

Frequency Performance Payments Consultation
AEMO

Submitted by email to: FPPconsultation@aemo.com.au

15 March 2023

Dear Sir/Madam

AEC Submission to Frequency Contribution Factors Procedure Draft Report

The Australian Energy Council (AEC) welcomes the opportunity to make a submission in response to the Draft Report for the Frequency Contribution Factors Procedure.

The Australian Energy Council is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

General Comments

The AEC is only in a position to provide fairly broad commentary on the Draft Procedure and notes AEC members will be providing more informed views on its details.

The AEC broadly supports the draft procedure and the consultative process that AEMO has undertaken. The AEC considers the introduction of Frequency Performance Payments (FPP) an important reform, and whilst there are valid views that should be taken into account on elements of AEMO's design choices, all parties nevertheless strongly support the introduction of FPP on the due date of June 2025, preceded by an extended pre-production period.

The AEC thanks AEMO for the provision of backcasting analysis throughout the Draft Report which has provided a much more practical grounding for the necessary design choices than had the Report discussed them purely theoretically. Backcasting analysis of financial turnover in figure 11 and in more detail as presented at the forums was also very useful in confirming that the overall design meets expectations.

The FPP design requires the Procedure to undertake a number of judgements regarding the smoothing of metered information and approaches to building reference trajectories. Inevitably there are mixed views, but the AEC acknowledges AEMO has provided a reasonable explanation of how these draft judgements were made. The backcasting has been particularly helpful, but the AEC suspects real FPP operation will provide a stronger evidence basis. Therefore the AEC suggests the procedure include a requirement for regular reviews of the FPP operation after implementation in order to re-assess the validity of these judgements.

The AEC notes some differences of views between members and AEMO arise because of perceived deficiencies in AEMO's Automatic Generation Control (AGC) system, which leads to the policy question of

whether the FPPs should be adjusted to account for this. The AEC understands AEMO's response to this view is that deficiencies in AGC should be resolved within the AGC system itself. FPP should operate only upon observed plant behaviour in support of, or in opposition to, the frequency, regardless of its cause.

The AEC does not disagree with the logic of AEMO's response, but notes that over an extended period of time its membership has frequently raised concern about the performance of AGC which do not appear to have been adequately addressed. Whilst the AEC agrees that AGC design and performance is outside the scope of this consultation, if AEMO is to take this response, it is incumbent upon AEMO to commit to a plan of action to address the matters raised.

Trajectory

A frequently discussed matter in the design of FPP is the choice of the dispatch trajectory against which the DUID's SCADA is measured. The Draft procedure proposes to use the trajectory between the "cleared MW" quantities produced by the dispatch engine.

AEMO's position is that this Draft procedure's approach is obliged by the new rule 3.15.6AA which draws the trajectory from the "*dispatch target...at the end of the previous trading interval...*". However "*dispatch target*" is not a defined term in the Rules. AEMO is using the term in its common meaning, however it may be legally open for the procedure to interpret "*dispatch target*" differently if other values prove more appropriate.

In particular units operating on AGC are driven to an AGC output setpoint which can be materially different to the cleared MW, and it is of concern to AEC members that DUIDs will be effectively penalised by the complying with an AGC set point. It may be possible to capture this set point as at least the launch point for the trajectory.

For non-AGC units, a cleared MW to cleared MW trajectory seems appropriate, but this should take into account inherent latency in the issuing of a dispatch instruction. An approach may be to begin and end the trajectory at a delay from the start and end of the dispatch interval, recognising these latencies.

The AEC is not explicitly recommending any of these technical adjustments, but is noting that they deserve detailed analysis by AEMO to determine whether the result would represent a more reasonable and fairer implementation. The AEC recommends that is done through this consultation period and considers there is adequate time for this analysis ahead of the implementation date of June 2025.

Frequency Measure

The design always assumed AEMO would need to perform a degree of filtering/averaging of the raw frequency input, and the AEC is pleased that AEMO has performed analysis to support its proposed exponential moving average approach. Whilst this appears the best approach from the information to hand, this is an area also worthy of regular post-implementation review as discussed above.

Given that it is a moving average, there will be instants where the actual frequency has crossed to one side of 50Hz whilst the measure is still on the other side. Those DUIDs who have responded very quickly to that frequency change will be anomalously briefly penalised by the measure. AEMO has argued that this anomaly has low materiality, which the AEC does not dispute. However, as a matter of principle, AEMO should consider whether it is appropriate and feasible to at least zero the penalty for these instants.

The AEC encourages AEMO to consider measuring frequency at more points than one per region. If additional geographic measurements were made, it would lessen the need to suspend payments where islanding does not align with a regional boundary.

Publication interruption

At section 4.13 AEMO has discussed what action to take when a technology system issue has caused a delay in the contribution factors. Whilst the AEC agrees timely publication of contribution factors is a critical aspect, it does not feel that effectively pausing the process through the use of default factors is an appropriate remedy. Instead, whilst an interruption is unfortunate and should be rectified as soon as possible, it would be better for the calculation and settlement process to continue.

Capping

The AEC is not opposed to the capping of extreme Requirement of Corrective Response (RCR) values, and thanks AEMO for estimating the materiality of its proposed caps, but feels the procedure requires greater clarity in explaining the objective of a cap. In the AEC's mind, a cap for a new payment mechanism is appropriate if its objective is limited to excluding only extreme outcomes that have been caused by:

- A systems failure creating anomalously large values; or
- Circumstances that are clearly well beyond the system's intention to reward investment in frequency correction.

These are very rare circumstances. In contrast, the AEC is not comfortable with AEMO determining a cap in order to limit market risk more generally which would be outside AEMO's role.

The draft proposal's cap activates between 0.1% to 0.4% of the time. Noting the AEC is not aware of the detailed circumstances of those instants of activation, this result seems less rare than the AEC would have expected from a cap tuned only to its preferred limited objectives.

The AEC recommends that

- the procedure explicitly describes the purpose of RCR capping along the limited lines the AEC has suggested;
- the proposed caps are reconsidered with respect to whether they meet those objectives and only those objectives;
- the caps are regularly reviewed post implementation for their appropriateness with respect to those limited objectives.

Any questions about this submission should be addressed to Ben.Skinner@energycouncil.com.au or by telephone on (03) 9205 3116.

Yours sincerely,



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