

17 November

Ms Anna Collyer
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Ms Collyer

RE Operational Security Mechanism – Draft Determination

TasNetworks welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC's**) Draft Determination on the Operational Security Mechanism (**OSM**).

TasNetworks is the Transmission Network Service Provider (**TNSP**), Distribution Network Service Provider, Jurisdictional Planner and System Strength Service Provider (**SSSP**) in Tasmania. Our focus in all of these roles is to deliver safe and reliable electricity network services to Tasmanian and National Electricity Market (**NEM**) customers at sustainable prices.

TasNetworks notes the AEMC's decision not to progress a cost-benefit analysis of the OSM due to the difficulty in meaningfully quantifying the benefits. However, TasNetworks suggests the AEMC consider, as a minimum, whether the OSM is a preferable approach for the dispatch of system strength given the complexities and locational specific aspects of this particular security service. In particular, given the different approaches to managing system strength in each NEM region, it is suggested that the AEMC engage with the relevant SSSPs in each jurisdiction to understand if the OSM is likely to be a more efficient mechanism than current arrangements.

TasNetworks supports Energy Network Australia's submission on the Draft Determination and highlights the following points in this submission:

- the interaction between the OSM and system strength pricing under the new system strength framework; and
- considerations for implementing the OSM in Tasmania.

Interaction with System Strength Rule Change

As Tasmania's SSSP, TasNetworks seeks further clarity on the interaction between the OSM and the system strength framework established under the *efficient management of system strength on the power system* rule change. In particular, TasNetworks considers the 'causer-pays' principle introduced in the system strength rule change must remain a key feature of the framework should the OSM progress. Further clarity is needed on the processes governing system strength payments and charges to ensure consumers are not burdened with undue operational costs.

Pricing

Under the new system strength framework, SSSPs will be required to calculate and publish system strength unit prices (**SSUPs**) based on the expected long run average cost of providing system strength at each system strength node. The SSUP forms a component of the charges levied against connecting parties reflecting the system strength requirements they impose on the network¹. Given forward looking developments in Tasmania, it is anticipated that this cost will largely reflect the value of contracts TasNetworks enters into with third parties to provide system strength, with regulated network assets expected to be a smaller component than may be the case in other NEM regions.

Historically, these contracts have been based around operational and availability charges, with the latter component reflective of a minimum ongoing service guarantee. Under the OSM framework, TasNetworks understands that the Australian Energy Market Operator (**AEMO**) would dispatch and pay enablement and operational costs in the operational timeframe, with these costs recovered from market customers through settlements. However, generators and loads who have not chosen to self-mitigate will pay the SSSP for the provision of their system strength requirements. Noticeably, this appears to result in a transfer of costs from the SSSP to market customers with no obvious corresponding decrease in SSSP revenue. It is unclear at the present time what 'true-up' mechanisms will be used to ensure that consumers are only exposed to their 'fair share' of the operational costs incurred by AEMO. This is one aspect which requires further explanation to ensure transparency and consistency of application.

TasNetworks strongly recommends the AEMC consider the interaction between the OSM and the system strength pricing framework in the final rule determination.

Contracting

As described above, TasNetworks is very likely to contract with third party providers to help meet the new system strength requirements going forward.

TasNetworks is therefore seeking clarification on the requirement to include a 'price cap' in any future system strength contracts which would then be used to limit bid prices in the OSM. While the proposed rule change makes it clear that an OSM Participant must not bid above any price cap contained in a security services agreement², there does not appear to be a rule requirement that a price cap must be included in any such an agreement. It is not clear why a service provider would agree to a price cap so far ahead of real time now that a competitive

¹ AEMC, Efficient management of system strength on the power system final determination, 2021

² Refer Draft Rule 3.7G.7(c)(5) – OSM bidding

environment is being introduced. Furthermore, if the SSSP is unable to negotiate a price cap, it is unclear how the SSUP can be forecast years in advance as required by the *efficient management of system strength on the power system* rule change.

While there are clear advantages for the SSSP to have a defined upper bound for future system strength service costs, the mechanism to achieve this may require further consideration within the framework of the OSM. TasNetworks considers the objective should be to incentivise service providers to offer operational and availability services at the lowest possible cost and avoid situations where availability charges might be 'front loaded' to help offset any perceived risks within operational timeframes.

Market Power

TasNetworks agrees with the AEMC that market power may initially be a concern following the introduction of the OSM. The AEMC provides South Australia as an example where the withdrawal of certain providers mean a significant reduction in the number of secure system configurations. The AEMC acknowledges that this means some providers may be able to exercise market power in South Australia. TasNetworks notes that in Tasmania, the removal of Hydro Tasmania as the (current) dominant provider of essential system services, would effectively reduce the number of secure system configurations to zero.

Operational Issues

In Tasmania, system strength needs are currently addressed in real time between TasNetworks, AEMO and a contracted third party. However, under the OSM, AEMO would instead determine secure dispatch outcomes in advance based on pre-dispatch bid data. This may reduce the uncertainties inherent in the current arrangements which are largely 'reactive' with minimal 'look-ahead' capability which does not allow TasNetworks or AEMO to accurately predict when fault level issues will arise or how system strength is best delivered and optimised with the energy market.

However, TasNetworks acknowledges the complexity associated with dispatching system strength given significant locational components and technical issues such as variations in three phase fault level contributions as a function of surrounding generator dispatch outcomes. We are concerned about the practicality of implementing an automated dispatching system and in particular, what expectations may be placed on TasNetworks to help AEMO define rule sets to efficiently dispatch system strength services. TasNetworks is concerned that the OSM optimisation engine will require a very complex rule set for scheduling system strength, including the need to reflect costs across the network (conceptually not dissimilar to marginal loss factors).

The Draft Determination notes that AEMO has been able to identify specific system configurations and constraints that represent a secure technical operating envelope in South Australia, Victoria and Queensland. These jurisdictions will either continue to have fairly stable base load synchronous generation (for a period of time) or make use of network owned synchronous condensers, both of which simplify the defining of a secure operating state.

The concept of defining 'secure configurations' as envisioned within the OSM is a more difficult proposition for Tasmania as multiple secure dispatch solutions could exist. The hydro-based system in Tasmania means that machines come on and offline within relatively short

periods of time and it cannot be assumed that any synchronous machine will operate continuously for extended periods³. Furthermore, the combination of machines dispatched in the energy market varies based on current and forecasted water availability, planned and forced outages, and commercial decisions made by Hydro Tasmania based on market conditions.

Finally, TasNetworks encourages the OSM to be designed in a way that minimises the occurrence of plant being withdrawn from one 'market' only to be enabled in another. For example, it would be inefficient for a synchronous generator to be withdrawn from the energy market only then to be enabled shortly after to provide essential system services, possibly in a different mode of operation, e.g. as a synchronous condenser. The OSM should seek to minimise the occurrence of inefficient stopping and starting of machines so as to not discourage synchronous machine participation in the dispatching system.

TasNetworks looks forward to continued collaboration with the AEMC and AEMO to ensure we can continue to deliver a safe and reliable network in an efficient and cost-effective manner. To facilitate this, TasNetworks suggests that any prototyping of the OSM should be simulated taking into account the specific issues pertaining to hydro generator operations to ensure it is practical in Tasmania.

Should you have any questions regarding this submission, please contact Chantal Hopwood, Head of Regulation, at Chantal.Hopwood@tasnetworks.com.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. Ash', written in a cursive style.

Mike Ash

Executive Stakeholder

³ With a very small number of exceptions associated with maintaining environmental flows at particular times.