30 July 2018

John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submitted online: www.aemc.gov.au

Dear Mr Pierce

**Enhancement to the Reliability and Emergency Reserve Trader – Consultation Paper**

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Australian Energy Market Commission's (AEMC) Enhancement to the Reliability and Emergency Reserve Trader (RERT) Consultation Paper.

Origin agrees the RERT can play a role in safeguarding against potential supply shortfalls given changing supply/demand conditions. But emergency reserve mechanisms such as the RERT can have a significant distortionary impact on energy-only markets and are unlikely to provide a cost-effective solution to balancing a peakier demand profile over the longer term. The expectation is therefore that reserve mechanisms are to be used infrequently and in a manner that is consistent with preserving investment signals in the wholesale market.

The enhanced RERT proposal is potentially problematic in this regard. Elements of the proposal, including availability payments and multi-year contracting, risk undermining incentives for participation in the wholesale market. Coupled with RERT procurement in excess of the level required to meet the broader National Electricity Market (NEM) reliability standard, these factors could unnecessarily entrench the mechanism as a permanent feature of the market that is increasingly relied upon to meet reliability requirements, the cost of which would ultimately be borne by consumers.

Noting the above, Origin has provided comments on specific aspects of the proposal in the proceeding sections of this submission. A summary of the key points that should be considered is provided below.

- *Reliability standard and RERT procurement volumes*: The current level of the reliability standard remains appropriate and adequately balances the benefits of reliability while minimising costs to consumers. RERT procurement volumes should be explicitly linked to satisfying the reliability standard.

- *Procurement lead time*: Extending the procurement lead time from nine months to one year is likely to have a negligible impact on the overall efficacy of the RERT scheme. Existing RERT arrangements are also largely workable with the proposed design parameters and timeframes of the National Energy Guarantee (i.e. a reliability gap could be triggered 12 months ahead of a forecast shortfall, with long-notice RERT procured at nine-months).

- *Contracting period*: The AEMC should seek to evaluate the costs and benefits of a three year contracting period. There is a real risk reserves contracted three years ahead of time are not required in their second or third year as forecasts change, which leaves consumers paying for a

service that is surplus to their needs. Multi-year contracts could also further distort investment signals, by creating a lower risk alternative to participating in the wholesale market.

- *Availability payments*: Payments for availability should be limited, capped or reduced to better reflect the current NEM dynamic of an energy only market and to better encourage off-market generators or demand side response providers to participate in the wholesale market.

- *Governance and transparency*: The governance framework should be strengthened to clarify that the RERT is only to be used to meet the reliability standard. There may also be value in having independent oversight of RERT procurement triggers, consistent with the Procurer of Last Resort proposal under the national Energy Guarantee. With respect to transparency, Origin agrees there is value in improving the level of transparency around AEMO's processes for assessing, procuring and dispatching RERT, including indicative costs and payment structures where possible.

In addition to the above, Origin believes a broader question that should be explored by the AEMC as it evaluates the enhanced RERT proposal is what is the most effective way to incorporate demand response into the NEM framework? RERT capacity procured to date has primarily been comprised of demand response. Should the RERT become a permanent and more prominent feature of the market, this may result in demand response providers forgoing participation in the wholesale market, undermining efforts for greater integration.

If you wish to discuss any aspect of this submission further, please contact Shaun Cole at shaun.cole@originenergy.com.au or on 03 8665 7366.

Yours Sincerely,

Steve Reid
Group Manager, Regulatory Policy

## 1. Procurement trigger and volume

### Appropriateness of the current reliability standard

AEMO has raised concerns about whether the current level and form of the reliability standard remain appropriate. This is based on the view there is a reduced appetite for load shedding and high potential for unserved energy under certain scenarios due to changing supply/demand conditions, even where the reliability standard is being met. While Origin accepts there may be value in considering the form of the standard to ensure it remains fit-for-purpose, we do not believe there is sufficient justification for increasing the level of the reliability standard at this time.

Over the period from 2007/08 to 2016/17, only 0.23 per cent and 3.20 per cent of total supply interruptions (in terms of GWh) were the result of reliability and security events respectively.[1] In contrast, the distribution network is responsible for about 96 per cent of supply interruptions over the same period.[2] This breakdown would suggest the current focus on the reliability standard is misplaced, with little value likely to be derived from applying a higher standard.

There is also currently no evidence to suggest consumers are willing to pay for higher levels of reliability, noting the AER will be reassessing the value of customer reliability (VCR) in 2019. While this could influence the future level of the reliability standard and associated market price settings, we would suggest a significant change should be demonstrated before further review of the reliability standard occurs. Further, as discussed in the proceeding section, seeking to deliver higher levels of reliability through an emergency reserve mechanism is unlikely to be the most cost-effective means of does so.

To the extent there are concerns around the increased potential for unserved energy in the NEM, there may be merit in considering whether the form of standard remains appropriate. In particular, whether it can adequately capture the risk of any unserved energy given changing supply/demand conditions (i.e. a 'peakier' demand profile). In undertaking such an assessment, the AEMC should be mindful of some of the key learnings from the Reliability Panel's 2007 Comprehensive Reliability Review that remain relevant today, as noted below:[3]

- many jurisdictions continue to apply single form reliability standards, including loss of load expectation (LOLE) or LOLP, but neither of these metrics convey any information about the duration or depth of shortfall events; and

- hybrid standards are as restrictive as their most restrictive element, therefore introducing an additional parameter may lead to the existing reliability standard being inadvertently tightened, with an associated cost to consumers.

It should also be noted that EY's approach to assessing unserved energy does take into account the potential impact of changing supply/demand conditions by weighting 10 per cent and 50 per cent probability of exceedance (POE) demand forecasts by 0.3 and 0.7 respectively. Under this commonly accepted approach, EY determined that if all the assumptions for the base scenario were to eventuate up to 1 July 2021, the probability of any unserved energy occurring in Victoria (where the highest level of unserved energy is expected to occur) is 0.5 per cent in 2020-21. Further, EY estimated an additional 1,000 MW of capacity would be required in Victoria to avoid any unserved energy under that scenario, which would increase wholesale energy costs by nearly seven per cent ($200 million per annum) in that region.

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[1] AEMC Reliability Panel, 'Reliability standard and settings review 2018 – Final Report', 30 April 2018.
[2] Ibid.
[3] AEMC Reliability Panel, 'Comprehensive Reliability Review – Final Report', December 2007.

**Operationalisation of the reliability standard to determine RERT procurement volumes**

Origin agrees the RERT can play a role in safeguarding against potential supply shortfalls given changing supply/demand conditions. But procuring volumes of RERT beyond the level necessary to satisfy the reliability standard is not a cost-effective solution to maintaining reliability.

Emergency reserve mechanisms such as the RERT can have a significant distortionary impact on energy-only markets. Within an operational timeframe, the need to activate a reserve well ahead of an anticipated shortfall represents a market intervention that can distort pricing outcomes that may otherwise have occurred, which ultimately undermines market price signals.[4] Summer 2017-18 saw two activations of RERT take place well before reaching the market price cap (MPC) that did not allow potential market based responses to activate.

Over the longer term, this dynamic, coupled with certainty that a reserve mechanism will always be used to fill any supply gap, could potentially result in market participants forgoing new investment to support demand, preferring instead to avoid individual investment risk and have the costs of meeting the reliability gap socialised amongst all market participants. This can create a "slippery slope" effect, whereby the reserve continues to grow larger and larger over time to ensure sufficient capacity to meet reliability goals. It can also lead to inefficient wholesale market dispatch outcomes, given more cost-effective plant may be held outside the primary market.[5]

Emergency response mechanisms are also an inherently expensive means of ensuring reliability. Total RERT costs (including weekly availability payments) for the 2017-18 summer period alone were estimated to be to around $51 million. This equates to approximately $79,000/MWh, or around 5.5 times the value of the current market price cap (MPC) in the NEM.

To minimise market distortions and overall costs to consumers, Origin believes it is important RERT procurement volumes are explicitly linked to satisfying the reliability standard. Further, policy makers should continue to focus on ensuring the NEM is incentivising appropriate amounts of the right type of generation investment. Unlike many of the international jurisdictions that have implemented reserve mechanisms, the NEM provides a clear link between the reliability standard and market price settings that is conducive to facilitating efficient levels of investment over time. But market intervention and ongoing policy uncertainty can ultimately impede investment.

Consideration should also be given to the appropriateness of using RERT ahead of directions. Given RERT is designed to operate as a last resort mechanism, it is not clear why generation capacity within the system is not called upon through the directions framework ahead of such intervention.

**Application of RERT for security of supply purposes**

Origin is not supportive of utilising RERT for system security purposes. The Frequency Control Ancillary Services (FCAS) markets function well at present and with continued investment in battery storage, we anticipate FCAS requirements will be met well into the future. AEMO also has additional mechanisms to assist with managing system security, including instructions, directions and by imposing constraints on the dispatch process.

## 2. Procurement lead time and contracting period

[4] SW Advisory & Endgame Economics, 'Review of Intervention Pricing – Final Report prepared for AEMO', 4 October 2017

[5] International Energy Agency, 'Re-powering Markets', 2016, page 129.

**Procurement lead time**

Extending the procurement lead time from nine months to one year is likely to have a negligible impact on the overall efficacy of the RERT scheme. To this end, Origin believes existing RERT arrangements are largely workable with the proposed design parameters and timeframes of the National Energy Guarantee (i.e. a reliability gap could be triggered 12 months ahead of a forecast shortfall, with long-notice RERT procured at nine-months). A benefit of this approach is that the market participants would be provided with additional opportunity to respond to the shortfall trigger.

**Contracting period**

Origin believes that further detailed investigation should be undertaken to evaluate the costs and benefits of a three year contracting period. There is a real risk reserves contracted three years ahead of time are not required in their second or third year as forecasts change, which leaves consumers paying for a service that is surplus to their needs. Any purported costs savings associated with offering providers extended contracts should be weighed against the risks and costs incurred from contracting reserves that are not dispatched. Multi-year contracts could also further distort investment signals, by creating a lower risk alternative to participating in the wholesale market.

AEMO plan to undertake an annual 'risk assessment' of the NEM that will produce a detailed one to three year forecasting model which will look to procure RERT if a shortfall is identified. Origin believes the market should be given priority to respond to this forecast, especially where shortfalls have been identified in later years. It would be premature to procure RERT three years in advance where a potential market response or change in demand forecasts could alter the supply/demand outlook.

The AEMC should evaluate: the increased level of RERT provision that the three year contracting period is likely to facilitate; the total payments that would be required under longer term contracting periods; and the costs of ongoing availability payments under a three year contract.

## 3. Standardisation of products

As noted by some market participants and the AEMC, AEMO is free to currently structure RERT contracts in a standardised manner without the need to change the Rules. Origin does not oppose standardised products per se as it would enable AEMO to effectively compare RERT providers and dispatch the lowest cost product at the time it is needed.

The AEMC should examine to what extent standardisation would limit the pool of potential providers, especially those that currently offer longer term RERT contracts under bespoke agreements.

Implementing greater prescription in the Rules for standardised products is not warranted as AEMO's RERT guidelines should provide adequate information for providers of RERT products. Inclusion in the National Electricity Rules (NER) would risk prescribing a process that may need to be tested and readjusted in the future.

## 4. Payment structure

Payments for availability should be limited, capped, or reduced to better reflect the current NEM dynamic of an energy only market and to better encourage off-market generators or demand side response providers to participate in the NEM.

The RERT scheme over the 2017-18 summer saw weekly availability payments to providers of between $1-2 million per week between January and March. This is essentially rewarding a service provider in a capacity payment framework.

These payments could encourage responders to offer their services exclusively through AEMO's RERT process and not seek to offer them on market where the potential payments are uncertain. As discussed under Section 6 below, this conflicts with the current push from regulators to incorporate increasing amounts of demand response into the wholesale market. An enhanced RERT scheme should therefore look to limit availability payments and encourage providers to participate in the NEM if they are able to do so.

Usage payments are specified in the consultation paper as a capped payment of $30,000/MWh. This provides a greater incentive for providers to contract through the RERT rather than on market. Ideally, the combination of the usage and any availability payment would not exceed the MPC. However, the extent to which this is insufficient to attract the optimal level of reserves indicates that the RERT is an inherently expensive mechanism that should only be called on sparingly.

## 5. Governance and transparency

As noted in the Consultation Paper, the National Electricity Rules (NER) provide high-level guidance to AEMO on the procurement triggers for the RERT. Given the potential for increased use of RERT, the governance framework should be strengthened to clarify that the RERT is only to be used to meet the reliability standard. Further, we also agree there may be value in having independent oversight of RERT procurement triggers, consistent with the Procurer of Last Resort proposal under the National Energy Guarantee.

With respect to transparency, Origin agrees there is value in improving the level of transparency around AEMO's processes for assessing, procuring and dispatching RERT, including indicative costs and payment structures where possible.

## 6. Other potential design issues

### Eligible technologies

Origin supports a technology neutral approach and does not believe that the RERT should be restricted to certain technologies. Doing so would restrict the potential pool of candidates and future technologies that are currently not available. As long as the required level of service is provided (i.e. MW's are delivered when required), the overarching framework should continue to be technology neutral.

### Out-of-market provisions

Origin believes that generators that are contracted under a RERT contract should not be able to participate in the market during the contracted period. If a generator or provider of DSR is able to provide an on-market service, they should be encouraged to participate as part of the NEM in the first instance.

Origin supports the AEMC's wording in their consultation paper that "it will be important to make sure that demand response that would otherwise be used in the wholesale market is not used in the RERT".

### Interaction with wholesale demand response

Demand response can and is happening in the NEM through different products offered by retailers and the ability of customers to register as 'market customers' so they can purchase electricity directly from the wholesale market. Nonetheless, there is a perception amongst governments and regulators that there is an insufficient level of demand response in the market. This is reflected in the AEMC's Reliability Frameworks Review Final Report, which recommends the development of some form of demand response mechanism that allows aggregators to offer wholesale demand response transparently into the market.

Previously proposed demand response mechanisms have been complex and costly, so careful consideration will need to be given to the design of any such mechanism. But a broader question that should now be considered by the AEMC as it evaluates the enhanced RERT proposal is what is the most effective way to incorporate demand response into the NEM framework? RERT capacity procured to date has primarily been comprised of demand response. Should the RERT become a permanent and more prominent feature of the market, this may result in demand response providers forgoing participation in the wholesale market, undermining efforts for greater integration.