

17 July 2019

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

By online submission

Dear Mr Pierce

Transmission loss factors – Consultation Paper (ERC0251)

Hydro Tasmania appreciates the opportunity to provide a response to the Transmission Loss Factors rule change.

Hydro Tasmania is Australia's largest producer of renewable energy. Our retail business, Momentum Energy, sells energy and energy services to businesses and residential customers on mainland Australia and provides retail services to the Bass Strait islands. We generate electricity from hydropower, wind and gas. Our system has a total capacity of more than 2,600 megawatts and includes 30 power stations. We are also currently examining options to enhance Tasmania's contribution to the NEM through our Battery of the Nation project. The consideration of transmission loss factors is a key issue for our business and for the future direction of the NEM.

The current transmission loss framework seeks to strike the right balance between competing priorities including accuracy and certainty. Hydro Tasmania recognises the concerns raised by some market participants that the existing framework may not be fit for purpose. In addressing these concerns, Hydro Tasmania recommends that **the AEMC compare the risk and costs of making changes to the current framework compared to the benefits of potential reform** options to ensure risks and trade-offs are appropriately understood.

Market framework coordination

The NEM is undergoing significant transformation through the rapid uptake of renewable energy sources and the retirement of ageing thermal generation. It is important that market frameworks are appropriately set to manage this transformation, and deliver the necessary investment in generation

and transmission assets for the future energy market. Hydro Tasmania considers that the review of transmission loss factors also needs to be reflective of broader processes currently underway, including primarily the ESB's Post 2025 Market Design review; the AEMC's COGATI review and AEMO's Integrated System Plan. **Effective coordination between these processes can underpin the confidence of energy market participants to deliver the required investments.**

Transmission loss factor framework

The transmission loss factor framework is a fundamental aspect of NEM design. The loss factor framework aims to recognise and value the physical losses on the network that exist between generating and consuming electricity. In doing so, loss factors provide an investment signal for generators and are incorporated into the dispatch and settlement processes. Given the energy market transformation that is underway, Hydro Tasmania supports the AEMC's intention to use the rule change proposals to broadly consider the transmission loss framework to ensure they remain fit for purpose. In this context, Hydro Tasmania appreciates the work that AEMO has done to consider changes to the current loss factor framework and the consultation they have been undertaking with industry. As the "Average Transmission Loss Factor" rule change request by Adani Renewables highlights, the MLF methodology generally over-represents the actual losses between generation and customers. Notwithstanding that the MLF is a forecast, the difference in value between the actual and marginal losses is largely captured in the intra-regional settlement residue. As noted by the rule change request, a methodology of more closely aligning the loss factors to represent actual losses (such as the Irish model) or alternatively the most appropriate disbursement of this residue deserves consideration.

Accuracy and certainty

The transmission losses framework needs to balance competing objectives including accuracy and certainty. Compared to the status quo, a more accurate method could be based on real time data that could potentially be incorporated into NEMDE; however this approach would lead to loss factors fluctuating frequently. Conversely, a more certain method would set the loss factors for a longer period (such as 5 or 10 years); this approach however may not accurately reflect actual losses. The second Adani rule change suggests that the existing MLF calculation method is inaccurate and is therefore no longer fit for purpose. The rule change asserts that because of this inaccuracy, there is inefficiency in a generator's bid price assumptions leading to increased risk of not being dispatched. The current MLF framework, however, ensures that MLFs are known well in advance of the dispatch period; this enables a generator's bids to be reflective of the MLF. The certainty of the current MLF framework means that the risk of not being dispatched is reduced.

It is not clear from the consultation paper:

- **the degree to which there are inaccuracies** in the current transmission loss factor framework; or
- if there are material inaccuracies, **what the cost of making the methodologies more accurate would be** (i.e. the implementation costs for AEMO and market participants).

The potential cost of implementation for more frequently updated or real time loss factors, for systems such as settlements and transactions, should be carefully considered in any deliberation. The preparation for 5 minute settlement in 2021 and the considerable cost and effort involved highlights the impact of changing the structure of market data.

Hydro Tasmania therefore recommends that the AEMC consider the scale of inaccuracies that exist in current framework and the projected costs of making changes. This information would be useful in considering if a move to more accurate or a more certain framework would be of benefit to the market.

Transparency and simplicity

In addition to the trade-off between accuracy and certainty, Hydro Tasmania considers that **transparency and simplicity of methodologies are important aspects of the transmission loss framework** that need to be considered by the AEMC.

The current methodology is inherently complex given the number of inputs that are used to calculate annual MLFs. Also, MLFs can only accurately be calculated by AEMO due to the systems/models and assumptions on future developments that are used. If changes are made to the transmission loss factor framework, **Hydro Tasmania recommends that the loss framework should be as simple and as transparent as possible**. A simple and transparent approach helps provide clear information to market participants. This is particularly relevant for new generation proponents seeking to accurately assess their likely loss factors before making an investment commitment and for existing generators who assess annual changes in expected revenue.

A Hydro Tasmania looks forward to ongoing engagement with the AEMC. If you would like further information on any aspect of this submission, please contact John Cooper (john.cooper@hydro.com.au or (03) 6230 5313).

Yours sincerely



Steve Davy
CEO