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Mr John Pierce
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By online submission

Dear Mr Pierce

ERC0270 – Improving transparency and extending direction of MT PASA – Consultation Paper

Thank you for the opportunity to submit to the Improving transparency and extending direction of MT PASA Consultation Paper.

AEMO shares the broad objective that increased transparency will provide more efficient outcomes for all Market Participants and supports initiatives that reduce information asymmetry in the NEM.

We understand that there is an unprecedented transformation of the market, with an increasing number of intermittent generators coming online. Predicting the medium-term demand-supply balance has become increasingly challenging and we understand that commercial decisions to increase supply and/or demand management technologies are based on the provision of accurate and timely information.

Moreover, AEMO aims to adjust to changes in the market conditions to reduce information asymmetries and enhance transparency between Market Participants. We consider this an important aspect to enable an equal playing field.

Consequently, we support four changes requested in the Rule change. However, we strongly oppose three of the change requests that would require large costs, both in development and continued operation and provide little or no benefits to the market in terms of enhanced information.

The rule change requests that are not opposed are generally in line with AEMO's targeted enhancements and AEMO questions the need to formalise these requests through the market rules rather than modifications to the Reliability Standard Implementation Guidelines or MT PASA process description.

We would welcome the opportunity to discuss the matters raised in this submission further. Should you have any questions, please contact Kevin Ly, Group Manager Regulation on Kevin.Ly@aemo.com.au

Yours sincerely



Peter Geers
Chief Strategy and Markets Officer

ATTACHMENT 1: AEMO SUBMISSION TO THE MT PASA CONSULTATION PAPER

KEY POINTS

- We agree with the overarching notion in ERM's proposal to increase transparency and to provide accurate signals to Market Participants about the medium-term supply-demand balance.
- In principle, we do not oppose the outcomes of four of the proposed rule changes but question the need to change the market rules.
- AEMO does not oppose the following rule change proposals:
 - Publication of aggregate generator availability data
 - Transparency and ease of use of demand data
 - Transparency of forced outage rates
 - Inclusion of intending generation in MT PASA output
- AEMO disagrees with the following rule change proposals:
 - Accuracy and transparency of demand forecasts used in the MT PASA process
 - Frequency of demand forecast update
 - MT PASA Outlook to extend the assessment duration by 12 months to three years.

1. Introduction

AEMO welcomes the opportunity to respond to ERM's rule change proposal with regards to Medium Term Projected Assessment of System Adequacy (MT PASA) Transparency and Accuracy Amendments.

The PASA is a comprehensive program of information collection, analysis, and disclosure of medium term and short-term power system security and reliability of supply prospects. It is used by registered participants to make decisions about supply, demand and outages of transmission networks for periods up to two years in advance.

2. Objectives and principles

AEMO is aware of current and future challenges faced by industry participants and we are supportive of a collaborative working relationship with industry to find solutions to these significant changes in the National Electricity Market (NEM). AEMO understands that the move from a fully scheduled and predictable generation output to a generation mix which includes less predictable semi-scheduled and non-scheduled generation output may cause information asymmetries and therefore is supportive of initiatives to increase transparency of information provision to promote effective market conditions.

The purpose of increased information provision should be based on the following principles:

- Transparency – increased information provision should be provided in the interests of achieving a high degree of market efficiency, including by providing accurate, reliable and timely forecast information to market participants. This implies that the published information should be accessible to all market participants. Any information published

by AEMO is meant to serve all participants equally and promote an equal playing field.

- Accuracy and reliability – increased information provision should be as accurate as possible to support market participants to operate effectively with minimal amount of intervention by AEMO.
- Cost effective – increased information should be provided to the extent that it is cost effective to do so. The costs associated with delivering any additional information should be at least equal to the benefits as a result of the additional information i.e. by enhancing functions such as liquidity and competition in the NEM.

We consider that these objectives are consistent with the AEMC's objectives. However, we suggest that some aspects of ERM's rule change request may not meet all these objectives and hence we are not able to support these aspects of the proposed rule changes.

3. Areas where AEMO is not opposed to the rule change request

3.1. Publication of individual generator unit availability data

AEMO currently publishes generator availability data at the aggregated regional level where generators are classified as energy limited or not energy limited. Generator availability is sourced from participant MT PASA bids which can be made at any time. Aggregations of generation availability are published on a 3-hour cycle, during business hours between Monday to Friday.

AEMO considers ERM's proposal to include individual scheduled generating unit availability data for full and partial outage plans technically possible, but it is not without commercial risks due to the sensitivity of this data.

In conclusion, while AEMO is technically able to publish this information with low additional cost we are cognisant of the commercial sensitivity that it can cause and question its wider economic benefit.

3.2. Transparency and ease of use of demand data

AEMO has no strong objections to publishing demand on an as-generated basis through the MT PASA system, but questions the economic benefit of this outcome and how it is relevant to the objective of MT PASA.

The current demand measures published are largely dictated by the existing table structures and for consistency with the previous MT PASA process. Any change in the demand measures published would need to weight the costs of implementing this change both to AEMO and to market participants against the benefits. In particular given that AEMO publishes the auxiliary component through the forecasting data portal and calculates as-generated peak demands from sent-out peak demands involves simply adding these two values.

It is worth noting that 'as generated' data will be reported as part of AEMO's obligations under the Retailer Reliability Obligations (cl. 11.116.4 Reliability forecast guidelines). This information is less accurate than 'sent out' data since it requires an estimate of what generators are generating at the time. This estimate would be impacted by discrete outages, requiring first modelling the outcomes and subsequently extracting the data.

AEMO would also like to correct ERM's statement that AEMO forecasts demand on an as-generated basis and subtracts auxiliary from this data for use in MT PASA. In fact, AEMO forecasts as sent-out load and adds back an estimate of auxiliary load at time of maximum demand.

3.3 Transparency of forced outage rates

ERM's request to publish generation availability data that is reflective of forced outages is supported by AEMO and is an enhancement that AEMO is intending to implement over the coming year.

AEMO notes that the implementation of this change is not as trivial as simply adding a results field, as it involves processing and storing individual generator unit availability from each of the Monte Carlo simulations conducted in MT PASA, and the development of a method to aggregate and/or summarise the data into a usable format for participants (the minimum and maximum requested by ERM would not be informative).

AEMO does not see the value in enforcing this change through the market rules as the appropriate measures which best inform participants may change over time and because AEMO is already intending to implement this enhancement.

3.4 Inclusion of intending generation in MT PASA output

ERM proposes to require AEMO to provide a preliminary classification of a committed generating unit, to be defined by AEMO in the Reliability Standard Implementation Guidelines (RSIG). AEMO agrees with ERM's general notion to minimise costs to consumers and AEMO is cognisant to minimise the need to trigger the long-notice RERT.

ERM argues that the omission of intending generation from MT PASA would result in additional and unnecessary costs to consumers.

AEMO notes that MT PASA already includes intending participants' MT PASA inputs once generators are classified as committed on a continual basis, and as such, the claim that these generators are omitted is incorrect. The MT PASA process description clearly states that committed generation that is under development is included in MT PASA and details the approach for scheduled and semi-scheduled generation.

The approach for new entrant generation in MTPASA is the same approach that is used in the ESOO and was consulted on during the Retailer Reliability Obligation (RRO) process. Through that process, AEMO agreed to implement an approach that was proposed by a number of parties, including ERM.

AEMO has already committed to formalising the approach to new entrant generation that has commenced construction or installation that has not yet met all of AEMO's commitment criteria through the RSIG. The Reliability Forecasting Methodology Final Report laid out AEMO's current approach on the accuracy of the start-dates of these projects and how AEMO would develop a methodology and consult on an RSIG update. As such there is no need or benefit to a change in the market rules in this area. The benefits of implementing a change in the rules are unclear as this would not change AEMO's MT PASA modelling approach and would not impact forecast reliability outcomes.

4. Areas where AEMO has different views to the Rule Proponent

4.1. Accuracy and transparency of demand forecasts used in the MT PASA process

AEMO calculates and publishes its forecasts of the 10% and 50% probability of exceedance (POE) daily peak load.

ERM raises the issue that not including 90POE demand for unserved energy (USE) modelling was leading to inflated forecasts. ERM further state that the 90POE demand is utilised in the ESOO assessment process.

AEMO notes that the 90POE demand outcomes are not modelled in the ESOO. Rather the USE is assumed to be zero in the 90POE simulation, and this value is weighted accordingly (by applied a 30.4% weighting to 10POE and 90POE and a 39.2% weighting to 50POE).

ERM's view that the 90POE demand outcomes should be modelled in the MT PASA system would come at a significant cost as it would require an approximately 50% increase in weekly computation costs, at a total operational cost of around \$150,000/year and would require additional system changes which has not been explicitly included. Furthermore, it would increase simulation time and put timely delivery at risk. This significant cost would provide effectively no benefit as the impact on USE of modelling 90POE would be very small compared to simply applying a weighting and assuming the USE as zero, as is done in the ESOO.

AEMO intends to update the MT PASA process description to align the weighting approach between the ESOO and MT PASA, though the impact on expected USE will be very minimal.

AEMO wishes to reiterate that there is a difference between the demand forecasts used in the MT PASA reliability assessment and the daily peak demands published at the 10POE and 50 POE levels. AEMO does not use the daily peak load forecasts in the MT PASA process that calculates expected USE or any of the other data that is provided to participants. The demand used in these forecasts is half hourly profiles and not on daily maximum demand, as was previously used in the old MT PASA process.

Rather than adding to the data published on daily demands, AEMO is strongly of the view that the requirement to publish daily demands over a 2-year horizon is obsolete, provides no value, and should be removed. AEMO published the seasonal targets through the forecasting data portal and provides the half-hourly demand profiles (based on these targets) through the ESOO model publication. The continued need to publish daily demand due to the 3.7.2(f)(1-3) causes confusion given it disconnect with the actual reliability forecast.

4.2. Frequency of demand forecast update

ERM state that as part of the MT PASA, AEMO updates demand forecasts usually once a year. ERM proposes that AEMO should be required to review and update forecast demand information on a monthly basis. Specific concerns raised by ERM relate to weather conditions. In ERM's proposed rule change request, it was claimed that AEMO updates its forecast in May, where the last review of potential weather conditions and demand outcomes for the summer period are considered to have occurred some six to eight months distance from the current summer period.

ERM claims that this timing produces inaccurate forecasts and consequently leads to too high contracting of medium notice emergency reserves under the medium-term RERT.

To avoid this issue, ERM proposes that AEMO should be required to update its forecast demand information at least monthly instead of annually with specific regard to current weather conditions in the near-term three-month period.

AEMO does not agree with ERM's proposal to increase the frequency of its forecast demand information and would like to correct ERM's assessment of the timing of its updates.

Developing demand forecasts is a six-month process, requiring significant consultation. Even if AEMO were to consider updating the forecast demand information on a monthly basis, we would not have enough of the information available that would warrant any update to the demand forecast.

In line with our principles, AEMO is responsible for the accuracy of our forecasts and should be empowered to decide itself whether more recent information enables more regular demand forecast updates. AEMO uses the most up-to-date information available when preparing an ESOO forecast and will release updates to this forecast if there are significant changes in input assumptions. After the release of the ESOO forecasts AEMO does not receive any readily usable new information that would impact the forecast of peak demand, except for potential changes in major large industrial loads which do result in the release of forecast updates.

In terms of a review of potential weather conditions, ERM suggests using weather data three months out. AEMO understands that this information would be valuable for the industry, but this information is not yet technically realisable. Seasonal weather forecasting is still in its infancy and not particularly accurate at present. It is easier to forecast climate change than it is to forecast weather in the next three months. However, AEMO is working closely with BoM as part of our strategic partnership.

Finally, AEMO would like to note that we do not agree with ERM's claim of data latency issues. We update our weather information in August, (not May as stated by ERM) as part of the ESOO publication. This should eliminate ERM's concerns.

4.3 MT PASA Outlook

AEMO disagrees with ERM's proposal to increase the duration of the MT PASA timeframe from two to three years.

AEMO understands that the speed of changes in the NEM and the intermittent nature of output from renewable generators provides challenges to predict the need for new investment opportunities on the supply or demand management side.

However, the purpose of MT PASA is to provide the market with information related to possible low reserve conditions and to assist market participants in making operational decisions, particularly related to generation and transmission outages. MT PASA is not the key publication that outlines investment opportunities, which is fulfilled by the ESOO.

In the event that the market is unable to resolve the supply and demand balance, AEMO may procure RERT. A two-year projection time period is hence a sufficient lead time for the market to resolve unit commitment/outage planning schedules.

Moreover, in our experience, the quality of data on maintenance two years out is challenging. The number of generator outages submitted for the second year of the MT PASA timeframe is already significantly lower than in the first year, and much more subject to change as time progresses. Expanding the MT PASA timeframe to a third year would likely result in a further reduction in the quality of inputs provided.

Increasing the requirement to three years will therefore offer limited value while imposing a significant operational cost by increasing the simulation run time (approximately \$150,000 per year), as well as causing difficulties in being able to complete an MTPASA simulation by the required time when significant updated information becomes available. These cost estimates exclude systems, development, and testing costs.

Any additional year in the MT PASA horizon would essentially be exactly the same in terms of inputs and methodology as is already conducted through the ESOO. If ERM are of the belief that planned outages should be included over this horizon then implementing this through the ESOO process may be beneficial, acknowledging that any outages that are submitted would potentially increase the USE forecast in that publication.