



16 January 2020

Mr Andrew Splatt
Australian Energy Market Commission
Sydney, Australia

Submitted online.

Dear Mr Splatt,

National Electricity Amendment (Transmission Loss Factors) Draft Determination ERC0251

ENGIE Australia & New Zealand (ENGIE) appreciates the opportunity to comment on the transmission loss factor consultation paper. ENGIE is a member of the Australian Energy Council (AEC), supports the AEC's submission, and makes additional comments as follows.

In summary, ENGIE endorses the draft decision as it supports efficient dispatch in the National Electricity Market (NEM). In addition, ENGIE suggests that the application of a dynamic loss factor should be assessed in terms of economic efficiency, compatibility with five-minute settlement and provision to participants of an option to more effectively manage their electrical losses and output.

Need to preserve, and increase economic efficiency in line with National Electricity Objective

A key NEM design element is the price setting mechanism based on cost of marginal generation which includes marginal loss factors (MLFs). To move away from marginal to average loss factors would compromise economic efficiency of the dispatch process. The application of MLFs is especially important given the NEM network topology (i.e. long and skinny network covering vast distances) and having a wide range of MLFs from one end of the network to another.

A movement away from MLFs would likely adversely impact dispatch, price setting/signalling and locational signals.



If the locational signals provided by MLFs are softened (ie marginal losses are approximately double the average losses), it is possible projects will find higher loss transmission areas more attractive, all things being equal.

The net impact on consumers would be that they indirectly subsidise inefficient projects by funding transmission augmentations to reduce transmission losses once projects are built.

Revisiting transmission loss factor framework

The application of MLFs are fundamental to the calculation of a marginal price and an economically efficient dispatch in the NEM.

Nonetheless, the rapid introduction of decentralised intermittent renewable generators warrants a review of the current MLF methodology. As an investor in renewable energy ENGIE shares the concerns of market participants who have found managing MLFs and predicting future MLFs challenging. At the same time, ENGIE recognises it is imperative that any potential changes to the treatment remain technology neutral and maximise efficiency.

The application of the annual average marginal loss factors was a pragmatic approach when the market commenced in 1998. At the time, the power flows in the networks was mainly in one direction, with the exception of interconnectors which had dynamically calculated marginal loss factors. Tidal flows are now present even in the distribution networks due to decentralised intermittent generators and battery storage installations. The market is now very different in terms of the technology mix and operation, and market systems have made major advances.

With the adoption of the five-minute settlements process and the rapid introduction of short lead time intermittent renewable generators, the current MLF methodology could be reassessed.

The AEMC is encouraged to provide analysis of the multiple MLFs approach and five-minute dynamic loss factors in terms of cost, dispatch efficiency, provision of locational signals and risk management to inform stakeholders in their assessment of various approaches. Such analysis and information will provide a firm basis for developing forward strategies to address transmission and distribution system loss factors.

Potential for MLF risk hedging

Project proponents are currently exposed to risks of MLFs changes without the ability to influence them. Significant unexpected variations in MLFs impact project economics and undermine financing arrangements.

By way of example, it should be possible for transmission/distribution service providers to offer firmer access and a hedge against the MLFs for the agreed life of the project as part of the connection

agreements. Project proponents would then have a choice of taking a risk on MLFs changing or locking them in for a certain price. If additional projects subsequently choose to locate in the same transmission/distribution area, these projects would need to fund the payout of the MLF hedge to contracted generators. Essentially this arrangement would follow the “causer pays” principle. Alternately the network service provider could offer to augment the network to provide additional firm access and fixed loss factors to the new entrant. Under such an arrangement it is expected that since some of the transmission/distribution costs are met by generators, the net cost to consumers would be reduced.

However, some investors are currently having trouble managing MLFs risk. Whilst the recent related rule changes facilitating better connection transparency will assist, it may also be appropriate to fast track assessment of any MLFs hedging mechanism as initially proposed as part of the COGATI review.

Such a hedging arrangement could be advanced as part of the ERC0251 rule change instead of waiting for the outcome of the much more comprehensive COGATI review.

Conclusion

In conclusion, ENGIE supports the following:

- the application of MLFs in the dispatch process and price setting on the grounds of economic efficiency;
- the examination of more granular MLFs over the year (time of day, day of week, seasonal) or possibly dynamic loss factor application if economically justified;
- the examination of an MLFs hedging arrangement with Transmission or Distribution Service providers included in the scope of the ERC0251 rule change; and
- maintaining a technology neutral approach when calculating MLFs.

ENGIE trusts that the comments provided in that this response are of assistance to the AEMC consultation process. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 0417 343 537.

Yours sincerely,

David Hoch
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