



24 May 2024

RE: Primary Frequency Response Requirements Consultation 2024

About Shell Energy in Australia

Shell Energy is Shell's renewables and energy solutions business in Australia, helping its customers to decarbonise and reduce their environmental footprint.

Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers, while our residential energy retailing business Powershop, acquired in 2022, serves households and small business customers in Australia.

As the second largest electricity provider to commercial and industrial businesses in Australia¹, Shell Energy offers integrated solutions and market-leading² customer satisfaction, built on industry expertise and personalised relationships. 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. Shell Energy also operates the 60MW Riverina Storage System 1 in NSW.

Shell Energy Australia Pty Ltd and its subsidiaries trade as Shell Energy, while Powershop Australia Pty Ltd trades as Powershop. Further information about Shell Energy and our operations can be found on our website [here](#).

General Comments

Shell Energy is comfortable with the final rule change determination regarding the provision of mandatory narrow band primary frequency response (MNBPFRR) when enabled for provision of regulation FCAS. In our view there is a natural affinity with the provision of regulation FCAS and MNBPFRR. However, we believe additional clarification is required in AEMO's primary frequency response requirements (PFRR) regarding the quantity of MNBPFRR to be provided when a battery is enabled for Regulation FCAS.

Shell Energy's view is that the amount of MNBPFRR provided when a battery is enabled for Regulation FCAS should be limited to the Regulation FCAS enablement level. The provision of MNBPFRR by a BESS requires not only allocation of capacity (headroom and foot room) but also allocation of the available storage resource or storage headroom and foot room. To require MNBPFRR response greater than the Regulation FCAS enablement level would introduce the risk that the BESS storage levels are compromised by the provision of MNBPFRR. This could result in battery operators withdrawing their plant from providing Regulation FCAS, and potentially contingency FCAS, due to the risk that additional energy will be consumed or stored in the provision of MNBPFRR. This additional energy could be substantial and circumstances are likely to arise when, despite Regulation FCAS provision on its own being economic for the plant owner, the additional cost imposed by MNBPFRR responding beyond the Regulation FCAS enablement level is economically irrational or imposes

¹By load, based on Shell Energy analysis of publicly available data.

² Utility Market Intelligence (UMI) survey of large commercial and industrial electricity customers of major electricity retailers, including ERM Power (now known as Shell Energy) by independent research company NTF Group in 2011-2021.

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operational inflexibility in the form of storage level fluctuations. The withdrawal of Regulation FCAS could drive up the price of the service unnecessarily and lead to inefficient market outcomes. Aligning the maximum MNBPFRR response with the Regulation FCAS enablement level would allow battery operators to efficiently allocate storage resources and headroom and readily avoid this outcome.

Shell Energy also notes that the requirement to allocate storage as well as capacity resources also may require limits on the provision of MNBPFRR when operating near fully charged or discharged states. The risk of plant damage and non-compliance with the Rules regarding dispatch instructions are higher when plant nears these limits of physical storage capacity. We recommend AEMO consider a specific provision in the PFRR that excludes MNBPFRR provision by batteries beyond certain states of charge. We recommend that the provision of MNBPFRR by a battery when generating active energy output or charging should only be required when a battery's state of charge is within the range of 25 to 75 percent. Outside the range, provision of NBPFR would be on a voluntary basis. This would be consistent with clause 4.4.2A(c)(1) which states that the PFRR must not require a generator to maintain stored energy in its generating system for the purposes of satisfying clause 4.4.2(c1).

For more information or to ask any questions regarding this submission, please contact Peter Wormald (peter.wormald@shellenergy.com.au)

Yours sincerely,

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