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Australian Energy Market Commission

Submitted online: https://www.aemc.gov.au/contact-us/lodge-submission

Submission to the AEMC and AEMO's joint paper on ERC0339 – Efficient provision of inertia

Dear Ms Stark

Delta Electricity (Delta) welcomes the opportunity to respond to the AEMC and AEMO's joint paper on the efficient provision of inertia.

Delta agrees with the sentiment of the paper, in particular:

- This work will be needed to inform the Essential System Services (ESS) reform pathway for development of an inertia spot market and allow for the market to evolve as it matures.
- Solving the technical and policy issues will take time and needs to happen before implementation.
- A staged approach is prudent to allow for the market and procurement solution to adapt over time, as well as to make sure the market is ready to respond when inertia issues become more material.

The transition to a power system with a higher proportion of variable renewable generation is gaining momentum, most notably demonstrated through the ambition of jurisdictions, announcements bringing forward thermal generator retirement dates, and AEMO's 2022 Integrated System Plant (ISP) projections. However, Delta considers there are great risks to the security and reliability of the power system if the suite of essential system services is not properly understood and valued before the innate provision of them from large synchronous machines drops below critical levels.

Delta therefore considers the AEC's rule change request to create an inertia spot market should be initiated by the AEMC as soon as practical. The AEMC and ESB need to progress and continue the other ESS reform work in parallel and identify overlaps where these pieces of work can be complementary and implementation solutions can be aligned.

Responses to the questions posed in the paper are provided in Attachment 1. To discuss the content of this submission please contact me at joel.aulbury@de.com.au.

Yours sincerely

Joel Aulbury
Regulation and Strategy Manager

Attachment 1 - Responses to the questions posed in the paper

Questions	Delta response

This paper outlines work underway to understand technical system needs. Are there additional factors that should be considered in establishing the materiality of the impact of reducing inertia on the system?	Inadequate levels of inertia present a technical challenge to the NEM and therefore a focus on the technical needs is relevant. Additional factors may not be immediately obvious, but they may include:
	• Impact on unserved energy if low inertia conditions produce Under Frequency Load Shed (UFLS) events not previously expected for the size of a contingent event.
	• Why existing rules obligating minimum levels of inertia maintained by TNSPs or procured by AEMO may not be adequate and/or are not appropriate in a competitive marketplace? i.e. Is it philosophically appropriate that a competitive market relies upon uncompetitive provision of minimum levels of inertia supplied by TNSPs? This may indicate a lack of willingness of investors to provide a service but investors/suppliers cannot even attempt to provide a service if a market does not exist.
	• Will the market, if created, motivate enough providers to invest to supply the market and what happens if they are not sufficiently motivated, presumably due to lack of:
	  ○ definitive value,
	  ○ assurances that the market reward will be sustained and not undermined by uncompetitive supplies maintained by TNSPs,
	  ○ willingness to engage the market or apathy in engaging?

What are the net benefits to market participants and consumers for providing an incentive for unbundled procurement of inertia, and when do they arise? Is there an opportunity for material efficiencies or net benefits from establishing an inertia spot market before significant inertia shortfalls are experienced in the system?	If inertia is not provided as a by-product from large synchronous generators (as is currently the case) in sufficient quantities, then the system will become unstable and AEMO will need to make costly interventions into the market to maintain a stable power system. If inertia is defined and valued appropriately, it can be invested in and then procured (e.g. through a spot market) by AEMO more efficiently. This would ultimately lead to a more efficient power system and likely lower costs passed onto customers than the alternative. The AEMC's consideration of this reform is 'no regrets' given the necessity of adequate system inertia, and the looming shortfall that will present as large synchronous generators continue to retire.

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Questions	Delta response
How should initiation of this rule change interact or work in parallel with milestones of other reforms that are at various stages of development? Are there inertia specific considerations that should feed back into these other reforms?	The AEMC and ESB need to progress and continue the other ESS reform work in parallel and identify overlaps where these pieces of work can be complementary and implementation solutions can be aligned.
When might stakeholders best have capacity to engage with this proposal and implementation of a solution?	Delta appreciates the AEMC's consideration of stakeholders' resourcing but considers reforms to define and value ESS are critical to the transition of the NEM and initiating this rule change request on inertia and other ESS reforms should be prioritised as a matter of urgency.