3 July 2017

Ms Suzette Lizamore
Senior Analyst
Supply Planning
Australian Energy Market Operator
GPO Box 200
Melbourne VIC 3001

Dear Ms Lizamore

RE: Proposed Amendments to the Reliability Standards Implementation Guidelines

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) Draft Determination for the proposed amendments to AEMO's Reliability Standards Implementation Guidelines published in June 2017.

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[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. 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

General comments

ERM Power is generally supportive of the proposed changes to the Reliability Standards Implementation Guidelines. We believe that the proposed changes to the Medium Term Projected Assessment of System Adequacy (MTPASA) will be of benefit to the National Electricity Market (NEM) and will fill the information shortfall that has arisen due to the change to move the publication of the Energy Adequacy Assessment Projection (EAAP) reporting process from quarterly to yearly.

ERM Power supports the continuation of publication of weekly reliability assessments and the inclusion of weekly Loss of Load Probability (LOLP) run. Whilst we are generally supportive of the Draft determination we would like to raise the following issues with AEMO for consideration and further clarification.

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

Proposed additional information

Use of energy constraints in model

Whilst ERM Power agrees that the revised methodology should require additional input regarding generator fuel constraints, we are concerned that if the integration of this input is implemented poorly in the model it has the potential to incorrectly skew outcomes to indicate generation capability shortfalls, in particular at time of higher demand, whereas in dispatch no shortfall may actually exist.

In implementing this energy constraint we believe AEMO needs to consider;

1. The potential for fuel stockpiles or water storages to fluctuate in the short term to accommodate short term requirements – the actual physical weekly energy constraint may not be as rigid as the current reporting requirements stipulate
2. The generator's capability over a 6 to 12 month period to replenish stockpiles and storages if minor depletion occurs due to short term weather conditions – is there actually an energy constraint in this case?
3. How AEMO proposes to transpose the annual energy constraint to meeting 1/2 hour demand in AEMO's theoretical model – the energy constraint would not generally be a simple average input

ERM Power would like to understand in greater detail from AEMO how the annual or weekly energy constraint will be implemented.

Introduction of requirement for generator auxiliary power data in model

ERM Power is somewhat concerned by AEMO's statements in the Draft Determination regarding the use of generator auxiliary power use in the model. For most generators, in particular coal-fired generators, auxiliary power, even if expressed as a percentage of output, varies with generator output with a higher amount in percentage terms at lower output and lower at higher output. To provide an accurate representation of auxiliary power use other than on an *average* basis would prove difficult. We are concerned that AEMO are introducing an additional level of complexity for at best a marginal benefit.

We also note that whilst AEMO in the 2016 National Electricity Forecasting Report (NEFR) has altered from the generally accepted widely used convention of expressing ½ hourly demand (MW) on an *as generated* basis to *sent out*, AEMO retains the ability to choose to model on either an *as generated* or *sent out* basis. The existing MTPASA and daily data made publically available to the NEM remains published on an *as generated* basis. Therefore, in the interests of transparency it would be preferable that AEMO maintain MTPASA modelling, input data and output data on the transparent *as generated* basis.

Changing the MTPASA data and modelling to a *sent out* basis further reduces the transparency of AEMO's actions and prevents independent cross checking of AEMO's input assumptions. This would be a very poor outcome for the NEM. Rather than trying to make AEMO's actions opaque to open independent cross check, we believe AEMO should be fostering greater transparency to allow participants to meet the challenges that will arise in the NEM going forward.

We are also concerned that this significant change to the widely accepted convention for demand forecasts from *as generated* to *sent out* in the NEFR was not well notified to NEM participants and received little consultation prior to being implemented.

Selection of probability of exceedance (POE) demand curves.

ERM Power notes that AEMO has taken into consideration our view with regard to the potential for selection of demand curves to overstate the level of unserved energy (USE). However, we remain concerned that in the event that Nil USE is calculated for the 50% POE outcomes, the relatively high weighting of 30.4% applied to the 10% POE outcome may overstate the level of potential USE and result in AEMO implementing unnecessary intervention in the Market at increased costs to consumers.

Historically, reliability of supply to consumers in the NEM has been of a very high level with the Reliability Standard achieved on a routine basis. However, ERM Power acknowledges that increases in the level of intermittent generation and retirement of synchronous generation, with its highly controllable output, may potentially lead to a reduction in supply reliability. The primary purpose of the MTPASA is to determine to what extent supply reliability may be compromised and provide information to the Market with regards to this. Whilst it is important that the MTPASA identifies periods where supply reliability may be under threat, it is also critical that the MTPASA does not overstate this potential, to avoid unnecessary intervention in the Market at increased costs to consumers.

Whilst to date the use of 10 and 50% POE demand traces has been sufficient, going forward this may no longer be the case if AEMO is to represent the potential for USE to occur with a reasonable degree of accuracy. We believe a practical step in this regard would be for AEMO to also implement a routine 30% USE demand trace as part of the weekly reliability assessment and adjust the weighting applied to the 10, 30 and 50% POE outcomes accordingly.

Granular reporting of aggregate generation capacity

ERM Power continues to support the publication of reported generation availability on a Dispatch Unit Identifier (DUID) basis. Individual DUID data is already provided by participants as part of their MTPASA data submission, therefore the data is currently available to AEMO. The only process change required is the publication of this data.

As previously indicated, this information is generally only known by major NEM participants due to their sharing of plant overhaul resources, specialist contractors and strategic spares. Hence there is a large asymmetry in information between some participants, often to the detriment of smaller NEM participants and intermediaries. The current MTPASA review process provides the opportunity to correct this information imbalance.

We believe publication of data on a DUID basis contributes to the achievement of the National Electricity Objective (NEO) by removing the information asymmetry that currently exists between participants allowing improvements in informed choice and risk management by smaller NEM participants and intermediaries resulting in lower prices to consumers than would otherwise be the case if this information asymmetry is allowed to continue.

Use of information on network transfer capabilities and constraints reported through 3.7.2(f)(6)(i),(iv),(v)

ERM Power supports the continued provision of network transfer capabilities and constraints reported in accordance with National Electricity Rules Clause 3.7.2(f)(6)(i),(iv),(v) as part of the MTPASA process. Whilst the AEMO Network Outage Schedule (NOS) may contain details of constraint sets, the original intent of inclusion in the MTPASA was to provide less sophisticated participants and more generally, interested parties with a plain English output to assist them to understand the potential impact of network outages on interconnector transfer capability.

We currently are not aware of any alternative publication provided by AEMO that provides this information in an easy to use plain English output for less sophisticated participants, for this reason we support their ongoing inclusion in the MTPASA output data.

Conclusion

ERM Power is encouraged by AEMO's proposed changes to the MTPASA process to fill the void in market information left by changes to the EAAP reporting timeframe. However, to have full confidence in the proposed process then we believe AEMO needs to consider and address the concerns as raised in our submission.

ERM Power fully supports the proposed rule change to allow publication of reported generation availability on a DUID basis; this will remove a large asymmetry in information between participants often to the detriment of smaller NEM participants and intermediaries.

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

Yours sincerely,

[signed]

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