



21 July 2022

Clare Stark
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Submitted via website: www.aemc.gov.au/contact-us/lodge-submission

Dear Ms Stark

***ERC0339 – Efficient Provision of Inertia:
Essential system services and inertia in the NEM***

Stanwell Corporation Limited (Stanwell) welcomes the opportunity to respond to the Australian Energy Market Commission (AEMC) and Australian Energy Market Operator (AEMO) joint paper on *Essential System Services and Inertia in the NEM* (the joint paper).

Stanwell is a major provider of electricity to Queensland, the National Electricity Market (NEM) and large energy users throughout Australia. While providing reliable and affordable energy for today, we are exploring new generation and storage technologies that will help reduce emissions while also ensuring Queensland's electricity supply remains secure and reliable.

This submission contains the views of Stanwell and should not be construed as being indicative or representative of Queensland Government policy.

It is clear that the power system will become increasingly subject to inertia shortfalls as the proliferation of inverter-based generation technologies increases and synchronous thermal generation is displaced. AEMO's recently-released 2022 Integrated System Plan notes that:

*"... NEM mainland inertia is expected to decline significantly by 2029-30 compared to 2024-25, decreasing below the minimum threshold of inertia."*¹

While significant and sustained shortfalls are not yet apparent, given the current pace of transition in the NEM and closure notices for thermal generation being brought forward, the actual rate of decline of inertia in the NEM may potentially be even greater than forecast. This will present AEMO with operational challenges in maintaining system security and controlling system frequency following contingency events.

¹ AEMO June 2022, *Appendix 7. Power System Security, Appendix to 2022 ISP for the National Electricity Market*, p. 33.

In this context, the Energy Security Board (ESB) has endorsed the unbundling and procurement of essential system services (ESS) ahead of this decline through market-based reforms and recognised the potential for there to be advantages in developing a spot market to co-optimize the supply of inertia and frequency control services, operating reserves and energy.²

Stanwell is overall supportive of the ESB's position in relation to ESS and believes that these markets need to be developed and implemented as a priority. More specific to this joint paper, in our submissions to the ESB's 2020 Post 2025 Market Design Consultation Paper³ and subsequent Market Design Options Paper⁴, Stanwell has consistently called for the development of a market for the provision of inertia in parallel with other ESS rule changes as soon as possible.

In December 2021, the Australian Energy Council (AEC), with the support of its members, proposed a rule change to enable inertia to be procured from the lowest-cost available sources and co-optimized with other NEM spot markets to minimise dispatch costs. Through the AEC rule change request market participants have provided a potential framework for the development of a market for inertia, setting a value for current providers and price signal to incentivise investment in new sources as traditional providers exit the market.

Stanwell acknowledges that the AEMC is progressing a number of other key ESS initiatives as identified in the joint paper which may have indirect impacts on the provision of inertia in the future. While Stanwell supports the continued progression of those initiatives, we do not believe that any of these reforms will directly address the efficient valuing and provision of inertia in the future. As such, Stanwell contends that inertia reform needs to be assigned greater priority than is indicated in the joint paper.

The AEMC and AEMO have acknowledged that the finalisation of design and implementation of an inertia spot market could take at least four years⁵. A 'wait-and-see' approach to developing a market will risk too little inertia being available at some point, with new sources arriving too late and at an inefficient cost that will ultimately be borne by customers. We are particularly concerned that delaying its development increases the risk of market participants having an inefficient out-of-market inertia provision solution imposed on them, such as what occurred with the mandatory primary frequency response requirements. Stanwell contends that the benefit of having an operational inertia market in place prior to shortfall occurring outweighs the likely costs of waiting too long and only acting upon its realisation.

As such, Stanwell strongly recommends that the AEMC initiate the inertia rule change process as soon as possible rather than risk rushing development of a solution when an actual shortfall becomes imminent.

² Energy Security Board 2021, *Post-2025 Market Design: Final advice to Energy Ministers Part A*, p. 9.

³ Stanwell Corporation Limited 2020, *Submission to Post 2025 Market Design Consultation Paper*, p.19.

⁴ Stanwell Corporation Limited 2021, *Submission to Post-2025 Market Design Options – A paper for consultation*, p.4.

⁵ Australian Energy Market Corporation and Australian Energy Market Operator 2022, *Essential Systems Services and Inertia in the NEM*, p. 20.

Stanwell welcomes the opportunity to further discuss the matters outlined in this submission. I can be contacted by telephone at (07) 3228 4139, or email at ian.chapman@stanwell.com.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'I. Chapman', with a long horizontal flourish extending to the right.

Ian Chapman
Manager Market Policy and Regulatory Strategy