ERM Power Limited
Level 3, 90 Collins Street
Melbourne VIC 3000
ABN 28 122 259 223

+61 3 9214 9333
ermpower.com.au

Wednesday, 16 December 2020

Ms Nicola Falcon
General Manager Forecasting
Australian Energy Market Operator
PO Box 2008
Melbourne, Victoria, 3001

Dear Ms Falcon

RE: Reliability Forecast Guidelines Issues Paper

ERM Power Retail Pty Ltd (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) Reliability Forecast Guidelines Issues Paper which also includes proposed changes to the Electricity Statement of Opportunities (ESOO) and Reliability Forecast Methodology Document.

About ERM Power

ERM Power (ERM) is a subsidiary of Shell Energy Australia Pty Ltd (Shell Energy). ERM is one of Australia's leading commercial and industrial electricity retailers, providing large businesses with end to end energy management, from electricity retailing to integrated solutions that improve energy productivity. Market-leading customer satisfaction has fuelled ERM Power's growth, and today the Company is the second largest electricity provider to commercial businesses and industrials in Australia by load[1]. ERM also operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, supporting the industry's transition to renewables.

http://www.ermpower.com.au
https://www.shell.com.au/business-customers/shell-energy-australia.html

General comments

This consultation follows on from the truncated initial consultation undertaken by AEMO during October 2019 which put in place an Interim Guideline pending completion of a further Rules consultation by AEMO to finalise this Guideline. As such, we believe this consultation should consider all aspects of the current Interim Guideline as well as the issues raised by AEMO in the Issues Paper as a whole. Our submission has been prepared on this basis.

We note that the purpose of AEMO's Reliability Forecast Guidelines (the Guidelines) is to detail how AEMO intends to comply with the requirements of the Australian Energy Regulator's (AER) Forecasting Best Practice Guidelines (FBPG) and other requirements as set out in the National Electricity Rules with regards to the development, consultation on and preparation of a reliability forecast. We note that one of the key purpose of the AER's Forecasting Best Practice Guidelines is to: '*is to provide procedural guidance to promote transparency and stakeholder confidence in the forecasting practices and processes that AEMO undertakes in developing a reliability forecast and the ISP*[2].

[1] Based on ERM Power analysis of latest published information.
[2] Section 1.2 - AER Forecasting Best practice Guideline pp5

In this regard AEMO's Reliability Forecast Guideline is required to set out how AEMO will meet the following principles:[3]

1) forecasts should be as accurate as possible, based on comprehensive information and prepared in an unbiased manner;
2) the basic inputs, assumptions and methodology that underpin forecasts should be disclosed; and
3) stakeholders should have as much opportunity to engage as is practicable, through effective consultation and access to documents and information.

We note that AEMO has indicated that where possible the Guidelines do not set out details of AEMO's forecasting processes or methodologies but that the Guidelines will contain references to these processes and methodologies which will be subject to routine and ongoing review and consultation.

It should also be noted that with the inclusion of the Retailer Reliability Obligation (RRO) in the National Electricity Rules (the Rules), AEMO's Electricity Statement of Opportunities (ESOO) no longer represents an information only document, as forecasts from the ESOO process result in the triggering of the RRO and therefore the expenditure of large amounts of resources and money to meet the compliance obligations which will ultimately be passed through to consumers. Given this, AEMO's forecasts must represent real possibilities of future Market outcomes.

In general, we are somewhat supportive of the amendments as set out in the Draft Guidelines and also the ESOO and Reliability Forecast Methodology Document but wish to raise some concerns in a number of areas and recommend additional changes to the ESOO and Reliability Forecast Methodology Document to improve transparency with regards to transmission line ratings used in the reliability forecast modelling.

Section 2 - Industry Engagement

In considering Section 2 of the Guidelines, the title could be somewhat misleading as it refers to Industry Engagement, however, various subsections then refer to Stakeholder Engagement. For consistency we recommend that the tittle for the section be amended to Stakeholder Engagement.

In considering the Engagement cycle as set out in sub-section 2.1 of the Draft Guideline , to better achieve alignment with best forecasting practice, we recommend that AEMO consider publication of a Draft Reliability Forecast for review and comment by Stakeholders between completion of the Components forecasts phase and issue of the Electricity Statement of Opportunities and its included Reliability forecast. We believe this would add value to the process as it would provide the ability for the identification of any potential errors prior to issuing the Reliability forecast. Whilst this is not a rules requirement, we believe that the engagement cycle would be significantly improved by its inclusion.

We note the amendments to remove sub-sections 2.1.3 to 2.1.6 of the Interim Guideline and replace this with a more comprehensive section setting out details of the stakeholder engagement process, Section 2.3 in the Draft Guideline. In general, ERM Power supports the changes as indicated, in particular we believe the proposal to establish a Forecasting Approach Register as set out in section 2.5 is a valuable addition to the Guideline. We are however concerned that the proposal indicated in sub-section 5 of Table 2 where AEMO consult on material changes to methodology documents or the forecasting framework which must be undertaken at least every four years, is indicated as subject to a long form written consultation rather than a Rules consultation process is of concern. As Appendix A of the AER's FBPG is based on the Rules consultation process, for clarity we believe that sub-section 5 of Table 2 should indicate updating or review of these documents is subject to the Rules consultation process. We believe this would better meet the requirements of Clause 4A.B.4 of the Rules.

[3] NER Clause 4A.B.5

Section 3 - Data Inputs, Assumptions and Methodology

In considering the general principles as set out in section 3.1 of the Draft Guideline, in our view this falls short of meeting the first key principle in the AER's FBPG and the requirements of Clause 4A.B.5(b) of the rules.

> *Forecasts should be as accurate as possible, based on comprehensive information and prepared in an unbiased manner.*

In our view the Draft Guideline is unclear how AEMO will ensure that no internal AEMO bias will be prevented from entering the data inputs, assumptions and methodologies. Whilst AEMO consult with stakeholders, the decision to include or exclude data, assumption or steps in a methodology is made solely by AEMO. We believe the Guideline requires amendment to set out the steps AEMO will undertake to ensure the exclusion of AEMO internal bias in their process. This could be facilitated by the maintenance of an Issues Register as suggested by the AER in the FBPG[4]. AEMO would maintain details of issues raised by stakeholders during any informal or formal consultation in a register and report to the AER how such issues were resolved or determined and the reasons for determining the outcomes. This proposed Consultation Issues Register is intended to serve a different purpose to the AEMO proposed Forecasting Approach Register as set out in section 2.5 of the Draft Guideline which is intended to maintain feedback on methodologies provided outside of formal consultations for further consideration in a future consultation process.

In sub-section 3.2 of the Draft Guideline we note the proposed removal by AEMO of Demand Side Participation (DSP) from the Supply forecasts. Whilst AEMO has included dispatchable loads, DSP is different to dispatchable loads in that whilst dispatchable loads would respond to a dispatch instruction from AEMO, DSP has historically responded to instructions from parties other that AEMO and we believe this outcome will continue in the future. We recommend that DSP remain listed as one of the supply components in the Guideline.

Whilst sub-sections 3.3.2 and 3.3.3 of the Draft Guideline set out the process to be followed by AEMO and registered participants for the provision of data to AEMO by a registered participant, ERM Power believes that Section 3 should also detail the process for stakeholders to request information from AEMO. Whilst the provision of information and data may progressively form part of the stakeholder engagement process, in some instance this may not be the case and the provision of information and data may be delayed until the release of the ESOO. Provided a stakeholder makes a request for the provision of reasonable and non-confidential data and information, the Guideline should set out the framework by which the information or data should be supplied by AEMO. We also believe that requests for additional data as set out in sub-section 3.3.2, should be restricted to only that required for AEMO to fulfil its reliability forecasting obligations.

Section 4 – Forecasting Improvements

Section 4.2 of the AER's FBPG provides guidance on assessing the forecasting performance of changed forecasting methodologies or inputs. In particular, it recommends assessment of how the methodologies would have performed if they had been executed over the previous five years of forecasting. AEMO's framework for meeting this requirement is currently set out is sub-section 4.1(c) of the Interim Guideline. AEMO has proposed that this sub-section be removed and replaced with a weaker provision where;

> *AEMO will assess how new methodologies or inputs would have performed if they had been executed over the previous five years of forecasting if practicable, considering the costs and benefits of doing so.*

However, the Draft Guideline then fails to set out how the Forecasting Accuracy Report (FAR) review process will consider this cost benefit in the context of the FAR or information as to how AEMO determined that the costs of doing so where prohibitive.

[4] Section 2.1 Forecasting Best Practice Guideline pp6

We believe the Guideline should set out a clear requirement that where AEMO considers that it is impractical or too costly to meet the requirements of the FBPG in this area, AEMO should set out their reasonings for not including this analysis in the FAR.

We recommend that the Guideline set out the timing for release of the annual FAR taking into consideration that in general, the FAR will be considering the accuracy of forecasts as they relate to the previous year's forecasts compared to actual outcomes. We believe it would be helpful for the Forecasting Accuracy Report to be delivered as early as possible so as to allow identified improvements to be included in the current year's reliability forecast.

Section 5 – Reliability Forecast

ERM Power remains concerned that framework governing the issue of an update to a reliability forecast remains vague. As demonstrated by the recent request from AEMO for a T-3 reliability instrument for the NSW region in financial year 2023/24, it remains unclear to ERM Power that a updated reliability forecast will be issued where an improvement in the reliability forecast would result. AEMO's request to the AER included the recognition of changes in the supply side which would have reduced the level of forecast unserved energy, potentially below the interim reliability measure, on which the request for issue of a T-3 reliability instrument was based. We recommend the Guideline should be amended to set out clear trigger events where AEMO will issue an update to the reliability forecast. We propose that a suitable trigger may be the classification of additional supply side resources as "committed" or a reduction in a regional maximum demand forecast greater than or equal to 50% of any identified reliability gap.

When considering the process for updating a reliability forecast, the Rules and the BFPG do not indicate that a reliability forecast must be issued which contains all 5 years of the reliability forecast for all regions. In our view, an update of only the year and the region in which a material change has been identified which may impact the reliability forecast in which a T-3 or T-1 reliability gap has been or not been identified should be considered. This would significantly reduce the workload required to issue a reliability forecast update.

Proposed changes to the ESOO and Reliability Forecast Methodology Document

AEMO has proposed changes to sub-sections 6.1.2 and 6.1.3 of the ESOO and Reliability Forecast Methodology Document (the Document) to amend the calculation of the forecast reliability gap. AEMO has however failed to provide details of the circumstance under which it may be mathematically impossible to calculate a forecast reliability gap using the current methodology. By way of example, would this only occur when the calculated level of exceedance of the reliability standard or IRM is relatively small, in which case any reliability gap may also be small and therefore difficult to quantify. We are concerned that AEMO has proposed a significant step change in its proposed fallback methodology. The proposed change would in our view lead to an overestimation of a reliability gap.

ERP Power proposes an alternative to AEMO's proposed fallback methodology in sub-section 6.1.3 of the ESOO and Reliability Forecast Methodology Document.

Should the calculation of the forecast reliability gap be incalculable, the calculation of the forecast reliability gap period (see section 6.1.2) is progressively widened in 2% increments to include periods where the probability of lost load is less than 10%, rather than including only those periods where the probability of lost load exceeds 10%.

This proposed progressive inclusion of periods of lost load as opposed to the larger step change proposed by AEMO should reduce the potential for over estimation of both the duration and size of a reliability gap by AEMO.

We would also like to raise a suggested improvement to sub-section 4.4 of the ESOO and Reliability Forecast Methodology Document to improve clarity with regards to the calculation of transmission line rating traces. Whilst not clearly indicated in the Document, we understand that the proposed use of varying transfer capability on transmission lines would apply to only those transmission lines to which dynamic line ratings apply.

It is unclear to ERM Power how transmission lines with non-varying static ratings or seasonal/monthly static ratings could be subject to the calculation of transmission line rating traces as set out in sub-section 4.4. We recommend that the Document be amended to clearly indicate how dynamic, non-varying static and seasonal/monthly static values are selected and included in the modelling.

In addition, we note that AEMO and transmission network service providers apply various line ratings at dispatch which could include the normal rating, an emergency rating or a short time rating.[5] It is unclear from the Document what transmission line rating is used in AEMO's reliability forecast modelling. We recommend that the transmission line ratings used in the reliability forecast model match that used by AEMO at Dispatch and AEMO include in sub-section 4.4 what rating level in accordance with AEMO's published criteria is used in the modelling.

Lastly, as noted in the Document[6], we remain concerned that the methodology used for calculating the size of any reliability gap continues to overestimate the size of any forecast reliability gap and that the sharing of additional resources between regions where a forecast reliability gap is indicated in the same financial years is not permitted. This outcome fails to acknowledge the weather diversity misalignment of maximum demand outcomes between regions and unnecessarily increases the size of reliability gap in each region.[7]

Conclusion

ERM Power remains concerned that in a number of areas, AEMO continues to maintain an overly conservative approach to reliability forecasting. The potential impact of this excessively conservative approach has recently been demonstrated in the form of a T-3 reliability instrument request for the NSW region for financial year 2023/24 where a number of concerns have been identified and reported to the AER regarding AEMO's 2020 ESOO reliability forecast modelling.[8] Ultimately, it will be consumers that incur the costs of this conservative approach adopted by AEMO and for this reason we have set out a number of recommended changes to AEMO's proposed amendments to both the Reliability Forecast Guidelines and the ESOO and Reliability Forecast Methodology Document.

Please contact Ron Logan 0427 002 956 or rlogan@ermpower.com.au if you have any questions with regards to this submission.

Yours sincerely,

[signed]

Libby Hawker
Senior Manager – Regulatory Affairs
03 9214 9324 - LHawker@ermpower.com.au

[5] AEMO Transmission Ratings Application Levels - https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/network-data/transmission-equipment-ratings/rating-application-levels
[6] Section 6.1.4 ESOO and Reliability Forecast Methodology Document pp 23
[7] Section 6.1.5 ESOO and Reliability Forecast Methodology Document pp 24
[8] ERM Power Submission – AER – AEMO request for a T-3 reliability instrument for the NSW region of FY2023/24