



19 August 2022

James Lindley
Australian Energy Market Operator
Level 22, 530 Collins St
Melbourne VIC 3000

Dear Mr Lindley

RE: Market Ancillary Services Specification Draft Determination

Shell Energy Australia Pty Ltd (Shell Energy) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) Market Ancillary Services Specification (MASS) draft determination.

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 more than 185,000 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 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 has actively engaged with AEMO on changes to the MASS as part of the previous Distributed Energy Resources (DER) focussed amendments in 2021 and the Issues Paper on the introduction of very fast FCAS markets. By and large, our arguments can be categorised as placing a high degree of importance on competition within FCAS markets to ensure that consumers benefit. Again, in responding to AEMO's draft determination we consider that AEMO may not have adequately assessed the full benefits competition for FCAS services may deliver. While the technical requirements of FCAS are critical to ensuring frequency can be maintained within the Frequency Operating Standard (FOS), services that can deliver an acceptable response could meet AEMO's requirements at a far lower cost than services that meet a gold-standard approach. In

¹ By 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.



considering the required technical requirements we consider it is critical that AEMO procure services to meet the FOS and does not seek a level of service requirements to achieve outcomes well in excess of what the FOS requires.

The main issue for Shell Energy is the proposal to require all contingency FCAS providers to be able to scan for changes in Local Frequency at a rate of less than 50ms for the provision of all contingency FCAS, not just to meet the requirement for supplying the new very fast contingency services.³ This proposal comes as a surprise given that this issue was not raised in the consultation paper. The likely effect of this new scan rate requirement is that many systems already in the market will need to be retrofitted in order to comply. This will add costs to existing participants as well as creating a barrier to entry for new participants. For small sites, such as those participating in FCAS markets through Virtual Power Plant (VPP) arrangements, the new requirements and associated costs may be enough to prevent their participation. This is likely to mean that there will be reduced participation in fast FCAS markets, and therefore reduced competition. Reduced competition is likely to result in increases to overall FCAS costs to end users. Shell Energy fails to see how AEMO's proposed scan rate requirements meet the National Electricity Objective (NEO) when assessing the reliability, security and safety of the NEM alongside costs to consumers.

Indeed, we note that in discussing the sampling rate of very fast FCAS providers AEMO states:

*"Allowing FCAS Providers with a slower sampling rate to register in the Very Fast FCAS markets, with appropriate safeguards through the discount mechanism, is expected to increase competition, which AEMO considers to be in the best interest of consumers."*⁴

We strongly agree with AEMO that increased competition is in the best interests of consumers. However, AEMO's overall approach in requiring 50ms scan rates for all FCAS providers is likely to lessen competition by acting as an inefficient barrier to entry. We recognise that scan rates of 50ms may be necessary for single sites to participate in the very fast and fast FCAS markets, but we do not see why a 50ms scan rate is also necessary for aggregated participants such as VPPs which typically have a different economic profile, or for participation in the slow and delayed FCAS markets.

We understand that a 100ms scan rate requirement would be consistent with approaches internationally, and would also allow for lower cost implementation and therefore increased competition in fast FCAS markets. Should AEMO still consider that a 50ms scan rate requirement is necessary, then we believe it should come with two caveats. Firstly, existing participants in fast FCAS markets should be allowed to continue to use their existing settings and services. This is akin to the approach taken with market non-scheduled generation that operated prior to the formation of the NEM. Secondly, if there is a genuine system security concern about having significant volumes of FCAS provided by services using 100ms scan rates, then a cap could be placed on the total volume of FCAS provided by non-50ms providers. Shell Energy believes a cap of around 30 MW could be reasonable given this aligns with the threshold for registration as a scheduled generator.

AEMO's proposed scan rate requirements seem to advantage one or two providers capable of meeting the requirements, with their existing set of equipment. We see parallels with AEMO's previous consultation on the MASS in 2021 when AEMO proposed a reduction in the sampling rate to 50ms with only a limited transition period. We call on AEMO to reassess the 50ms scan rate requirement in light of the detrimental effect it could have on participation in the contingency FCAS markets, particularly with respect to VPP participants.

³ Draft Market Ancillary Services Specification, clause 6.2.2(d)

⁴ AEMO, Market Ancillary Services Draft Determination, p 45.



Timeframes of FCAS services

AEMO points out that its analyses of the impact of 1 and 2-second responses from the Issues Paper and the Addendum are based on different scenarios. The Issues Paper was based on minimum observed inertia levels as per the 2022 Integrated System Plan whereas the Addendum was based on the minimum threshold level of inertia requirement. In our view, both approaches fail to recognise several interconnected pieces of work. There is ongoing work underway around the delivery of essential system services, including the potential introduction of a market for inertia, as well as the fact that the current minimum level of inertia could change as AEMO's engineering framework assessment work evolves. An increase in the volume of inertia would offset the need for some volume of very fast frequency response. In our view, the case for a 1-second service is far from clear cut if the total costs - which consumers pay for - are taken into account.

We also note that AEMO seems to have placed little importance on the value of largest credible risk (LCR) used in its electrical islanding requirements assessment. We consider that the LCRs in the assessment should be reflective of those expected to be required at Dispatch in order to deliver more accurate results. We also observe that for the South Australian region the expected commissioning of Project Energy Connect was not discussed in the draft determination. A more comprehensive economic assessment including reasonable consideration of the factors set out above may demonstrate that a 1-second service truly is more efficient but at this stage, it appears that AEMO has not considered the issue in this light.

Shell Energy has previously argued that in conjunction with a shift to a very fast FCAS market, the current 6-second fast FCAS markets could move to an 8 or 10-second service. AEMO has rejected this, arguing that the adjusted timing may not meet the technical requirements of the NEM, and that facilities would need to be substantially re-tested. We agree that we have not put forward evidence to indicate that an 8 or 10-second fast FCAS service would meet the technical requirements of the NEM. We believe AEMO is best placed to assess whether an extended timeframe for fast FCAS can meet the technical requirements of the NEM. We also agree with AEMO that our argument for an extension to the fast FACS timeframe is based on economic grounds. The NEO is "to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to: price, quality, safety and reliability and security of supply of electricity..." In our view this clearly shows the NEO allows for an economic lens to be used when it comes to changes to a range of services affecting electricity supply, including the MASS. We encourage AEMO to consider the potential for an extended timeframe for fast FCAS to meet the technical requirements for the NEM at a lower cost to consumers.

On the second point AEMO makes regarding the need to re-test facilities, our understanding is that facilities shouldn't need to be re-tested. If a facility can already deliver the required FCAS service within 6 seconds, then by definition it could still deliver the response within 8 or even 10 seconds.

We therefore encourage AEMO to consider an extended fast FCAS timeframe on a long-term basis and investigate whether it could meet the Frequency Operating Standard at a lower cost to consumers through increased competition.

For more detail on this submission, please contact Ben Pryor, Regulatory Affairs Policy Adviser (0437 305 547 or ben.pryor@shellenergy.com.au).

Yours sincerely

[signed]

Libby Hawker
Regulatory Affairs Policy Adviser