



28 November 2017

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

Dear Mr Pierce

### **RE: ERC0226 Declaration of Lack of Reserve Conditions – Draft Determination**

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Commission (AEMC) Rule Change Request – Declaration of Lack of Reserve Conditions – Draft Determination.

#### **About ERM Power Limited**

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<sup>1</sup> 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. ERM Power also sells electricity in several markets in the United States. The Company operates 497 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland.

[www.ermpower.com.au](http://www.ermpower.com.au)

#### **General comments**

ERM Power supports the introduction of probabilistic modelling into the Short Term PASA and Pre-Dispatch process in a transparent manner as we believe this change will benefit the National Electricity Objective, notwithstanding ERM Power does not support the proposed rule as set out in the Draft Determination which changes what is currently a transparent and well understood Declaration of Lack of Reserve process in the National Electricity Rules (the Rules) to a process that is less transparent and subject to more of a "black box" type process which invariably will be less well understood by participants .

ERM Power supports the alternative proposed rule as submitted by the Australian Energy Council in its supplementary submission to the rule change Issues Paper to establish the Australian Energy Market Operator's (AEMO's) proposed Forecast Uncertainty Measure (FUM) as a standalone provision in the Rules. We believe this alternative proposal achieves all the current and potential future objectives of AEMO's proposed rule change, and does so in a manner that is fully transparent for all jurisdictions, participants and consumers whilst leaving the well understood existing Declaration of Lack of Reserve provisions in the Rules as a transparent obligation on AEMO.

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<sup>1</sup> Based on ERM Power analysis of latest published financial information.

## The existing rules and the reliability standard implementation guideline

ERM Power continues to believe that the introduction of probabilistic modelling outcomes into the Short Term (ST) and Pre-Dispatch (PD) Projected Assessment of System Adequacy (PASA) processes should have been via a rules consultation on AEMO's Reliability Standard Implementation Guideline in the same manner as the probabilistic modelling inputs were introduced to replace the deterministic modelling inputs into the Medium Term (MT) PASA via consultation during 2016.

We note in the Draft Determination that the AEMC has indicated that, "the Reliability Standard Implementation Guidelines (RSIG) is only linked to a low reserve condition in the NER which is typically a medium-term PASA process, or reliability in the longer term".<sup>2</sup> ERM Power is somewhat confused by this conclusion as both the Rules and the RSIG in references to the Rules clearly refer to clauses within the Rules which are primarily concerned within the ST and PD PASA timeframes.

- NER Clause 3.7.3 (h) (5) (ii) ST PASA - "any projected failure to meet the reliability standard as assessed in accordance with the reliability standard implementation guidelines".
- NER Clause 4.2.7 (c) Reliable Operating State – "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"
- NER Clause 4.3.1 (l) Responsibility of AEMO for power system security – "monitor demand and generation capacity in accordance with the reliability standard implementation guidelines and, if necessary, initiate action in relation to a relevant AEMO intervention event"
- RSIG Section 2.3.2 - Short Term PASA (ST PASA) – "AEMO implements the reliability standard over a six-day timeframe by providing a capacity reserve assessment as part of the ST PASA process. Capacity reserves are measured against credible contingency events to indicate if supply is sufficient to meet demand and thereby avoid USE. If necessary, AEMO declares a LOR in accordance with clause 4.8.4 of the NER."

It is clear these clauses within the Rules and AEMO's RSIG, which has been prepared to meet AEMO's rules obligations has been developed to allow the declaration of low reserves and market intervention by AEMO within the ST and PD PASA timeframes. Accordingly, we submit that the RSIG applies not only to the MT PASA timeframe but clearly also the ST and PD PASA timeframes.

## The proposed rule

The proposed rule as set out in the Draft Determination fails to provide the level of transparency expected by market participants and that which is currently provided by the existing requirements of the Rules. Whilst we agree that the power systems in the National Electricity Market (NEM) are changing, the existing Declaration of Lack of Reserve provisions in the Rules are as relevant today as when the NEM first commenced and remain as a highly transparent and well understood obligation on AEMO.

To remove any and all doubt, the existing Declaration of Lack of Reserve provisions in the Rules are well understood by participants including the implied risks of load shedding. The declaration of a Lack of Reserve is viewed as a significant Market occurrence, which triggers a number of internal participant processes to provide additional capacity, where possible, or notify customers with commercial demand management provisions that short term supply interruption may be required. The proposed rule change will implement a "black box" outcome in an opaque manner regarding the Declaration of Lack of Reserve provisions in the Rules which will not be well understood by participants.

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<sup>2</sup> Page 20 Draft Determination - Declaration of Lack of Reserve Conditions

The proposed rule will increase the number of “false positive” outcomes with regards to the declaration of Lack of Reserve notices, potentially in the T plus 12 hour timeframe, which given the opaqueness of their underlying cause, has the potential to diminish the importance over time of the declaration of Lack of Reserve by AEMO to the Market.

AEMO in the rule change request and the AEMC in the Draft Determination both questioned the continuing relevancy of the existing credible contingency framework in managing short term reserves.<sup>3</sup> In considering this, we believe the AEMC should consider that regardless of the adoption of this new flexible approach as set out in AEMO’s proposal, the largest credible contingency event will always remain the minimum trigger level for the declaration of a Lack of Reserve Level 2 (LOR2). This is because the power system must remain secure and reserve levels must always be higher than this level of contingency or consumer load will need to be interrupted following the occurrence of this event. Similarly, the sum of the largest and second largest credible contingency events will always remain the minimum trigger level for the declaration of a Lack of Reserve Level 1 (LOR1).

The change proposed by AEMO, would in effect, only ever increase the threshold trigger for “capacity reserves” at which a LOR2 is declared. If as set out in the Draft Determination, “*there is a lack of transparency in exactly what contingencies AEMO will contemplate and what tools it will use to assess the risk*”,<sup>4</sup> then we believe the NEO will benefit by AEMO improving its level of information provision to the NEM to remove this ambiguity. This is not an issue with the current Rules, but an issue with AEMO’s transparency in meeting its Rules obligations. AEMO has the ability to change both the value of “capacity reserves” and “contingency capacity reserves” via assessment and change to the size of credible contingencies currently present in the power system as set out in AEMO’s operating procedures at short notice in accordance with Clauses 4.2.3, 4.2.3A and 4.2.3B in a transparent manner via a Market Notice.

In submissions to the Issues Paper there was no mention of redefining credible contingencies for the purpose of the LOR framework as suggested by the AEMC in the Draft Determination,<sup>5</sup> submissions did consider however that LOR trigger levels do change due to changes in AEMO’s assessment of the current prevailing largest and second largest credible contingency.

The AEMC indicates in the Draft Determination that the declaration under the new framework will more accurately reflect the potential for load shedding:

*“The new LOR framework will improve the way that LORs are declared. The Commission expects that the new framework will more accurately predict the risk of load shedding which will lead to more efficient outcomes on short-term reserves and reliability. A declaration under the new framework will more accurately reflect the risk of load shedding, which will improve confidence of the market and improve the ability of participants to manage risks.”<sup>6</sup>*

We believe that rather than more accurately predicting the potential for load shedding, the proposed change merely adds an additional capacity buffer or safety margin to the existing Rules provisions. The current proposal does not seek to improve the accuracy of AEMO’s forecasts and in effect simply applies a wider probabilistic spread – the Forecasting Uncertainty Measure (FUM) – to their outcomes, and as such no actual improvement in the accuracy of predicting the risk of load shedding will occur.

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<sup>3</sup> Page 17 Draft Determination - Declaration of Lack of Reserve Conditions

<sup>4</sup> Page 19 Draft Determination - Declaration of Lack of Reserve Conditions

<sup>5</sup> Page 21 Draft Determination - Declaration of Lack of Reserve Conditions

<sup>6</sup> Summary Page iii Draft Determination - Declaration of Lack of Reserve Conditions

The proposed rule change will also increase the frequency of LOR declarations, particularly “false positives” and potentially the frequency of AEMO intervention in the efficient functioning of the NEM. The proposed change in introducing a “bundled” approach to the calculation of required reserve level in a less than transparent manner runs the risk of being taken less seriously by participants than if the FUM requirements were introduced via the proposed alternative standalone provision in the rules where the FUM values were published as transparent and separate Trading Interval values in the forecast period. The FUM values would then be better understood and open to improved scrutiny which over time will lead to an improvement in AEMO’s forecasting processes and a tangible improvement in the accuracy of predicting the potential for load shedding. Implementing the change as proposed as an opaque measure will almost certainly lead to no emphasis being applied for improvement in AEMO’s forecasting processes.

### **The Australian Energy Council’s (AEC) proposed alternative**

The AEC has proposed what we believe is a superior outcome to AEMO’s proposed change and the Draft Determination which is to introduce AEMO’s probabilistic Forecasting Uncertainty Measure as its own standalone provision under the Rules. ERM Power fully supports this proposed alternative as it will increase the transparency of the FUM and its intended outcomes to the Market.

As set out earlier in this submission, in reality, the declaration of a critical LOR2 based on at least the minimum of the value of the largest credible contingency will remain relevant into the foreseeable future. To move to a value less than this would in ERM Power’s view not meet the NEO. AEMO’s proposed FUM process will also calculate a probabilistic value based on the process as set out in the Reserve Level Declaration Guidelines (the Guidelines). Where the value of the FUM exceeds the largest credible contingency, the value of the FUM will set the level of required “capacity reserves” and therefore the LOR2 trigger level.

In achieving any future reserve level calculation, AEMO will still need to determine what “event” constitutes the current largest credible contingency, however, under the proposed rule this will be opaque to the NEM. The AEC’s proposal ensures that the largest credible contingency as determined by AEMO remains transparent to the NEM at all times. This does not create confusion as suggested by the AEMC<sup>7</sup>, rather it supports transparency in that participants now understand that any additional reserve buffer is arising due to AEMO’s calculated FUM values and the power system will remain secure and consumers’ load will continue to be reliably supplied in the circumstance that the largest credible contingency event were to occur. This outcome achieves a more complete understanding for jurisdictions, participants and consumers as to the factors influencing the declaration of any LOR.

The proposed alternative imposes no additional costs on AEMO with regards to assessing the largest and 2<sup>nd</sup> largest credible contingencies as this will need to continue anyway as these values will remain the minimum trigger levels for the calculation of LOR2 and LOR1.

The AEC’s proposed alternative still retains the intent of the original rule change in that a probabilistic calculation will be introduced to calculate the important “capacity reserves” level. It also supports, and more importantly does not prevent, future changes to the Guidelines in determining how the FUM values are calculated into the future. The exact same provisions for a Guideline to be prepared by AEMO or the Reliability Panel are contained in this proposed alternative. The proposed alternative recognises that the value of the largest and second largest credible contingency will remain relevant into the foreseeable future, and seeks to maintain this provision as transparently as the current Rules and also introduces AEMO’s probabilistic FUM assessment as an equally transparent measure.

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<sup>7</sup> Page 26 Draft Determination - Declaration of Lack of Reserve Conditions

The AEC's proposed model actually unbundles the values associated with the proposed change and removes the potential for future confusion.

ERM Power believes that a continuing requirement for AEMO to separately publish both credible contingency and FUM values in a transparent manner to the Market is critical in ensuring positive participant response to the introduction of probabilistic inputs into the ST and PD PASA processes. Implementation of the FUM as a standalone process into the Rules will ensure this occurs and also ensures that emphasis remains for AEMO to review and improve its forecasting processes.

The Australian Energy Council alternative proposed rule change suggested either AEMO or the Reliability Panel be vested with the requirements to review the Guidelines. From a good governance perspective, ERM Power sees justifiable reasons for the Reliability Panel as opposed to AEMO to be tasked with this responsibility similar to how the Frequency Operating Standards are subject to review by the Reliability Panel. Whilst we are satisfied that the consultation for the initial Guidelines as set in the Draft Determination is adequate, we believe that the first formal rules consultation of the initial Guidelines should commence no later than 1 April 2019. Given the importance of the Guidelines in the declaration of LORs and the potential for increased intervention in the efficient operation of the NEM by AEMO we believe reviews on a biennial basis are warranted.

## Conclusion

Whilst ERM Power supports the introduction of probabilistic inputs into the ST and PD PASA process for the declaration of Lack of Reserve conditions, we oppose the rule change as proposed by AEMO and as set out in the Draft Determination. The proposed rule change fails to provide the level of transparency expected by market participants and that which is currently provided by the existing requirements of the Rules.

We believe that the proposed FUM could have been introduced more simply and easily via a review of the RSIG detailing to participants the proposed changes to introduce transparent probabilistic modelling inputs into the Short Term PASA and Pre-Dispatch processes. Given the positive industry support for the process changes to the Medium Term PASA and the similarity of the changes we would expect that industry would have supported changes to introduce probabilistic modelling inputs into the Short Term PASA and Pre-Dispatch processes.

Should the AEMC consider that due to time constraints and the need to introduce the FUM into the calculations of LOR declarations for the forthcoming summer period are a matter of urgent need, then we submit that this should be undertaken in a transparent manner via the Australian Energy Council's proposed alternative to introduce the FUM as its own standalone provision with the Rules. To do otherwise will introduce "black box" calculations in an opaque manner which has the potential to lead to confusion and diminish the importance over time of the declaration of Lack of Reserve by AEMO to the Market.

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

Yours sincerely,

[signed]

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