



31 August 2023

Anna Collyer
Chair
Australian Energy Market Commission

Lodged online: www.aemc.gov.au

Dear Ms Collyer,

Clarifying mandatory primary frequency response obligations for bi-directional plant – Consultation Paper

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Australian Energy Market Commission's (AEMC) Consultation Paper on *Clarifying mandatory primary frequency response obligations for bi-directional plant*.

Origin recognises the intent of the proposed rule change is to clarify and amend the mandatory primary frequency response (PFR) obligations for bi-directional units (BDU) to ensure PFR is provided in a predictable and consistent way in the future. Clarifying that the obligation for batteries to provide PFR when discharging will continue to apply from 3 June 2024 when their registration as BDUs commences is consistent with this objective, and would resolve an inadvertent drafting omission related to the Integrating Energy Storage Systems Rule. However, Origin does not support the proposal to require batteries to provide PFR when charging or enabled for Frequency Control Ancillary Services (FCAS) given the key concerns outlined below.

- **Increase in cycling costs:** the proposal will require batteries to respond to frequency deviations over a broader range of battery operating modes. This will result in the additional cycling of batteries which will increase wear and tear, potentially eroding effective asset life.¹
- **May discourage FCAS participation:** the increased cycling costs incurred may discourage batteries from participating in FCAS markets, which could undermine system security and resilience. This would undermine the utility of the Very Fast FCAS market that is due to commence operation in October 2023, as most of the new service requirement is anticipated to be provided by batteries.
- **Inconsistent with the regulatory principle of technological neutrality:** the AEMC's *PFR Incentive Arrangements* final rule, which was made less than a year ago, clarified that generators that are not dispatched in the energy market to generate electricity are not required to provide PFR. The AEMC concluded that the application of a PFR requirement to batteries not dispatched to generate electricity would be "discriminatory, as other generation technologies cannot provide PFR unless they are online and generating"².

¹ Battery warranties commonly include conditions around the number of cycles / energy throughput. ARENA, *Large Scale Battery Sharing Knowledge Report*, p. 21.

² AEMC, *PFR Incentive Arrangements – Final Determination*, p. 29

The alternative incremental changes outlined in the Consultation Paper, in particular the registration of voluntary frequency response settings by participants not required to provide PFR, may have merit and should be further explored.

If you wish to discuss any aspect of this submission further, please contact Thomas Lozanov at thomas.lozanov@originenergy.com.au.

Yours Sincerely,

A handwritten signature in black ink that reads "S Cole". The signature is written in a cursive, slightly slanted style.

Shaun Cole
Group Manger, Regulatory Policy