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RE: Demand Side Participation Forecast Methodology Issues Paper

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) consultation on AEMO's Demand Side Participation (DSP) Forecast Methodology Issues Paper, the Paper.

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.

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General comments

AEMO's Demand Side Participation Forecast Methodology is an integral part of the process to be implemented by AEMO to comply with the Retailer Reliability Obligation – Best Forecasting Practice Guideline. We support AEMO's decision to consult on the methodology prior to the commencement of finalising inputs to the 2020 Electricity Statement of Opportunities (ESOO) reliability forecast. We offer comments to the Paper as follows;

Demand side participation types

The Paper set outs several categories of observed DSP types and AEMO decision criteria to include or exclude the observed DSP sub-type from the calculated DSP value for a region. To improve clarity, we recommend that AEMO consider separating out the Network Service Provider's network loading control demand response from the Reliability Events responses into a separate category of Network Loading Control response leaving the centrally dispatched Reliability and Emergency Reserve Trader (RERT) response as its own category renaming the Reliability Events response category to RERT response.

We support AEMO's decision to include Other Non-Scheduled Generation (ONSG) as a transparent separate sub-type under the Market-Driven response category. We believe this will reduce the confusion between the level of commonly observed demand response and the lower level of DSP allocated by AEMO to the reliability assessment calculation in AEMO's various planning reports.

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

We also support AEMO's view that where an individual load as identified by its National Market Identifier (NMI) code is indicated as participating in multiple DSP programs, this load should not be double counted. However, the load should be allowed to participate for the full range of potential programs. By way of example, a load that is indicated as participating in a program for a nominal number of network loading driven events could also be able to provide full capability towards market price outcome driven events, in this case we consider that the load would be best counted against one of the market price outcome driven sub-types as opposed to the Network Loading Control response type. We recommend that the methodology set out in more detail the process by which AEMO will allocate different loads (NMI's) to different DSP sub-types.

With regards to the current exclusion of loads from the DSP calculation which are indicated as potentially participating in a RERT program, we recommend that this area be clarified as only applicable for a load for which a RERT contract has been signed and the load dispatched for RERT purposes as opposed to a load which may be participating in a RERT panel only. A load has no obligation to provide RERT dispatch until such time as a formal RERT contract has been signed, until that point, a RERT Panel member is available to provide Market-Driven demand response.

We believe the methodology would be improved by the inclusion of defined criteria for exclusion of loads participating in known programs where any response would already be embedded in the demand forecast. This would then be followed by a list of programs for which any response has been excluded.

Method for calculating demand side participation levels

ERM Power agree that AEMO's calculation methodology is well set out in the 2019 Interim DSP Forecast methodology. We note the use of two different methods to estimate the "baseline" consumption for any load for which DSP has been observed. Whilst supportive of this approach, data as set out in Figure 4 indicates that a level of inaccuracy in the allocated "baseline" continues to exist as represented by negative DSP values. In practical application we do not believe that a negative value could exist. We recommended that for calculating input assumptions for DSP to be used in future planning and reliability forecasts, all negative DSP values should be removed prior to calculation of the response probability curves.

In considering the level of DSP available to the market, the use of observed values over the previous three-year period for what are in effect somewhat rare events would of itself add a degree of underestimation of potential DSP, particularly if the analysis includes periods where very high spot market price outcomes have not occurred. We question the use of the observed 50th percentile value from the probability response curves to assess the level of DSP available to the market at times of a reliability event, where very high prices and the threat of involuntary load shedding would lead to a high DSP response. We also understand that whilst the 50th percentile value is allocated to DSP response, the full value of any observed load response is added to the historical demand outcomes for use in the forecasts of future maximum demand outcomes and ½ hour demand traces used in the reliability assessment modelling. This results in an unnecessary conservative assumption being introduced for DSP.

We consider that the value used in the reliability assessment be set at the 90th percentile whilst maintaining the priced based response at the 50th percentile. We believe this would more accurately reflect the level of DSP expected to be available and respond at times of an actual reliability event.

We recommend that AEMO continue to monitor and report on the observed level of DSP compared with that indicated in AEMO's Demand Side Participation Information Portal (DSPIP), in particular, following implementation of the proposed wholesale demand response mechanism.

Forecast of future demand side participation levels

ERM Power notes that currently AEMO's forecasts for DSP in future years is based on the calculation as set out in the methodology paper, and for any reliability assessment includes no growth in DSP forecast values with time.

We would be supportive of AEMO requesting estimated future levels of DSP covering the next three years via the DSPIP. We agree that the level of inaccuracy may increase for forward looking forecasts, but with the ability for participants to provide regular updates, as required, in addition to the normal annual update, we believe that this level of inaccuracy would reduce over time.

We also note that AEMO has indicated that future estimates could be based on;

- A qualifying contract under the RRO, or
- Intended to respond as wholesale demand response according to the Australian Energy Market Commission's (AEMC's) current Rules change proposal.

Whilst supportive of these two criteria, we would not support that an estimate of future DSP be limited to these two criteria only and recommend that the criteria be expanded to include "Other demand response". We would also support the level of estimated DSP indicated in year 3 being used for the remaining seven-years of the ESOO.

Timing of forecast publication and updates

ERM Power supports the suggested timing for the minimum required annual update of the DSPIP during the month of April, however, we also consider that the DSPIP should remain open for more regular updating by participants on an "as required" basis. We also note AEMO's suggestion that the DSP forecast would only be updated in the event that an increase, or decrease, in forecast DSP exceeded 1% of a regions maximum forecast demand. We consider that this proposed value represents a significant hurdle to activating the requirement for AEMO to update its DSP forecasts and in general exceeds the current level of forecast DSP as assessed by AEMO in the majority of NEM regions. We recommend that a value equal to 0.5% of a regions maximum forecast demand be used and this in our view would represent a more appropriate value for the purpose of triggering changes to a reliability assessment.

Reporting of demand side participation values and statistics

Currently, the DSP regional values for AEMO's planning documents reliability assessment process and for use in the Integrated System Plan as well as aggregate NEM statistics of DSP participation in demand response programs are embedded in the 2019 Interim DSP Forecast methodology. ERM Power recommends that these values be removed from the methodology document and published on a least an annual basis as the Demand Side Participation Values and Statistics Report. In this report we consider that there would be value in disaggregating the statistics to regional values.

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

Yours sincerely

[signed]

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