AEMC

INFORMATION

Transmission loss factors draft determination

The AEMC has made a draft rule to provide the Australian Energy Market Operator (AEMO) with greater flexibility in how it calculates marginal loss factors.

This draft rule, in combination with the *Transparency of new projects* final rule (October 2019) and AEMO's work on loss factor methodology, is expected to improve transparency and predictability of marginal loss factors. The changes should enable better informed decision-making by prospective developers and owners of generators. The draft rule will keep the existing marginal loss factor methodology for calculating electricity lost during transmission so developers of new generation have important signals about the best place to build, and costs to consumers are minimised.

Draft rule

The AEMC has not adopted the changes sought by the proponent, Adani Renewables. Instead, the draft rule enables AEMO to consult with stakeholders on a greater range of alternative calculation details for the loss factor methodology.

Reasons for the draft rule

In deciding not to make a draft rule in the manner requested by Adani Renewables, the AEMC considered that the changes it sought did not satisfy the national electricity objective (NEO).

Calculating transmission loss factors

Adani Renewables proposed that transmission loss factors be calculated by an average loss factor methodology rather than the current marginal loss factor methodology. However, the AEMC considers that changing to an average loss factor methodology is unlikely to better achieve the NEO and will not address the underlying issues regarding transmission and generation investment currently experienced in the national electricity market.

The reasons for this are:

- The current marginal loss factor methodology provides important locational signals for prospective investors and owners of new generators, which are needed to enable efficient decision-making about investment in the generation sector.
- Using a marginal loss factor methodology is consistent with the marginal approach used in the national electricity market for dispatch decision-making and pricing, supporting efficient market operations.
- The use of an average loss factor methodology may change the merit order to dispatch generators, resulting in less efficient use of the generation fleet and reducing the efficient operation of the national electricity market. This may have the effect of wholesale electricity prices being higher than they would otherwise be.

The Commission also considered other alternative mechanisms and methodologies to determine transmission loss factors. However, none of the alternative approaches (such as cap and collar, and grandfathering) are likely to better meet the NEO than the current approach.

Some of these different approaches are likely to transfer risks and costs either to new entrant generators or to consumers. Other approaches would require significant reforms to the operation of the national electricity market to be implemented.

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Allocating intra-regional settlement residue (IRSR)

Currently, the IRSR is passed on to customers through transmission network service providers off-setting transmission usage charges which are paid by market customers. As these market participants fund investment in transmission infrastructure through transmission usage charges, they should continue to receive the benefit associated with the IRSR. This an important feature of the national electricity market which acknowledges the investment risk carried by market customers.

It was proposed that half of the IRSR should be redistributed to generators to "offset" the negative impact of some lowering marginal loss factors. However, the proposed sharing of IRSR may impact on generators' bidding decisions and the generator dispatch order, resulting in less efficient operation of the market.

It is acknowledged that some stakeholders are seeking relief from the impact of unfavourable changes in marginal loss factor values. However, the proposed sharing of the IRSR does not address the underlying causes of marginal loss factor volatility. Such a change would be likely to increase charges to customers and would not be in the long-term interest of consumers.

Need for market reform

These issues reflect a broader set of generation and transmission investment issues, which are beyond the scope of this rule change process. The Commission is considering these broader issues in detail in its COGATI review as the electricity market transforms. The work carried out in this review indicates that the current lack of coordination between generation and transmission system investment requires significant reforms to the national electricity market to make long term, robust improvements to the way investment is carried out for the long term benefit of consumers. Through the review, the Commission is developing a new access model, based around locational pricing (dynamic regional pricing) and financial transmission rights.

The Commission considers that the COGATI review provides the most appropriate forum for stakeholders to engage in discussing and assessing potential reforms that may be able to provide a long term solution to their concerns regarding the transmission loss factor framework. This may include a move to locational pricing (dynamic regional pricing) with financial risk management tools.

Other key work is being undertaken by the Energy Security Board to action the Integrated System Plan (which will govern future transmission planning and investment processes) and develop a post-2025 market design for the national electricity market.

Next steps

The draft rule determination, draft rule and the rule change request are available on the AEMC's website. Stakeholders are invited to provide written submissions by 16 January 2020.

Background

Adani Renewables submitted a rule change request to the Commission on 27 November 2018 seeking to reallocate the IRSR to generators and market customers evenly.

On 5 February 2019, Adani Renewables submitted a second rule change request, seeking to change the marginal loss factor calculation methodology to an average loss factor methodology.

The rule change requests were consolidated and a consultation paper published on 6 June 2019. A stakeholder workshop was held in Brisbane on 4 July 2019 with submissions to the consultation paper closing on 18 July 2019.

The draft rule determination was published on 14 November 2019.

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14 November 2019