

Australian Energy Market Operator
530 Collins Street
Melbourne VIC 3000

via email: mlf_feedback@aemo.com.au

2 August 2024

RE: Methodology for the calculation of Forward-Looking Transmission Loss Factors

Dear AEMO,

Tesla Motors Australia, Pty Ltd (Tesla) welcomes the opportunity to provide the Australia Energy Market Operator (AEMO) with a response to the Methodology for the calculation of Forward-Looking Transmission Loss Factors.

Tesla's mission is to accelerate the transition to sustainable energy. Globally, Tesla has delivered over 22 GWh of battery energy storage across 65 countries, successfully navigating connection and operational requirements for each jurisdiction. Since the first 'big battery' Hornsdale Power Reserve was deployed in 2017, Australia continues to be a key market for battery storage, pushing the boundaries for market and system design.

Tesla welcomes AEMO's focused exploration into the handling of storage within future MLF calculations. Storage assets, with their dual capability to act as both generators and loads, require a nuanced approach to accurately reflect their role in the National Electricity Market (NEM).

Among the proposed methods for incorporating storage into MLF calculations, Tesla recommends Option 1, assuming battery output does not change compared to historical intervals in the supply-demand balancing process. This option is the most straightforward and applicable to the current and near-future landscape of storage in the NEM. Tesla's experience suggests that battery state of charge (SoC) limitations do not significantly influence supply-demand balancing processes – due to algorithmic bidding software ensuring charge levels correspond with forecast price signals (i.e. a battery will be pre-charged/maintain high SoC ahead of a forecast peak price event, and conversely will seek to charge during periods of low/negative prices). In this way, battery storage is anti-correlated and enables higher penetration of renewables and optimises network capacity.

Nonetheless, Tesla supports a broader examination of this issue beyond the 2025-26 calculation cycle to develop a more comprehensive approach to storage in the NEM. Additionally, Tesla also encourages further investigation into the treatment of storage co-located with renewable generation at the same node, and implications for MLF calculations for hybrid projects, now enabled through the 'Integrating Energy Storage Systems into the NEM' Rule Change. Edge cases may also warrant further exploration – e.g. where non-credible contingency peak pricing events occur during periods of high VRE generation, such as in the middle of the day, and ensuring storage is not punished for supporting the grid during those windows by impacting average MLF values.

Tesla looks forward to continued engagement and actively participating with AEMO on future discussions on the treatment of storage in upcoming MLF methodology reforms.

Kind regards,

Tesla Energy Policy Team

energypolicyau@tesla.com