16 January 2020

Mr A Splatt
Adviser
Australian Energy Market Commission

Submitted via website: www.aemc.gov.au/contact-us/lodge-submission

Dear Mr Splatt

Transmission Loss Factors (ERC0251)

Stanwell Corporation Limited (Stanwell) appreciates the opportunity to provide feedback on the Australian Energy Market Commission's (Commission's) draft rule determination on Transmission Loss Factors (TLF).

Please note, this submission contains the views of Stanwell in relation to the TLF information provided to date and should not be construed as being indicative of Queensland Government Policy.

1. Proposed rule changes

Stanwell supports the Commission's decision to not proceed with the proposed rule changes concerning the methodology for estimating TLFs and the allocation of intra-regional settlement residues as they failed to demonstrate a net benefit to consumers.

Stanwell commends the Commission in taking a considered approach to the proposed rule changes given both the volume of market design changes currently underway and the misalignment of timing with other rule changes concerning TLFs.

Stanwell supports the integration of any material changes to the TLF methodology into the more holistic Coordination of Generation and Transmission Investment (COGATI) process which more appropriately addresses the context and need for change.

2. Draft rule determination

While deciding to not proceed with the proposed rule changes, the Commission has adopted three rule changes suggested by AEMO, namely:

1) Clause 3.6.1(d)(5) of the National Electricity Rules (NER) requires the Australian Energy Market Operator (AEMO) to use regression analysis to reflect interregional losses between nodes. Removing this clause would enable AEMO and stakeholders to consider and test alternative calculation techniques.

2) Clause 3.6.2(e)(4) of the NER currently requires the Marginal Loss Factor (MLF) calculation to be performed on a 30-minute 'trading interval' basis. Increasing the time intervals may simplify the calculation process and increase stakeholder understanding of loss factor estimations.

3) Clause 3.6.2(e)(6) of the NER requires that AEMO treat Market Network Service Providers (MNSPs) as invariant in the MLF methodology. Removing this clause may improve the accuracy of AEMO's modelling[1].

These suggested changes must be assessed with the same rigor as the original proposals. Stanwell believes it is incumbent on AEMO to document how any proposed alternative technique would produce more optimal TLF results.

The proposed changes appear intended to provide flexibility for future methodology changes without evidence as to what these changes will be and thus whether they will be beneficial. While Stanwell considers that flexibility can be valuable, change for changes sake can create uncertainty and undermine the proposed benefits to transparency and predictability of TLF values. The requirement to use a certain methodology does not preclude the investigation and evaluation of alternative approaches.

The proposed changes also appear to relate to the calculation of TLF values for the subsequent financial year and it is not clear how such changes are proposed to support transparency and predictability over investment timeframes as desired. The uncertainties creating volatility in year-on-year results under the current process – new entrant timing and volume, inherent uncertainties in load and generation forecasting – will continue to impact the methodology going forward.

With respect to the individual proposed rule changes to 3.6.1(d)(5) and 3.6.2(e)(6), Stanwell believes it is incumbent on rule change proponents to show that the proposals are likely to produce benefits which outweigh the likely costs. In relation to these specific proposals Stanwell believe AEMO should document how an alternative technique would produce more optimal TLF results and request a rule change to allow that technique to be used. The requirement to use a certain methodology does not preclude the investigation and evaluation of alternative approaches.

Stanwell has concerns with the proposed change to clause 3.6.2(e)(4), which increases the time interval used for TLF estimation from 30-minute intervals. This major change to the TLF methodology does not have clear materiality, may adversely affect TLF accuracy, and has no obvious benefits to consumers or market participants as discussed below.

Materiality

The requirement that AEMO calculates a TLF for each trading interval "means that a significant amount of calculation is required to produce each MLF value at each transmission connection point. This calculation complexity may mean that MLFs are difficult to reproduce, understand or estimate by market participants"[2].

Stanwell questions whether increasing the time intervals over which TLFs are estimated would materially affect market participants understanding, estimation or reproduction of TLFs. Substantive tasks such as the creation of load forecasts, extrapolation of historical generation and updating network models are already performed at 30 minute granularity. Increasing the time-scales may speed up the actual calculation of TLFs but does not appear to materially alter the complexity of the task.

[1] AEMO, Transmission Loss Factors Consultation Paper submission, page 5
[2] AEMC, Transmission Loss Factors Draft Rule Determination, page 63

Stanwell also notes that AEMO is currently updating its TLF calculation tools and processes to better handle the increased calculation complexity associated with changing power system conditions[3] and that these changes may alleviate some concerns regarding the volume of calculations required.

Impact on accuracy

The draft rule determination states “AEMO noted that the MLF calculation process could be made simpler and more likely to be replicable, without materially losing the level of accuracy of the MLF values, by allowing it to use less frequent data in the calculations”[4].

Stanwell is keen to understand how decreasing the number of intervals over which TLFs are estimated will ensure that estimated TLF values “as closely as reasonably practical, describe the average of the marginal electrical energy losses for electricity transmitted between a transmission network connection point and the regional reference node in the same region for each trading interval of the financial year in which the intra-regional loss factor applies”[5]. For example, large-scale solar generation decreases fairly predictably as grid supplied demand increases and this change in grid demand is likely to have a material impact on intra-regional loss factors. Obscuring this interaction using 2 or 4 hour granularity is likely to affect how representative the resulting loss factors are.

Understanding the benefits of this would be aided by the provision of backcast data that demonstrates that increasing the time intervals for TLF estimation does not materially impact the accuracy of the TLF estimates.

Timing of rule changes

Stanwell is concerned that if the draft rules are made and become effective in February 2020, there would be insufficient time for stakeholder consultation and TLF calculations to occur ahead of the publication of 2020-21 TLFs on 1 April[6]. Accordingly the AEMC should be explicit that the existing methodology will be applied to the calculation of 2020-21 TLFs.

3. Conclusion

Stanwell supports the proposal not to make the original proposed rule changes but considers the changes proposed in the draft determination require more consideration before being committed to.

Stanwell welcomes the opportunity to further discuss this submission. Please contact Evan Jones on 07 3228 4536.

Yours sincerely

Luke Van Boeckel
General Manager Modelling, Analytics and Regulatory Strategy

[3] AEMO, Transmission Loss Factors Consultation Paper submission, page 4
[4] AEMC, Transmission Loss Factors Draft Rule Determination, page 63
[5] National Electricity Rules, version 128, 3.6.1(d)(3)(i)
[6] National Electricity Rules version 128, 3.6.2(f1)