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Submitted electronically: [PFR@aemo.com.au](mailto:PFR@aemo.com.au)

## RE: Primary Frequency Response Requirements Review

### About Shell Energy in Australia

Shell Energy is Shell's renewables and energy solutions business in Australia. Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers. Our residential energy retailing business Powershop, acquired in 2022, serves more than 185,000 households and small business customers in Australia. The company's generation assets include 662 megawatts of gas-fired peaking power stations in Western Australia and Queensland, supporting the transition to renewables, and the 120 megawatt Gangarri solar energy development in Queensland. Further information about Shell Energy and our operations can be found on our website [here](#).

### Response to Selected Issues Raised in the Consultation Paper

Issue 6 – Clarification of relationship between Primary Frequency Response (PFR) and the Market Ancillary Service Specification (MASS)

Shell Energy supports the change to section 2.3 of the Primary Frequency Response Requirements (PFRR) to provide cross reference to the MASS. We also consider that this section would benefit from cross reference to the National Electricity Rules (NER) regarding the type of dispatch instruction that is issued for each service as well as clarity that dispatch outcomes in each case would also be subject to Section 2.2 of the PFRR. We have set out our suggested improvements to section 2.3 of the PFRR as follows to provide additional clarity and enhance compliance:

*Section 2.3. Interaction between dispatch instructions and PFR Settings*

*(a) Where an Affected Generator receives a [NER 4.9.2](#) dispatch instruction in respect of an Affected GS for a quantity of energy greater than 0 MW, the Affected GS' output is to be varied in accordance with the PFR Settings [subject to section 2.2](#). If the dispatch instruction is received by AGC, the desired output should be the summation of the AGC setpoint and the PFR Settings as described in section 10.3 of the market ancillary service specification (MASS).*

*(b) Where an Affected Generator receives a [NER 4.9.3A](#) dispatch instruction in respect of an Affected GS for a quantity of Regulation FCAS greater than 0 MW, the Affected GS' desired output should be the summation of the AGC setpoint and the PFR Settings [subject to section 2.2](#) as required by section 10.3 of the MASS.*

*(c) Where an Affected Generator receives a [NER 4.9.3A](#) dispatch instruction in respect of an Affected GS for a quantity of Contingency FCAS, but that Affected GS is not dispatched to provide energy in the same dispatch trading interval, the Affected GS must comply with the requirements for the relevant Contingency FCAS, as set out in the MASS.*



## Issue 7 - Other Drafting and Technical Considerations

With regard to question 13, we also consider that section 2.2 should be updated to indicate that an Affected GS is not required to maintain headroom or foot room in the submission of its energy or FCAS bids for the provision of PFR. We have set out our suggested improvement as follows.

*As required by NER 4.4.2A(c), there is no requirement for Affected Generators to maintain **headroom, foot room or stored energy** in their Affected GSs for the purpose of providing PFR.*

## Issue 8 - Provision of PFR in Conjunction with Energy Dispatch

Shell Energy does not support AEMO's proposed amendment to Section 4.3 of the PFRR and question its inclusion from a rules compliance perspective. As noted in the Paper, the AEMC, in its final determination to the PFR incentive rule change, has provided additional and welcomed clarity that an Affected GS is not required to provide PFR unless it has been issued an energy market dispatch target greater than 0 MW. We support the AEMC providing additional clarity in this area. It is our view that the proposed amendments to the PFRR result in a lessening of clarity regarding this issue and could be interpreted as being in conflict with the Rules in this area. Whilst we agree that the Rules don't provide an explicit obligation that a battery energy storage system (BESS) must have a control system that switches off PFR when charging, we believe the PFRR should not contain a stated expectation that a BESS is required to continue to provide PFR when charging or not generating active energy output which in our view is contradictory to the Rules. However, we do recommend an amendment to existing section 4.3 as follows;

*Subject to NER 4.4.2(c1), PFR must remain continuously enabled at the PFR Settings, unless agreed with AEMO, independent of ancillary services enablement.*

This provides clarity that agreement from AEMO is not required when the provisions of NER 4.4.2(c1) apply.

It is worth reiterating why Shell Energy does not support the proposed amendment. Battery Energy Storage System (BESS) warranties include limitations on the amount of operating MWhs per day/year (energy limit). For example: a 100MW, 2hr BESS is usually warranted to one cycle a day, 200MWh. Every MWh discharged from a BESS uses up the warranted daily energy (MWh's) which cannot be recouped throughout the day for breach of BESS warranty. If a BESS is sitting idle at 0MW and the PFR requirement intermittently instructs the BESS to discharge 1MW or 10MW, then PFR is using up valuable and limited energy from the BESS warranted daily energy limit. If a reserve shortfall occurs later in the day after PFR has consumed the daily warranted energy the BESS may not be able to supply any energy against into the shortfall period. Therefore, it is prudent for AEMO to assume that if a BESS is scheduled for 0MW energy then they cannot provide PFR. Instead, AEMO should align to the incentives facing market participants and quarantine BESS daily energy for the higher value reserve shortfall or low supply/high demand periods.

For further detail or questions regarding this submission please contact Peter Wormald (peter.wormald@shellenergy.com.au).

Yours sincerely,

Libby Hawker  
GM Regulatory Affairs and Compliance