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Sarah-Jane Derby
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Ms Derby

RE: Enhancement to the Reliability and Emergency Reserve Trader Rule Change Options Paper (ERC 0237)

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) Options Paper relating to the enhancement to the Reliability and Emergency Reserve Trader (RERT) rule change.

About ERM Power

ERM Power is an Australian energy company operating electricity sales, generation and energy solutions businesses. The Company has grown to become the second largest electricity provider to commercial businesses and industrials in Australia by load[1], with operations in every state and the Australian Capital Territory. A growing range of energy solutions products and services are being delivered, including lighting and energy efficiency software and data analytics, to the Company's existing and new customer base. The Company operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland. www.ermpower.com.au

General comments

ERM Power supports the current way in which the reliability standard is set by the AEMC's Reliability Panel and the use of the reliability standard in the RERT procurement decision making process. The Reliability Panel is comprised of industry and consumer representatives offering a wider spectrum of views with regards to setting the reliability standard than that considered by the market operator acting in a central planner's role in isolation. We believe the current methodology used and the approach taken in which the Reliability Panel formally engages with all interested parties provides a robust, transparent and independent economic assessment of the costs and benefits of the reliability standard.

ERM Power fully supports the Panel's economic assessment that the cost of seeking to achieve closer to 100% reliability from wholesale supply in the planning domain would result in excessive costs to consumers. We agree with the Panel's findings in its 2018 reliability standard and settings review that the current reliability standard and settings are meeting their purpose and are likely to continue to do so. These findings received widespread support from both market participants and consumers. By and large, we believe that the Options Paper recognises this. However, we believe that option two would result in a market where the widely supported reliability standard is

[1] Based on ERM Power analysis of latest published financial information.

overridden by a central planner's view of the market. This option would increase overall costs as well as presenting unacceptable and unmanageable risk to consumers.

As noted by the AEMC at the workshop on this Options Paper held in Sydney on 12 November, reliability-related wholesale supply outages represent an extremely small amount of the total outages faced by consumers, with distribution-level outages being the overwhelmingly major cause. As noted in the Options Paper, if a wholesale supply side involuntary load shedding event were to occur, supply loss to individual consumers would be of a level similar to that experienced during a distribution-level outage but potentially for a shorter duration as any load shedding would be shared between consumer load blocks for a short duration on a rolling basis. ERM Power considers that this is important to bear in mind as the AEMC considers this rule change. We have also considered the supplementary information the Australian Energy Market Operator (AEMO) has provided to the AEMC as part of the rule change request.

Typically, the RERT has acted as a benign backstop sitting outside the spot market with little cause to ever use it. However, the decision to procure and dispatch RERT twice over the 2017-18 summer came at a significant cost to consumers. With 120 MW of RERT now procured for the 2018-19 summer, the stage is set for further costs to be imposed on consumers.

Regardless of which option is selected, or if the status quo is maintained, ERM Power considers that it will be important to reassess how forecast unserved energy (USE) values are calculated in the forecasting and planning domain. Currently, forecasts of unserved energy by AEMO are based on a number of conservative inputs. As highlighted by the AEMC in the Reliability Frameworks Review, maximum demand forecasts prepared by AEMO, which are used in a number of models in the forecasting and planning domain, have in general been overly optimistic. While AEMO forecasts USE to exceed the reliability standard in the current 12 month period (November 2018 to October 2019) in Victoria, primarily during the summer months, it should be noted that in the entire history of the NEM, actual maximum demand in Victoria in the summer period has never achieved the market operator's 10% probability of exceedance (POE) maximum demand forecast. This is despite several extreme and prolonged weather events occurring during several summers. In 5 of the 19 forecast years, actual maximum demand was below the 90% POE forecasts.

It is also worth noting that although temperature outcomes during the summer of 2017-18 exceeded the 90th percentile of historical temperature outcomes during all 3 summer months on working weekdays and outside the AEMO-designated holiday period in December/January in Melbourne, actual demand failed to achieve the 50% POE forecast. Despite this, AEMO increased its forecast 10% and 90% POE maximum demands for Victoria for the 2018-19 summer by more than 400 MW compared to the 2017 Electricity Statement of Opportunities. This is one of the reasons for the high USE forecast for Victoria for the 2018/19 summer.

To add to this demonstrated conservatism in maximum demand forecast, AEMO calculates the probability weighted average USE based on a weighted value derived only from the 10% POE and 50% POE forecast demand scenarios. Currently, the calculation is based on a weighting of 30% applied to the 10% POE forecast and 70% applied to the 50% POE forecast with no consideration of demand forecasts below the 50% POE. We contend that this methodology leads to an additional level of conservative bias in AEMO's calculations, which is likely to overestimate the probability and weighted amount of USE. We consider that there is a strong case to rebalance the forecasts to also include outcomes from a 90% POE forecast scenario, with an appropriate weighting applied to each of the 10%, 50% and 90% POE scenario outcomes, for example, at 30, 40 and 30 per cent respectively. This change should occur in the ESOO, the EAAP and the MTPASA forecasts.

The current multiple levels of conservative bias applied by AEMO in calculating the forecast USE values for each region in these forecasting processes increases the perception that reliability could be at risk. ERM Power believes this should be corrected as part of this rule change process. The decision to procure RERT should be based on realistic demand and supply forecasts where the weighting applied to each scenario is based on its probability of occurrence. To assist with achieving this outcome we submit there is a role for the Australian Energy Regulator as

proposed in the Retailer Reliability Obligation to review and approve AEMO's forecasts and RERT procurement plan prior to the commencement of any long- or medium-notice RERT procurement process. With regards to short-notice RERT procurement, we believe this would be better left to post procurement reporting where the reporting requirements should require AEMO to provide increased justification for any short-notice RERT procurement or RERT dispatch compared to the limited level of detail currently provided in reports.

Ultimately the AEMC will make a decision based on the long-term interests of consumers with respect to price, quality, safety and reliability and security of supply of electricity. In considering the long-term interests of consumers, we believe that the AEMC needs to recognise the various other workstreams underway that interrelate with the RERT, including the procurer of last resort mechanism that forms part of the Retailer Reliability Obligation, the demand response mechanism rule change and the potential for a rule change on a short term forward market to be put to the AEMC. It is essential that the AEMC consider these developments as it considers this rule change.

We discuss the three options proposed in the rule change in turn, below.

Option one

The assessment of forecast USE to meet the reliability standard and RERT procurement is currently performed through the Medium Term PASA process. The AEMC's proposed option one explicitly links the reliability standard with the procurement of long- and medium-notice RERT, so that these forms of RERT can only be procured if the reliability standard is projected to be breached in any 12-month rolling period. Furthermore, AEMO would only by allowed to procure just enough volume of long- or medium-notice RERT resources to bring unserved energy levels below the reliability standard. As noted in the Options Paper, forecast USE is not used to trigger short-notice RERT procurement; this would continue to be assessed and activated based on AEMO's declaration of *lack of reserve* conditions.

ERM Power believes that there are advantages in option one. It would provide AEMO and the broader market with very firm guidance as to whether long- and medium-notice RERT will be procured along with a strict definition of the volume of RERT required. As such, it increases the transparency of the RERT trigger and the volume which may be procured under long- and medium-notice RERT. We acknowledge that under some combinations of extreme demand scenarios combined with multiple generating unit or transmission line failures this option could lead to situations where not enough long- or medium-notice RERT is procured and the reliability standard may be breached in that year if short-notice RERT or market-based demand response is insufficient and involuntary load shedding occurs. However, option one would not prevent AEMO from procuring short-notice RERT (such as in June 2018 in NSW) where a potential lack of reserve condition is forecast in the Pre-dispatch or Short Term PASA timeframe. Option one would also not prevent AEMO from entering into discussions with prospective RERT suppliers, calling for tenders and setting up medium- and short-notice RERT panels. We are also of the opinion that option one would facilitate further development of demand side response initiatives as the risk that this market-based response would be displaced by dispatch of 'out of market' RERT contracts would be reduced. We acknowledge that option one may slightly increase the risk that actual USE may exceed the reliability standard and this small increase in risk could be difficult for both a market operator and governments to accept. However, in our view this should not be a reason for its rejection if this option were to receive widespread support from consumers.

Option two

ERM Power understands option two as one where the reliability standard and the decision to procure RERT would no longer be linked. Instead, AEMO would make the decision whether to procure RERT and how much is procured based on an alternative economic assessment than current, which in AEMO's view would seek to minimise the combined costs of both unserved energy and RERT. AEMO has provided additional information to the AEMC as part of this rule change which appears to provide a more detailed explanation of how option two would work in practice as well as justifying the shift to this approach. In AEMO's view, the economic assessment should place greater weight on those events at the end of the tail of the probability distribution compared to that currently used

where the probability of all events within the forecast range of events are considered to have the same probability of occurrence. In doing so, it is our view AEMO is attempting to impose a central planner's view to increase supply side reliability as close to 100% as can be achieved.

We believe that, if implemented, this option would lead to a number of distortions in the energy market that would not serve the long-term interests of consumers. Firstly, we consider that this option would create a distortion in investment decisions, with some parties choosing to keep reserves out of the market rather than bringing them (or keeping them) in the market. This is because RERT reserves sit out of the market and are unable to participate in the spot market. The market is best served where there are reserves able to participate in the spot market, bidding in their availability and responding to dispatch instructions like any other supply-side participant such as generation. We believe this would particularly be the case for demand response providers who would find it easier to participate in RERT if the design was changed to a standing reserve mechanism when comparted to the spot market. It would also transfer the risk of competing for dispatch, and therefore revenue, in the energy only spot market from the RERT provider to consumers.

If an enhanced RERT design such as option two provides a greater incentive to sit out-of-market this will result in a poor outcome for consumers. Not only would consumers be paying additional RERT costs, but spot market prices (which feed into future contract pricing) would also be higher as a result of less supply and demand side participation in the market than would otherwise be the case. Therefore, we consider it important that the design of the RERT should clearly demonstrate that RERT is a safety net mechanism only and encourages as much as possible participation in the spot market, where it can form part of the price-setting process rather than sit out of market. We believe option two fails this test as the proposed change seeks to move RERT from a safety net mechanism, to be used under specific conditions, to procurement of standing reserve. It may, as AEMO claims lead to lower costs for procuring RERT on a megawatt of capacity basis, but ERM Power contends that it could lead to higher yearly RERT costs as capacity is procured for extended periods and higher costs for the overall market in the long-term as reserves fail to enter the market.

Additionally, in our view, in advocating for option two, AEMO fails to consider the broader set of reforms underway across the NEM. Chiefly, the Energy Security Board is currently consulting on the legislation to enact the Retailer Reliability Obligation (RRO). As part of this, AEMO will have the role of procurer of last resort, to procure resources in the event that supply shortfalls are projected. This appears to mirror the existing design of the RERT. The RRO is designed to signal the potential for unserved energy three years' in advance, with a compliance trigger set one year in advance if projected shortages remain.

If the RRO is legislated, then ERM Power considers it incongruous for AEMO to have the ability to enter into multi-year contracts of three years as part of the RERT. With notice given at T-3, AEMO's role as RERT provider should not extend to three years as the market will already have the signal to bring resources to market. If AEMO were to procure RERT as part of an option 2 style mechanism, there is a clear risk that consumers will be paying for both additional generation in the market to meet the reliability obligation as well as generation sitting outside the market for the RERT. If the RRO is legislated then we believe that any case for option two is non-existent.

ERM Power strongly opposes the introduction of option two as we believe it poses unacceptable risks of unnecessary and unmanageable costs being imposed on energy consumers for little, if any, benefit. There would, based on the information available, be few checks and balances on AEMO's procurement decision, leaving little room for public consultation on the decision. While such a mechanism could probably be introduced into option two, we do not believe that this would necessarily lead to improved outcomes, particularly if the decision to procure RERT remained AEMO's alone. Option two seeks to impose a central planner's view of risks on the NEM, rather than using the current well understood and independent economic assessment of the impacts of unserved energy.

Option three

Option three is a similar approach to option one, where there would be an explicit link between the reliability standard and the decision to procure long- and medium-notice RERT. However, the key difference between options one and three is that the latter would also change the way that the RERT trigger is operationalized. One possible approach discussed in the Options Paper involves creating sub-annual reliability standards at which RERT could potentially be procured even if the forecast 12 month rolling USE levels as calculated from the Medium Term PASA fail to breach the existing, overall reliability standard.

ERM Power is interested in exploring this option further. We consider there may be benefits in looking at sub-annual thresholds for USE at different timescales. The challenge, as noted by the AEMC, is determining what those sub-annual thresholds should be and how they can be flexible. For example, a simple monthly threshold could lead to poor outcomes if a large volume of USE was projected for the final week of one month and the first week of the next. In this case, each individual month could sit below the trigger-point despite the actual risks lying in an even shorter window. As such ERM Power considers that a monthly approach should in fact be based on a rolling 4-week window. This would mean that if USE was projected to be above the 4-week sub-annual threshold over any 4-week period, then AEMO would be justified in procuring enough RERT to bring USE back to just below the sub-annual reliability standard.

Similarly, if the sub-annual rolling 4-week limit was set on the basis of the annual USE divided by 13, this would almost certainly result in over procurement of RERT leading to increased and potentially unnecessary costs to consumers, as such, a balanced approach must be adopted if option 3 were to be flagged for implementation. Given the nature of such an approach, we consider that medium-notice RERT supported by the establishment of a short-notice RERT panel would be the most suitable mechanisms to use, with long-notice RERT procurement restricted for use only where the annual reliability standard is projected to be breached. This would ensure that more up-to-date forecasts of supply availability, demand management participation and weather forecasts used in setting of demand forecasts could be utilised to minimise overall RERT procurement costs to consumers and distortions to the NEM wholesale markets.

ERM Power believes that this option will require additional work to determine just how any sub-annual thresholds are set. We contend that in designing a system, care must be taken to ensure that the RERT does not become overly complex, with multiple, overlapping thresholds leading to uncertainty for potential RERT providers and market participants. Furthermore, it would also be necessary to ensure that any sub-annual thresholds are not set too high or too low as that would in fact lead to poor procurement decisions for RERT. We believe the Reliability Panel would be best placed to consider and consult on the optimum level for the sub-annual threshold as this should be viewed as a subset of the annual reliability standard.

Conclusion

Data show that reliability-related outages represent a very small fraction of the total number of outages experienced by consumers in the NEM.[2] In addition, historically, when wholesale supply reliability-based outages have occurred, these have been of limited duration and less disruptive to consumers than the majority of distribution-level outages. Distribution-level outages require any fault to be located and repaired whereas supply reliability outages may be shared on a short duration basis between different groups of consumers. ERM Power therefore considers it is essential that this rule change ensures that the costs of potential unserved energy are balanced against the additional costs of procuring RERT resources. We believe the current economic assessment on which the independently-set reliability standard is based achieves this objective; we do not believe this is the case for the alternative proposed by AEMO which, in our view, seeks to impose a central planner's supply-side reliability view on the NEM.

[2] AEMC, Reliability Frameworks Review Final Report, July 2018, p 12.

We support the increased transparency and guidance that options one and three would provide to the market and AEMO in achieving this. We believe both options would assist the entry of greater levels of demand side participation to the market as these options would change the incentives to hold out from market participation in favour of RERT contracting through the increased transparency with regards to the RERT trigger and procurement processes. This would also reduce the transfer of risk to consumers from demand side participation in the RERT as opposed to the spot market.

We also submit that the rules would benefit from a change where prior to commencing any long- or medium-notice RERT procurement process, AEMO applies to the AER for review and approval of their RERT procurement plan. This will provide a necessary independent view prior to the commencement of a process that will incur additional costs to consumers.

We also consider that in deciding on this rule change, the AEMC needs to consider other regulatory and policy processes currently underway including the procurer of last resort mechanism that forms part of the Retailer Reliability Obligation, the demand response mechanism rule change and the potential for a rule change on a short term forward market to be put to the AEMC.

Please contact me if you would like to discuss this submission further.

Yours sincerely,

[signed]

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