Department of Industry and Science [Australian Government], Australian Energy Update 2015, p. 20.

65 AEMO, Electricity Statement of Opportunities, August 2015, p. 12.

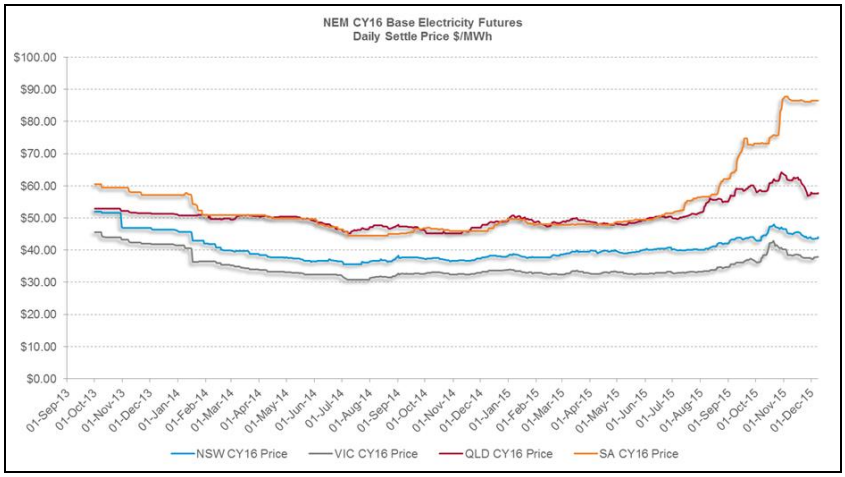
66 AEMO, Energy Adequacy Assessment Projection, 31 March 2016, p. 6.

Table 4.1 Recently announced retirements of conventional generation in South Australia

Generator	Owner	Withdrawn capacity (MW)	Timing
Playford B	Alinta Energy	240	31 March 2016
Northern	Alinta Energy	546	To withdraw from May 2016
Torrens Island (A)	AGL Energy	480	To withdraw from 2017-18
Pelican Point Unit 2	GDFSAE	239	To withdraw from March 2016 and return to service in October 2016. Unit 1 has been withdrawn since March 2015.

In its 2012 Rule determination, the Commission noted that the transition to a carbon pricing regime was expected to result in a change to the generation mix in the NEM, with the likely eventual exit of high carbon-emitting generation. The above evidence is consistent with this expectation. However, the change in the generation mix, in particular the exit of conventional generation, has occurred at a faster pace than the Commission had anticipated at the time of the 2012 Rule determination. This pace of change also appears faster than the market had anticipated, as suggested by the surge in electricity futures prices, particularly in South Australia (see Figure 4.3).

Figure 4.3 Base electricity futures prices ($/MWh)[67]



67 Energetics, What's driving the rise in wholesale electricity prices in the NEM?, Climate Change Matters, 9 December 2015. Available from:http://www.energetics.com.au/insights/latest-news/climate-change-matters/news-on-the-nem

South Australia also has the highest wind and PV generator penetration of any NEM region (1,470 MW of installed wind generation and 540 MW of solar PV). Forecasts are that an additional 1,000 MW wind and 500 MW of solar PV will be added to that region by 2020.[68]

Renewable generation technologies like wind and solar PV have uncertain and variable capacity factors,[69] as their output depends on the prevailing weather conditions. The intermittent nature of wind and other renewable generation increases the likelihood of higher levels of USE, even when installed capacity is sufficiently high. In the context of wind generation, higher levels of USE may occur on hot days with minimal wind.

AEMO notes that wind generation in South Australia generates around half of its capacity in 10 percent of the summer peak periods, and around one quarter of its registered capacity in 50 percent of the summer peaks. Furthermore, wind generation varies under 24MW (which is 1.6 percent of its registered capacity) across five-minute periods, and 38MW across 10-minute periods (2.6 percent of its registered capacity).[70] The variation in wind generation means residual demand must be met by conventional generators, or by imports from Victoria. AEMO also notes that, as more wind farms come online, larger residual demand changes in South Australia are observed more often.[71] Further, while the EAAP analysis indicates that there will be no reliability standard breaches in the next two years, the withdrawal of Northern, Playford B and Torrens Island A will increase South Australia's reliance on wind generation and imports from Victoria. AEMO notes that when high demand coincides with low wind generation, plant outages, or low levels of imports, South Australia may experience supply shortfalls.[72]

Reliability performance in the NEM

The Reliability Panel's most recent review of performance in the NEM found that the reliability standard was met in 2013-14. The Panel also found that:

- over the past ten years, there have been two instances where the reliability standard (USE of no more than 0.002%) was not met within a financial year (Table 4.2); and
- there is no indication that the reliability of the NEM has deteriorated.

68 Reliability Panel, Annual Review of Performance 2014, Final Report, 16 July 2015, p. 26.

69 The capacity factor of a power plant is the ratio of its actual generation over a period of time, to its potential generation if that plant was continuously operating at its full capacity over that period of time.

70 AEMO, South Australian Wind Study Report, October 2015.

71 AEMO, 2015 South Australian Wind Study Report, October 2015, p. 4 & 15.

72 AEMO, Energy Adequacy Assessment Project, 31 March 2016, p. 4.

Table 4.2 Regional USE for the past 10 years[73]

Year	Queensland %	New South Wales %	Victoria %	South Australia %	Tasmania %
2013-14	0.0000	0.0000	0.0000	0.0000	0.0000
2012-13	0.0000	0.0000	0.0000	0.0000	0.0000
2011-12	0.0000	0.0000	0.0000	0.0000	0.0000
2010-11	0.0000	0.0000	0.0000	0.0000	0.0000
2009-10	0.0000	0.0000	0.0000	0.0000	0.0000
2008-09	0.0000	0.0000	**0.0040**	**0.0032**	0.0000
2007-08	0.0000	0.0000	0.0000	0.0000	0.0000
2006-07	0.0000	0.00005	0.0000	0.0000	0.0000
10 year average USE by region	**0.0000**	**0.0000**	**0.0004**	**0.0003**	**0.0000**

AEMO's ESOO projections[74] set out the timing, and extent, of the first Low Reserve Condition (LRC) for each region, under its medium demand scenario as follows:[75]

- South Australia: USE of 0.0022% in 2019-20, as a result of capacity reductions within the region and an increasing reliance on imports from Victoria.
- NSW: USE of 0.0056% in 2022-23, as a result of capacity withdrawals in 2014 and 2015.
- Victoria: USE of 0.0033% in 2024-25, as a result of increasing exports to support South Australia and NSW and a projected increase in Victorian demand.
- Queensland: no shortfall (under a high demand scenario, the USE is 0.0043%, in 2021-22).
- Tasmania: no shortfall (under any of the three demand scenarios).

The most recent EAAP (covering the period 1 April 2016 to 31 March 2018) projected that the reliability standard would be met for all regions over its 2-year outlook.[76]

73 Reliability Panel, Annual Review of Performance 2014, Final Report, 16 July 2015, pp. 16-17.

74 AEMO updated the ESOO in October 2015 following Alinta's announcement that Northern Power Station will be withdrawn by 31 March 2016. The update did not change the projections contained in the August 2015 ESOO.

75 AEMO, 2015 Electricity Statement of Opportunities, August 2015, pp. 11-12.

76

However, AEMO notes that some USE (0.001 percent) may occur in South Australia during summer 2017-18, once Torrens Island Power Station A (480MW) is withdrawn. AEMO's projection of no USE in Tasmania is based on the return of the Basslink Interconnector is returned to service by mid-June 2016.[77]

4.3.3 Other sources of uncertainty

The Commission's 2012 Rule determination noted the uncertain impacts on generation investment decisions of the Carbon Tax and the Contract for Closure program, which sought to negotiate the withdrawal of 2,000 MW of high carbon emitting generation from the NEM. The Commission's determination to extend the RERT to 30 June 2016 was made on the expectation that carbon policy-induced uncertainty would abate by 2016.

The Australian Government repealed the Carbon Tax, effective from 1 July 2014, and the Contract for Closure program was closed in September 2012 without securing any contracts. However, there remains uncertainty around the potential impact of the mechanisms that may be used to achieve the Australian Government's post-2020 carbon reduction goals[78] on the electricity generation sector, and uncertainty about the mechanisms that may be needed to achieve these goals.

The Commission considers that this uncertainty may delay investment in generation capacity in some regions of the NEM, than that currently indicated by AEMO (see Figure 1.2). This uncertainty increases the likelihood of breaching the reliability standard as it increases the likelihood that ensuing market responses to projected reserve shortfalls may be insufficient.

4.4 Conclusions

The Commission considers that market responses to potential reserve shortfalls are preferred to intervention mechanisms, such as the RERT. However, the current and future changes in the generation mix create uncertainty that market responses may be insufficient.

In addition to generation mix-induced uncertainty, there is uncertainty around the design, implementation, and impact of potential mechanisms to meet Australia's post-2020 carbon reduction commitments. This uncertainty is likely to impact on the timing and extent of generation investment, which may result in greater instances of reserve shortfalls and lead to insufficient market responses to these shortfalls.

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77 AEMO, Energy Adequacy Assessment Projection, 31 March 2016, p. 1 & 6.

78 The Australian Government's has stated its commitment to reducing carbon emissions to 26-28 percent on 2005 levels by 2030 (Source: Department of the Environment [Australian Government], Australia's 2030 Climate Change Target, Fact Sheet, 2015). http://www.environment.gov.au/climate-change/publications/factsheet-australias-2030-climate-change-target.

5 Market distortions and costs

This chapter examines the potential market distortions caused by the RERT. In assessing the impacts of these potential distortions, the Commission considers the likelihood and materiality of these distortions, and changes to the RERT's scope and operation that may reduce these distortions.

5.1 COAG Energy Council's view

The COAG Energy Council notes that the RERT has the potential to distort the market by:

- allowing participants to contract for reserves above the MPC; and/or
- marginalising demand-side participants into a reserve market, instead of contracting with retailers.

The COAG Energy Council argues that these distortions are not likely to be material, given the historically infrequent use of the RERT and reserve trader provisions. Given this infrequent use, the COAG Energy Council states that it is unlikely that participants would avoid the primary market for reserves in preference to potentially contracting with AEMO. The COAG Energy Council also argues that while the potential for market distortions exists, these benefits are outweighed by the benefits of maintaining reliability of supply for consumers.[79]

5.2 Stakeholder views

In submissions, stakeholders raise concerns about the potential for the RERT to distort the market and increase costs for consumers. However, views on the extent of the distortions and costs vary.

ERM Power considers that the RERT has the potential to create the following distortions in the market:

- the RERT may lead to withholding of new demand response or delays in the provision of new generation, that would normally be facilitated through risk management processes;
- existing suppliers may make pending closure announcements in order to access additional funds to maintain existing facilities, which may have remained available anyway; and
- the pricing methodology used in an AEMO intervention event (see section 1.3) not only increases spot prices above the MPC, but also displaces generation that

79 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015.

may otherwise have been dispatched. This could impact the total revenue received by generators and the inability to meet hedge contracts, which could ultimately lead to a reduction in supply offered to the NEM.[80]

For these reasons, ERM Power is concerned that the RERT has a negative impact on market participants' risk management processes and raises hedging costs for participants. Furthermore, the costs associated with the RERT, which include availability and dispatch payments, are passed through to retailers and end-customers who "had no input into the RERT decision making process."[81]

GDFSAE also expresses concerns about the potential for the RERT and the reliability settings to distort investment signals. In particular, GDFSAE considers that the existence of the MPC may be an impediment to the market delivering generation, as it may:

- may dampen investment and contracting signals;
- undermine existing asset values; and
- lead to premature retirements.82

AGL Energy and the AEC note that the infrequent use of the RERT suggests that, in practice, the RERT is unlikely to have had any meaningful impact on either demand or supply side incentives.[83] GDFSAE notes it does not object to the RERT on a cost basis, given the small cost of the RERT, relative to the NEM's annual turnover.

5.3 Analysis

The RERT enables AEMO to contract for reserves with all Registered Participants, not just Directed Participants. The Rules also specify that additional capacity procured under the RERT must not otherwise be available to the market.[84] As such, in comparison to reliability directions, the RERT broadens the range of entities able to provide reserve contracts. In doing so, the RERT increases competition and hence reduces the cost to AEMO of procuring reserves.

The RERT also provides AEMO with the ability to enter into reserve contracts up to nine months ahead of a projected reserve shortfall, a period of time greater than reliability directions, which can also reduce the costs of procuring reserves. However,

80 ERM Power, Submission to Consultation Paper, 11 February 2016.

81 ERM Power, Submission to Consultation Paper, 11 February 2016, p. 2.

82 GDFSAE, Submission to Consultation Paper, 16 February 2016.

83 Australian Energy Council (AEC), Submission to Consultation Paper, 16 February 2016; and AGL Energy, Submission to Consultation Paper, 11 February 2016.

84 Clauses 3.20.3(h) & (j). See also: AEMC Reliability Panel, Reliability and Emergency Reserve Trader (RERT) Guidelines, 16 June 2010, p. 1 & AEMO, Procedure for the Exercise of Reliability and Emergency Reserve Trader (RERT), 17 October 2014, p. 14.

procuring reserves too far in advance of a projected shortfall may result in market distortions on both the supply side and demand side.

On the demand side, these distortions relate to constraining the ability of market-based reserve contracts, such as demand-side response. The Commission understands that retailers typically approach their customers, for the purposes of reserve procurement, a few weeks prior to a projected reserve shortfall. There is a risk that, by this stage, the customer's reserve is already contracted to AEMO via the RERT. Consequently, the RERT may create a parallel market for reserves, and represent a barrier to market responses to projected reserve shortfalls. Stakeholders have expressed ongoing concerns in relation to this point.[85]

The efficacy of the RERT needs to be compared to the efficacy of other reliability intervention mechanisms available to AEMO. In the context of an increasing penetration of intermittent renewable generation in the NEM, reliability directions regarding such plant may be ineffective and/or inefficient. The efficacy of reliability directions is influenced by the physical and technical limits of plants. For example, the effectiveness of directions to wind generators to increase generation may be limited by the intermittent nature of that plant).[86]

Furthermore, AEMO is required to pay compensation to Directed Participants, as noted in section 1.3. AEMO is also required to compensate Affected Participants[87] for costs they incur in complying with reliability directions. In 2001, a single reliability direction event resulted in compensation payments of $23 million to directed and affected participants.[88]

While clause 4.8.9 instructions do not have a direct cost to AEMO and to market participants, involuntary load shedding can impose significant costs on end-customers, to the extent that customers whose loads are being shed place a higher value on reliability than the MPC.

The cost of the RERT should also be placed in the context of the size of the NEM. Relative to the size of the NEM, the cost of the RERT to date (which total $5.4 million in

85 This issue was raised by the Reliability Panel and ERAA in response to the Commission's 2012 Draft Determination. For a more recent discussion, see ERM Power, Submission to Consultation Paper, 11 February 2016.

86 GDFSAE cites two examples where AEMO's power to issue directions may not be relied on to manage reliability: 1. a gas plant with no firm contractual gas arrangements is unlikely to be able to respond to directions on the day, r even with a few days' notice; and 2. a mothballed plant may require long recall times and may not be able to respond to directions (GDFSAE, Submission to Consultation Paper, 16 February 2016, p. 4).

87 An Affected Participant is a Participant with schedule generating units or a scheduled network service provider that was not the subject of the direction, but which had their dispatch quantity affected by the direction.

88 AEMC Reliability Panel, Comprehensive Reliability Review, Final Report, December 2007, p. 75.

availability payments) is only 0.05 per cent of the $10 billion in annual turnover in the NEM.[89]

5.4 Conclusions

Due to the infrequent use of the RERT to date, the modest size of the associated availability payments, and the requirement that capacity procured under the RERT must not otherwise be available to the market, the Commission considers the distortions associated with the RERT to be minimal. It considers that the irregular use of the RERT is unlikely to provide sufficient incentive to withhold reserves (either supply or demand response) in order to contract with AEMO.

To the extent that the RERT potentially distorts the market, and in order to address repeated concerns amongst stakeholders about those distortions, the Commission has determined to make a more preferable draft Rule to reduce the period prior to a projected reserve shortfall in which AEMO may enter into reserve contracts, from nine months to ten weeks.

This will:

- give market participants greater time and opportunity to respond to a projected reserve shortfall, before AEMO seeks to enter into RERT contracts. The Commission views market responses as a more economically efficient outcome than reserve contracting, and the draft Rule is consistent with this view;
- minimise the likelihood that, in contracting for reserves, AEMO crowds out potential market-based arrangements (such as retailers seeking to engage with their customers to reduce load); and
- by only being able to act closer to real time, allow AEMO to utilise new and more up-to-date information to inform both its assessments of capacity adequacy, and its decisions on whether to enter reserve contract. This can reduce the risk that reserve contracts are entered into, but not dispatched.

The application of the more preferable draft Rule to the current RERT guidelines has the effect of removing the long-notice situation and the need for AEMO to conduct a full tender.[90] The draft Rule increases AEMO's reliance on the RERT panel as the provider of reserves. To minimise the costs of reserve contracts, it is important that the RERT panel be composed of a sufficiently wide range of entities so that there is competition amongst RERT panellists for reserve contracts.

The choice of ten weeks is based on a scenario where AEMO projects a reserve shortfall and does not have any members on the RERT panel. In this scenario, AEMO have

89 AEMC, Extension of the Reliability and Emergency Reserve Trader, Consultation Paper, 14 January 2016.

90 The amendments to clauses 3.20.3(d) and 3.20.8(4A) will commence on 1 July 2017 in order to provide sufficient time for AEMO to amend the RERT procedures and for the Reliability Panel to amend the RERT Guidelines.

indicated that they would need ten weeks to recruit members to the RERT panel and enter into reserve contracts, without resorting to a full tender process. As a full tender process takes three months, requiring AEMO to conduct a full tender for reserve contracts would require a timeframe for the RERT of around six months.

The Commission invites stakeholders to comment on whether reducing the contracting period from nine months to ten weeks will provide sufficient time for AEMO and interested parties to commence contract negotiations and enter into reserve contracts, without resorting to a full tender process.

The more preferable draft Rule also preserves the RERT's safety net feature, and is more consistent with the RERT's role as an intervention mechanism. This is discussed in more detail in the next chapter.

6 The RERT as a necessary intervention mechanism

This chapter considers whether the RERT offers benefits as a reliability intervention mechanism (a 'safety net'), in the event that market solutions to projected reserve shortfalls are insufficient.

In evaluating the RERT's contribution to the NEO, we also consider whether, in the absence of the RERT, AEMO's powers to intervene in the market to maintain the reliability standard are likely to be sufficient.

6.1 COAG Energy Council's view

The COAG Energy Council argues that, given the various forms of uncertainty currently existing in the NEM, the RERT should be retained as a safety net, as market responses (such as the availability of generation capacity) may not be sufficient to maintain the reliability standard.[91]

While acknowledging the distortionary potential of the RERT (discussed further in section 4.2), the COAG Energy Council argues that:

> "On balance, any minimal market distortions created by extending the RERT until 30 June 2019 are likely to be outweighed by the benefits of maintaining reliability of supply of electricity to consumers and ensuring that the risk of load shedding events are minimised."[92]

6.2 Stakeholder views

Both AGL Energy and GDFSAE consider that in the current transformative environment of the NEM, safety-net measures are beneficial in terms of reliability and security. However, both stakeholders considered that a broader assessment of reliability in the NEM is required than just assessing whether the RERT should be retained.[93]

GDFSAE argues that while it supports a broader assessment of reliability, such as the efficacy of the reliability settings and the intervention mechanisms, changes to the reliability settings:

91 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015.

92 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader, Rule Change Request, December 2015, p. 8.

93 AGL Energy, Submission to Consultation Paper, 11 February 2016; and GDFSAE, Submission to Consultation Paper, 16 February 2016.

"…do not provide an immediate lever for the [AEMO] to use in the event of a crisis situation. For this reason alone, the benefits of the RERT cannot be discounted at this time."[94]

6.3 Analysis

The RERT is an intervention mechanism that complements clause 4.8.9 instructions and reliability directions. Allowing the RERT to expire would mean AEMO may be more reliant on reliability directions or clause 4.8.9 instructions, or its relatively informal negotiations with market participants, to maintain reliability. As noted in section 5.3, reliability directions or clause 4.8.9 instructions are typically more costly interventions than the RERT.

The Commission also notes the International Energy Agency's (IEA) recent analysis of energy markets in which it considered the role of reliability settings in managing the transition to a low carbon power system. In the report, the IEA notes that strategic reserves can be a useful instrument to maintain short-term security of supply. The IEA notes that well designed reliability mechanisms can provide an additional safety net to address the uncertainties of decarbonisation whilst maintaining reliability standards.[95]

Whilst noting the potential for strategic reserves to distort the market by some participants withholding supply or demand response, the IEA concludes that any market inefficiency introduced by a strategic reserve is likely to be small, provided the reserve is small in volume and only dispatched under exceptional circumstances.

6.4 Conclusions

The more preferable draft Rule preserves the safety net feature of the RERT, should market responses prove to be insufficient.

The Commission considers that reliability directions and clause 4.8.9 instructions cannot be solely relied upon to manage reliability. As discussed in section 5.3, the Commission considers that the efficacy of reliability directions and clause 4.8.9 instructions can be lower than the efficacy of the RERT.

Consequently, the Commission considers that the RERT should be retained as an intervention mechanism to complement the other reliability intervention mechanisms in the NEM.

94 GDFSAE, Submission to Consultation Paper, 16 February 2016, p. 4.

95 IEA, Re-Powering Markets: Market design and regulation during the transition to low-carbon power systems, Electricity Market Series, 2016

7 Regulatory certainty

This chapter considers the extent to which ongoing, relatively temporary, extensions to the RERT create regulatory uncertainty about the RERT and its future status, and discusses how the more preferable draft Rule adds regulatory certainty to the RERT provisions. In the context of regulatory certainty, the AEMC's consultation paper sought stakeholder views on the time extension for the RERT, if it were to be retained.

7.1 Stakeholder views

Two of the five submissions oppose any extension of the RERT.[96] The other submissions consider that, in the context of the current market uncertainty, a temporary extension of the RERT may be appropriate.[97] Both AGL Energy and GDFSAE consider the Commission should review the RERT as part of a broader review of reliability, the reliability settings, and the intervention mechanisms used in the NEM.[98]

7.2 Analysis

The proposed Rule represents the seventh extension of the RERT and its prior reserve trader provisions, in its 17½ years of operation. Ongoing extensions, of a temporary nature, to the RERT's operation cast doubt on the claim that the RERT (and the reserve trader) is a temporary measure, and create regulatory uncertainty about the RERT's future status. These ongoing extensions also suggest that the RERT is a required intervention mechanism.

The Commission notes that the reserve trader (and the RERT) was designed with a sunset clause, reflecting the view that, over the longer term:

- market mechanisms coupled with the reliability settings (for example, the MPC) should be sufficient to maintain reliability in the NEM; and
- to the extent that market responses to reserve shortfalls proved to be inadequate, reliability directions and clause 4.8.9 instructions would be sufficient to maintain power system reliability in an economically efficient way.

As discussed in Chapter 4, ongoing market uncertainty around current and future changes in the generation mix and the level and type of future investment in electricity generation, create the potential for greater instances of reserve shortfalls in the future, and a greater risk that ensuing market responses may be insufficient. This creates the

96 ERM Power, Submission to Consultation Paper, 11 February 2016, p. 5 & AEC, Submission to Consultation Paper, 16 February 2016, p. 1.

97 GDFSAE, Submission to Consultation Paper, 16 February 2016, pp. 4-5, AGL Energy, Submission to Consultation Paper, 11 February, pp. 1-2 & Origin Energy, Submission to Consultation Paper, 11 February 2016, p. 1.

98 Any broader review is beyond the scope of this rule change request.

need for appropriate intervention mechanisms. As discussed in Chapter 5, the RERT has been a cheaper and more efficient intervention mechanism than either reliability directions or clause 4.8.9 instructions.

In its Comprehensive Reliability Review (CRR), the Panel argued that reliability directions powers were a necessary part of the overall reliability settings for the NEM, and these powers should not be allowed to expire.[99] The Panel argued that the existing NER clause 4.8.9(h) created ambiguity as to whether this power had an expiry date of 1 July 2008. Rather than a temporary extension, the Panel argued for an indefinite extension via the removal of the sunset clause. This view was supported by virtually all stakeholders who participated in the CRR, reflecting a common recognition on the important role played by reliability directions.

In 2008, the Panel sought to indefinitely extend NEMMCO's power to issue reliability directions. The Commission agreed with the Panel and amended the Rules such that this ambiguity was removed.[100]

The Commission notes that AEMO has previously suggested the following changes to the operation of the RERT:[101]

- reducing the costs of panel participation by compensating RERT panellists for "prudent and demonstrable" costs incurred in establishing and proving their reserves. AEMO stated it was aware that the administrative burden has deterred some potential participants from joining the RERT panel; and

- relaxing double-dipping checks for short-notice reserves – as a condition of appointment to the RERT panel, a demand-side provider must consent to allow AEMO to verify with the relevant retailers that the end-use customers that comprise their reserve offer are not otherwise contracted. AEMO noted that these providers consider this information disclosure to be a major deterrent to joining the RERT panel, as it reveals commercially sensitive information to a potential competitor, who could use the acquired information to approach those customers.

These suggestions may improve the RERT's operation in the future, and may be worth considering given that the Commission's draft Rule seeks to remove the RERT's sunset clause.

We invite stakeholder feedback on the efficacy of the above-mentioned opportunities to improve the RERT's operation, as well as the specification of a ten-week period under the proposed amendment to clause 3.20.3(d) (see Chapter 5).

In relation to the need for a broader review of reliability as suggested by some stakeholders, the Commission notes that the Panel undertakes a comprehensive review

99 AEMC Reliability Panel, Comprehensive Reliability Review, Final Report, December 2007.

100 AEMC, NEM Reliability Settings: Information, Safety Net and Directions, Final Rule Determination, 26 June 2008.

101 AEMO, Submission to Draft Determination (2012 Rule), 3 January 2012.

of the reliability standard and reliability settings every four years (the Reliability Standard and Settings Review). The last review was completed in 2014 and contained the Panel's decision to retain the form and level of the reliability standard to apply from 1 July 2016, and made recommendations on the reliability settings (MPC, CPT and MPF) to apply from 1 July 2016.[102]

Ahead of the next Review (due to be completed in 2018), the Panel is required to develop Reliability Standard and Settings Guidelines outlining the principles and assumptions it will use in conducting the reliability standard and settings review.

The Panel also prepares an annual review of the performance of the NEM in terms of reliability, security and safety of the power system. The last review was completed in 2015 and found that:[103,104]

- the reliability of the NEM is consistent with the reliability standard; and
- there were no power system incidents that resulted in interruptions to customer load.

7.3 Conclusions

The Commission considers that the RERT complements other reliability intervention mechanisms, and therefore should be retained indefinitely (as is the case for the other reliability intervention mechanisms). The permanent retention of the RERT increases regulatory certainty about the range of intervention tools available to manage reliability in the NEM.

Making the RERT a permanent feature of the market should also provide AEMO and market participants with the opportunity to consider changes that may improve its operation. Opportunities to improve the effectiveness and efficiency of the RERT may also, in time, be considered by the Reliability Panel, should there be a need to improve either the scope or operation of the RERT.

In order to retain the RERT indefinitely, the more preferable draft Rule repeals Schedules 2 and 3 of the National Electricity Amendment (Expiry of the Reliability and Emergency Reserve Trader) Rule 2012 No.1. These provisions are due to commence on 1 July 2016. Schedule 2 of National Electricity Amendment (Expiry of the Reliability and Emergency Reserve Trader) Rule 2012 No.1 provided for the omission of the provisions of rule 3.20 and all RERT-related provisions of the National Electricity Rules (NER) with effect from 1 July 2016 and Schedule 3 of the 2012 Rule contained transitional arrangements related to the expiry of the RERT provisions.

102 See section 1.2.2 for a discussion of the reliability standard and settings.

103 AEMC, Reliability Panel, Annual Market Performance Review 2014, 13 May 2015.

104 More information Reliability Panel's work program can be found at: http://www.aemc.gov.au/About-Us/Panels-committees/Reliability-panel

Abbreviations

AEC	Australian Energy Council
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
APC	Administered Price Cap
AFP	Administered Price Floor
APP	Administered Pricing Period
COAG Energy Council	Council of Australian Governments' Energy Council
Commission	See AEMC
Council	See COAG Energy Council
CPT	Cumulative Price Threshold
DRM	Demand Response Mechanism
DSP	Demand Side Participation
EAAP	Energy Adequacy Assessment Project
ESOO	Electricity Statement of Opportunities
GDFSAE	GDF Suez Australian Energy
IEA	International Energy Agency
LOR	Lack of Reserve
LRET	Large Scale Renewable Energy Target
LRC	Low Reserve Condition
MPC	Market Price Cap
MPF	Market Price Floor
MRL	Minimum Reserve Level

MT PASA	Medium-term PASA
MCE	Ministerial Council on Energy
NEFR	National Electricity Forecasting Report
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company (succeeded by AEMO)
NEO	National Electricity Objective
NECF	National Energy Customer Framework
PASA	Projected Assessment of System Adequacy
RERT	Reliability and Emergency Reserve Trader
RET	Renewable Energy Target
Rules	see NER
ST PASA	Short-term PASA
the Panel	Reliability Panel
TNSP	Transmission Network Service Provider
USE	Unserved energy

A Summary of issues raised in submissions

Stakeholder	Issue	AEMC Response
	Adequacy of Electricity Supply	
ERM Power, pp. 1, 4 & 5.	ERM Power considers that the NEM has exhibited high reliability since its commencement in 1998. ERM Power further considers that efficient risk management processes have resulted in the provision of new generation ahead of schedule to not only meet customer needs, but also supply sufficient reserves to ensure that credible contingency events can be met without interruption of supply to consumers. ERM Power considers that "no actual analysis indicating a credible reliability issue in the future has been supplied by the Proponent to justify why the RERT should be extended passed 30 June 2016." In relation to the changes in generation mix, particularly the closure of Northern Power Station in South Australia, ERM Power considers that load serving entities have considered this closure and the required characteristics of replacement supply as part of their risk management processes. The replacement supply could be either the dispatch of additional demand management, or more suitable demand matched generation (which takes account of the intermittent output of wind generation). ERM Power believes this will most likely lead to the provision of additional small distributed generation or fast-start open-cycle gas turbines in South Australia when required to meet forecast customer load.	The AEMC considers that while the NEM has, to date, exhibited high reliability, ongoing market uncertainty (as discussed in section 4.3) raises the likelihood that the reliability standard might be breached going forward. The NEM is currently characterised by market uncertainty around the extent and impact of changes in the generation mix, as well as uncertainty about the mechanisms needed to achieve Australia's post-2020 carbon reduction targets, and the impact of these targets and mechanisms on generation capacity. This uncertainty raises the likelihood of projected reserve shortfalls and the likelihood that the ensuing market responses to address these projected shortfalls may be insufficient.
Australian Energy Council	The AEC considers that significant investment in intermittent energy capacity underpinned by out-of-market payments, coupled with the	See the previous response.

Stakeholder	Issue	AEMC Response
(AEC), p. 1.	retirement of generation capacity is impacting market outcomes in the NEM. The AEC considers that with some thermal plant assets expected to retire or become mothballed there may be limited opportunities for AEMO to contract with supply side reserves in order to operate the RERT (noting that demand side participation remains an option). The AEC notes that AEMO is due to report on analysis to address the projected low reserve projections in South Australia for summer 2016-17 and summer 2017-18.	
GDF Suez Australian Energy (GDF SAE), pp. 1-3.	GDFSAE notes concerns about the ability for synchronous generators to recover costs in the NEM as renewable technologies continue to be developed and centrally dispatched (supported by policies such as the Renewable Energy Target and jurisdictional programmes). GDFSAE supports the development of renewable technologies, but believes that this should not compromise system security. GDFSAE provides analysis of the changes in peak demand in South Australia, suggesting a decrease of around 600 MW between 2010 and 2015. GDFSAE considers these market changes are sending strong signals for retirement (or mothballing) of plant as baseload generators and scheduled generators struggling to cover their costs. GDFSAE considers that the transformation in the energy market needs to be supported by tailored reform, particularly in South Australia. GDFSAE considers there are acute challenges in the NEM at present,	See the previous response.

Stakeholder	Issue	AEMC Response
	and that extending the RERT as an emergency measure that is likely to provide a low cost option to avoid failure is better than taking no action at this time.	
AGL Energy, p. 2.	AGL considers that it is clear that the significant investment in renewable energy capacity in the NEM, both large and small scale, coupled with the retirement of generation capacity, is impacting market outcomes. AGL cites the example of market outcomes in South Australia in October and November 2015, where AEMO was required to contract 35MW of FCAS, and a trip at the Heywood interconnector resulted in load shedding in the region. AGL considers there is merit in completing a comprehensive assessment as to what measures, if any, are required to ensure electricity supply reliability and security during the transformation of the sector (including measures aimed at addressing the oversupply of generation capacity in the NEM.	See the previous response. In addition, the Reliability Panel undertakes a comprehensive review of the reliability standard and reliability settings every four years (the Reliability Standard and Settings Review). The last review was completed in 2014 and contained the Panel's decision to retain the form and level of the reliability standard to apply from 1 July 2016, and made recommendations on the reliability settings (MPC, CPT and MPF) to apply from 1 July 2016. Ahead of the next Review (due to be completed in 2018), the Panel is required to develop Reliability Standard and Settings Guidelines outlining the principles and assumptions it will use in conducting the reliability standard and settings review. The Panel also prepares an annual review of the performance of the NEM in terms of reliability, security and safety of the power system. The last review was completed in 2015 and found that: • the reliability of the NEM is consistent with the reliability standard; and

Stakeholder	Issue	AEMC Response
		• there were no power system incidents that resulted in interruptions to customer load. Further, the AEMC notes that the Reliability Panel may review the effectiveness of the RERT through its Annual Market Performance Review and, if so inclined, a review of the RERT guidelines.
ERM Power, pp. 4-5.	ERM Power considers the Commission should discuss with AEMO the discrepancies in the current MT PASA outcomes for South Australia and the ESOO and EAAP projections. ERM Power believes that the Commission should consider the weighting applied to the MTPASA outcomes in considerations with regards to the extension of the RERT.	The Commission notes the differences in modelling methodologies and outcomes from AEMO's MT PASA and EAAP. The Commission understands that AEMO confirms its MTPASA results by applying probabilistic studies, such as the EAAP before intervening in the market.
Costs of the RERT		
AEC, p. 2.	The AEC considers it is a difficult proposition to assess the effectiveness of the RERT, as capacity has been contracted for, but not dispatched or activated. As such, the RERT is highly unlikely to have had any meaningful impact on incentives in the market, either for supply side or demand side.	Given the infrequent use of the RERT to date and the relative size of the availability payments made under the RERT, the Commission considers the potential distortions created by the RERT to be minimal. Further, the relatively low prices paid under the RERT are unlikely to provide sufficient incentive to withhold capacity (either supply or demand) in order to contract with AEMO. By reducing the RERT notice period from nine months

Stakeholder	Issue	AEMC Response
		to ten weeks, the Commission's more preferable draft Rule constrains AEMO's ability to act in advance of market responses to reserve shortfalls, minimising the risk that the RERT creates a parallel market for reserves.
GDFSAE, p. 4.	GDFSAE considers that if the RERT values capacity in excess of the market price cap, then the market price cap may be too low. GDFSAE considers the existence of the market price cap is an impediment to the market delivering value to generation, further that an artificial cap mutes investment and contracting signals, undermines existing asset values and is likely to lead to premature retirements. GDFSAE considers the balance between managing risks via the reliability settings and incentivising new generation investment is an area the Commission should consider now, rather than in the context of the next reliability settings review.	See the previous response.
AGL Energy, p. 2.	AGL considers it is a difficult proposition to assess the effectiveness of the RERT, as capacity has been contracted for, but not dispatched or activated. As such, the RERT is highly unlikely to have had any meaningful impact on incentives in the market, either for supply side or demand side.	See the previous response.
GDFSAE, p. 3.	GDFSAE considers that the RERT is second best to market based solutions, however such solutions are unlikely to deliver reliability in the	See the previous response.

Stakeholder	Issue	AEMC Response
	current environment. As such, and given the small cost of the RERT, relative to the annual turnover of the NEM, GDFSAE does not object to the RERT on a cost basis. However, GDFSAE considers that AEMO's management of the RERT must be carefully considered to minimise costs and ensure there are limited, if any, market distortions.	Further, the Commission considers the permanent retention of the RERT will provide AEMO and market participants the opportunity to consider what, if any, changes are required to improve the RERT's operation. Other opportunities to improve the effectiveness of the RERT may also be considered by the Reliability Panel.
ERM Power, pp. 2-5.	ERM Power considers that an extension of the RERT has the potential to lead to withholding of possible new demand response or delays in the provision of new generation that would normally be facilitated through risk management processes. ERM Power further considers that an extension of the RERT may lead to possible gaming by existing suppliers via pending closure announcements to access additional funds from consumers to maintain existing facilities, which would have a high probability of remaining available anyway. ERM Power considers the extension of the RERT will add to the risk management process, the cost of which is borne by end consumers who will ultimately pay for the reliable supply through: • High MPC and CPT settings; • The combined costs of RERT contracts, which may or may not be dispatched; and	See the previous response. The Commission notes ERM Power's concerns about the cost impact of the RERT on end consumers and market participants. The Commission considers that costs associated with the RERT can be difficult to hedge. To this end, the reduced contracting period in the more preferable draft Rule provide the market with greater certainty that the reserve contracts are indeed required to maintain reliability and avoid potentially higher-cost load shedding events.

Stakeholder	Issue	AEMC Response
	• The negative impact that the RERT extension has on the normal risk management process. ERM Power further considers that the RERT has a negative impact on NEM risk management processes and leads to increased costs for consumers. ERM Power notes that while contracted reserves have not been dispatched in the past, the cost of the reserve procurement was nevertheless borne by "retailers and consumers who have had no input into the RERT decision making process." ERM Power considers that the 'what if' pricing outcomes allowed for in the event of AEMO dispatching the RERT (clause 3.9.3), has the effect of increasing spot prices as well as displacing generation that would otherwise have been dispatched. This could impact the total revenue received by a generator and the result in the generator's inability to meet hedge contract levels. This could ultimately result in a reduction in supply offered to the NEM (if generators believe there is a risk of the undue dispatch of the RERT by AEMO).	
Benefits of the RERT		
GDFSAE, pp. 3-4.	GDFSAE supports investigation of mechanisms to allow the NEM to better support the energy transition, and revisiting reliability settings. However, these do not provide an immediate lever for AEMO to use in the event of a crisis situation. GDFSAE considers that for this reason alone, the benefit of the RERT cannot be discounted at this time. GDFSAE considers there are acute challenges in the NEM at present,	The Commission considers there is benefit in maintaining the RERT as a reliability intervention mechanism, and, on balance, these benefits are outweighed by the minimal distortions arising from the RERT. Involuntary load shedding can result in substantial

Stakeholder	Issue	AEMC Response
	and that extending the RERT as an emergency measure that is likely to provide a low cost option to avoid failure is better than taking no action at this time.	economic costs in terms of lost productivity and the RERT provides an alternative mechanism to reduce the risk of involuntary load shedding. The RERT can be a lower cost intervention mechanism than either reliability directions or clause 4.8.9 instructions. By reducing the contracting period from nine months to ten weeks, the Commission's more preferable draft Rule minimises the risk that the RERT creates a parallel market for reserves.
AGL Energy, p. 2.	AGL supports the principle of 'safety-net' measures being incorporated into the NEM that are aimed at mitigating the risk, and potential adverse impacts, of diminishing electricity supply reliability and security. AGL considers that such measures, including the MPC, CPT and APP have historically worked to mitigate the adverse impacts of a market that can be highly volatile.	See previous response.
Management of reliability in the absence of the RERT		
Origin Energy, p. 1.	Origin considers that where there are concerns regarding future market reliability, the RERT is unlikely to provide the long term investment signal needed to ensure that supply and demand remain in balance.	The AEMC considers that while the NEM has, to date, exhibited high reliability, ongoing market uncertainty (as discussed in section 4.3) raises the likelihood that the reliability standard might be breached going forward. The NEM is currently characterised by market uncertainty around the extent and impact of changes in the generation mix, as well as uncertainty about the mechanisms needed to achieve Australia's post-2020

Stakeholder	Issue	AEMC Response
		carbon reduction targets, and the impact of these targets and mechanisms on generation capacity. This uncertainty raises the likelihood of projected reserve shortfalls and the likelihood that the ensuing market responses to address these projected shortfalls may be insufficient.
ERM Power, p. 3.	ERM Power considers the Commission must recognise the interaction between risk management and reliability in the NEM and considers the existing market settings (market price cap and cumulative price threshold) provide incentives for retailers to ensure sufficient supply, including reserve, is available to meet demand conditions. ERM Power further considers the market settings encourage adequate risk management and "more than allow for the capital adequacy to facilitate the entry of new generation into the market."	See the previous response.
GDFSAE, p. 4.	GDFSAE consider that AEMO's powers to direct plant under cl. 4.8.9 are insufficient to manage reliability in the NEM, particularly as the ability to direct plant decreases commensurate with the general availability of that specific plant. GDFSAE cites two examples it considers AEMO's power to issues directions may not be able to be relied on to manage reliability: • A gas plant with no firm contractual gas arrangements is unlikely to be able to respond to directions on the day, or even with a few days' notice; and	The Commission considers that the RERT provides a relatively low cost alternative to reliability directions and clause 4.8.9 instructions. The AEMC notes that AEMO's powers under clause 4.8.9 can result in significant costs for the market (in the form of compensation paid as a result of directions, or the economic costs of involuntary load shedding under instructions).

Stakeholder	Issue	AEMC Response
	• A mothballed plant may require long recall times and may not be able to respond to directions. Furthermore, GDFSAE considers the reliability of recalled plants is often less than desired.	
Demand Side Participation: uncertainty about the uptake, and extent of DSP and availability of information		
ERM Power, p. 3.	ERM Power considers that demand response is routinely efficiently dispatched into the NEM and that concerns that demand response has not developed as expected in the NEM are based on a misconception formed due to the decentralised and non-reportable nature of demand response. ERM Power contends that demand response is efficiently dispatched in the NEM, and that simply because it is not centrally dispatched or reported to AEMO, does not equate to a lack of demand response in the NEM. ERM Power notes it is active in the dispatch of significant demand response into the NEM. ERM Power also considers that an extension of the RERT has the potential to lead to withholding of possible new demand response.	While DSP policies may be important tools to encourage and facilitate DSP responses, the status of the policies, in isolation, is not considered to be a significant determinant of whether to retain the RERT. The Commission notes ERM Power's concerns about the potential for withholding of demand response by participants in order to access the RERT. The irregular use of the RERT, combined with the relatively low prices paid under RERT contracts, are unlikely to provide sufficient incentives to withhold capacity in order to contract with AEMO. Nevertheless, the Commission has made a draft more preferable Rule to reduce the time for AEMO to enter contracts from nine months to ten weeks (by amending clause 3.20.3(d). This amendment should minimise the potential for RERT contracts to crowd out market arrangements (such as demand response).
AEC, p. 2.	The AEC disagrees with the Proponent that the delay in the implementation of a demand response mechanism is a factor for retaining the RERT.	See the previous response.

Stakeholder	Issue	AEMC Response
	The AEC does not consider it that the proposed DRM would be effective in underpinning security of supply and reliability. If the wholesale market does not support sufficient supply, it is unlikely that DRM is a better source of reliability.	
GDFSAE, pp. 4-5.	GDFSAE considers there is a role for greater demand side participation to support system reliability. Demand side participation can: be contacted to shed loads at times of system insecurity; offer products and operate in the market and be exposed to spot prices; enter into network support agreements with retailers; and potentially operate as a RERT provider. However GDFSAE considers none of these issues impact the rationale for extending or not extending the RERT. GDFSAE does not consider references to the RERT extension being needed because of demand side management policies not being fully resolved as legitimate. Nevertheless, GDFSAE considers that a market mechanism or ancillary service that values availability of generation and demand side participation would potentially obviate the need for the RERT. GDFSAE further considers that the NEM does not adequately value the flexibility and availability needed to manage reliability concerns whether provided by demand side or generation.	See the previous response.

Stakeholder	Issue	AEMC Response
Expiry date of the RERT		
Origin Energy, p. 1.	If the RERT is to be extended, Origin Energy considers that it should not become a permanent feature of the market.	The Commission considers the permanent retention of the RERT provides regulatory certainty to AEMO and market participants about the range of intervention tools available to manage reliability in the NEM. Further, the infrequent use of the RERT to date and the relative size of the availability payments made under the RERT means the distortions are likely to be minimal. The Commission considers that in the context of alternative intervention measures to maintain reliability (i.e. clause 4.8.9 directions or instructions) and the turnover of the NEM, the RERT is relatively low cost. The Commission also notes that the Reliability Panel may review the effectiveness of the RERT through its Annual Market Performance Review and if so inclined, a review of the RERT guidelines.
ERM Power, p. 5.	ERM Power considers that an extension of the RERT is not required and notes the Commission's 2012 determination to remove the RERT and all related provisions, including the provision for future reviews of the mechanism.	See the previous response.
AEC, p. 1.	The AEC considers that a comprehensive assessment as to what measures, if any, are required to ensure reliable and secure supply	See the previous response.

Stakeholder	Issue	AEMC Response
	during the transformation of the sector. The AEC considers that unless there is sound evidence to support the extension of the RERT, the RERT should lapse as intended and not be made permanent. The AEC further considers that while extending the RERT may serve as a stop-gap mechanism to address perceived reliability concerns, the RERT should not be made permanent.	
GDFSAE, pp. 4-5.	GDFSAE supports a sunset clause to encourage a more fulsome debate on the current energy transition challenges. GDFSAE further considers that those challenges are best managed in the long-term by a more robust approach to energy transition. GDFSAE considers that its support for the RERT at this time is based on the view that the current period of market stress as a consequence of policy developments and technological change is relatively unique. GSFSAE considers that the suggestion that the RERT provides a long-term solution is likely to be false.	See the previous response.
AGL Energy, pp. 2-3.	AGL considers that the COAG Energy Council's justification for extending the RERT is due to 'extenuating' market circumstances. Given that there has now been a series of requests to extend the RERT, AGL considers that this warrants a more complete assessment as to the framing of any additional measures, including safety-net provisions, that may be required in order to ensure electricity supply reliability and security as the sector transforms towards a lower emissions future.	See the previous response.

B Amendments to the reserve trader provisions

Since the commencement of the NEM, there have been various amendments to the reserve trader provisions, as outlined in Figure B.1.

Figure B.1 Amendments to the reserve trader provisions since the commencement of the NEM

Year	Amendment
December 2005	The Panel submitted a rule change proposal to postpone the expiry of the reserve trader provisions until June 2008. The rule was made (in May 2006[105]) with minor amendments, and allowed the reserve trader to continue while the Reliability Panel completed its Comprehensive Reliability Review (CRR). The CRR was completed in December 2007.[106]
June 2008	The RERT is adopted from 1 July 2008[107], incorporating recommendations from the CRR. The CRR recommended various amendments to the reserve trader provisions, such as: increasing AEMO's flexibility in the way it contracts for reserves; minimising any potential market distortions created by the RERT; and requiring the Panel to review the RERT a year prior to its expiry.
October 2009	The Panel proposed a rule change to allow AEMO to contract for reserves at short notice. The RERT was amended to allow AEMO to contract for reserves under a range of timeframes.[108]
July 2011	The Panel submitted a rule change proposal to postpone the expiry of the RERT until June 2012. The rule as made extended the RERT to June 2016 and removed the obligation on the Reliability Panel to review the RERT a year prior to its expiry.[109]
December 2015	The COAG Energy Council submitted a rule change proposal to postpone the expiry of the RERT until June 2019.[110]

105 AEMC, National Electricity Amendment (Reliability safety net extension) Rule 2006, 11 May 2006.

106 AEMC Reliability Panel, Comprehensive Reliability Review, final report, 21 December 2007.

107 AEMC, National Electricity Amendment (NEM Reliability Setting: Information Safety Net and Directions) Rule 2008, 26 June 2008.

108 AEMC, National Electricity Amendment (Improved RERT Flexibility and Short-notice Reserve Contracts) Rule 2009, 15 October 2009.

109 AEMC, National Electricity Amendment (Expiry of Reliability and Emergency Reserve Trader) Rule 2012, 15 March 2012.

110 COAG Energy Council, Extension of the Reliability and Emergency Reserve Trader Rule Change Request, 9 December 2015.

C Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this draft rule determination.

C.1 Draft rule determination

In accordance with section 99 of the NEL the Commission has made this draft rule determination in relation to the rule proposed by the COAG Energy Council.

The Commission's reasons for making this draft rule determination are set out in section 3.3.

A copy of the more preferable draft rule is attached to and published with this draft rule determination. Its key features are described in section 3.3.

C.2 Power to make the rule

The Commission is satisfied that the more preferable draft rule falls within the subject matter about which the Commission may make rules. The more preferable draft rule falls within section 34 of the NEL as it relates to s34(1)(a)(ii), the regulation of the operation of the national electricity system for the purposes of the safety, security and reliability of that system.

C.3 Power to make a more preferable rule

Under section 91A of the NEL, the Commission may make a rule that is different (including materially different) from a market initiated proposed rule if the Commission is satisfied that, having regard to the issue or issues that were raised by market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will, or is likely to, better contribute to the achievement of the NEO.

As discussed in Chapter 2, the Commission has determined to make a more preferable draft rule. The reasons for the Commission's decision are set out in section 3.3.

C.4 Commission's considerations

In assessing the rule change request the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;

- the fact that there is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles;[111]
- submissions received during first round consultation; and
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of Australian Energy Market Operator (AEMO)'s declared network functions.[112] The more preferable draft rule is compatible with the proper performance of AEMO's declared network functions as it does not impact AEMO's performance of those functions.

C.5 Civil penalty and conduct provisions

The Commission's draft more preferable rule amends rule 3.20.1 and 3.20.3(d) of the NER. The draft more preferable rule does not amend any clauses that are currently classified as civil penalty or conduct provisions under the NEL or National Electricity (South Australia) Regulations. The Commission does not propose to recommend to the COAG Energy Council that any of the proposed amendments made by the draft rule be classified as civil penalty or conduct provisions.

111 Under section 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

112 See section 91(8) of the NEL.