4 May 2018

Mr Chris Muffett
Australian Energy Market Operator
GPO Box 200
Melbourne VIC 3001

Dear Mr Muffett

RE: Regulation FCAS Contribution Factor (Causer Pays) Procedure Consultation – Draft Report and Determination

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's Draft Report and Determination for the Regulation FCAS Contribution Factor (Causer Pays) Procedure (the Report) published in April 2018.

About ERM Power Limited

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. ERM Power also sells electricity in several markets in the United States. 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 notes that the Draft Report and Determination contains proposals for a number of worthwhile changes that would improve the accuracy of the Regulation FCAS Contribution Factor calculation and also improve frequency control in the power system. However AEMO has determined not to proceed with the implementation at this time. We submit this is a disappointing and counterproductive outcome and request that AEMO give serious reconsideration to its decision not to implement these numerous beneficial changes.

Comments on material issues contained in the report

As previously indicated, there are a number of proposed beneficial changes in the Report that we believe could be implemented with little cost which would improve the accuracy of the contribution factor and also improve the participation of generating units in power system frequency control.

ERM Power supports these proposed beneficial changes;

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

4.1 Local Regulation FCAS requirements

Calculate and publish separate local regulation FCAS factors in addition to global and mainland factors as set out in the Report.

4.5 The treatment of non-metered market generation

Non-Metered market generation to be included in the recovery of the residual factor as set out in the Report.

4.6 Resolving cases where all individual contribution factors are positive

Allocation regulation FCAS costs to the residual factor when no negative performance is identified as set out in the Report which AEMO acknowledges is consistent with the National Electricity Rules (the Rules).

4.8 Producing contribution factors when significant periods of input data are deemed unreliable or inapplicable

Amendment to the Procedure to include a minimum threshold for reliable SCADA data, and to use a recent set of good performance data if the threshold is not met as set out in the Report.

4.9 The appropriate form and granularity of published datasets

Publication of five-minute performance factors for each DUID as set out in the Report.

4.11 Suitability of SCADA data as a basis for determining performance

Amendment to the procedure to consider small negative SCADA values for generating units as 0 MW as set out in the Report.

4.15 Different treatment of contingency events when determining performance

Amendment to the procedure to allow for the notification of generator, or load trips to AEMO, and where an unforced outage has been confirmed that the corresponding dispatch interval is excluded from the contribution factor assessment as set out in the Report.

We are disappointed that AEMO had determined not to proceed with these beneficial changes at this time and request AEMO reconsider this decision

ERM Power also supports the following change which AEMO have indicated an intention to implement.

4.14 Suitability of frequency indicator (FI) as weighting factor for determining performance

ERM Power acknowledges the work undertaken by AEMO to date which indicates that a mismatch between FI and system frequency can occur between 5% and 20% of the time, particularly when power system frequency is close to 50 Hz. We support AEMO's proposal to implement changes to the performance measure calculations to exclude from the calculation 4-second samples where the FI value is mismatched with system frequency.

We also acknowledge AEMO's decision to commence publication of the FI closer to real time. We understand this may be based on the FI compiled on a 4 second basis and issued in 30 minute blocks potentially with a 10 or 15 minute lag time. Whilst this is an improvement on the current absence of information, the FI data as published will in effect be historical data and as such will not be accurate as a determinate of current real-time performance. In the medium term we believe the calculation would be more accurate if it were based on local frequency transmitted as SCADA data with generating unit output and would promote positive benefits for power system frequency control.

This will also have the additional benefit of removing the inaccuracy caused by the impact of SCADA data delays. We urge AEMO to consider a work plan to implement this change as soon as practically achievable.

ERM Power does not support the following recommendation as set out in the Report for the stated reasons.

4.4 The most appropriate sample period, notice period, and application period

ERM Power does not support retention of the current historically distant 28 day sample period for the calculation of Regulating FCAS contribution factors. Retaining the existing sample period is a negative outcome for the promotion of good frequency control outcomes in the power system due to the historically distant nature of the data and the inability to implement effective risk management during periods of high Regulating FCAS prices. Under the current scenario a generating unit out of service which has no impact on system frequency outcomes will incur costs with no ability to mitigate this risk.

This recommendation is also at odds with the Australian Energy Market Commission (the Commission) Draft recommendation 1 – Part (a), as set out in the Frequency Control Frameworks Review Draft Determination issued in March 2018[2].

(a) That AEMO investigate whether:

(i) the average period used for calculation of contribution factors could be aligned with the period over which the costs are incurred, preferably on a five minute basis

(ii) the ten business day notice period between publishing and applying contribution factors is appropriate or could be removed.

ERM Power supports an interim step to achieve this recommendation by adjusting the sample period to a maximum of 7 days with a 2 or 3 day notice period as soon as this is practically achievable. We also support in the medium term consideration of the use of real-time contribution factors based on the use of local frequency as a further improvement for implementation.

4.11 Suitability of SCADA data as a basis for determining performance

ERM Power remains concerned by the potential for time delay in SCADA data transmission and processing by AEMO to impact the accuracy of the calculation. Whilst we acknowledge the work undertaken to date which identifies delays of up to 16 seconds may have only a minor impact, the Report contains no details regarding typical and maximum time delays for receipt and processing of SCADA data by AEMO's systems. We believe this detail should be provided by AEMO before determining the materiality or otherwise of this issue.

4.12 The profile that is assumed when determining deviations

ERM Power does not support the proposal to retain the existing linear profile for all calculation periods as this fails to recognise that for fast start peaking and high ramping rate plant the AEMO generating unit dispatch systems do not ramp these generating units in a linear manner across the dispatch interval. There is also the issue that dispatch instructions to units are delayed for 15 to 20 seconds into a Dispatch Interval by AEMO's dispatch systems. Participants should not be penalised in the calculation for following AEMO's automated dispatch instructions or for delays in AEMO's dispatch systems.

[2] AEMC – Page 67 Frequency Control Frameworks Review Draft Determination

4.13 Reference trajectory used to determine deviations

ERM Power does not support the proposal to retain the existing target to target reference trajectory in favour of changing to an initial to target trajectory. AEMO's dispatch systems dispatches units based on moving from their initial output, (and not the previous Dispatch Intervals target output), to the target output for the current dispatch interval

It should also be noted that generating units participating in the provision of primary frequency response which have responded to the power system frequency will generally not be at their Target Output at the end of the Dispatch Interval. As noted above, participants should not be penalised in the calculation for following AEMO's automated dispatch instructions or for the provision of primary frequency response.

We acknowledge the analysis undertaken by AEMO to date which indicates the potential for alternative reference trajectories to lead to improved incentives for frequency performance, and that further work would need to be undertaken to assess this. We urge AEMO to consider further analysis on this issue prior to preparation of the Final Report.

Conclusion

ERM Power notes the analysis undertaken by AEMO to date and the participation of a large number of representatives from market participants in AEMO's industry working group processes as part of this consultation process and supports a number of the proposed changes which would improve not only the calculation procedure but also provide positive incentives for generators to act to improve power system frequency control.

We are disappointed that AEMO has determined not to proceed with these beneficial changes at this time and request AEMO reconsider this prior to preparation of the Final Report.

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

Yours sincerely,

[signed]

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