22 December 2016

James Lindley

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Australian Energy Market Operator

Submitted to [mlf.process@aemo.com.au](mailto:mlf.process@aemo.com.au)

Dear James

**Re: Forward Looking Loss Factor Calculation Methodology Draft Determination 2016**

Thank you for the opportunity to respond to the Forward Looking Loss Factor Calculation Methodology Draft Report and Determination 2016 (Draft Determination). Stanwell understands that the major change proposed by the Australian Energy Market Operator (AEMO) compared to the last consultation is to exclude outliers from the determination of the generation cap. Outliers are proposed to be removed if they are more than 1.645 standard deviations away from the five year historical average generation. If an outlier is removed it is proposed to be replaced by generation from an earlier historical year. AEMO also considered incorporating Medium Term Projected Assessment of System Adequacy (MT PASA) into the calculation process but ultimately determined against this proposal.

With the further explanations provided by AEMO in the Draft Determination, Stanwell now supports the generation cap approach to calculating Marginal Loss Factors (MLFs). It is simple, transparent and will produce reasonable results. Stanwell does not support the removal of outliers (outlier method) as an augmentation to the generation cap approach as described in the Draft Determination. With respect to the use of MT PASA, Stanwell believes MT PASA could be used in conjunction with the five year historical average to produce a better generation cap.

**Outlier method introduces unnecessary complexity**

Stanwell does not support the adoption of the proposed outlier method as it introduces unnecessary complexity. As stated in our last submission, an appropriate balance must be maintained between a simple, transparent calculation methodology and one which provides the most accurate forecast of loss factors. Although the outlier method may produce a more representative forecast in some cases, it also introduces complexity. For example, what if the previous year to be substituted for the outlier is also an outlier? It is unclear what decision AEMO would make in this circumstance. If the outlier method is to be retained, it may be simpler, more transparent and provide a better forecast if the outlier is removed without replacement.

The National Electricity Rules (NER) requirement to not remove the most current year is also problematic to the application of the outlier method. It is inconsistent to remove an outlier if it is one of the four earlier years in the five year sample but not to remove it if it is the most recent year.

**Use of MT PASA to identify outages in generation forecasts**

Stanwell supports the proposal for AEMO to use MT PASA in its calculation of MLFs. Rather than using MT PASA to set the level of forecast generation as implied by AEMO in the Draft Determination, MT PASA could be used to set the cap. The cap could be defined as:

*the maximum of MT PASA and the five year historical generation cap*

This approach would provide an enhanced forecast without the need to adjust historical data for outages.

Market participants take their obligation[[1]](#footnote-1) to provide accurate Projected Assessment of System Adequacy (PASA) availability to AEMO very seriously. The Australian Energy Regulator (AER) has stated its expectation[[2]](#footnote-2) that market participants regularly review their inputs and provide updated data when they become aware of any change that will have a material impact on operating conditions. The AER also recently undertook a targeted compliance review[[3]](#footnote-3) of Short Term Projected Assessment of System Adequacy (ST PASA) which highlights the seriousness of the obligation as well as the extensive calculation and data checking processes participants have in place to ensure accurate data is provided.

AEMO states that, “*MT PASA does not necessarily reflect future outages*.”[[4]](#footnote-4) This statement is true in the same manner that AEMO’s demand forecasts may not necessarily reflect future demand. MT PASA is the best forecast of the future outages of individual power stations and its use as part of the cap methodology would greatly increase the accuracy of the MLFs. This is especially the case when the historical data does not reflect significant outages.

AEMO has published a table comparing the expected number of outage days (taken from a snapshot of MT PASA) with the actual number of outage days[[5]](#footnote-5). Stanwell notes the table shows only those units where the difference between forecast and actual outage days is greater than ten. As only seven units out of 356 scheduled units met the criteria, it appears that that MT PASA does provide a very accurate forecast for the vast majority of generating units.

Of the “large” discrepancies noted by AEMO in the outage data, four appear to relate to major commercial decisions around mothballing or retirement at the following power stations – Tarong Unit 4, Northern Unit 2, Morwell Unit 2 and Meadowbank. The snapshot of MT PASA reveals that these decisions were not known in advance by the participants or AEMO and that the MLF calculation for these units is likely to have been “inaccurate” regardless. For the remaining three units with a greater than ten day discrepancy, the impact on MLF calculations appears likely to be minor – indeed for Gordon Power Station excluding MT PASA appears more distortionary than including “excess” forecast outages.

Each of these considerations supports the conclusion that, while not perfect, MT PASA represents a reasonably robust forecast of generator availability and should be incorporated into the cap methodology.

**Timely publication of proposed generation caps**

Stanwell welcomes AEMO’s acknowledgement that the proposed generation caps are to be published alongside the first run of the indicative extrapolation data. This enables participants to check the cap to confirm that it is feasible at the same time as checking the generation data. Once published and confirmed by a participant, there should be no increase to the cap without prior confirmation from the participant. Without such proactive confirmation there is a risk that a revised cap is unachievable and therefore the corresponding generation forecast is rendered moot through the production of infeasible outcomes.

As an example, Stanwell Power Station (SPS) was initially modelled as having a generation cap of 8.85TWh and a modelled output of 8.83TWh. After accounting for the announced Hazelwood Power Station closure, SPS was subsequently attributed with a revised generation cap of 9.28TWh and modelled generation of 9.51TWh. If the increase in forecast generation between modelling runs from 8.83TWh to the cap of 9.23TWh resulted in an unachievable outcome for SPS then further modelling runs would be required to shift the excess generation from SPS to another site. If this modelling transferred too much generation to other sites, then further modelling would be required.



Conversely, if AEMO identified the proposed cap increase(s) and consulted with the relevant participants prior to running the second round of modelling, then no such iterative process would be required.

**Transparency of the buffer**

Stanwell’s response to the last consultation requested further transparency of the buffer used in the calculation process. The buffer is defined as “*the factor to account for variations from the five year average and/or conditions where insufficient generation exists*”. AEMO has responded by stating; “*The buffer is used to account for unforeseen circumstances. The buffer value will be published along with the indicative extrapolation results*.” Stanwell requests further explanation of the buffer.

For instance, we note in the Draft Determination the example of Torrens Island Power Station used a buffer of 10 per cent. There is no indication of what the 10 per cent buffer represents, how it was calculated or what discretion AEMO has in setting this value. It is unclear whether the same buffer used for all generators in the same year or region. Unexplained factors as large as 10 per cent, or higher, render almost meaningless participants’ detailed consideration of the methodology.

Thank you for consideration of Stanwell’s response to the Forward Looking Loss Factor Calculation Methodology Draft Report and Determination 2016. If you would like to discuss any aspect of this submission, please contact Win Arefta on 07 3335 7202 or Jennifer Tarr on 07 3228 4546.

Yours sincerely

**Luke Van Boeckel**

**Manager Regulatory Strategy**

**Energy Trading and Commercial Strategy**

1. Clause 3.7.2(d), National Electricity Rules [↑](#footnote-ref-1)
2. Page 7, AER Compliance Bulletin No. 2 [↑](#footnote-ref-2)
3. Page 11, Quarterly Compliance Report July - September 2015, AER [↑](#footnote-ref-3)
4. Page 12, Draft Determination [↑](#footnote-ref-4)
5. Page 12, Draft Determination [↑](#footnote-ref-5)