



11 April 2023

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Australian Energy Market Commission
Sydney NSW 2000
By online submission

Efficient Provision of Inertia

Alinta Energy welcomes the opportunity to provide feedback to the AEMC's 'Efficient Provision of Inertia' consultation paper. Alinta Energy acknowledges the work done by the Australian Energy Council (AEC) and the AEMC to date in progressing reform to the market mechanisms around the provision of inertia in the NEM.

Alinta Energy is strongly of the view that a real-time market for inertia, in conjunction with the option for AEMO to engage in structured procurement, where necessary, will provide the best outcome for consumers in the long run. The existing framework is not sufficient to provide adequate incentive for investment in technologies that can provide inertia, or to support the co-optimisation of inertia with other essential system services in the operational timeframe; even with the future implementation of the Operational Security Mechanism (OSM).

As noted in the joint AEMC/AEMO paper published last year, there are significant market design and technical challenges involved in the implementation of a real-time market for inertia and time is of the essence – 'it is important to have a long-term approach for inertia in place before any threat to power system security from a lack of inertia materializes'. In order to better inform the AEMC's timely determination in this matter, Alinta Energy recommends that the AEMC establish a technical working group with industry to help address these challenges.

Thank you for your consideration of Alinta Energy's submission. If you would like to discuss this further, please contact me at hugh.ridgway@alintaenergy.com.au.

Yours sincerely,

Hugh Ridgway
Wholesale Regulation Manager

Attachment: Responses to AEMC's questions

QUESTION 1: TECHNICAL INFORMATION ON INERTIA

In order to leverage the considerable subject matter expertise across industry and elsewhere in the private sector, Alinta Energy recommends that the AEMC establish a technical working group with relevant subject matter experts as it did recently with the Primary Frequency Response Incentive Arrangements rule change. The scope of the working group could address any additional requirements identified in this process (though not necessarily be limited to just technical information on inertia), and dove-tail (or assist, where appropriate) with the ongoing technical work already being done by AEMO.

QUESTION 2: INERTIA PROCUREMENT AND ALLOCATION IN REAL-TIME

Alinta Energy agrees with the AEC's view that there are benefits to true co-optimisation between inertia, other ESS and energy that can only be realized by a market that resolves in real-time with dispatch. Any non-real-time market mechanism that attempts to determine and schedule levels of inertia must make conservative forecasts about the power system's state. This inevitably leads to overestimating the need for inertia, causing unnecessary cost to the market.

The overestimation of required levels of inertia is a failing of the current market and will continue to be so after the implementation of OSM, which resolves in pre-dispatch – there can be significant differences between outcomes in pre-dispatch and dispatch.

QUESTION 3: INVESTMENT SIGNALS IN INERTIA

See response to question 5 below.

QUESTION 4: WILL THE AEC'S PROPOSED SOLUTION BEST ADDRESS THE PROBLEMS RAISED

See response to question 5 below.

QUESTION 5: ALTERNATIVE OPTIONS

The options presented in section 3.2 of the AEMC's consultation paper are not all true alternatives to each other. OSM could potentially coexist with any of the other options, while the three real-time markets (the AEC spot market, shadow pricing, and RoCoF control service) are mutually exclusive with each other but could each operate in parallel with reforms to the structured procurement of inertia.

Of the real-time markets, Alinta Energy currently prefers the AEC spot market as the most well defined and the most consistent with existing frameworks in the NEM. However, at this early stage, the AEMC should continue to investigate all three options while being mindful to ensure that a long-term approach for inertia is in place before any threat to power system security from a lack of inertia materialises.

A real-time market which pays inertia providers at a marginal clearing price for their service is more transparent and preferable as an alternative to structured procurement; however, allowing for the possibility that a real-time market is insufficient to create a long-term investment incentive for inertia, it should operate with limited structured procurement as a backstop. Of the two options for enhancements to the structured procurement of inertia, bilateral contracting would seem to be the most flexible in its general approach and is therefore preferred.

On the inception of a real-time market, it seems likely that the OSM would cease to function in respect of inertia services. This is appropriate because:

1. the OSM is primarily designed to acquire services for which there is no existing market; and
2. as the OSM is designed to accommodate all ESS for which there is no existing market, it cannot be as well tuned to the particular characteristics of the market for inertia services as a bespoke framework.

QUESTION 6: IMPLEMENTATION CONSIDERATIONS

No comment.

QUESTION 7: DO YOU AGREE WITH THE PROPOSED FRAMEWORK

No comment.