28 September 2023

Anna Collyer
Chair
Australian Energy Market Commission

Lodged online: www.aemc.gov.au

Dear Ms Collyer,

Improving security frameworks for the energy transition – Second Directions Paper

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Australian Energy Market Commission's (AEMC) Second Directions Paper on *Improving security frameworks for the energy transition.*

Origin supports the objective of improving current market arrangements for the provision of essential system services and reducing ongoing reliance on inefficient market interventions such as directions. The proposals to align the inertia and system strength frameworks, give AEMO the power to schedule planning-timeframe contracts and introduce a cost-based direction compensation benchmark have merit in this context. However, we have identified areas where further detail and analytical work is required to better assess the proposals, as discussed below. Given the material change in direction relative to the earlier Operational Security Mechanism (OSM) proposal, we also consider it would be prudent to consider stakeholder feedback and publish a Draft Determination ahead of proceeding to a Final Determination.

Improvements to existing inertia and system strength frameworks

We are supportive of aligning the procurement timeframes of the inertia and system strength frameworks, with AEMO required to project inertia needs over 10 years and transmission network service providers (TNSPs) required to ensure sufficient inertia is continuously available, three years into the future. This may help to improve the coordination of service provision, given system strength solutions are also often able to address inertia.

While we understand the proposed changes to the inertia framework are focused on procurement in the planning timeframe, the Directions Paper does not discuss whether these changes are compatible with a real time inertia spot market.[1] We are supportive of the AEMC giving consideration to an inertia spot market to facilitate the efficient provision of inertia.

We welcome the proposed expansion of procurement eligibility to include synthetic inertia, as this may increase the pool of potential inertia providers. To enable this, synthetic inertia should be clearly defined, and AEMO should be required to develop, consult on and publish a detailed specification of the asset capabilities required to provide synthetic inertia as proposed. This work should be prioritised to ensure grid-forming battery projects currently in development have clear visibility of relevant specifications /

[1] The Australian Energy Council has proposed the introduction of a real-time spot market for Inertia. *Efficient provision of inertia rule change,* project page: https://www.aemc.gov.au/rule-changes/efficient-provision-inertia

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requirements for providing synthetic inertia, reducing the risk of potentially costly plant modifications being required at a late date.

A new transitional non-market ancillary service (NMAS) framework

Origin understands the new NMAS framework proposed would allow AEMO to procure unit configurations needed to maintain power system security, noting it may not be feasible to individually value and procure all system services at this time. However, it is imperative that AEMO ultimately defines the services required to ensure they are adequately valued and to facilitate efficient levels of service provision (including from new providers) as the market transitions away from a high penetration of large synchronous thermal plant.

While noting the challenges posed by the transition, the proposed ten-year sunset clause is excessive. A three-year period should provide AEMO with sufficient time to define the system services required and complete the technical analysis necessary to evolve from the 'secure configuration' approach to managing the system to one where individual services are clearly defined and procured.

If the new NMAS framework is introduced, it should be accompanied by the transparency arrangements (statement of need, costs, quantities, and timeframes) proposed in the Directions Paper.

AEMO to enable planning timeframe contracts for system security

Allowing AEMO to enable / schedule planning timeframe contracts would be a pragmatic way to dispatch contracted service providers. To limit potential market inefficiencies, we recommend the AEMC consults on and prescribes in the Rules the maximum time ahead of dispatch at which enablement can occur. This may help to reduce the risk of a contract being enabled in response to forecast service gaps in pre-dispatch which do not ultimately materialise as they are resolved by the market close to real-time.

Improvements to compensation arrangements for directions

Origin supports a cost-based benchmark approach to directions compensation in principle. However, we have several concerns with the Short Run Marginal Cost (SRMC) calculation described in the Directions Paper:

- Given the highly dynamic nature of fuel costs, static figures based on Integrated System Plan inputs that are only updated annually would not be appropriate. The fuel costs used in the SRMC calculation for gas generation should be derived from the spot price in the relevant facilitated market at the time of the direction. This would more accurately represent the cost a participant incurs in sourcing gas at short notice in response to a direction to run its generator.

- While it may be suitable for the benchmark values for hydro plants to be set with reference to gas generation[2], this does not apply for batteries. Batteries have fundamentally different cost structures to gas plants, and the opportunity costs for batteries could far exceed any direct costs. Variables such as the state of charge of the battery (at the time of the direction) and the maximum daily spot market spread for the relevant region, should inform any battery cost benchmark.

- It is important the benchmark SRMC figures capture any relevant start costs and any additional wear and tear costs associated with a direction.

[2] Shifts in hydro generation offers generally follow changes in thermal generation offer pricing as hydro generators seek to manage their limited water supplies. AEMO, *Quarterly Energy Dynamics Q2 2022*, p. 17.

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If you wish to discuss any aspect of this submission further, please contact Thomas Lozanov at thomas.lozanov@originenergy.com.au.

Yours Sincerely,

Shaun Cole
Group Manger, Regulatory Policy

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