



INFORMATION

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Clarifying mandatory PFR obligations for bidirectional units

Consultation starts on a proposal to clarify the obligations of bidirectional units to provide mandatory PFR

The AEMC has released a consultation paper seeking stakeholder feedback on the Australian Energy Market Operator's (AEMO) request to clarify the rules obligations for scheduled bidirectional units to provide primary frequency response (PFR). PFR from batteries is expected to play a key role in the secure operation of the future power system.

The Commission is seeking feedback on the issues identified in the rule change request along with AEMO's proposed solutions, other alternative changes, and the assessment criteria for the rule change process.

Stakeholder submissions are due by 31 August 2023.

AEMO's rule change request identifies two issues related to PFR provision

In its rule change request, AEMO has identified a concern that the existing mandatory PFR and PFR incentive arrangements may not be sufficient to support effective frequency effective control of power system frequency over the long-term. In particular AEMO identified a need to clarify the arrangements for provision of PFR by batteries registered as scheduled bidirectional units. Batteries are expected to play a key role in the operation of the power system during periods of 100% renewable generation, which have the potential to occur as early as 2025.

AEMO is seeking to clarify the obligations for the provision of PFR by scheduled bidirectional units (e.g. batteries with a capacity 5MW and greater) once the integrating energy storage system rule change commences on 3 June 2024. AEMO identifies:

- issue 1 — the non-inclusion of scheduled bidirectional units in the mandatory PFR obligations when discharging
- issue 2 — uncertainty surrounding the long-term provision of consistent and predictable PFR, driven by unclear obligations on scheduled bidirectional units.

AEMO proposes that scheduled bidirectional units be required to provide PFR when discharging, charging and when enabled to provide a market ancillary service (FCAS).

We are seeking feedback on the proposal to confirm that batteries are required to provide PFR when they are dispatched to generate

AEMO proposes to clarify that the current PFR obligations placed on batteries that are registered as scheduled generators will continue to apply after 3 June 2024, when they transition to being registered as scheduled bidirectional units when discharging. AEMO considers that the proposal to clarify the obligation for a battery to provide PFR when generating, corrects an inadvertent drafting omission and is required to ensure the rapidly growing fleet of batteries in the NEM continue to provide PFR.

The Commission's preliminary view is that it would be consistent with the outcome of the mandatory PFR and PFR incentive arrangements rules for the obligation on dispatched generators to comply with the PFR when dispatched to apply consistently across the spectrum — to bidirectional units as it does to scheduled or semi-scheduled generators.

The Commission is seeking stakeholder feedback to this consultation paper to help progress this rule change project.

Stakeholder submissions are requested by Thursday 31 August 2023.

AEMO proposes to require scheduled bidirectional units to provide PFR when charging or enabled for market ancillary services

AEMO proposes to promote the long-term provision of sufficient, predictable, and consistent PFR by extending the mandatory obligations on bidirectional units to apply:

- when consuming electricity (charging)
- when enabled to provide regulation or contingency FCAS.

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. We are interested in stakeholder views on the materiality of these costs for batteries that are charging from the grid or providing contingency or regulation FCAS.

We are seeking feedback on other incremental changes to promote long-term, consistent, and predictable PFR

In addition to the solutions proposed by AEMO, the Commission will also consider whether other alternative changes coupled with the commencement of frequency performance payments, could promote the long-term and consistent provision of PFR. Including:

- processes to register voluntary frequency response settings
- requiring semi-scheduled generators to seek AEMO approval prior to changing frequency response mode.

The potential for voluntary frequency response from non-scheduled price-responsive resources

The Commission notes the alignment between the potential for voluntary provision of PFR and the consideration of new ways to include non-scheduled price-responsive resources in market dispatch. The *Integrating price-responsive resources into the NEM* rule change is considering changes to the NER to facilitate the improved integration of non-scheduled price-responsive resources into market dispatch. These price-responsive resources are likely candidates for the voluntary provision of PFR.

This project builds on previous Commission and the Reliability Panel work

This rule change builds on work completed by the Commission and the Reliability Panel to establish enduring arrangements for the long-term provision of PFR. In particular, this proposal follows on from the *Primary frequency response incentive arrangements rule 2022* that introduced frequency performance payments (commencing in June 2025) and confirmed the mandatory PFR obligations for scheduled and semi-scheduled generators.

The Commission is aware that some stakeholders may have concerns due to the continued consideration of PFR obligations. However, clear regulatory arrangements, where practical, should reduce the perceived financial risk faced by battery investors. It is therefore important to provide this certainty by considering this rule change request, given the key role that batteries are expected to play in the future power system.

Submissions are due by 31 August 2023

The consultation paper sets out a range of questions for the purpose of seeking stakeholder feedback. Submissions must be lodged by **31 August 2023**.

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