



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

+61 3 9214 9333
ermpower.com.au

Thursday, 27 June 2019

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

Dear Mr Pierce

RE: ERC0273 - Monitoring and Reporting on Frequency Control Framework

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Commission's (the Commission) Consultation Paper to the rule change requests submitted by the Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO) for Monitoring and Reporting on Frequency Control Framework.

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 load¹. 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. www.ermpower.com.au

General comments

The Commission's Frequency Control Frameworks Review Final Report recommended the implementation of additional Rules obligations to promote transparency of the frequency performance of the power system and the competitiveness of Frequency Control Ancillary Services (FCAS) markets. In response, the AER and AEMO have proposed separate rule change requests to meet these recommendations. In general, ERM Power supports the intent of both rule change requests, but, as we set out in our submission, we suggest modifications to the proposed rules, primarily to improve the content of AEMO's rule change in the area of frequency performance monitoring.

AER's rule change request - monitoring and reporting of FCAS market performance

ERM Power supports the AER's proposed reporting requirements on FCAS markets outcome as set out in their rule change request. We agree that reports should be published on a quarterly basis and whilst we are supportive of the AER's request that reports should be published "as soon as practicable from the end of the relevant quarter" we are concerned that by not specifying a time limit in the Rules for this reporting obligation the benefits of this new reporting obligation could be diminished. We believe that the final rule should require that the quarterly report be published as soon as practicable but no greater than 90 days from the end of the relevant quarter.

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



We also support the AER's view to report on the effectiveness of competition in FCAS markets as part of wholesale electricity market performance reports required under the National Electricity Law (NEL). To maintain a consistency of approach, it is more sensible to consider all relevant wholesale markets (including FCAS) as part of its ongoing review into the effectiveness of competition in all markets together as there is a degree of interaction between all eight FCAS markets and the energy market.

AEMO's rule change request - Monitoring and reporting of frequency and frequency control performance

We agree with the findings of the AEMC's Frequency Control Frameworks Review that there are currently no formal rules obligations requiring the market operator to monitor and report on frequency outcomes in the National Electricity Market (NEM) and that this is a significant omission from the current Rules.

In September 2001 the Reliability Panel on advice from the market operator with regards to its engineering suitability, modified the normal operating band of Frequency Operating Standard (FOS) from the original 49.90 to 50.10 at all times absent a contingency event or load event, to 49.85 to 50.15 Hertz (Hz) for 99% of the time and 49.75 to 50.25 Hz at all times absent a contingency event or load event when the NEM is operating as an interconnected system. As part of the recommended changes, the market operator also commenced a progressive reduction in regulation FCAS procurement to align with the revised FOS and agreed to implement routine monitoring and monthly reporting of NEM frequency outcomes.

This routine ongoing monitoring and reporting of frequency outcomes was reaffirmed by the market operator in the recommendations set out in the July 2007 FCAS Review Final Report. This market monitoring and reporting function is further supported by AEMO's own document - Power System Frequency and Time Deviation Monitoring Report – Reference Guide July 2012. These facts clearly indicate an ongoing monitoring and reporting obligation with regards to power system frequency for the market operator.

Notwithstanding the implied obligation indicated above, it would be beneficial to introduce a formal rules obligation for the monitoring and reporting on power system frequency outcomes by the market operator.

AEMO indicated in their rule change request that the NEM's power system frequency has flattened over time and is no longer being held close to the system frequency of 50 Hz. In considering this, we believe it is worth the Commission noting that the NEM's Frequency Operating Standard, as set by the Reliability Panel, does not contain any objective outcome that frequency operate at or very close to 50 Hz, or present a profile that is a "normal distribution" around 50 HZ, only that power system frequency is between 49.85 to 50.15 Hertz (Hz) for 99% of the time and 49.75 to 50.25 Hz all the time absent a contingency event or load event. It is also worth considering that whilst the Reliability Panel conducted a review of the NEM's Frequency Operating Standard between July 2017 and April 2019, and the Commission undertook the Frequency Control Frameworks Review between November 2017 and July 2018, no submission was received from the market operator to either review recommending a change to the FOS – Normal Operating Band settings from the current settings.

ERM Power believes the real Statement of Issue with regards to this rule change is the lack of a formal obligation set out in the Rules to require the market operator to monitor and report in a transparent and consistent format on power system frequency outcomes on the basis of the requirements as set out in the FOS and in line with the views of the required reporting requirements as consulted on with stakeholders. This reporting issue has been discussed at length through AEMO's Ancillary Services Technical Advisory Group (AS-TAG) workshops and forums over the last 3 years with limited progress thus far. Whilst the concept of formal rules obligation as contained in AEMO's rule change request for the monitoring and reporting of power system frequency outcomes is somewhat in line with part of the discussions at the AS-TAG forums, the specific rule change request as submitted was not circulated to the AS-TAG for discussion and comment prior to submission by AEMO.



In the rule change request, AEMO proposes a number of metrics be included in the Rules with regards to power system frequency reporting. We are concerned that by setting out these metrics in the Rules, additional rule change requests would need to be lodged to have these metrics reported by the market operator changed where over time it becomes clear that transparency and maintaining secure operation of the power system would benefit from additional metrics. Therefore we submit that the proposed rules as submitted by AEMO be amended to indicate a provision of “including but not limited to the following” and an additional provision to allow a request to be lodged with AEMO to allow additional metrics to be included in the weekly and quarterly reports and an obligation on AEMO to consult with stakeholders with regards to the inclusion of this additional metric within a reasonable time period where inclusion of the additional metric is technically achievable.

Proposed change to subclause 4.8.16(a)

Each week, AEMO must prepare and publish on its website a report ~~on the~~ including but not limited to the following outcomes for the previous week

The FOS – Normal Operating Band settings require that system frequency operate in the range 49.85 to 50.15 Hertz (Hz) for 99% of the time and 49.75 to 50.25 Hz all the time absent a contingency event or load event. Proposed subclause 4.8.16(a)(1)(i) - the proportion of time spent inside the normal operating frequency band is unclear as to the purpose or benefit of this metric with regards to the requirements of the FOS. To more clearly align with the requirements of the FOS we believe that the proposed subclause 4.8.16(a)(1)(i) should be amended to:

the proportion of time spent outside the normal operating frequency band absent a contingency event or load event;

Otherwise the proposed metric may create confusion with regards to power system frequency outcomes meeting the FOS as set by the Reliability Panel. We believe it is critical that the reporting obligations align with the FOS to ensure that the reporting stream accurately represents the requirements as set in the FOS.

We also believe that the proposed subclause 4.8.16(a)(1)(iii) would benefit from the deletion of the word ‘average’. We believe reporting on the average utilisation of enabled regulation services dispatch is insufficient to determine how often regulation services are being fully utilised within each 5 minute dispatch interval and utilisation of the regulation services would be better presented on a 30 second interval basis with regards to their exhaustion. Deletion of the word “average’ would still allow reporting of average utilisation by AEMO in addition to how often the enabled regulation services are being exhausted within a dispatch interval as requested of AEMO by the AS-TAG members.

The Commission has correctly identified that AEMO’s proposed reporting on the rate of change of frequency based on the largest frequency deviation as set out in subclause 4.8.16(b)(3) may be deficient in that the report would only contain details of the largest deviation event during the month and other deviations potentially outside the contingency event of load event – containment band may not be included in the report. We believe stakeholders would be better served by reporting on an event basis where the actual frequency outcome exceeded a frequency range as set out in the rules. As the FOS specifies that power system frequency may operate in the range of 49.75 to 49.85 or 50.15 to 50.25 Hz for a total of one percent of the time in any rolling 30 day period, we believe reporting of rate of change of frequency outcomes in this range of frequency would be of little benefit. We submit that reporting of the rate of change of frequency should be based on power system frequency deviations less than 49.75 Hz and greater than 50.25 Hz, as this will ensure that rate of change of frequency event reporting occurs for any material power system frequency event.

We support AEMO’s request to publish the Quarterly Report within thirty days of the end of the reporting period, rather than two weeks as a pragmatic requirement in light of the level of data to be analysed and reported on in the report.



With regards to the proposed inclusion in the Report of reviewable incidents impacting frequency, we believe the Report should contain both a list of reviewable incidents impacting frequency during the reporting period as set out by AEMO, and a separate section summarising all reviewable incidents impacting frequency reports issued by AEMO during the reporting period, including any reviewable incidents impacting frequency reports issued by AEMO pertaining to an earlier reporting period. This will meet both the requirement as set out in the Frequency Control Frameworks Review and deal with concerns as set out by AEMO in their rule change proposal regarding the significant amount of time it can take to investigate when such incidents occur.

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

Yours sincerely

[signed]

Ben Pryor
Regulatory Affairs Policy Adviser
03 9214 9316 - bpryor@ermpower.com.au