

September 18, 2017

To: Registered Participants in Proceeding 790, Phase 2, Module B and Other Interested Parties

Dear Stakeholder:

Re: **Recalculated 2017 Loss Factors Determined Under Section 501.10 of ISO Rules, Transmission Loss Factors (“Loss Factor Rule”)**

Background

On July 13, 2017, the AESO published recalculated 2017 loss factors and related information required by the Loss Factor Rule that became effective on January 1, 2017.

The AESO received questions from stakeholders about the recalculated 2017 loss factors published on July 13, 2017, which resulted in a decision not to implement the 2017 loss factors published on July 13, 2017, and instead initiate a review and recalculation of 2017 loss factors. The AESO completed its review and published recalculated 2017 loss factors on September 12, 2017.

The AESO also held a technical meeting on September 14, 2017 to present the recalculated 2017 loss factors published on September 12, 2017.

Summary of Differences

The following is a summary of the differences between the recalculated 2017 loss factors published by the AESO on July 13, 2017 and the recalculated 2017 loss factors published on September 12, 2017.

- (a) Merit order offers were corrected for three source assets that increased their maximum capability between 2015 and 2017: BR4 – Battle River #4, CNR5 – CNRL Horizon, and SH1 – Sheerness #1. Initial implementation of the increase in capacity inadvertently overwrote operational derates that existed in the historical merit order data for those units.
- (b) One new generating facility was also affected by the inadvertent overwrite and has been corrected: CL01 – Cenovus Sunday Creek BTF. The merit order profile for the new asset was based on an existing asset of the same technology; however, operational derates of the existing asset were not correctly reflected in the profile.
- (c) The mothball outage for H R Milner generation facility (HRM) has been reflected in accordance with subsection 6(1)(d) of the Loss Factor Rule by excluding that source asset for August to December 2017.
- (d) The loss factor calculations now include certain reversing points of delivery that had been inadvertently omitted in prior versions. Reversing points of delivery are load services to distribution system owner where distribution-connected generation downstream of the point of delivery may result in net flow onto the transmission system under certain conditions.
- (e) Loss factor volumes have been corrected to reflect net-to-grid merit order offers and net-to-grid load for one industrial system with multiple points of connection: NOVAGEN15M – NOVA Joffre.

- (f) Volumes in all hours, including hours that are excluded from the loss factor calculations, are now provided in worksheet “8(4) Initial Volumes (MW)” in the Workbook Showing Loss Factor Calculations for 2017 (“Workbook”). Those volumes in all hours are now used in the calculation of the annual shift factor on worksheet “9(3) Annual Shifted LF (%)” in the Workbook.
- (g) Modelling of industrial systems has been reviewed and refined where necessary, primarily to confirm whether net-to-grid generation or net-to-grid load existed in an hour.

The AESO also reviewed certain questions asked by stakeholders and determined no changes to the input data, loss factor calculations, or Workbook were required with respect to those questions, summarized as follows:

- (a) The modelling of certain industrial sites with no net-to-grid generation was questioned. The AESO has confirmed that such modelling is correct and reflects historical or expected volumes that are zero on a net-to-grid basis at those locations.
- (b) Certain sites exhibit the same volume from hour to hour. The AESO has determined that such an outcome reflects input data based on merit order operating blocks which may have the same volume from hour to hour.
- (c) Differences between the marginal unit identified in the Workbook and the marginal unit in the EMMO input data were questioned. The marginal unit in the Workbook reflects the result of system simulation based on forecast generation and load for 2017. The marginal unit in the EMMO input data reflects the marginal unit that would have resulted from the aggregate dispatch of generating facilities that occurred in that hour in 2015. Therefore, the two marginal units reflect different years and can be expected to be different.
- (d) A formula used to calculate exclusion rates on the “8(7) Excluded Hours (%)” worksheet of the Workbook was questioned. The AESO has reviewed the formula and considers that it reflects the AESO’s intended result.
- (e) Differences between volumes in the workbook and metered energy reported on the AESO website for 2015 were questioned. The AESO has reviewed several cases and attributes such differences to the operation of generating units in the ancillary services market. As loss factors are based on merit order offers in the energy market, dispatch in the ancillary services market should not be included (other than dispatch for contingency reserve as required by subsection 6(1)(b)(iv) of the Loss Factor Rule).

The AESO notes that additional questions were asked at the stakeholder technical meeting on September 14, 2017. The AESO is reviewing those questions and will provide comments after that review is complete. At this time the AESO has not identified any issues that would prevent the implementation of the recalculated loss factors published on September 12, 2017. If issues are identified that require correction, the AESO will advise market participants at that time.

The AESO expects the 2017 loss factors to first be used for billing of system access service under Rates STS, XOS, IOS, and DOS on statements of account issued in October 2017 for initial, interim and final settlement of September, July and May 2017, respectively.

Yours truly,

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