4 November 2021

Anna Collyer
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submitted online: www.aemc.gov.au

Dear Ms Collyer

Primary Frequency Response Incentive Arrangements – Draft Determination

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Australian Energy Market Commission's (AEMC) Primary Frequency Response (PFR) Incentive Arrangements Draft Determination.

Origin is strongly supportive of transitioning to an incentive-based framework for procuring PFR to manage frequency within the normal operating frequency band (NOFB). We consider this could most effectively be achieved by establishing a voluntary market-based framework for the provision of narrow deadband PFR and removing the current mandatory requirement. While the introduction of payments for positive frequency performance under a double-sided causer pays (DSCP) framework is notionally a step in the right direction, it is not clear the framework, coupled with retaining a mandatory narrow deadband requirement, would facilitate efficient provision of PFR on an enduring basis. We therefore recommend the AEMC undertake an additional period of public consultation before proceeding to a Final Determination. As part of that process, the AEMC should seek to provide a more detailed assessment of: the potential implications of the DSCP framework on generator costs/incentives; and the comparative costs/benefits of establishing a market-based procurement framework.

1. The impact and efficacy of the proposed framework is unclear

The introduction of frequency performance payments could theoretically assist with remunerating participants for provision of PFR, given net positive contribution factors are not explicitly valued under existing arrangements. However, analysis undertaken by GHD indicates the proposed framework is only likely to be effective while there are sufficient reserves of PFR available in the market from online thermal generation.[1] This is principally because the DSCP mechanism may not effectively incentivise the provision of PFR from renewable plant that typically generate to their full capacity and do not maintain the headroom necessary to effectively maintain frequency during normal operation.

GHD further noted that establishing a price incentive for the provision of PFR headroom and frequency responsiveness would be the most meaningful way to encourage the uptake of technologies and control systems necessary for PFR service provision.[2] The establishment of a frequency control ancillary services (FCAS) type market for PFR service provision during normal system operation was put forward

[1] GHD, 'Enduring Primary Frequency Response (CT2 0 Power system operation and strategic regulatory advice)', 16 September 2021, pg. ii.
[2] Ibid, pg. 59

Origin Energy Limited ABN 30 000 051 696 • Level 32, Tower 1, 100 Barangaroo Avenue, Barangaroo NSW 2000
GPO Box 5376, Barangaroo NSW 2000 • Telephone (02) 8345 5000 • Facsimile (02) 9252 9244 • www.originenergy.com.au

as the most effective way to achieve this.[3] GHDs expectation is that such a framework could be required towards the end of this decade or potentially earlier, depending on the level of thermal plant retirements and growth in VRE.[4]

Origin generally agrees that a voluntary market-based framework for the provision of narrow deadband PFR could provide a more efficient and enduring solution to managing frequency within the NOFB. Such an approach is likely to be less complex than implementing a real-time DSCP framework which could give rise to highly volatile causer pays factors that are difficult for generators to anticipate and respond to in practice. It would also provide the Australian Energy Market Operator (AEMO) and market participants with greater certainty around the volume and price of PFR, which is important in the context of incentivising efficient provision of the service. Further, such a framework could be supported by a mandatory wide deadband PFR requirement if considered necessary to protect against significant non-credible contingency events.

2. A potential path forward

Noting the above, we recommend the AEMC extend the rule change process and undertake an additional period of public consultation before proceeding to a Final Determination. As part of that process, the AEMC should seek to provide a more detailed assessment of the efficacy of the proposed framework. This analysis should consider:

- the volatility of real-time causer pays factors for representative plant under the proposed framework based on historical generation performance, including under scenarios where a large proportion of thermal plant are on outage and/or other factors (e.g. transmission failures) have limited the level of PFR available in the system, or particular regions;

- the extent to which participants could accurately determine their causer pays factor liability in advance of a trading interval; and

- whether the DSCP framework coupled with retention of the current mandatory requirement, would materially strengthen incentives for PFR service provision, including from battery storage and VRE resources.

The AEMC should also further assess the merit of procuring narrow deadband PFR through an FCAS type market. Given GHD's advice and AEMO's commentary that such a mechanism is technically feasible, it is important the trade-offs associated with that option are explored in further detail alongside the AEMC's proposed framework.

If you wish to discuss any aspect of this submission further, please contact Shaun Cole at shaun.cole@originenergy.com.au or on 03 8665 7366.

Yours Sincerely,

Steve Reid
Group Manager, Regulatory Policy

[3] Ibid, pg. ii.
[4] Ibid, pg. iii.