

April 1, 2021

To Market Participants and Other Interested Parties

Dear Stakeholder:

Re: **Update on Loss Factor Activities Under Module C of Alberta Utilities Commission (“Commission”) Proceeding 790, Complaints Regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology**

At the technical meeting on loss factor activities under Module C held on February 17, 2021, the AESO summarized the questions it had received from stakeholders prior to the technical meeting and received some additional questions from stakeholders during the meeting. The AESO responded to the majority of these questions during the technical meeting. This update addresses two questions to which the AESO has not already responded.

Concerns Identified by the City of Medicine Hat

During the technical meeting, the AESO noted that the City of Medicine Hat had identified concerns regarding system topologies, marginal unit capacity, missing generation volumes, and unstable raw loss factor calculations for the second Module C settlement period for the years 2013 to 2010. The AESO explained that it was reviewing the identified concerns and would determine next steps in the near future.

The AESO has since thoroughly investigated the concerns raised by the City of Medicine Hat and has identified three errors in the system topologies used for the second settlement period. Specifically, the AESO has identified the following errors in the system topologies:

- (1) **Inclusion of facilities not in service** – During the second settlement period, the Medicine Hat 41S substation was connected to the rest of the Alberta electric system through three lines. However, the system topologies used from January 2010 through February 2014 had the substation connected through four lines during those months, which was never the case.
- (2) **Incorrect line characteristics** – During the second settlement period, incorrect impedances were used for certain lines in system topologies in southeastern Alberta. Line impedances were incorrect for the following lines:
 - 658L, 668L, 669L, 760L, and 830L lines in Medicine Hat and Empress areas from January 2010 to October 2011; and
 - 674L line in Medicine Hat area from January 2010 to September 2015.

The AESO will be correcting these errors for the affected months. The AESO’s preliminary impact assessment indicates less than a \$1 million potential change to Module C adjustments as a result of the corrections. The AESO will perform a recalculation of the Module C loss factors for the affected years and determine the resulting detailed impacts on Module C adjustments. The AESO expects to complete this work in the second quarter of 2021.

The AESO investigated several other system topology concerns identified by the City of Medicine Hat. For those concerns, the AESO has determined that the system topologies used in Module C for the years 2013 to 2010 appropriately reflect the available information on the facilities in service and line characteristics for that period.

The AESO has also investigated the concerns identified by the City of Medicine Hat regarding marginal unit capacity, missing generation volumes, and unstable raw loss factor calculations for the second settlement period. The AESO has determined that the marginal unit capacities are correct, that no generation volumes are missing, and that the raw loss factor calculations are not unstable in the Module C loss factor determinations. The AESO has concluded that no corrections are required with respect to those concerns.

Analysis of All Module C Years Requested by Suncor Energy

During the technical meeting on February 17, 2021, Suncor Energy asked the AESO to consider providing an analysis of Module C data for all years from 2016 to 2006, together with explanations of any outliers or anomalies in results. The AESO has reviewed the information provided to date, in particular for the three technical meetings held on July 15, 2020; November 20, 2020; and February 17, 2021. The AESO considers that the information provided sufficiently covers all Module C years.

The AESO accordingly declines to provide additional analysis and results as requested by Suncor Energy.

Stakeholder can access Module C data, results, and related information on the AESO website at www.aeso.ca ► Grid ► Grid-related initiatives ► Loss factors ► Loss factors recalculation for 2006-2016. Information related to loss factor stakeholder engagement, including technical meeting presentations, is available at www.aeso.ca ► Grid ► Grid-related initiatives ► Loss factors ► Stakeholder engagement.

Over the coming weeks, the AESO will continue the implementation of and evaluation of results for the system topology corrections discussed above. As discussed during the technical meeting on February 17, 2021, the AESO is continuing the settlement process set out in the *Module C Settlement Procedure* document while completing this work.

The AESO will provide further stakeholder updates when additional information becomes available. In the meantime, stakeholder may contact Milton Castro-Núñez at milton.castro-nunez@aeso.ca or John Martin at john.martin@aeso.ca with any concerns or questions.

Yours truly,

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