

21 July 2022

Ms Anna Collyer  
Chair  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Electronic Submission – ERC0339

## Essential Systems Services and Inertia in the National Electricity Market

Dear Ms Collyer,

Energy Networks Australia (ENA) welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (AEMC's) on the Essential System Services and Inertia in the National Electricity Market (NEM).

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia. This response is on behalf of ENA transmission members.

ENA agrees with the position articulated in the ESB's post-2025 market design final report that "further development and technical consideration is necessary before developing an inertia spot market".

The development of an inertia spot market at this time would still be premature and would not be in the long-term interests of consumers. Further work is needed to better understand:

- the role of inertia in the transforming power system and how this role will evolve alongside other system services
- the capabilities of grid-forming inverter technologies to provide inertia and synthetic inertia type responses, and
- the relative costs of various sources of inertia and synthetic inertia, underpinning an assessment of the effectiveness of competition to drive lower costs in providing the service in the future.

Ultimately, the costs and benefits of any proposed move to implement an inertia spot market would need to be rigorously explored and tested through the policy development process.

As noted in the AEMC/AEMO joint paper on essential system services and inertia in the NEM some of this work is currently underway. It is being progressed through AEMO's Engineering Framework (including the white paper on advanced inverter capabilities) and through industry inertia trials at the Hornsdale Power Reserve, ESCRI Dalrymple BESS, through Monash University's work on the integration of renewables in weak grids and TransGrid's synthetic inertia trial with its Wallgrove Grid Battery. Time should be taken to allow the results of this work to be known and factored into future decisions.

Energy Networks Australia [www.energynetworks.com.au](http://www.energynetworks.com.au)

Unit 5, Level 12, 385 Bourke Street Melbourne VIC 3000  
P: +61 3 9103 0400 E: [info@energynetworks.com.au](mailto:info@energynetworks.com.au)

Energy Networks Association T/A Energy Networks Australia

ABN: 75 106 735 406

The minimum inertia requirements currently in place allow the time to do this work. The declaration of inertia shortfalls triggers an obligation on TNSPs to procure inertia to fill the forecast gap, testing the best options through rigorous and transparent cost benefit analyses. Pragmatic regulatory approaches should allow investment in high-inertia specification of synchronous condensers that are required first to provide other prescribed services, such as system strength, where this approach efficient and justified. TNSPs must also consider non network options for minimum declared shortfalls and procure services from synchronous generators where this is the best option.

Introducing a new spot market for inertia before conducting this further technical work could give rise to market development costs that are unnecessary. The greater risk however is that introducing a new market before the market operator is comfortable that new technologies can provide the service would give rise to potential market power concerns. More certainty is needed to mitigate the risk of creating a market with few and diminishing incumbent inertia service suppliers and no clear pathway for investment in supply of the service from generators and bi-directional resource providers entering the market.

Allowing more time for technical work on the matters raised above will also provide a more complete fact base to allow a more comprehensive and forward-looking consideration of the appropriate allocation of roles and responsibilities in an enduring inertia framework.

ENA is also conscious of the significant workload implementing the other system services.

ENA is happy to engage further in the future to help inform the AEMC's consideration of when sufficient work has been undertaken to begin considering the policy issues surrounding an inertia spot market and an enduring inertia framework.

Should you have any queries on this response please feel free to contact Verity Watson, [vwatson@energynetworks.com.au](mailto:vwatson@energynetworks.com.au).

Yours sincerely,



Dominic Adams

**General Manager - Networks**