



## Clarifying mandatory PFR obligations for bi-directional units

## **Flow Power submission**

August 2023



## **About Flow Power**

Flow Power is an electricity retailer that works with energy customers throughout the National Electricity Market (NEM). Together with our customers, Flow Power is committed to our vision of creating Australia's renewable future.

We empower customers to take meaningful action. By providing energy knowledge and innovative technology, we are delivering smarter ways to connect customers to clean energy to make our renewable future a reality. We provide our customers with:

- + Engineering support, access to live data and transparent retail tariffs that reward demand flexibility and encourage electricity usage at times of plentiful renewable output.
- Hardware solutions that equip customers with greater information, visibility and control over energy use.
- + Access to renewable energy, either through distributed solar and storage installed on site, or through a power purchase agreement with utility-scale wind and solar farms.

We believe that by equipping customers with these tools, we can lower costs for all energy users and support the transition to a renewable future.

## **Overview of submission**

The key points we would like to make regarding the AEMC's consultation paper are:

- + We do not agree that AEMO's full proposal is consistent with the National Electricity Objective (NEO). Rather, we are concerned that aspects of AEMO's proposal could increase operational costs for batteries, which would in turn have adverse impacts on how those batteries are operated, and the investment case for new batteries. AEMO has not presented a compelling case for extending primary frequency response (PFR) obligations to batteries. AEMO has provided little assessment of the costs and benefits; only highlighting the impact of thermal generation retirement.
- Providing PFR from batteries is not a costless exercise. Requiring batteries to provide PFR when charging or providing contingency frequency control ancillary services (FCAS) will increase the level of cycling. This imposes direct costs on the battery through degradation, as well as opportunity costs arising from the reduced flexibility of the battery when managing warranty cycle limits. The AEMC has acknowledged these costs prior to the commencement of this rule change request, highlighting the potential for the costs to be disproportionately borne by batteries. Again, in the consultation paper, the AEMC notes:



"The Commission recognises that these proposed changes go beyond the existing obligation for scheduled and semi-scheduled generators to provide PFR when generating and are likely to impose material costs for batteries operating in the NEM"

- + There is a market mechanism that allows for this trade-off to be made. Frequency performance payments will start in June 2025. These payments provide an incentive for plant operators to provide good frequency performance. Instead of mandating the provision of PFR at all times from batteries, the AEMC should consider the effectiveness of these payments, in particular in allowing batteries to make efficient trade-offs between the provision of PFR and other services. This could address the concerns raised by AEMO and provide a framework for the efficient investment in and provision of PFR.
- + Of the two issues raised by the AEMC, the requirement for batteries to provide PFR while neither importing or exporting from the grid is likely to have the biggest impact. Batteries spend significant proportions of their time neither importing nor exporting. This is because battery operators manage the cycle limits of the battery and use the limited cycles in the highest value applications; however, if they were required to provide PFR, this could result in significant cycling to occur during this period. However, before determining whether batteries should provide PFR while charging from the grid, AEMO and the AEMC should seek to demonstrate the need for this mandatory requirement. AEMO's rule change request provides little evidence of a clear need to make this change.

If you have any queries about this submission, please contact me on (02) 9161 9068 or at Declan.Kelly@flowpower.com.au.

Yours sincerely, Declan Kelly Regulatory Policy and Corporate Affairs Manager Flow Power