

July 13, 2017

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

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

Background

On May 11, 2017, the AESO published 2017 loss factors and related information required by the Loss Factor Rule that became effective on January 1, 2017.

On May 18, 2017, the AESO held a stakeholder technical meeting on the 2017 loss factors, during which certain aspects of the published loss factors were identified as inconsistent with the Loss Factor Rule. Accordingly, the AESO decided to not implement the 2017 loss factors published on May 11, 2017, and instead initiated a recalculation of 2017 loss factors.

On July 6, 2017, the AESO published recalculated 2017 loss factors and related information required by the Loss Factor Rule. The AESO also advised stakeholders that it would provide a summary of the differences between the loss factors published by the AESO on May 11, 2017 and the recalculated 2017 loss factors.

On July 13, 2017, the AESO published a corrected version of the recalculated 2017 loss factors after identifying an error in the loss factor workbook published on July 6, 2017. The recalculated 2017 loss factors published on July 6, 2017 were removed from the AESO website.

Summary of Differences

The following is a summary of the differences between the 2017 loss factors published by the AESO on May 11, 2017 and the corrected recalculated 2017 loss factors published on July 13, 2017.

- (a) The incorporation of new wind source assets used an incorrect hourly data profile. The hourly data profile for new wind source assets has now been corrected to reflect subsection 6(1) of the Loss Factor Rule.
- (b) The AESO has reviewed all new source assets and new sink assets included in the calculation of loss factors in accordance with subsections 6(1) and 6(2) of the Loss Factor Rule. New source and sink assets have now been included using the expected in-service dates of those projects based on the project queue available as of May 2017. Loss factors have been adjusted to reflect these changes to facilities in accordance with subsection 2(4) of the Loss Factor Rule.
- (c) The AESO has adjusted the system load annual volume forecast for 2017 to reflect the AESO's current load forecast.
- (d) In the calculation of transmission system losses in a redispatched state in accordance with subsection 8(5) of the Loss Factor Rule, the net supply from the generating facility is consistently

reduced to zero at each location for which a raw loss factor is being calculated while the generating facility remains connected to provide reactive power support to the transmission system.

- (e) In the calculation of transmission system losses for the second and all subsequent hours in a month in accordance with subsections 8(4) and 8(5) of the Loss Factor Rule, the hourly base case is based on the previous hour's solved base case. This change is documented in steps 5 and 13 of the *Procedure to Determine Transmission System Losses for Loss Factor Calculations*.
- (f) An hour has been excluded from the calculation of loss factors for all locations if a loss factor could not be calculated for any location in that hour in accordance with subsection 8(7) of the Loss Factor Rule. The AESO proposed an amendment to subsection 8(7) of the Loss Factor Rule on June 6, 2017. However, based on stakeholder comments, the AESO has decided to not amend the rule at this time.
- (g) The worksheet "8(7) Excluded Hours (%)" has been added to the workbook showing the calculations from hourly raw loss factors to final loss factors. The worksheet shows the number of hours excluded from the loss factor calculations in each month by reason for exclusion. The AESO notes that the additional excluded hours described in item (f) above do not represent additional failures to calculate transmission system losses in an hour, but instead represent the exclusion of hours for additional locations due to a failure at a single location.
- (h) The configuration of the RB5 location inadvertently included system load when determining net-to-grid supply in the 2017 loss factors published on May 11, 2017. This has been corrected in the recalculated 2017 loss factors published on July 13, 2017.

Additional Information

The workbook showing the calculations from hourly raw loss factors to final loss factors, as well as the additional information used to establish the loss factors, was published on July 6, 2017, reflecting changes (a) through (h).

The error in the July 6 workbook noted earlier in this letter resulted from the duplication of a row for locations (MPIDs) CES1 and CES2. The two rows relate to a single location for source asset CES1 with the MPIDs being totalized to correspond to the single source asset. The duplicated rows each contained raw loss factor information that was correctly calculated, but the duplication impacted the hourly and annual shift factors used in the workbook. The AESO removed the duplicated row in the workbook and published a corrected workbook and corrected recalculated 2017 loss factors on July 13, 2017.

The AESO has received some additional questions from stakeholders which it is currently investigating. At this time the AESO has not identified any additional corrections required to the loss factors published on July 13. If additional corrections are identified as being required, 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 August 2017 for initial, interim and final settlement of July, May and March 2017, respectively.

Yours truly,

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