3 October 2017

John Pierce
Chairman
Australian Energy Market Commission (AEMC)
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Pierce

Inertia ancillary service market rule change – Consultation Paper (ERC0208)

Hydro Tasmania appreciates the opportunity to provide comment on the AEMC's Consultation Paper for the proposed Inertia Ancillary Service Market rule change.

The National Energy Market (NEM) is undergoing a period of significant transformation through the increased penetration of variable renewable energy sources and the retirement of synchronous generation. This transformation is bringing a number of challenges for the NEM; one of which is the need to ensure that energy services, such as inertia, are appropriately valued in order for system security to be maintained. Hydro Tasmania recommends that the AEMC consider the following issues as a part of this consultation process:

- Hydro Tasmania provides in principle support for a market based mechanism for the provision of inertia based on shadow prices derived from the National Energy Market Dispatch Engine (NEMDE) considering the impact of inertial constraints. Hydro Tasmania believes that there is value in including inertial requirements in pre-dispatch (minimum) periods as this would enable enhanced market transparency.
- Hydro Tasmania, however, does not support the AEMC's proposal of utilising inter-regional settlement residues (IRSR) or a settlements residue auction (SRA) for payment recovery. These methods are incompatible with Market Network Service Provider (MNSP) funding models and therefore do not cater for all NEM regions.
- Hydro Tasmania supports further consideration of utilising the mechanisms similar to Network Support and Control Ancillary Services as the preferred payment recovery method. Hydro Tasmania believes that the inertia services are a fundamental part of supporting the network and will be of increasing importance forwarding the future. Thus cost recovery should be on a global basis considering the importance of supporting penetration of renewables in all regions and interconnection going forward.

- As an alternative to a market based mechanism, Hydro Tasmania believes that the AEMC should consider a Transmission Network Service Provider (TNSP) incentive scheme (contracting inertia on an annual basis). The scheme would provide the TNSP with an operational incentive to meet a targeted level of inertia (or a proportion of the time when RoCoF constraints should not bind). Hydro Tasmania believes that the TNSP's planning frameworks are able to set such targets and are able to forecast both the likely costs of inertia provision and the resulting benefits. These benefits could be quantified over the contract term with appropriate resets placed if market conditions were to change. Hydro Tasmania agrees that the TNSP incentive scheme should not be based on actual market outcomes. Hydro Tasmania believes this is a simpler approach and can be implemented using constraints:
    - A service provider is contracted for the provision of inertia based on an annual set fee agreed with the TNSP. This would include a base fee to maintain a minimum level of inertia for system security purposes and a further amount for market benefits.
    - The market benefits and associated constraints and payments could be assessed at the commencement of each contract term and appropriate reset conditions could be incorporated.
    - The service provider would be engaged to ensure a nominated set of constraints are alleviated, e.g. RoCoF from binding, and to ensure minimum inertia thresholds are always maintained (this approach can also later be broadened to apply for Fault Levels at defined connection points)
    - The service provider would only receive payment when the defined constraint sets are not binding for each of the minimum level and the market benefit provision for each 30 minute period
- Hydro Tasmania further recommends consideration of the characteristics of traditional inertia (kinetic energy stored from rotating masses), as distinct from synthetic inertia, particularly in relation to response times. Following a frequency contingency event, the response in the first 200 milliseconds (ms) is paramount. Suppliers of fast frequency response (FFR) and synthetic inertia are typically unavailable to respond in this essential time period due to their technical characteristics. To this extent, RoCoF constraints should consider this characteristic of traditional inertia. RoCoF constraints should be unbundled from FCAS constraints where appropriate.

Hydro Tasmania believes that it is important that the AEMC consider other interrelated rule changes and reviews in developing the Inertia Ancillary Service Market rule change, such as the Reliability Frameworks Review to ensure that options developed through this rule change are aligned where possible to other changes being considered.

Hydro Tasmania is open to discuss the issues outlined in our submission with the AEMC. Please contact Prajit Parameswar if you have any questions or would like to discuss further (Prajit.parameswar@hydro.com.au (03) 6230 5612)

Yours sincerely

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