



ERM Power Generation Pty Ltd +61 7 3020 5100  
Level 52, 111 Eagle Street [ermpower.com.au](http://ermpower.com.au)  
Brisbane QLD 4000  
ABN 44 117 443 035

Friday, 29 March 2019

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

Dear Mr Pierce

### **Medium Term Projected Assessment of Adequacy 12 Month Extension of Duration Rule Change Request**

The National Electricity Market (NEM) is currently experiencing a significant level of change as it moves from a historical position of primarily fully scheduled generation which collectively offered a high level of known firm generation output to generation sources which are less predictable in output where only semi-scheduling (output capping) of generation output is possible.

This was one of the reasons in April 2017 that the Australian Energy Market Operator (AEMO) commenced a review of the Reliability Standards Implementation Guideline (RSIG) to amend the Medium Term Projected Assessment of System Adequacy (MTPASA) process from what was at the time a deterministic to a probabilistic analysis process to better model this variability of intermittent generation output both from a larger scale grid connected and distributed energy resource (rooftop solar PV) perspective. ERM Power Limited (ERM Power) supported this change in the MTPASA process.

The National Electricity Rules (the Rules) governing the MTPASA processes remain largely as they were at the time of NEM commencement with only some minor changes implemented. Whilst originally satisfactory at a time where the super majority of generation was dispatchable with collectively a high level of firm output and high margins of reserve capacity, the current 24 month (2 year) duration is, in ERM Power's view, no longer of sufficient duration due to the observed changes in market conditions. We believe the proposed amendment to extend the MTPASA to 36 months (3 years) duration will provide benefits to participants, consumers, jurisdictions and other parties who use the MTPASA as a source of forecasts of supply, demand and reliability information over the MTPASA timeframe.

### **Name & Address of the Person making the Request**

ERM Power Limited  
Level 52, 111 Eagle Street  
Brisbane Queensland 4000



## 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<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. The Company operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland.

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## Issue to be addressed and description of the proposed rule

Currently the MTPASA covers a 24 month (2 year) period. With the current speed of changes in the NEM and the intermittent nature of output from the most common sources of new generation supply, which also has varying correlation to system demand outcomes as determined by AEMO, there is a need for longer duration consistent, transparent and regular updating of the supply-demand reliability assessment. This would provide improved and earlier signals than is currently the case for new supply capability or demand management in the medium term timeframe. For these reasons, ERM Power proposes extending the duration of the MTPASA to 36 months (3 years).

This change would complement the proposed Retailer Reliability Obligation (RRO) by providing ongoing routine assessment and updating of any reliability gap and an ongoing review of any expected USE and the timing of this expected USE during any identified gap period. Supported by this MTPASA analysis, AEMO provides a significant level of tabular and graphical data with each MTPASA update to clearly define both the timing and range of magnitude on a monthly basis of any expected USE. Please refer to Attachment 1 for examples of this graphical data.

This high granularity MTPASA data has the potential to facilitate the increased provision of demand management resources on a targeted basis to minimise or prevent actual USE occurring at Dispatch. Potential demand management suppliers who may be cautious regarding a commitment to supply demand management over an extended contract period may be more inclined to contract for the provision of demand management over a shorter duration targeted period(s). Extending the MTPASA duration to 36 months supports the earlier commencement of discussion with potential suppliers than that which is currently the case, which in turn may elicit the faster development of demand response capability in the NEM.

The proposed extension will:

- allow generation facilities to better plan maintenance outages in the T+ 2 to 3 year timeframe;
- more fully align with information in a 3 year generator closure notification
- remove the potential for forecast USE to arise due to the overlap of planned maintenance outages; and

assist both gas-fired generation and coal-fired generation supplied by external fuel suppliers to more efficiently profile fuel requirements. In the case of an older gas fired generation, this extension of the MTPASA will allow the operator to consider and better plan future plant operations with periods of lower forecast reserve which could prolong the participation of older units in the market.

All these factors result in efficiency benefits that will lower the overall costs of reliable supply to consumers.

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



In addition to these benefits in the physical markets, we believe the additional granular information provided in the third year by the proposed change is likely to foster increased confidence for smaller market participants and intermediaries in financial contract trading activity increasing financial market liquidity in this third year also leading to increased confidence in the financial markets for customers, with more customers likely to enter into hedge contract arrangements in that third year. Currently planned outages, and changes to these planned outages are visible for only a 24 month period, the transparency offered by this data facilitates a high level of contracting trading in this period. We believe the lack of transparent data in the third year acts as a barrier to contract trading, particularly quarterly based contracts, in the third year where small generators, retailers, market intermediaries and consumers currently have a much lower level of information compared to larger vertically integrated participants with regards to which generator will be out of service or limited in capacity.

The proposed 12-month extension archives the above benefits as it provides relevant, consistent and transparent information to parties who require and value such information earlier in time than that which is currently the case. The proposed change provides high quality and granular data of increased time duration from dispatch which is updated on a routine basis based on the most recent information to allow participants, intermediaries and consumers to consider, plan and implement efficient strategies to the benefit of the market as a whole.

#### **Potential impacts of the proposed change to the rules on those likely to be affected**

We acknowledge that even a small sized change such as the one proposed will require one-off system changes for both AEMO and market participants to facilitate the submission of an extra 12 months of data. However, we believe these would be of relatively small costs limited to an extension of a specific area of existing systems.

From a generator's perspective, the requirement to extend data submissions to the MTPASA to 3 years compared to the current 2 year would not be onerous. Maintenance of generating plant is planned over a long time horizon, generally in excess of our proposed 3 year period. As such, the initial requirement to advise an additional 12 months of outage plans compared to the current 2 years represents an incremental one-off change to the data submission process and an incremental change to maintain changes in outage timing when and if this occurs.

Whilst AEMO will be required to extend their MTPASA modelling by an additional 12 months, we believe this should not present a major obstacle as we understand AEMO currently uses the same modelling engine to model outcomes in the ESOO and Integrated System Plan timeframes which are of considerably longer duration than the proposed 36 months MTPASA timeframe. We acknowledge the proposed change may utilise additional computing resources, however, we don't believe the costs of this would be a significant obstacle and these resources could also be utilised in other AEMO processes. AEMO has already developed the necessary reporting streams for the current 24 month period and extending these reports to cover an additional 12 months would not require development of new reports, simply an extension of the existing report structure.

Extending the MTPASA would also provide cost benefits to AEMO and the market as it would remove the need for more regular updating of the ESOO and the Energy Adequacy Assessment Projection (EAAP) as changes occur in expected market conditions as these changes would already be captured in the MTPASA process. This will be of critical importance to the market going forward under the proposed Retailer Reliability Obligation as the more regularly updated MTPASA would flag where changes in inputs could warrant a rerun of the ESOO.

#### **Benefits of proposed change**

ERM Power believes that the proposed change to the MTPASA process will provide the following benefits with regards to meeting the National Electricity Objective.

**Improving transparency and quality of information:** The provision of relevant, consistent and transparent information to parties who require and value such information to carry out their responsibilities under the NER and in supporting the efficiency of the NEM.



The proposed 12 month extension to the MTPASA will provide earlier communication of not just a forecast reliability shortfall in a particular year afforded by the Electricity Statement of Opportunities (ESOO), but allow more accurate communication of which period(s) in a year any forecast reliability shortfall may be expected to occur.

This will allow earlier reassessment of generator outage or temporary withdrawal plans and assist with expanding the level of demand management participation, particularly where a potential demand response supplier may be more agreeable to shorter duration targeted demand response contracts. This will also align the MTPASA with the three year notice of closure for generation.

**Promoting reliability of the power system:** A reliable power system is a crucial part of the energy market and the long-term interest of consumers. The provision of a 12 month increased duration of outputs from the MTPASA process will provide increase notification of a potential shortfall period and ensure that provision of new or augmented supply initiatives and/or demand management can be targeted and contracted for those periods where they are required which will reduce overall costs of reliability to consumers.

**Minimising direct and indirect costs:** Where forecast shortfalls are indicated in the T+ 2 to 3 year period in the ESOO, contracting of new supply or demand management services will result in direct costs to retailers and direct wholesale customers which will almost certainly flow through to all end use consumers, both for direct electricity costs and indirectly via the increased costs of production for everyday goods and services. This will be particularly acute under the Retailer Reliability Obligation. By increasing the duration of the MTPASA process these direct costs will be minimised due to the increased transparency of information in the T+ 2 to 3 year period which will allow targeted response aligned to the actual duration of any expected shortfall period.

### **Required amendments to National Electricity Rules clause 3.7**

Clause 3.7.1(b)

(b) 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 so that Registered Participants are properly informed to enable them to make decisions about supply, demand and outages of transmission networks in respect of periods up to ~~2~~ 3 years in advance.

Clause 3.7.1(c)(1)(v)

(v) significant changes to load forecasts previously notified to AEMO, for the following ~~24~~ 36 months;

Clause 3.7.1(c)(2)

(2) prepare the unconstrained intermittent generation forecasts for the following ~~24~~ 36 months; and

Clause 3.7.2(a)

(a) The medium term PASA covers the ~~24~~ 36 month period commencing from the Sunday after the day of publication with a daily resolution. Every week, AEMO must review and publish the outputs of the medium term PASA in accordance with the timetable.

### **Conclusion**

ERM Power believes extending the current MT PASA timeframe to a 36 month (3 year period), would provide enduring benefits to the NEM compared to the existing 24 month (2 year) information provision. The extended 3 year duration would match more closely what would normally be considered a medium-term planning timeframe. We consider that the probabilistic MTPASA process, due to the ongoing nature of its weekly updating provisions offers a higher quality and granularity assessment of the medium term 3 year time period than that currently available from other AEMO planning reports and provides complementary information regarding any forecast reliability gap period including the clear identification of the time duration of any reliability gap under the RRO.



The MTPASA process enables regular updating of supply-side inputs and also provisions for AEMO to more regularly update their forecasts of demand conditions that can be expected to prevail during the forecasting period than the current ESOO process.

This would allow participant investment decisions in either additional generating plant, including associated fuel requirements, or demand management schemes to be better targeted to those periods where a supply-demand balance shortfall may be indicated and also allow more efficient procurement under any proposed Procurer of Last Resort or Reliability and Emergency Reserve Trader procurement.

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

Yours sincerely,

[signed]

David Guiver

Executive General Manager - Trading

07 3020 5137 – [dguiver@ermpower.com.au](mailto:dguiver@ermpower.com.au)



### Attachment 1

### Examples of current AEMO MTPASA Monthly Data

New South Wales - March 2019 to March 2020



South Australia - March 2019 to March 2020

