Tasmanian Networks Pty Ltd
ABN 24 167 357 299
PO Box 606, Moonah, TAS, 7009

6 February 2024

John Kim
Project Leader
Australian Energy Market Commission
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Dear Mr Kim,

Re: Efficient Provision of Inertia Rule Change Directions Paper

TasNetworks welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (**AEMC**) Directions Paper regarding the efficient provision of inertia in the National Electricity Market (**NEM**). As the Transmission Network Service Provider (**TNSP**) in Tasmania, TasNetworks understands the importance that system security services, such as inertia, have in delivering safe and reliable electricity to customers.

TasNetworks supports Energy Networks Australia's submission and provides the following additional comments.

The existing inertia framework, which obligate TNSP's to procure inertia when determined necessary by the Australian Energy Market Operator (**AEMO**) to maintain power system security is a low risk and effective approach. TasNetworks currently procures a declared inertia shortfall in Tasmania through contracts co-optimised with system strength. This approach has provided positive customer outcomes in terms of a reliable network at the lowest sustainable price.

We agree with the position in the Directions Paper that minimum inertia requirements are best met through long-term procurement by TNSPs. TNSPs are well positioned to contract with providers of inertia, and have a deep understanding of system needs, and the consequences of an inertia shortfall. TNSPs being responsible for minimum inertia will continue to best meet long term interests of customers.

TasNetworks agrees with the analysis conducted by the AEMC and HoustonKemp on the foregone benefits caused by rate of change of frequency (**RoCoF**) constraints in Tasmania. TasNetworks agrees that there is a need for additional inertia to be procured in specific scenarios, such as during periods of high inverter based renewable (**IBR**) penetration. Due to Tasmania's electricity system featuring enough IBR capacity to meet on-island demand through wind farms and imports from other NEM regions during low demand periods such as overnight, there are occasionally trading intervals that result in binding market constraints (typically RoCoF) resulting in the curtailment of IBR.

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The proposed Marinus Link interconnector aims to import and export energy to and from Tasmania and mainland Australia. This will help facilitate cheaper prices in the NEM as more cost-effective generation can be dispatched to supply other NEM regions.

TasNetworks has been considering the operational restrictions which may result from high levels of energy imports from Victoria to Tasmania with both Marinus Link and the existing Basslink interconnectors in service. These restrictions would typically occur during periods of low inertia in Tasmania, with system studies indicating that additional inertia would be required to enable import into Tasmania via both interconnectors. This need for additional inertia scales with the desired level of import.

If additional inertia above minimum requirements were procurable through contracts or a market, a more efficient allocation of generation may be dispatched and customers in Tasmania would be better off in the form of lower electricity spot prices.

There are several issues that the AEMC should consider when determining the appropriate mechanism to procure additional inertia in Tasmania. Unlike mainland NEM regions, Tasmania cannot import inertia from other regions, meaning we must rely on only local inertia provision to service minimum and additional inertia needs. There is currently only one market participant with synchronous generation supplying energy to the Tasmanian region of the NEM. There are no other providers of inertia, such as Battery Energy Storage Systems, in Tasmania and the timing of any new entrant is uncertain. The risk of a market for inertia services in Tasmania creating untended consequences for customers must be considered. Without competition in the supply of additional inertia, it is uncertain whether the outcomes of a market will be in the best interests of Tasmanian energy consumers.

The Directions Paper questions the need to exclude market participants who are party to a TNSP's system security contract, or market participants who cannot provide inertia separately from energy. TasNetworks considers that eligibility criteria such as this would eliminate all competition to procure inertia in Tasmania and that the AEMC must be cautious when/if they apply eligibility criteria to any future market designs. The AEMC must allow an appropriate amount of flexibility in market design to ensure that unique factors across NEM regions do not reduce the benefits/increase costs of providing additional inertia. For example, it may be preferable to allow flexibility for inertia to be provided by generators who can reduce energy output to a near-zero percentage of overall demand, as opposed to a restriction of 0MW.

Co-optimisation of additional inertia with the 1-second frequency control ancillary service (**FCAS**) is preferable to minimise implementation costs, especially considering the relatively thin margin for benefits. However, Tasmania currently does not have a declared 1-second FCAS market requirement to co-optimise inertia with. TasNetworks seeks clarity regarding how the AEMC would account for this in its market design and that it may be appropriate to commence identifying a requirement for a 1-second FCAS market in Tasmania to enable this.

If you have any questions in regard to this letter, please contact Chris Noye, Leader Regulation at [redacted]

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Yours sincerely

Chantal Hopwood

Head of Regulation