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Submitted online to: <http://www.aemc.gov.au/Markets-Reviews-Advice/Reliability-Frameworks-Review>

Dear Mr Henry,

**Inertia Ancillary Service Market**  
**Reference: ERC0208**

The Australian Energy Council (the “**Energy Council**”) welcomes the opportunity to make a submission in response to the Australian Energy Market Commission’s (“**AEMC’s**”) *Inertia Ancillary Service Market Consultation Paper*.

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over ten million homes and businesses.

**Introduction**

Inertia is critical for maintaining system security. As synchronous generation retires, there is limited ability for renewable generation and associated technologies to take its place and provide the necessary inertia. While inertia could be provided by mandate, the Energy Council agrees with the proponent that a market-based mechanism is the most efficient.

**Discussion**

“The level of inertia required to limit the Rate of Change of Frequency and maintain the secure operation of the power system varies with changing system conditions.”<sup>1</sup> As the Consultation Paper identifies, inertia requirements are constantly changing as the power system adjusts to real-time variations in supply & demand.

Notwithstanding the Energy Council’s objection to Transmission Network Service Providers (“**TNSPs**”) being required to provide the minimum threshold level of inertia, the Energy Council agrees that a market-based mechanism would facilitate competition in the provision of inertia, and is preferable to a TNSP incentive scheme. However the Energy Council is concerned with the high-level design proposed by the AEMC to pay interregional settlement residue funds to inertia providers. The lack of a separate inertia market will complicate generators’ processes, as they would be expected to consider anticipated inertia payments when structuring their offers. Besides the complication of not being able to offer vanilla products in the marketplace, the risk profile of the generators will also be affected by the amalgamation of the different services into the one offering.

Settlement residue auctions would also be affected, with the risk that bidders would not be able to secure firm rights to settlement residues, as they would be diminished by whatever inertia services had needed to be procured at the time of the power system’s operation. On these bases, the Energy Council does not support the proposed market sourcing approach.

However as an alternative method of payment for inertia, the AEMC has proposed that the proceeds from the settlement residue auction be used to fund inertia payments. The Energy Council finds this principle acceptable, conditional on including the extension that any additional required funds will be recovered from

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<sup>1</sup> p.8

TNSPs, since there are no assurances that the auction proceeds will be sufficient to settle the inertia market outcomes.

To mitigate the effect of the proposed inertia market on settlement residue auction units, the AEMC has suggested that the reduction in firmness of settlement residue rights could be offset by the use of “inertia hedges”. The Energy Council believes that the lack of firmness and the expected lack of liquidity in the proposed inertia hedge market will not overcome the shortcomings in this approach, and market participants will find their risk increased without good cause. The adjunct proposal by the AEMC to auction the inertia funds, while this allays reservations about the participation of regulated entities in competitive markets, is expected to be limited in its ability to stimulate the provision of inertia hedges.

In addition, the proposed mechanism to use inter-regional settlement residue funds to pay inertia providers concentrates solely on addressing inertia requirements across interregional separation. While the individual National Electricity Market regions and trade across them form the majority of members’ focus, the Energy Council suggests that intraregional constraints should also be considered, but not at the expense of complicating the market with more granular pricing.

Finally the available supply of synthetic inertia from asynchronous generators may also be affected by the generator simultaneously providing energy and/or ancillary services.

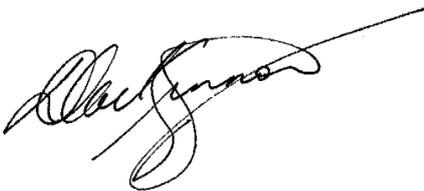
The Energy Council also notes that the Terms of Reference for the Frequency Control Frameworks Review includes consideration of “the co-optimisation of frequency control services, inertia and energy”. On this basis it seems premature that the Inertia Ancillary Service Market rule change proposal proceeds much further without considering the implications of any findings from the Frameworks Review.

## **Conclusion**

In conclusion, the Energy Council supports a market-based mechanism for the provision of inertia in excess of the minimum threshold level provided by TNSPs, however has reservations about providing a market via the interregional settlement auction process, and encouraging a secondary market of inertia hedges which may affect the settlement residue outcomes. Furthermore, the Energy Council recommends that the Frequency Control Frameworks Review be completed before any draft determination is made in respect of this proposed rule change, since the two matters are interrelated.

Any questions about this submission should be addressed to the writer, by e-mail to [Duncan.MacKinnon@energycouncil.com.au](mailto:Duncan.MacKinnon@energycouncil.com.au) or by telephone on (03) 9205 3103.

Yours sincerely,



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