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

+61 3 9214 9333
ermpower.com.au

Wednesday, 24 October 2018

Mr Jack Fox
Principal Analyst Operational Forecasting
Australian Energy Market Operator
GPO Box 200
Melbourne VIC 3001

Dear Mr Fox

RE: Reserve Level Declaration Guideline Consultation – Updated Issues Paper

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO's) Reserve Level Declaration Guideline Consultation Updated Issues Paper (the Paper) issued mid-October 2018.

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[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. 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 supports AEMO issuing a revised Issues Paper to provide additional information and clarity with regards to a number of issues contained within the original Paper. We support the additional data analysis performed by AEMO to provide added analytic input into the basis for the proposed changes. We also agree with AEMO's decision to analyse and consider all proposed changes using a holistic approach to ensure that the conclusion represents the expected changes in the Forecasting Uncertainty Measure (FUM) based on all the proposed changes being implemented together as opposed to the impact of the proposed changes individually. We note that based on data supplied in the revised Paper, the impact of these combined changes is expected to result in the FUM value in MW terms reducing in all regions from historical values. We believe this outcome represents an improvement in the process for the calculation of FUM values going forward. Notwithstanding we do continue to have some concerns in a few areas of the proposed calculation methodology changes as follows.

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

Reducing number of models per region

We support the change which reduces the potential for discontinuity of FUM values between model boundaries on the basis that AEMO will also introduce a complementary change to the input predictor spacings within the models to allow a gradual transition in FUM values in the boundary areas of the three proposed models.

Proposed change to the temperature input bin structure

We note AEMO's significant proposed change to the temperature input bin structure and ask that additional analysis regarding the outcome of this significant change be provided in the next review of the Guideline. Whilst the current proposed change retains the three-bin structure we believe additional analysis should be provided to clearly indicate that the 1.5% bin sizing of the distribution of temperatures for the first and third bins is optimal compared to alternative bin sizing.

Change in input predictors

Scheduled demand forecast error

The paper indicates that AEMO will compare AEMO's forecast one Trading Interval prior to the current Trading Interval to actual to determine the demand forecast error. We are concerned that this may result in the propagation of a historical error that has been removed by the most recent AEMO scheduled demand forecast update into the FUM calculation for the next twelve Trading Intervals. We understand that during the last Dispatch Interval of the current Trading Interval AEMO updates the future scheduled demand forecast including for the current Trading Interval. We would accept the use of this revised AEMO forecast compared to actual for the current Trading Interval in the calculation of demand forecast error for the next 12 Trading Intervals. This would ensure that the FUM is calculated based on the most recently updated AEMO forecast.

As indicated in our submission to the original Issues Paper, we remain concerned by the "bundling" of demand forecasting error from periods in the day in which the demand forecast error may be less relevant and therefore subject to a lower level of scrutiny compared to periods which are subject to increased scrutiny due to the impact of forecast reserve conditions. We acknowledge the inclusion of solar radiation as an input predictor may provide some level of additional benefit in this regard. We continue to recommend AEMO conduct further analysis to consider if the FUM calculation should continue based on errors from all Trading Intervals or if the error inputs should be confined only to those Trading Intervals in any day where forecasting accuracy is more critical which may result in increased scrutiny of the forecast outcomes.

Semi-scheduled generation, temperature and solar radiation forecast based on 6-hourly intervals

The paper indicates that AEMO will use 6-hourly forecast intervals for forecasts of semi-scheduled generation output, temperature and solar radiation. We are concerned that an interval duration of 6 hours may not represent the optimal forecast duration interval to allow an accurate calculation of FUM values. We ask that AEMO provide additional analysis to justify why AEMO consider forecasts of these input predictors at a 6-hour interval to be the optimal forecast interval in the next review of the Guideline.

We are also concerned that the Paper indicates that AEMO intends to utilise the temperature forecasts for plant de-rating/trips on extreme days. Scheduled generators already provide Bid Maximum Availability and Projected Assessment of System Adequacy (PASA) information based of forecast temperature outcomes as required by the National Electricity Rules (the Rules) to AEMO. This information is provided on a half hour granularity and the Rules require that the information provided is based on a best endeavours basis taking all known conditions including current temperature forecasts into account. We submit that temperature de-rating based on temperature forecasts should apply only to distributed generation sources such as rooftop solar PV which may be subject to unscheduled temperature de-rating compared to AEMO's own internal forecasts.

In addition, we do not support AEMO's intention to use forecast temperature outcomes as a possible determinant for the probability of a unit trip occurring until such time that AEMO produces analysis to support the assertion that the probability of a unit trip occurring increases with temperature outcomes. To date we are not aware that such analysis has been produced.

Current aggregated output for gas-fired, coal-fired and hydro generation

The paper indicates that AEMO intends to use current output of gas-fired, coal-fired and hydro generation in some way in the FUM calculation process but fails to provide any information as to how the inputs will be utilised or the benefits this provides. We ask that additional analysis and information supporting the use and benefits of the values be provided in the next review of the Guideline.

Revision of definition of Regional Excess Supply

We continue to have significant concerns regarding the proposed change in the calculation of Regional Excess Supply (RXS) due to energy limited scheduled generation. The distribution of nominal generation Maximum Availability limits for energy limited plant on a Trading Interval basis by AEMO in the Pre-dispatch and Short Term PASA timeframes fails to recognise that whilst energy may potentially be subject to a nominal limit across a Trading Day, the Maximum Availability able to support the reliable supply of electricity to consumers in any individual Trading Interval will align with a generator's reported Maximum Availability at Dispatch, not the artificial limit created by AEMO. The current AEMO Trading Interval allocation fails to take into account the potential to rebalance fuel allocation between future time periods or to source additional "spot" fuel purchases should electricity regional reference price outcomes warrant such a purchase. We submit that in assessing any FUM error, the calculation must be based on Bid reported Maximum Availability and see no reason for the proposed change to the treatment of energy limited scheduled generation. If AEMO determines that this change should be implemented, then we believe the FUM calculation must be based on the PASA forecast compared to actual bid reported Maximum Availability at Dispatch, rather than AEMO allocation of energy limited plant availability at the time of Dispatch PASA forecast. This will ensure that the FUM error calculation is based on the "real" availability of the generator to dispatch to meet consumer demand not an artificial lower level.

We support the change in the calculation of regional excess supply with regards to the impact of generation Maximum Availability on potential interconnector limits. We agree with AEMO's view that in some locations, a reduction in Maximum Availability for a negative gatekeeper generator (where increased generation output from that particular generator reduces network limits) will result in an offsetting increase in interconnector limits. We believe this to be a beneficial change to the FUM calculation methodology. Notwithstanding, we reserve support for the use of AEMO's Trading Interval based energy limited generation availability allocation or the Bid Maximum Availability values where a generator acts as a positive gatekeeper (where increased generation output from that particular generator increases network limits) until additional analysis and detail supporting the use and benefits of this change is provided in the next review of the Guideline.

Revision of the confidence levels

We note that whilst not included in the original Issues Paper, the revised Paper has determined that a decrease to the confidence level from values of 98 to 95%, depending on the forecast horizon, to 95% for all Intervals within the forecast horizon is warranted. ERM Power supports this change and supports continued review of the confidence levels in future reviews of the Guideline. For the next review we urge AEMO to consider if similar to the existing Guideline, the confidence levels can be scaled progressively from the single 95% value to 90% in the forecast horizon of 24 to 72 hours.

Areas proposed for future reviews to continue development of the process

In the current consultation process the Reasonability Limit Values were not considered. The Reasonability Limit Values are currently set at very high levels. We recommend that AEMO consider additional consultation on the Guidelines following the summer of 2018/19, and that analysis be undertaken on these values with regards to their ongoing effectiveness and suitability given their potential to result in additional costs to consumers.

Suggested improvements to AEMO's NEM Lack of Reserve Framework Report

Whilst not forming part of this consultation, we understand that AEMO has considered the comments we provided in our submission to the original Issues Paper regarding the format of the quarterly reports. We thank AEMO for their consideration in reviewing the report format and look forward to issue of the next report in the suggested revised format in late October 2018.

Conclusion

We thank AEMO for their consideration of comments provided by participants to the original Issue Paper and for the publication of the revised Issues paper in mid-October. Given the relative infancy of the FUM calculation process and its potential to negatively impact the efficient operation of the NEM and the impact this may have on costs to consumers, we support ongoing regular review of both inputs to the calculation methodology and the process. ERM Power will continue to engage with AEMO to consider, support and suggest improvements which we believe are warranted. We thank AEMO for the opportunity to provide input to the current consultation process.

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