Mr John Pierce
Chair, Australian Energy Market Commission
Level 6, 201 Elizabeth Street
Sydney NSW 2000

26 July 2018

Re: ERC0237 - National Electricity Amendment (Enhancement to the Reliability and Emergency Reserve Trader) Rule 2018 Consultation Paper

Dear Mr Pierce

Thank you for the opportunity to comment on the Australian Energy Market Commission's (AEMC) *National Electricity Amendment (Enhancement to the Reliability and Emergency Reserve Trader) Rule 2018 Consultation Paper* (referred to as the 'Consultation Paper').

It is standard practice for electricity markets to have emergency system available to system operators to minimise the negative effects of low-probability but high-impact circumstances, such as storm damage to transmission infrastructure or multiple generators failing simultaneously. Most energy-only markets, including Texas, Germany and Nordic countries, have some form of 'Strategic Reserve' provided by a mechanism similar to the National Electricity Market's (NEM) Reserve and Emergency Reliability Trader (RERT).

Often, these emergency systems don't aim to provide full functionality, but instead are low-cost mechanisms that provide partial services and avoid load-shedding and system blacks. It would be prohibitively expensive (if not impossible) to set up a system to run optimally under all circumstances, and so emergency systems are set up to minimise the impacts of low probability events. As a simple analogy, most off-grid households have battery-powered torches to provide a critical service (light) during system failures. While the household may never use the torch, at $20 it is a worthwhile form of insurance.

Similarly, the RERT provides a form of insurance for the electricity system. The NEM already relies on a number of mechanisms, including involuntary load-shedding and *System Restart Ancillary Services* to minimise the impact of unplanned supply outages. A RERT adds to these existing mechanisms by enabling the system operator to deploy 'emergency capacity' that, while normally undesirable to deploy due to its cost or impact, is preferable to involuntary load-shedding or a system black. For example, if several generators shut down during a heatwave, household air conditioning could still stay operational if factories shut off non-critical equipment.

This means that the resources in the RERT are ideally very rarely be called on, and should comprise resources with a relatively low set-up cost, but likely a high deployment cost. Due to the high deployment cost, these resources would normally be unwilling to participate in the wholesale market where prices are capped at $14,000 MWh. This suggests that the majority of an effective RERT is likely to be composed of certain types of demand response (e.g. shutting off a factory line) as this would be much cheaper to set-up than building generation, but have high deployment costs.

To improve the design of the RERT we need to clearly define the aims of the RERT and consider how it might interact with other existing or potential mechanisms that could be used to ensure the reliability and security of the NEM, such as directing networks to reduce their voltage, which could be deployed without requiring payment by the Australian Energy Market Operator (AEMO).

The EEC believes that RERT could provide two separate services, which require quite different products:

- **Temporary Capacity:** Currently, the RERT can be used to procure capacity when the market isn't providing enough capacity to meet reliability standards; and
- **Strategic Reserve:** There might be a case to use the RERT to provide AEMO with standing capacity to deal with a range of low-probability but high-impact events, such as the loss of multiple generators or transmission lines in a storm. The wholesale electricity market won't provide an incentive for either the development or deployment of emergency capacity for the simple reason that it's not designed to value the benefits that this kind of capacity delivers (e.g. prevention of a system black). The benefits of emergency capacity extend beyond the wholesale energy market, including benefits to electricity networks that have flow-on social and economic benefits to all energy users.

Temporary Capacity

Currently, the RERT can only be used when the Australian Energy Market Operator (AEMO) has identified a material risk that reliability standards for the NEM could be breached. In this situation, AEMO is allowed to purchase 'temporary capacity' until the market can provide sufficient capacity. Products for this temporary capacity need to be deigned to ensure that payments are sufficient to attract capacity, but also need to be designed to ensure that the RERT does not reduce the incentive for capacity to develop in the wholesale electricity market.

The EEC notes that the most effective way to ensure that the NEM doesn't need 'temporary RERT capacity' is to allow energy consumers to sell their demand response capacity to third parties or directly into the wholesale energy market. Ensuring that the wholesale energy market provides a clear incentive for consumers to provide demand response (and to third parties to facilitate demand response) will significantly reduce the need to trigger either the proposed Reliability Requirement under the National Energy Guarantee (NEG) or the RERT for temporary capacity.

Strategic Reserve

There also may be a case for a Standing Reserve that exists at all times and would only be deployed in low-probability but high-impact events. A Standing Reserve could be composed of multiple elements, including: directing government agencies to reduce their energy use (no payment); directing network service providers to reduce voltage (no payment); and using the RERT to paying energy users to voluntarily load shed. This form of standing reserve would significantly increase the security of the electricity system at significantly lower cost than maintaining the unserved energy level that currently exists in the NEM, as the unserved energy requirements have implications for network expenditure.

A Standing Reserve RERT would need to offer multi-year contracts to demand response providers that both provide a modest and fully cover the cost of being ready to deploy in the case that they are required. However, the incentive portion of this payment could be relatively modest. Payments for dispatch should at least cover the cost of dispatch, which could be high in the case of facilities like aluminimum smelters.

Longer lead-time for procurement

The EEC strongly supports allowing AEMO a longer lead-time for procuring any form of capacity under the RERT. This will:

- Reduce the cost of the RERT by:
    - Providing more lead-time for the development of demand response resources. For example, some manufacturing can only have demand response capabilities added (or added at a lower cost) during scheduled maintenance that might only happen once per year.
    - Providing AEMO with sufficient time to conduct an effective and competitive auction / tender for capacity. More time will not only give AEMO more time to run an effective process, but will also enable more market participants to develop bids, which will increase competition, enable streamlined contracting and place downward pressure on prices.
- Give energy users and the energy industry more certainty about the likely future use of RERT resources, and therefore increase certainty for investors and asset owners.
- Provide governments with more confidence that supply shortfalls will not occur, and therefore avoid far more expensive interventions that would have a negative impact on taxpayers and/or energy consumers (e.g. temporary diesel generators)

Multi-year contracts

The EEC supports allowing AEMO to develop multi-year contracts for capacity under the RERT. There are costs involved in setting up setting up demand response resource, including staff time and installing load-shedding processes and equipment. While some of these costs are ongoing, a significant proportion is a one-off cost.

As RERT capacity is ideally never deployed, an energy user can't count on getting a deployment payment for RERT. Therefore, a contract for demand response for RERT capacity should fully cover the cost of setting up the capacity.

If there is a possibility that RERT capacity is going to be required for more than one year (e.g. in a Standing Reserve or for Temporary Capacity that might be required for more than one year), it would be far cheaper to offer an energy user a single multi-year contract that covers the cost of setting up the demand response capacity, rather than several single-year contracts which all have to separately cover the cost of setting up the demand response capacity.

The EEC believes that AEMO should have the discretion to offer single or multi-year contracts for capacity depending on its needs.

A broader risk assessment framework

The EEC supports the use of a broader risk assessment framework in determining the types and volumes of RERT capacity that are required.

Standardisation of Products

The EEC supports the development of standardised RERT products, including for Temporary Capacity and a Strategic Reserve.

Transparent auctions

The EEC recommends that AEMO should undertake transparent and competitive auctions under RERT.

In summary, the EEC supports AEMO's proposals to enhance the RERT. However, the EEC also recommends that this Rule Change review consider the range of reliability and security measures that are available to individual jurisdictions. We believe that there is a case for providing AEMO with a Standing Reserve that it can deploy in emergency situations, which would lower costs for consumers by avoiding the construction of transmission lines and other infrastructure that enhances security. An appropriately designed Standing Reserve should include private sector resources that wouldn't participate in a wholesale market, due to the fact that they would be rarely, if ever, deployed.

We look forward to continuing to work with the AEMC on this matter, and ensuring that the RERT and the National Energy Guarantee's are designed to compliment each other. For further information please contact me on rob.murray-leach@eec.org.au or 0414 065 556.

Yours sincerely

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