



Milner Power Inc.

Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology

ATCO Power Ltd.

Complaint regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology

Phase 2 Module C – Preliminary Issues

September 28, 2016

Alberta Utilities Commission

Decision 790-D04-2016

Milner Power Inc.

Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology
ATCO Power Ltd.

Complaint regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology
Applications 1606494, 1608563 and 1608709

Proceeding 790

Phase 2 Module C – Preliminary Issues

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Factor Rule and Loss Factor Methodology

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1 Introduction

1. This decision is one in a series of related decisions made by the Alberta Utilities Commission (AUC) regarding a complaint filed by Milner Power Inc. (Milner) on August 17, 2005 about the Independent System Operator (ISO) rule 9.2: *Transmission Loss Factors* and Appendix 7: *Transmission Loss Factor Methodology and Assumptions* (collectively the Line Loss Rule) that was subsequently implemented by the Alberta Electric System Operator (AESO) on January 1, 2006. All references to the Line Loss Rule in this decision mean the 2005 Line Loss Rule as adjusted from time to time during the period from January 1, 2006 to the present.

2. On August 8, 2014, the Commission determined that it would proceed to hear Phase 2 of this proceeding, regarding relief and remedy, in three modules.¹ Module C is to address determination of financial compensation and the parties entitled to receive or required to pay monetary compensation.

3. This decision deals with several preliminary issues in Module C that the Commission considers can be addressed without the need for revised loss factors for the period from 2006 to the date new loss factors take effect, based on the compliant loss factor rule being established in Module B.

4. The chronology of determinations made by the Commission and its predecessor, the Alberta Energy and Utilities Board, with respect to Milner's complaint, the Line Loss Rule and related matters is found in Section 2 of AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*.

1.1 Summary of decision

5. In this decision, the Commission has determined the following with respect to each preliminary issue:

- Issue A: All parties that were subject to the line loss component of the ISO tariff since January 1, 2006, should have that portion of their tariff rate adjusted, in accordance with the outcome of this proceeding.

¹ Exhibit 524.01, AUC letter re issues list and schedule for Phase 2, August 8, 2014.

- Issue B: The Commission will provide notice to current and past market participants that interim tariff charges since January 1, 2006 relating to loss factors will be adjusted before being made final based on the Commission's determinations in this proceeding.
- Issue B: The AESO shall provide the Commission with a list of all parties who, at any time since January 1, 2006, received an ISO tariff invoice with a loss factor component.
- Issue B: The ISO tariff and ISO rules provide the AESO with mechanisms to pursue payment from, or reimbursement to, market participants that have paid for or received a credit for line losses under the ISO tariff since 2006.
- Issue C: Market participants that may be required to pay significantly higher charges should work collaboratively with the AESO in arranging a repayment schedule that would assist in mitigating any potentially severe financial impacts.
- Issue D: Because there is no applicable costs regime, no parties are eligible for cost recovery in this proceeding.
- Issue E: It is just and reasonable to account for the time value of money dating back to January 1, 2006 and awarding (and charging) interest is both a practical and just and reasonable method of doing so.
- Issue E: It is reasonable to set the rate of interest equal to the Bank of Canada's Bank Rate plus one and one half per cent to be applied from the date on which the recalculated loss factors become effective to January 1, 2006 consistent with the guidance provided in sections 3(2)(d) and 3(2)(e) of AUC Rule 023.
- Issue F: Aggregation from January 1, 2006 to the effective date of new loss factors is not practical and is unlikely to emulate a competitive market outcome, and is therefore not granted.
- Issue G: Re-doing the merit orders from January 1, 2006 to the effective date of new loss factors is not practical and is unlikely to emulate a competitive market outcome, and is therefore not granted.
- Issue H: If possible, the AESO should use actual data rather than forecast data when recalculating loss factors for the period from January 1, 2011 to the effective date of new loss factors. The Commission will defer making a determination on data use for the period between January 1, 2006 and December 31, 2010, pending the AESO's analysis of data quality and its assessment of the data's suitability for use with the methodology that is ultimately approved in Module B.

1.2 Next steps

6. The Commission will consider the remaining unresolved issues in Module C, including but not limited to potential mismatches between charges to be collected and credits to be paid out, once a compliant line loss rule has been determined.

2 Scope of this proceeding

7. Milner’s original 2005 complaint² sought relief under Section 25(6) of the 2003 *Electric Utilities Act*. That section provides that the Alberta Energy and Utilities Board may order the ISO to revoke or change a provision of an ISO rule that, in the Board’s opinion, is unjust, unreasonable, unduly preferential, arbitrarily or unjustly discriminatory or inconsistent with or in contravention of the 2003 *Electric Utilities Act* or the regulations.

8. In 2010, the Alberta Court of Appeal remitted Milner’s 2005 complaint “...to further investigate or hold a hearing to determine whether there was a contravention of Section 19 of the *Transmission Regulation* as alleged.”³ To this end, the Commission issued a September 20, 2010 notice of proceeding which it designated as Proceeding 790.⁴ In a letter dated February 28, 2011, the Commission bifurcated Proceeding 790 into two phases: the first phase to consider whether the 2005 Line Loss Rule contravened Section 19 of the 2004 *Transmission Regulation* and the second phase to determine the relief that might be granted should the complaint be upheld.⁵

9. Effective October 10, 2012, the AESO filed ISO rules Section 501.10 with the Commission and removed ISO rule 9.2, the 2005 Line Loss Rule, as part of the AESO’s Transition of Authoritative Documents Project. This was filed by the AESO on an expedited basis under Section 20.6 of the 2003/07 *Electric Utilities Act* as amended to that date in Application 1608876. The AESO’s October 2, 2012 notice of filing respecting this rule stated that the changes were not intended to circumvent or dismiss the complaints submitted by Milner and ATCO Power Ltd. (ATCO Power) against ISO rule 9.2. The AESO further stated that it wished to preserve the complaints by Milner and ATCO Power and requested that the Commission transfer the complaints to ISO rules Section 501.10 upon removal of existing ISO rule 9.2.⁶

10. On April 16, 2014, in Decision 2014-110, the review panel upheld the findings of the Commission in Decision 2012-104 that the 2005 Line Loss Rule was unjust, unreasonable, unduly preferential, arbitrarily and unjustly discriminatory and inconsistent with and in contravention of the 2003 *Electric Utilities Act* and the relevant portions of the 2004 *Transmission Regulation* dealing with line losses.

11. On April 24, 2014, the Commission established a schedule to receive submissions from parties on various matters including the relief or remedy that may be available in this proceeding.⁷ On July 4, 2014, the Commission issued a notice of proceeding for Phase 2 consideration of relief and remedy in this proceeding.⁸

12. On August 8, 2014, the Commission released an issues list and proceeding schedule directing that Phase 2 of Proceeding 790 be divided into three modules: Module A and Module B, which would run concurrently, and Module C which would proceed only if required,

² Exhibit 2.01, Milner Power Inc. Complaint Application, dated August 17, 2005, pages 1-2.

³ *Milner Power Inc. v. Alberta (Energy and Utilities Board)*, 2010 ABCA 236, paragraph 61.

⁴ Exhibit 64.01, AUC Notice of Proceeding, September 20, 2010.

⁵ Exhibit 110.01, AUC Ruling re Bifurcation, February 28, 2011.

⁶ Exhibit 533.02, AESO Line Loss Consultation, September 5, 2014, PDF page 959.

⁷ Exhibit 312.01, AUC letter polling parties re Phase 2, April 24, 2014.

⁸ Exhibit 521.01, AUC Notice of Proceeding, July 4, 2014.

based on the outcome of the first two modules.⁹ As prescribed in that letter, Module A was to address several issues of fact, law and jurisdiction; Module B was to address the development of a new line loss factor calculation methodology and line loss rule that meets legislative requirements; and Module C was to address the determination of financial compensation and the parties entitled to receive, or required to pay, monetary compensation.

Module A

13. In the letter dated August 8, 2014, the Commission also set out a schedule to receive (1) any factual evidence related to Module A and Module B issues that was not already on the record, (2) written argument and reply argument regarding issues identified in Module A, and (3) submissions on what order(s) the Commission should issue to the AESO in relation to the proposed new rule.¹⁰

14. After reviewing the submissions from parties, the Commission determined in Module A, among other things, that “[t]he Line Loss Rule and the line loss components of the ISO tariff are subject to a negative disallowance scheme” and “[i]t is not impermissible retroactive ratemaking for the Commission to grant a tariff-based remedy to correct for the payment or receipt of unlawful line loss charges and credits included in the ISO tariff from the date that the unlawful Line Loss Rule went into effect on January 1, 2006.”¹¹

Module B

15. On November 13, 2014, the Commission set a schedule to gather evidence from parties and hold an oral hearing into the Module B issues,¹² which was followed by argument from the parties. In the Module B decision, issued on November 26, 2015, the Commission, among other things, directed the AESO to (1) replace the marginal loss factor divided by two (MLF/2) methodology with an incremental loss factor methodology (ILF); while (2) using the metering point identifier (MPID) as the definition of location; and (3) keeping load constant and redispatching up the merit order when performing the ILF calculation.¹³

16. During the development of the AESO’s implementation plan in Module B, the AESO provided initial estimates of the computational time required to calculate annual loss factors using the methodology it was directed to develop in the Module B decision.¹⁴ More recently, the AESO estimated “that loss factors for 2006 to 2016 could be determined in 12 to 18 months following the calculation and release of 2017 loss factors in late 2016, using the same methodology developed for the 2017 loss factors.”¹⁵

⁹ Exhibit 524.01, AUC Letter re issues list and schedule for Phase 2, August 8, 2014.

¹⁰ Exhibit 524.01, AUC Letter re issues list and schedule for Phase 2, August 8, 2014.

¹¹ AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, Phase 2 Module A, January 20, 2015, paragraph 8.

¹² Exhibit 0562.01.AUC-790, AUC letter re schedule for Module B, November 13, 2014.

¹³ AUC Decision 790-D03-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, Phase 2 Module B, November 26, 2015, paragraph 5.

¹⁴ Exhibit 790-X0452, AESO Implementation Plan to Develop a Revised Loss Factor Rule in Compliance with Decision 790-D03-2015, February 1, 2016.

¹⁵ Exhibit 790-X3015, AESO reply submission re Module C, March 10, 2016.

17. As of the date of this decision, Module B continues to progress towards finalizing a line loss rule and loss factor methodology that are compliant with legislation for purposes of determining line loss factors for the years 2017 and beyond.

Module C

18. On January 28, 2016, the Commission issued a notice of proceeding for Module C and set a schedule to receive statements of intent to participate. The Commission also requested submissions and reply submissions from parties regarding the issues that must be resolved in Module C, their position regarding those issues, and the process they consider the Commission should follow to determine any relief or remedy to be granted.¹⁶

19. On April 21, 2016, the Commission issued a ruling in which it determined that “[b]ased on [the submissions from parties], the Commission is not persuaded that it would be in the public interest to decide financial compensation in Module C at this point. However, the Commission believes there are several issues that could be addressed without the need for new loss factors from 2006 to the effective date of new loss factors based on the compliant loss factor rule established in Module B.”¹⁷ The Commission set out the issues it determined could potentially be addressed (which issues are discussed later in this decision) and established a schedule for submissions from parties regarding those issues.¹⁸ These are hereinafter referred to as the preliminary issues in Module C.

20. In the April 21, 2016 ruling, the Commission also stated that it “will set a schedule at a later date to address the remaining issues in Module C including, but not limited to, whether any parties (and, if so, what parties) will be entitled to receive or be required to pay monetary compensation, including the quantum thereof.”¹⁹

3 Preliminary issues

21. The parties in this proceeding have filed submissions and reply submissions regarding each of the preliminary issues for consideration in Module C. The Commission has carefully considered each of the submissions and notes that there was a broad spectrum of views on many of the issues. Parties differed in how they approached and analyzed various issues, and often focused on different provisions in the legislation and cited different precedents from case law and jurisprudence. In this decision, the Commission does not adopt the approach often followed in other Commission decisions where much time is spent reiterating the arguments made by each party. Instead, with respect to each issue the Commission will set out a condensed summary of the positions of the parties, followed by the Commission’s decision and reasons. These summaries are not intended to be exhaustive, and the Commission’s findings are informed by the full text of the submissions filed. The full written submissions of each party are available on the record of this proceeding.

¹⁶ Exhibit 790-X3000, AUC Notice of proceeding for Module C, January 28, 2016.

¹⁷ To be clear, when the Commission refers to “the effective date of a new loss factor rule” this will be the date that loss factors based on a compliant rule become effective.

¹⁸ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

¹⁹ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

22. In order to provide all parties with a better understanding of the issues in Module C, the Commission, in its April 21, 2016 ruling on the scope and process schedule for Module C, also directed the AESO “to file a description of the method the AESO currently uses to assess the forecast and actual charge or refund to a given pool participant for transmission line losses in Alberta, including a timeline of when the assessments are done and the frequency and method of payments or refunds.”²⁰ The AESO filed a detailed response to this direction on May 12, 2016,²¹ clearly setting out the mechanisms and timing of the recovery of the cost of transmission line losses in Alberta.

23. Capital Power Corporation (Capital Power), ENMAX Energy Corporation (ENMAX), TransCanada Energy Ltd. (TransCanada) and TransAlta Corporation (TransAlta) stated that their submissions were made on a “without prejudice basis” in relation to their pending appeals of previous Commission decisions in this proceeding. The Commission has accepted their submissions on that basis.

24. The following sections address the June 9 and June 30, 2016 submissions of parties regarding each of the preliminary issues in Phase 2 Module C of this proceeding, and include the Commission’s findings on each issue.

3.1 A. Parties eligible for compensation

25. Issue A, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:²²

- A. Whether Milner and ATCO are the only parties eligible for compensation/payment for the entire period, or some portion thereof, between 2006 and the effective date of new loss factors based on a compliant loss factor rule.

26. Almost all parties took the position that (to the extent possible) all generating units that have been subject to the transmission loss components of the ISO tariff since January 1, 2006, should be eligible for re-adjustments to those components, whether the adjustments result in an increase or a decrease in their tariff rate.²³

27. One party, ENMAX, submitted that only those generators that complained about the Line Loss Rule should be eligible for compensation, and then only from the effective date of their complaint. Further, ENMAX submitted that if the Commission orders retroactive payments to those generators that complained, such payments should be recovered through a uniform uplift of

²⁰ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

²¹ Exhibit 790-X3030, AESO description of losses cost recovery method, May 12, 2016.

²² Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

²³ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 12-13; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 5-6; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 4; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 1-2; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, page 3; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 3-4; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 1; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 3-6.

all generators' future loss factors or through some other mechanism such as a pool trading charge.²⁴

28. In Decision 790-D02-2015, which dealt with Module A issues in this proceeding, the Commission found that to complain about the Line Loss Rule is to complain about the line loss charge components of the ISO tariff. The Commission determined that the line loss charge components of the ISO tariff have been unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory and inconsistent with Alberta legislation since January 1, 2006, because they are the product of a Line Loss Rule that is, and has been, unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory and inconsistent with or in contravention of Alberta legislation. Further, the Commission found that the Line Loss Rule and the line loss component of the ISO tariff are subject to a negative disallowance scheme and were automatically effectively interim, and have remained effectively interim, since they went into effect on January 1, 2006.²⁵ As noted by the City of Medicine Hat (Medicine Hat), these findings were not limited to the loss charges issued to Milner or ATCO Power, but extend to all loss charges issued under the ISO tariff pursuant to the impugned Line Loss Rule since January 1, 2006.²⁶

29. As set out in Section 121 of the *Electric Utilities Act*, “the Commission must ensure that the tariff is just and reasonable [and] the tariff is not unduly preferential, arbitrarily or unjustly discriminatory or inconsistent with or in contravention of this or any other enactment or any law...” The Commission considers that this requirement applies not only to approving tariffs for future implementation, but also when considering adjustments to interim tariff rates.

30. ENMAX's proposal to compensate only complainants would require either (1) a non-tariff based solution that relies on some true-up or re-calculation of charges paid and credits received by this limited subset of generators, or (2) adjustments to the interim tariff rates paid by the complainants to the exclusion of all other generators that were also subject to the same interim tariffs during the relevant period. Both avenues effectively arrive at the same result, which is an adjustment to the tariff rates paid by only a subset of all parties that have paid the AESO tariff rates since 2006.

31. As stated by Powerex, the Commission “is not establishing one rate or remedy for Milner, one for ATCO Power Canada Ltd. (ATCO), and/or one for any other ratepayer affected by the unlawful charge. Rather, the remedy must apply to all ratepayers affected by the unlawful line loss charges on a non-discriminatory basis” and “there is no cost-causation basis to distinguish between the treatment of losses for Milner and ATCO on the one hand and for all other generators and marketers taking service from the AESO on the other.”²⁷ Because the Commission has already found that the line loss component of the tariff for all parties was unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory and inconsistent with Alberta legislation since 2006, the Commission considers that any re-adjustment of the tariff rates from 2006 must apply to all affected parties.

²⁴ Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 3-4.

²⁵ AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, January 20, 2015, pages 36-37, paragraph 134 and page 80, paragraph 265.

²⁶ Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 1-2.

²⁷ Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 3-4.

32. The Commission confirms, as was argued by ENMAX (and other parties), that there was no wrongdoing by generators, and that generators were required by law to adhere to ISO rules and tariffs at the time.²⁸ However, the Commission disagrees with ENMAX’s submissions that “[a]ny harm that may have been visited upon certain generators in the past... cannot be corrected by visiting harm upon other generators in the future”²⁹ and “...there is no public-interest benefit to punishing parties who did nothing more than abide by Commission-approved ISO rules and tariffs.”³⁰ [underlining added].

33. In the Commission’s view, while generators lawfully complied with the ISO tariff at all relevant times, the portion of the ISO tariff that is based on loss factors has been interim (and unlawful) since January 2006, and is now in the process of being finalized. Any adjustments that may be required to those (unlawful) interim rates will ensure that the final rates are just and reasonable and, hence, lawful. The fact that some generators may be worse off under lawful final rates is not the same thing as visiting harm upon or punishing those generators, as alleged by ENMAX.

34. As such, the Commission finds that all parties that were subject to the line loss component of the ISO tariff since January 1, 2006, should have that portion of their interim tariff rate replaced by a final tariff rate that is just and reasonable and otherwise in compliance with applicable legislation and regulation.

3.2 B. Identify and notify affected market participants

35. Issue B, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:³¹

- B. How to identify and notify all affected market participants and how to treat market participants who may have left or joined the Alberta wholesale market for electricity between 2006 and the effective date of new loss factors based on a compliant loss factor rule.

3.2.1 Who should be responsible for identifying and notifying all affected market participants?

36. Several parties noted that the AESO, as the party responsible for administering the ISO tariff, is in a unique position to identify all market participants that have been subject to the impugned line loss factors (for example, counterparties to the AESO’s system access service agreements) since January 1, 2006.³² The AESO is the counterparty to market participants for several types of supply access service (SAS) agreements with loss factor components, including

²⁸ Exhibit 790-X3048, EMMAX reply submission on Module C preliminary issues, June 30, 2016, page 15.

²⁹ Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 2.

³⁰ Exhibit 790-X3048, EMMAX reply submission on Module C preliminary issues, June 30, 2016, page 15.

³¹ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

³² Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 6-8; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 5-7; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 2; and Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 8-9.

supply transmission service (STS), demand opportunity service (DOS), export opportunity service (XOS) and import opportunity service (IOS). No party suggested that there is any other option to identify affected parties, and the AESO has confirmed that loss factors and loss charges or credits have not been applied to any other services under the ISO tariff.³³ The Commission finds that the AESO is in the best position to identify the market participants that have been subject to tariff charges based on the impugned Line Loss Rule since January 1, 2006.

3.2.2 Nature of the notification to all affected market participants

37. In regard to providing notification to all affected market participants, some parties submitted that sufficient notice has already been provided and nothing further is required.³⁴ A number of parties proposed that, if further notification is required, it could be provided by either the Commission or the AESO.³⁵ Some parties suggested that, if additional notice is to be provided, it might include an indication of how market participants may be affected but should, at the same time, make it clear that what has already been decided in this proceeding is no longer open for adjudication.³⁶

38. The history of this proceeding is well documented, and market participants have been afforded multiple notices throughout the process, including the following:

- 2005 Alberta Energy and Utilities Board notice regarding Milner’s complaint against the Line Loss Rule and the conduct of the ISO.³⁷
- 2010 AUC notice regarding the Court of Appeal direction for the Commission to consider Milner’s complaint.³⁸
- 2012 AUC notice regarding additional Milner and ATCO Power complaints.³⁹
- 2012 AUC notice regarding review and variance applications.⁴⁰
- 2013 AUC notice regarding review of decision.⁴¹
- 2014 AUC letter regarding Phase 2 modules A, B and C.⁴²

³³ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 2.

³⁴ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 6-8, Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 4-5 and Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 5-7.

³⁵ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 6-8; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 4; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 5-7; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 8-9.

³⁶ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 6-8; Exhibit 790-X3047, Medicine Hat reply submission on Module C preliminary issues, June 30, 2016, page 7; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 3-4.

³⁷ Exhibit 004.01.AUC-790, AEUB notice of application, September 22, 2005.

³⁸ Exhibit 0064.01.AUC-790, AUC notice of proceeding, September 20, 2010.

³⁹ AUC notice of application re Milner complaint, issued in Application No. 1608563, June 21, 2012, and AUC notice of application re ATCO Power complaint, issued in Application No. 1608709, August 21, 2012.

⁴⁰ Proceeding ID 1945, exhibit 0005.01.AUC-1945, AUC letter re submissions, June 18, 2012.

⁴¹ Proceeding ID 2581, exhibit 0316.01.AUC-2581, AUC notice of review, May 3, 2013.

39. In addition, the Commission has issued five decisions in this proceeding addressing these matters, listed below, all of which have been published on the AUC’s website and circulated to an email list of interested market participants:

- Decision 2012-104: *Complaint by Milner Power Inc. Regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology.*
- Decision 2012-105: *Complaint by Milner Power Inc. Regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology, Transmission Must Run.*
- Decision 2014-110: *Applications for review of AUC Decision 2012-104: Complaint by Milner Power Inc. regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology.*
- Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology, Phase 2 Module A.*
- Decision 790-D03-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology, Phase 2 Module B.*

40. As noted above, the Commission has issued several notices to market participants since 2005 about the subject matter of this proceeding, namely the impugned transmission Line Loss Rule and associated loss factors. In view of this, the Commission finds it reasonable to conclude that market participants knew, or ought reasonably to have known, that the subject matter of Milner’s complaint (i.e., the method used to calculate loss factors) could be subject to change or adjustment. As previously found in Decision 790-D02-2015 in this proceeding, “...two of the distinguishing attributes of a negative disallowance scheme are that once a complaint is made, the impugned rate may be subject to change and, if the complaint is upheld, the impugned rate may change effective the date the complaint was first made (unless the governing statute expressly provides otherwise).”⁴³

41. The Commission notes, however, that no party has opposed further notice being provided to market participants as long as it does not further delay the proceeding. Out of an abundance of caution, and anticipating that further notice will not delay this proceeding, the Commission will provide notice to current and past market participants that interim tariff charges since January 1, 2006 relating to loss factors will be adjusted before being made final based on the Commission’s determinations in this proceeding.

42. The notice will identify: a) the issues that have been decided in this proceeding and that are not open for further consideration, and b) the outstanding issues that must be resolved in Module C. The notice will also alert market participants that all assets subject to SAS agreements since January 1, 2006 with a loss factor component may be affected, but that the magnitude of any impacts, whether positive or negative, has not yet been determined. The notice will be published by the Commission pursuant to its formal notification process including an email to contact lists, publication on the AUC website and publication in major Alberta newspapers.

⁴² Exhibit 0564.01.AUC-790, AUC letter re Phase 2 modules A, B and C, August 8, 2014.

⁴³ AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, January 20, 2015, page 60, paragraph 206.

43. While some market participants may no longer be active in the Alberta wholesale electricity market, the AESO has stated that it may have the most recent contact information for parties whose service has been discontinued or transferred to an assignee.⁴⁴ The Commission directs the AESO to provide the Commission with a list, in Word or Excel format, that includes the contact name (and alternate contact where possible), company, phone number, mailing address, email address (where possible) and asset ID, for all parties that received an ISO tariff invoice with a loss factor component since January 1, 2006. The Commission directs the AESO to file this information within one month of the release of this decision.

44. TransAlta argued that there have been notification issues throughout this proceeding.⁴⁵ TransAlta's concerns appear to be two-fold. First, from 2005 this proceeding dealt with a complaint against an ISO rule and only became a rate proceeding on January 20, 2015 when the Commission issued Decision 790-D02-2015. And second, it is virtually impossible for market participants to know if they will be directly and adversely affected by the outcome of this proceeding.⁴⁶

45. In regard to TransAlta's first concern, market participants have been aware, or ought reasonably to have been aware, of Milner's complaint about the transmission Line Loss Rule and loss factors since 2005. Milner's complaint, including related proceedings, heard through an open and transparent process with numerous opportunities for market participant involvement, led the Commission to determine, on January 20, 2015, that tariff rates with a loss factor component have been interim since January 1, 2006.⁴⁷ The Commission is similarly satisfied that the broad notification provisions it has proposed above reasonably address TransAlta's second concern.

3.2.3 Treatment of market participants who entered or exited since 2006

46. Several parties submitted that, because the range of potentially affected market participants includes all those that paid or received certain rates under the ISO tariff, the treatment of market participants that entered or exited the market since 2006 should be in accordance with the terms and conditions of any relevant ISO tariff. Accordingly, they further submitted that the benefit or burden of any adjustments to interim tariff rates should accrue to and reside with the market participant receiving service under the ISO tariff at the time, subject to any subsequent assignment to another market participant or termination of the service.⁴⁸

47. As several parties noted, Section 15 of the ISO tariff contemplates the assignment of an SAS agreement to another party:

Assignment

2(1) A market participant may assign its agreement for system access service or any rights under it to another market participant who is eligible for the system access service

⁴⁴ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 2.

⁴⁵ Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 3-6.

⁴⁶ Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 3-6.

⁴⁷ AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, January 20, 2015, page 4, paragraph 8.

⁴⁸ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 8-9; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 5-6; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 7-8.

available under such agreement and the ISO tariff, but only with the consent of the ISO, such consent not to be unreasonably withheld.

(2) The ISO must apply to the account of the assignee all rights and obligations associated with the system access service when a system access service agreement for Rate DTS, Demand Transmission Service, Rate FTS, Fort Nelson Demand Transmission Service, or Rate STS, Supply Transmission Service, has been assigned in accordance with subsection 2(1) above, including any and all retrospective adjustments due to deferral account reconciliation or any other adjustments.⁴⁹ [underlining added]

48. While there was no evidence on the record about the number of market participants that may have left the Alberta market since January 1, 2006, and were responsible for the costs associated with line losses under the SAS agreements, the Commission considers it quite possible that, after comparing all interim bills to final bills, there will be a mismatch between the amount the AESO is able to recover and the amount the AESO will have to pay out. For example, as noted by the AESO, assignment of SAS agreements can be, and commonly is, used for system access service provided under Rate STS, but is not available under Rate XOS, Rate IOS or Rate DOS.⁵⁰

49. Parties differed as to how the AESO should deal with any mismatches between the amount the AESO has to recover and the amount the AESO has to pay out. Some parties argued that even if receivables were to fall short of payables, the AESO is responsible for ensuring that parties that are owed money are fully compensated.⁵¹ Other parties argued that charges owed by companies that no longer exist or are otherwise unable to pay should not be paid by other market participants.⁵² Some parties argued that any uncollected amounts owing should be recovered through a uniform charge to all market participants,⁵³ while others submitted that such collection would contravene the principles of cost causation and be arbitrary, unjust and unreasonable, not in the public interest, or a distortion of the competitive marketplace.⁵⁴

50. The Commission considers the AESO is in the best position to attempt to recover any costs (and pay out any refunds) owing based on a re-calculation of the tariff rates. Further, the ISO tariff and ISO rules are structured and written to reinforce each other when addressing issues such as non-payment, bad debt or the renegotiation of payment terms, as will be discussed in more detail below. Based on this information, the Commission considers that the provisions in the ISO tariff and ISO rules provide the AESO with the mechanisms to pursue payment from, or reimbursement to, market participants. The Commission finds that the treatment of market participants that have entered or exited the market since January 1, 2006 is best addressed by way of the AESO's reissuance of the line loss portion of the tariff charges dating back to January 1, 2006.

⁴⁹ 2016 ISO Tariff, Section 15: *Miscellaneous*, effective April 1, 2016.

⁵⁰ Exhibit 790-X3043, AESO submission on Module C preliminary issues, June 30, 2016, page 2.

⁵¹ Exhibit 790-X3056, Milner reply submissions, June 30, 2016, pages 6-7.

⁵² Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 2.

⁵³ Exhibit 790-X3046, TCE Reply Submission, June 30, 2016, page 3.

⁵⁴ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 2; Exhibit 790-X3058, ATCO Power Reply Submissions, June 30, 2016, pages 10-12; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 5-6.

3.3 C. Large charges may affect viability

51. Issue C, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:⁵⁵

C. How the Commission should address the issue of potentially large charges that could compromise the ongoing viability of an existing generator.

52. Some parties argued that potentially large charges that affect the viability of a generator are not in the public interest and should not be imposed on market participants.⁵⁶ Others argued that the viability of any given generator is not at issue in this proceeding and should not be a consideration for the Commission.⁵⁷ However, all parties agreed that instances in which the ongoing viability of an existing generator is threatened should be dealt with on a case-by-case basis.⁵⁸ ENMAX submitted that the possibility of large charges affecting the viability of companies supports its conclusion that revising interim tariff rates cannot be in the public interest.⁵⁹

53. The Commission has previously found in Decision 790-D02-2015 that the line loss charge component of the ISO tariff has been unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory and inconsistent with Alberta legislation since January 1, 2006, and that the line loss component of the tariff was subject to a negative disallowance scheme such that rates have been interim since January 1, 2006.⁶⁰ In addition, at paragraph 259 of the same decision, the Commission found that “it would run contrary to the very purpose of such [negative disallowance] schemes were it possible for parties that benefit from unjust and unreasonable rates to permanently (and unjustly) capture for their benefit, at the expense of injured parties, the rewards attending regulatory delay.” Further, at paragraph 226 of the same decision, the Commission found that “injustice is not limited to the quantum that injured parties were compelled to pay in excess of what was just and reasonable. Not only did injured parties pay too much, other parties paid too little. The latter injustice is also at issue in this proceeding.” And finally, the Commission found at paragraph 263 of that decision that “monetary relief is both necessary and just.”

⁵⁵ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁵⁶ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 15-21; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 4-5.

⁵⁷ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 9-11; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, page 9.

⁵⁸ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 3; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 9-11; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 2-3; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 5-6; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, page 9; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 9-10.

⁵⁹ Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 4-5. ENMAX also argued that sending a location signal for a time period that has passed and during which irreversible investments in plant have already been made is another reason that revising interim tariff rates cannot be in the public interest.

⁶⁰ AUC Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology*, January 20, 2015, page 3, paragraph 8.

54. Having made these findings and determinations, the Commission considers it necessary that the line loss portion of the ISO tariff be recalculated going back to January 1, 2006 pursuant to a compliant loss factor methodology. While locational signals since January 1, 2006 have already been sent, those tariff rates were interim and unlawful. The Commission's statutory duty is to establish just and reasonable tariff rates, not to re-do locational signals since January 1, 2006.

55. The Commission's primary task in this proceeding is to determine a line loss rule and loss factor methodology that are compliant with the legislation and produce loss factors that are not unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory. As previously determined by the Commission in Decision 790-D02-2015, however, the line loss rule and loss factor methodology that will be eventually approved in Module B of this proceeding for the purpose of establishing line loss factors on a going-forward basis (commencing in 2017) need not be identical to the line loss rule and loss factor methodology that satisfies all statutory and regulatory requirements for purposes of finalizing the (still interim) line loss portion of the ISO tariff going back to January 1, 2006. Once compliant loss factors are determined and applied and the tariff bills recalculated from January 1, 2006, the tariff charges will no longer be unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory. They will instead be just and reasonable. And only at that point, when charges and credits have been recalculated and incorporated into the ISO tariff, will it become apparent if there are any large charges that may compromise the ongoing viability of an existing generator. Were such a situation to arise, the Commission considers that the AESO has considerable leeway to negotiate or impose terms for any deferred payment relating to a just and reasonable tariff charge, and expects that such terms will be in compliance with ISO rule Section 103.7: *Financial Default and Remedies*.

56. The Commission considers that ISO rule Section 103.3: *Financial Security Requirements* provides the AESO with flexibility in that it sets out the requirements for the AESO to grant unsecured credit (in some cases up to \$25,000,000) to both rated and non-rated market participants as set out in sections 5 and 6 of that rule.

57. ATCO Power submitted that the Commission should have no regard to the issue of potentially large charges that could compromise the ongoing viability of an existing generator and cited paragraph 61 of a recent decision of the Supreme Court, *ATCO Gas and Pipelines v. Alberta (Utilities Commission)*.⁶¹

...Where costs are determined to be prudent, the regulator must allow the utility the opportunity to recover them through rates. The impact of increased rates on consumers cannot be used as a basis to disallow recovery of such costs. This is not to say that the Commission is not required to consider consumer interests. These interests are accounted for in rate regulation by limiting a utility's recovery to what it reasonably or prudently costs to efficiently provide the utility service. In other words, the regulatory body ensures that consumers only pay for what is reasonably necessary: [Referring to *Ontario v. Ontario Power Generation*, 2015 SCC 44 at paragraph 20] [Emphasis added]⁶²

58. However, ATCO Power also stated that if a generator brought forward evidence that a payment it was required to make would compromise the ongoing viability of that existing generator, the Commission could consider this in determining the manner in which line loss costs

⁶¹ *ATCO Gas and Pipelines Ltd. v. Alberta (Utilities Commission)*, [2015] 3 SCR 219, 2015 SCC 45 (CanLII).

⁶² *Ibid*, at paragraph 61.

will be collected from that generator, provided that the AESO is compensated when recovery is deferred. ATCO Power pointed to footnote [10] of the decision cited above, where the SCC noted as follows:

Regulators may, however, take into account the impacts of rates on consumers in deciding *how* a utility is to recover its costs. Sudden and significant increases in rates may, for example, justify a regulator in phasing in rate increases to avoid “rate shock”, provided the utility is compensated for the economic impact of deferring its recovery.⁶³ [emphasis in original].

59. ATCO Power explained that a similar approach was taken by the Federal Court of Appeal in *TransCanada Pipelines Ltd. v. National Energy Board*,⁶⁴ where that court agreed that the impact of tolls on customers and consumers should not be taken into account in determining the pipeline company's cost of equity capital, but any resulting increase in tolls may be a relevant factor for the regulator to consider in determining the way in which a utility should recover its costs.⁶⁵

60. ATCO Power argued that similar principles should apply to the line loss charge component of the ISO tariff.

61. The Commission is cognizant that when its ultimate determinations in Module C are made, there is the potential for a material negative effect on some market participants. Should this be the case, the Commission considers that it would be reasonable for the market participant to work collaboratively with the AESO to explore available mechanisms that would mitigate adverse financial impacts while still allowing for charges to be paid. However, the Commission also agrees with ATCO Power, that if a generator brought forward evidence that a payment it was required to make would compromise the ongoing viability of that existing generator, the Commission could consider this in determining the manner in which line loss costs will be collected from that generator.

62. As concerns the risk that the potential viability of a generator could affect the short and long-term adequacy of supply and the reliability of the Alberta Interconnected Electric System, the AESO has stated that it assesses both short and long term adequacy in accordance with ISO rule Section 202.6: *Adequacy of Supply*. The AESO stated that it considers “the risk to supply adequacy that could result from an existing generator’s ongoing viability being compromised is no greater than the risk to supply adequacy from other factors, and is appropriately addressed through section 202.6 of the ISO rules.”⁶⁶ The Commission considers that the AESO has adequate mechanisms in place to provide advance warning of any potential reliability issues that could arise due to changes to the ongoing viability of an existing generator.

⁶³ *Ibid.*, at paragraph 61.

⁶⁴ *TransCanada Pipelines Ltd. v. National Energy Board*, 2004 FCA 149.

⁶⁵ Exhibit X0413, paragraph 24, page 9.

⁶⁶ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, pages 2-3.

3.4 D. Cost recovery

63. Issue D, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:⁶⁷

D. Whether parties to this proceeding are eligible to recover their participation costs and, if so, who is responsible for paying any such costs.

64. Some parties have argued that the success of the complainants or the distinction between being a “winner” and “loser” in this proceeding provides a reasonable basis for an award of costs.⁶⁸ Other parties have argued that there is no cost recovery in a complaint proceeding against an ISO rule or a proceeding to consider the conduct of the ISO and that AUC Rule 022: *Rules on Costs in Utility Rate Proceedings*, if it is even applicable, does not permit an award of costs in this instance.⁶⁹

65. This proceeding originated as a complaint against an ISO rule and the conduct of the AESO. The original application in this proceeding, dated August 17, 2005, stated that Milner brought its complaint to the Alberta Energy and Utilities Board, which was the Commission’s predecessor, pursuant to Section 25 and Section 26 of the *Electric Utilities Act*, and that “...the grounds of the present complaint are that the Rule and the AESO’s conduct in implementing the Rule are inconsistent with or in contravention of the Regulation and/or the Transmission Development Policy and are otherwise unjust, unreasonable, unduly preferential, and arbitrarily or unjustly discriminatory...” [underlining added]⁷⁰

66. The original notice of this proceeding, issued by the Alberta Energy and Utilities Board on September 21, 2005, stated that Milner’s application dealt with a complaint pursuant to sections 25 and 26 of the *Electric Utilities Act* in effect at the time, and requested certain changes to the proposed ISO rule.⁷¹

67. Sections 25 and 26 that were in effect at the time stated in relevant part:

Complaints to the Board

25(1) Any person may make a written complaint to the Board about

- (a) an ISO rule,
- (b) an ISO fee, or
- (c) an ISO order.

⁶⁷ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁶⁸ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 11-13; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 3-4; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 7-8; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, page 16.

⁶⁹ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 21; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 6, and Exhibit 790-X3049, Capital Power reply submission on Module C preliminary issues, June 30, 2016, pages 3-5; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 10-12.

⁷⁰ Exhibit 0002.01.AUC-790, Milner complaint to the AEUB, August 17, 2005.

⁷¹ Exhibit 0004.01.AUC-790, EUB notice re Milner complaint, September 21, 2005.

Complaint about ISO

26(1) Any person may make a written complaint to the Board about the conduct of the Independent System Operator.

68. After the Court of Appeal of Alberta remitted this matter to the Commission, the first notice of this proceeding issued by the Commission on September 20, 2010, stated that the basis of Milner’s complaint was that the Line Loss Rule (an ISO rule) did not comply with the relevant legislation.⁷² In June and July 2012, the Commission received additional applications from Milner and ATCO Power regarding complaints against the Line Loss Rule (an ISO rule). The Commission included these complaints in this proceeding.⁷³

69. Almost two years prior to the Commission’s 2010 notice, the Commission issued Bulletin 2008-017 regarding costs for market proceedings. The bulletin stated:⁷⁴

The Alberta Utilities Commission (the Commission) is issuing this Bulletin to respond to questions that have been raised regarding costs in market proceedings. Markets proceedings include:

- Independent System Operator (ISO) Rule Objections;
- ISO Rule Complaints;
- Complaints about the ISO’s Conduct;
- ISO fee Complaints; and
- Complaints about the Market Surveillance Administrator’s Conduct.

The Commission has considered Section 21, Costs of Proceedings, of the *Alberta Utilities Commission Act*, and at this time, will not be establishing a cost regime in connection with markets proceedings. This Bulletin does not impact Commission Rule 015 – *Rules on Costs of Investigations, Hearing or Other Proceedings Related to Contraventions*.
[underlining added]

70. Accordingly, when the Commission issued notice of this proceeding in September 2010, there was no costs regime for ISO rule complaints or complaints about the conduct of the ISO. The Commission considers that market participants were, or should reasonably have been, aware of this and made their choice whether or not to participate in this proceeding on that basis. If, for some reason, this was still not clear to parties, it should have become so after the Commission expressly stated the following in a process letter issued on December 3, 2010:⁷⁵

Costs

Regarding costs, parties are reminded of AUC Bulletin 2008-017 issued on August 15, 2008. In that bulletin the Commission indicated it would not establish a cost regime in connection with markets proceedings, including proceedings dealing with ISO rule complaints.

71. The Commission received no replies, concerns, objections or any other submissions expressing disagreement following the issuance of this December 3, 2010 letter.

⁷² Exhibit 0064.01.AUC-790, AUC notice of proceeding, September 20, 2010.

⁷³ Exhibit 0521.01.AUC-790, AUC notice of proceeding regarding Phase 2 consideration of relief and remedy, July 4, 2014.

⁷⁴ AUC Bulletin 2008-017: *Costs for Market Proceedings*, August 15, 2008.

⁷⁵ Exhibit 0077.01.AUC-790, AUC letter re schedule and technical conference, December 3, 2010.

72. The Commission considers that from the time Milner filed its original application in 2005, it has been clear that the subject of this proceeding has been a complaint against an ISO rule, specifically the Line Loss Rule and methodology, and no party has opposed, refuted or otherwise challenged this characterization. That one of the outcomes of this proceeding may be the re-issuance of invoices pursuant to the ISO tariff does not alter the fact that, from the very outset, this proceeding has dealt with a complaint against an ISO rule (and also, initially, a complaint against the conduct of the AESO in implementing the impugned rule).

73. Given that there is no costs regime for proceedings into complaints against an ISO rule or the conduct of the ISO, and that this was established from the very start of this proceeding, the Commission finds that the argument from the complainants that successful parties or victors in this proceeding should receive costs is moot. The Commission finds that in this proceeding no parties are eligible for recovery of costs.

74. If, as some parties have argued, this is deemed a tariff-related proceeding, the Commission would turn to AUC Rule 022. Section 3 states that the Commission “may award costs to an intervener who has...a substantial interest in the subject matter of a hearing or other proceeding and who does not have the means to raise sufficient financial resources to enable the intervener to present its interest adequately in the hearing or other proceeding.” Section 4 states, in part, that unless the Commission orders otherwise, electric generators are ineligible to claim costs. As such, the Commission considers that no parties in this proceeding would meet the requirements for cost eligibility.

75. As the Commission has determined that no parties are eligible to recover their participation costs in this proceeding, the question of who is responsible for paying any such costs is moot and will not be addressed.

3.5 E. Interest costs

76. Issue E, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:⁷⁶

E: Whether interest costs should be included in charges payable or compensation receivable by market participants from 2006 to the effective date of new loss factors based on a compliant loss factor rule.

77. Parties were divided on whether⁷⁷ or not⁷⁸ interest should be awarded on amounts the AESO over or under-charged market participants in respect of line losses since 2006. Some

⁷⁶ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁷⁷ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 13-14; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 8-10; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 10-11; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 12-15.

⁷⁸ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 22; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 7; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 11.

parties supported⁷⁹ and some opposed⁸⁰ the use of AUC Rule 023: *Rules Respecting Payment of Interest* when considering whether to award interest.

78. The Commission has previously determined “...not only did injured parties pay too much, other parties paid too little. The latter injustice is also at issue in this proceeding. In addition, all affected parties, whether they were overcompensated or undercompensated, have something else in common. They were, and largely remain, active competitors of each other. To inflict financial harm without just cause on one group of competitors, while bestowing on another group of competitors financial benefits to which it has no just claim, is to interfere with the efficient market for electricity based on fair and open competition as required by Section 5 of the *Electric Utilities Act*.”⁸¹ As discussed in more detail later in this decision, the Commission finds that reallocation of the costs of losses is best achieved by recalculating the line loss components of the ISO tariff bills dating back to January 1, 2006 and re-issuing those bills. However, the Commission considers that the reallocation of the costs of losses only addresses part of the injustice of some parties paying too much and other parties paying too little. As noted by several parties,⁸² losses are a zero-sum game, so money awarded unjustly to one party was money taken unjustly from another party and vice versa. Given the zero-sum nature of line loss cost recovery and the fact that the original complaint was filed over a decade ago, to help remedy the gains that unjustly accrued to some parties and the costs that were unjustly imposed on other parties, the Commission finds that it is just and reasonable to consider the time value of money dating back to January 1, 2006 and that awarding (and charging) interest is a practical and just and reasonable method of doing so.

79. ISO tariff bills that include a component relating to transmission line losses are used by the AESO to recover the total cost of transmission line losses. They are a transaction between the AESO and each individual generator as a counterparty to the ISO service. More specifically, there is no transaction between the generators themselves to recover the total cost of losses; rather, the transactions are between the AESO and each individual generator. The Commission recognizes that AUC Rule 023 applies to utilities and that the AESO is not a utility. However, having decided that awarding interest costs to generators that were overcharged and requiring generators that were undercharged to pay interest is just and reasonable, the Commission finds AUC Rule 023 to be of some assistance in determining a reasonable rate of interest. It may also provide some guidance regarding what amounts should attract interest and over what time period(s).

80. The Commission finds that it would be reasonable to set the rate of interest equal to the Bank of Canada’s Bank Rate plus one and one half per cent to be applied from the date on which the recalculated loss factors become effective to January 1, 2006 consistent with the guidance provided in sections 3(2)(d) and 3(2)(e) of AUC Rule 023.

81. Some parties have argued that charging interest unjustly penalizes market participants that owe money, especially as they cannot be faulted for having (subsequently been determined

⁷⁹ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 22; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 12-15.

⁸⁰ Exhibit 790-X3049, Capital Power reply submission on Module C preliminary issues, June 30, 2016, page 5.

⁸¹ Decision 790-D02-2015: *Complaints regarding the ISO Transmission Loss Factor Rule and Loss Factor Methodology, Phase 2 Module A*, January 20, 2015, paragraph 226.

⁸² For example, Milner during its opening statement on October 19, 2011 at Tr. Vol. 1, and which has been commonly reference by parties throughout this proceeding.

to have) underpaid.⁸³ The Commission disagrees with this characterization. The question is not who was at fault, nor whether remedying unlawful rates can be considered as imposing a penalty on parties that are found to have benefitted unjustly at the expense of others. Rather, the Commission must address the fact that, due to the interim nature of the ISO tariff bills since January 1, 2006, some parties had funds at their disposal that they should not have had, while others did not have funds at their disposal that they should have had. Awarding interest helps to rectify the issue of the time value of the money unjustly at the disposal of, or unjustly denied to, each party, respectively.

82. Some parties submitted that if the Commission awards interest, it should either canvas parties for their views or delay a decision on the applicable rate.⁸⁴ The Commission has determined that it would be reasonable to set the rate of interest equal to the Bank of Canada rate (plus one and one half percent). This has the further advantage of eliminating any mismatches that would occur due to different costs of capital for different market participants.

3.6 Consideration of actual events and the influence of hindsight

83. The Commission will address issues F, G and H concurrently in this decision, as they are related. In Module B of this proceeding, which is taking place concurrently with the consideration of preliminary issues in Module C, the Commission is in the process of determining a compliant line loss rule and loss factor methodology that can be implemented on a go-forward basis, with loss factors calculated under the new methodology anticipated to be effective January 1, 2017. But, as noted above, in Decision 790-D02-2015, it was already within the Commission's contemplation that a compliant line loss rule for the period January 1, 2006 to the date the Module B line loss rule takes effect, might be different from a compliant line loss rule going forward. At paragraphs 253 and 254 of that decision, the Commission found the following:

253. The Commission relies on this ratemaking principle in finding that Section 25(9) of the rulemaking provisions of the 2003/07 *Electric Utilities Act* does not preclude the Commission from adjusting rates with retroactive effect pursuant to its ratemaking powers. The Commission also finds, in this regard, that because it is charged with the responsibility of ensuring that rates are just and reasonable during the entire period such rates are deemed by operation of law to be interim, the process of calculating or determining rates that meet this standard does not require that a new or changed Line Loss Rule be put into effect during the period throughout which unlawful rates were imposed in the first instance.⁸⁵ In this proceeding, the Commission has found that the Line Loss Rule produced and continues to produce line loss charges that are unjust and unreasonable and that are contrary to the legislation and regulations. Those impugned

⁸³ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 22; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 11.

⁸⁴ Exhibit 790-X3045, AltaGas reply submission on Module C preliminary issues, June 30, 2016, pages 8-10; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 13-14; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 8-10; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 10-11.

⁸⁵ As the previous discussion has shown, AltaGas, TransCanada, Capital Power and ENMAX (at least in its written argument), not to mention the complainants, are also uniformly of the view that the Commission's authority to retroactively revise interim rates is not affected by Section 25(9) of the 2003/07 *Electric Utilities Act*, which requires that a new or changed ISO Line Loss Rule can only come into effect on a prospective basis.

rates, by operation of the statutorily imposed negative disallowance scheme, must now be treated as, in effect, being interim in nature. In such circumstances, as with similar situations where the Commission is called upon to adjust interim rates, the Commission can have recourse to any information it deems necessary or relevant from the tariff applicant or interveners in setting final tariff rates that meet the test of justness and reasonableness.

254. What this means in the present context is that it is not strictly necessary for the Commission, in determining what line loss tariff charges would be just and reasonable for parties harmed by (or unjustly benefitting from) unlawful line loss charges, to rely exclusively on the line loss factors (and associated line loss charges) produced by a new or changed ISO Line Loss Rule as the benchmark against which to make this determination. In other words, in the Commission's view, there is no a priori reason to assume that what was, or would have been, just and reasonable, from January 1, 2006 to the date future line loss charges come into effect must be identical to those future line loss charges. [underlining added]

84. The Commission found that it is not automatically bound to apply a forward-looking compliant loss factor rule and methodology to the period from January 1, 2006. Rather, it has the discretion, where circumstances warrant, to apply a different (but still compliant) loss factor rule and methodology to that prior period.

85. It is from this perspective that the Commission will consider the issues of aggregation, redoing the merit orders, and selecting between forecast and actual data, and the Commission's reasoning and analysis here will apply equally to the next three sections of the decision.

86. As was argued by several parties, any attempt to re-construct the market (by relying on aggregation, revised merit orders and forecast data) since January 1, 2006 would be very difficult, time consuming, contentious, unlikely to accurately simulate or recreate what would actually have happened, involve considerable speculation, and would be inherently biased by hindsight.⁸⁶ In contrast, other parties argued that if new loss factors are to replace unlawful loss factors from 2006 going forward, there is no choice but to reconstruct past circumstances.⁸⁷ Implicit in these latter arguments is the proposition that once the Commission determines a new compliant loss factor methodology, that same methodology must be used both on a going-forward basis and for purposes of remedying past unlawful line loss factors.

87. In addition to the issues identified above, any adjustments to accommodate aggregation or the redoing of merit orders would invariably lead to new historical dispatch levels for generators, both in the energy and ancillary services markets. This would result in different pool

⁸⁶ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 14-16; Exhibit 790-X3043, AESO submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit X790-3031, ENMAX submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, page 5; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, pages 10-13; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 11-13; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 11-12.

⁸⁷ Exhibit 790-X3045, AltaGas reply submission on Module C preliminary issues, June 30, 2016, pages 10-12; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 7-10; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 21-23 (however, TransCanada submitted that it is not necessary to redo the merit orders unless the Commission were to determine that doing so is necessary to ensure fairness and avoid unjust discrimination and undue preference).

prices (with consequential impacts on hedge contracts which are based on spreads between forecast pool prices and actual pool prices), which, in turn, would require recalculation of pool receipts for all generators dating back to January 1, 2006, recalculation of all charges for retailers and industrial load dating back to January 1, 2006, and could open the door to a plethora of other scenarios where generators were expected to run and didn't or weren't expected to run and did and any associated contractual issues (e.g., minimum or maximum number of restarts, minimum stable generation levels, take-or-pay fuel contracts, etc.).

88. Also, any reconstruction of market conditions would inherently be limited by any investment decisions that have already been made for generation, transmission and distribution facilities. In the Commission's view, there is no reasonable way to go back in time and add or remove facilities from the topology of the system based on a hypothetical investment environment. Finally, there is no way to undo or change the losses that actually occurred on the system. Reconstructing the merit order and dispatches would not change the fact that specific, measured amounts of energy were lost on the Alberta Interconnected Electric System, year in and year out, since January 1, 2006.

89. While the Commission accepts that generators may have made different decisions under a different line loss rule and methodology, it considers it neither reasonable nor feasible to attempt to look back and accurately model what parties would have done in terms of aggregation and offer blocks since January 1, 2006. Such an exercise, by nature, would be speculative and likely to be influenced by hindsight. Rather, as Medicine Hat put it, "[w]hat is attainable, however, is to apportion loss volumes and costs based on the actions that caused past loss volumes and costs. In other words, using information about the actual operation of generating facilities as inputs for the Module C Loss Factor Methodology."⁸⁸

90. With this in mind, the Commission will now address the issues of aggregation, re-doing the merit orders and choosing between forecast and actual data.

3.7 F. Aggregation in prior periods

91. Issue F, as set out in the Commission's letter regarding the preliminary Module C issues for consideration, is as follows:⁸⁹

F: Whether parties should be given the choice of aggregating their facilities, and for what period the aggregation should apply, from 2006 to the effective date of new loss factors based on a compliant loss factor rule.

92. While most parties argued that aggregation dating back to January 1, 2006 should not be permitted,⁹⁰ some parties asserted that the Commission's finding that a compliant line loss rule

⁸⁸ Exhibit 790-X3047, Medicine Hat reply submission on Module C preliminary issues, June 30, 2016, pages 16-18.

⁸⁹ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁹⁰ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 14-15; Exhibit 790-X3032, AESO Reply Submissions Module C, June 9, 2016, page 3; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, page 10; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 11-13; Exhibit 790-X3037, TransAlta submission on Module C

includes the option of aggregating requires that aggregation be allowed dating back to January 1, 2006.⁹¹

93. The Commission previously found that “generators should be permitted to choose whether to aggregate or disaggregate based on competitive market conditions.”⁹² Since aggregation would, by definition, eliminate sets of offer blocks, aggregation from January 1, 2006 would require re-doing the merit order with combined offer blocks for the facility subject to aggregation. There is no clear way to historically combine offer blocks for units that are aggregated, and any combined offer blocks would effectively re-do the merit order. In addition, as noted by Medicine Hat, permitting aggregation from January 1, 2006 would allow an aggregating party to avoid the direct costs of aggregation, including any physical, contractual or operational expenses or encumbrances.⁹³ Finally, historical aggregation is likely to be influenced by hindsight with a view to altering competitive market outcomes.

94. The Commission finds that aggregation from January 1, 2006 to the effective date of new loss factors is not practical and is unlikely to emulate a competitive market outcome, and is therefore not granted.

3.8 G. Re-doing merit orders

95. Issue G, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:⁹⁴

G: Whether the hourly merit orders should be “re-done” from 2006 to the effective date of new loss factors based on a compliant loss factor rule and, if so, how this would be done.

96. As with the issue of aggregation, parties were divided on whether merit orders should be re-done back to January 1, 2006. Some argued that this should not be permitted,⁹⁵ while others argued that the Commission’s finding that a compliant line loss rule (on a going-forward basis)

preliminary issues, June 9, 2016, pages 11-12 and Exhibit 790-X3050, TransAlta reply submission on Module C preliminary issues, June 30, 2016, page 5.

⁹¹ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 22-23 and Exhibit 790-X3045, AltaGas reply submission on Module C preliminary issues, June 30, 2016, pages 10-12; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 7; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, page 37 and Exhibit 790-X3046, TransCanada Reply Submission, June 30, 2016, pages 11-13.

⁹² See Decision 790-D03-2015 for a more fulsome description of the impacts and choices associated with aggregation, specifically Section 4.5: *Commission findings regarding location*.

⁹³ Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 5.

⁹⁴ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁹⁵ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 15-16; Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 3; Exhibit 790-X3048, EMMAX Response submission on Module C preliminary issues, June 30, 2016, pages 24-25; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3056, Milner reply submissions, June 30, 2016, page 16; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, page 14; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 21-23; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 12.

should include merit orders that reflect what generators will do means that merit orders should also be re-done for the period dating back to January 1, 2006.⁹⁶

97. In addition to the general concerns raised by parties and acknowledged by the Commission in sections 3.6 and 3.7 of this decision, the AESO has identified concerns about data quality issues associated with the energy market merit order data for the years 2006 to 2010 which “effectively [make] it impractical to “re-do” the merit order for those years, irrespective of the approach taken for the more recent years of 2011 to 2016.”⁹⁷

98. The Commission finds that re-doing the merit orders from January 1, 2006 to the effective date of new loss factors is not practical and is unlikely to emulate a competitive market outcome, and is therefore not granted.

3.9 H. Forecast or actual data

99. Issue H, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, is as follows:⁹⁸

H: Should the AESO use forecast or actual data (which consists of merit orders, transmission system topology and load data) when calculating the loss factors from 2006 to the effective date of new loss factors based on a compliant loss factor rule.

100. Most parties argued that using actual data is preferable to using forecast data. Reasons provided included that: (1) actual data is less susceptible to speculation and judgement; (2) forecast data is only used as a temporary measure until actual data is available; (3) actual data will be more accurate and reduce the need for adjustments through Rider E; and (4) it is not practical to create forecasts for 8,760 merit orders in each year from January 1, 2006.⁹⁹

101. Milner and ATCO Power argued for the use of forecast data because it is readily available and can be used in that version of the AESO’s methodology first proposed at the outset of Module B.¹⁰⁰ Capital Power has argued for the use of forecast merit orders, pool prices, and other such inputs because market outcomes would have been different under a different loss factor regime.¹⁰¹

⁹⁶ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, page 24; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 7-10.

⁹⁷ Exhibit 790-X3043, AESO Reply Submissions Module C, June 29, 2016, page 5.

⁹⁸ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

⁹⁹ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, pages 3-4; Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 41-42; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 6-7; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, pages 5-6; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, page 14; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, page 12; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 23-24.

¹⁰⁰ Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, page 13; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, page 16. ATCO Power indicated in its reply submission that the choice between forecast and actual data could depend on the method used. See Exhibit 790-X3058, ATCO Power Reply Submissions, June 30, 2016, pages 23-24.

¹⁰¹ Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, page 10.

102. The *Transmission Regulation* provides guidance on recovering the actual cost of losses, and states in relevant part:

Transmission system loss factors

31(1) The ISO must make rules to

...

- (c) establish a means of determining, for each location on the transmission system, loss factors and associated charges and credits, which are anticipated to result in the reasonable recovery of transmission line losses,
- (d) provide a means by which, annually, a determination will be made of the difference between the anticipated transmission line losses and the actual transmission line losses, and
- (e) subject to section 33, provide a means through the application of a single calibration factor to adjust the amounts paid by the application of the loss factor described in clause (c) so that
 - (i) owners of generating units,
 - (ii) importers and the exporters of electricity, and
 - (iii) any other opportunity service customers referred to in clause (a)(iv),

are charged or receive a credit so that they pay the actual cost of transmission line losses. [underline added]

103. The Commission considers that the objective of these provisions is to ensure that generating units (and other entities listed above) pay the actual cost of transmission line losses. By necessity, forecast data is used by the AESO in the first step of the process of allocating the cost of actual losses. The final step in the process of allocating the cost of actual losses involves using a calibration factor to recover the actual amount of losses. However, the Commission recognizes the importance of the first step in this process in determining loss factors that reflect cost causation. As noted in Decision 2012-104, “[c]harging everybody the system average [loss factor] is computationally the easiest answer,” and applying a calibration factor to the system average would lead to recovery of actual system losses – but no party supports such an approach, and neither does the Commission. This simply illustrates the importance of ensuring that the initial annual loss factors for each generator, prior to the application of any calibration factor, reflect cost causation as much as possible. Put differently, if loss factors do not reflect cost causation from the outset, a calibration factor cannot fix the problem. Since actual transmission system losses were incurred based on actual dispatches and actual system conditions, and not on the basis of forecast dispatches and forecast system conditions, the Commission finds that the initial annual loss factors for generators, calculated using a lawful loss factor methodology and actual data whenever possible (rather than forecast data), will most closely reflect cost causation.

104. The Commission finds that, if possible, the AESO should use actual data rather than forecast data when recalculating loss factors for the period from January 1, 2011. The Commission will defer making a determination for the period between January 1, 2006 and December 31, 2010, pending the AESO’s analysis of data quality and its assessment of the data’s suitability for use with the methodology that is ultimately approved in Module B.

3.10 I. Is it possible to estimate historical differences?

105. Issue I, as set out in the Commission's letter regarding the preliminary Module C issues for consideration, is as follows:¹⁰²

- I: Whether it is necessary for the Commission to estimate the difference between the loss factors actually produced by the MLF/2 methodology and those a new compliant methodology might have produced for *every* year between 2006 and the effective date of new loss factors based on a compliant loss factor rule in order to determine how much (if any) compensation has to be paid, or whether the Commission should consider other options such as using a sample of a few years to provide an estimate of the difference? Are there any other methods to estimate the difference between loss factors derived from the MLF/2 methodology and a compliant methodology?

106. Some parties have argued that an expeditious resolution of Module C, by as early as the end of 2016 or Q1 2017, requires using the ILF method proposed by the AESO at the outset of Module B, or at the very least the use of sample data for the purposes of interim billing.¹⁰³ Several parties have argued that it is not possible to accurately sample or estimate loss factors for past periods. They claim that samples or estimates are likely to be contentious, produce non-compliant results and cause a needless drain on resources. They also claim that any truncated methodology would require its own hearing before it could be approved by the Commission. These parties argue that differences between what was charged and what should have been charged to market participants from January 1, 2006 should be determined by recalculating loss factors using an approved compliant methodology.¹⁰⁴ Other than leaving loss factors unchanged from January 1, 2006 or using the ILF methodology proposed by the AESO at the outset of Module B, no party has proposed what the Commission considers would be a compliant methodology to estimate the differences between loss factors derived under MLF/2 and a compliant methodology.¹⁰⁵

107. The ILF loss factors provided by the AESO during the course of this proceeding have been based on either (a) load scaling (where load is scaled down in order to rebalance the system after removing a generator) or (b) the use of the generic stacking order (GSO) (where the GSO establishes the order in which generators are dispatched in order to rebalance the system after a generator has been removed). By contrast, in Decision 790-D03-2015, the Commission ordered

¹⁰² Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

¹⁰³ Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 17-19; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 6; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, page 13; Exhibit 790-X3051, Powerex reply submission on Module C preliminary issues, June 30, 2016, pages 19-22.

¹⁰⁴ Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 43-44; Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, pages 4-5; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, pages 17-19; Exhibit 790-X3034, Capital Power submission on Module C preliminary issues, June 9, 2016, pages 10-11; Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 7-8; Exhibit 790-X3047, Medicine Hat reply submission on Module C preliminary issues, June 30, 2016, page 23; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 14-16; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 13-14; Exhibit 790-X3046, TCE Reply Submission, June 30, 2016, pages 23-24.

¹⁰⁵ At Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 7-8, ENMAX proposed the use of linear regression for re-calculating loss factors since January 1, 2006, but the Commission has already rejected the use of linear regression in Decision 790-D03-2015.

the AESO to develop a loss factor rule that requires load to be held constant (i.e. no load scaling) and the use of the merit order for redispatch (i.e. no reliance on the GSO).¹⁰⁶ As several parties have noted, these are significant departures from the ILF methodology proposed by the AESO.¹⁰⁷ Accordingly, absent further and more persuasive reasons, the Commission is not prepared to order the AESO to use the ILF methodology it proposed at the outset of Module B to estimate historical differences in loss factors.

108. The AESO expects it may take 12 to 18 months to recalculate loss factors from January 1, 2006 using the loss factor methodology that is ultimately approved in Module B.¹⁰⁸ The AESO also stated that it is “focusing its resources on Module B implementation matters during 2016 and expects to turn to Module C calculations following the release of 2017 loss factors in late 2016.”¹⁰⁹

109. Having considered the arguments of all parties with respect to Issue I, the Commission is not prepared at this time to exclude any approach it may yet determine to be compliant for purposes of estimating historical differences in loss factors.

3.10.1 Concerns with data for the years 2006 to 2010

110. As noted in Section 3.8 above, the AESO recently identified a possible data issue for the years 2006 to 2010 and submitted that a different approach (from the one it was developing for the years after 2010) might have to be used for those earlier years.¹¹⁰ Several parties have expressed concerns with this possibility.¹¹¹

111. Ideally, the same approach would apply for the years 2006 to 2010 as for 2011 onward, but the Commission recognizes that without accurate or usable data, the AESO may have difficulty recalculating loss factors that more closely reflect cost causation than the existing (and wholly unsatisfactory) MLF/2 loss factors. Pending receipt of the AESO’s filing on potential data issues for the period preceding 2011, which the Commission expects by no later than October 20, 2016,¹¹² the Commission will defer making any finding on whether it is possible to estimate historical differences for the years 2006 to 2010.

3.11 J and K: The method for and timing of collection and reimbursement

112. Issues J and K, as set out in the Commission’s letter regarding the preliminary Module C issues for consideration, are as follows:¹¹³

J: Whether the collection and distribution of any funds (if determined to be necessary and in the public interest) should be accomplished through the AESO tariff (e.g., by way of a

¹⁰⁶ The AESO has acknowledged that the GSO was never developed or intended for use in redispatching to balance the system. Exhibit 790-X0409, AESO argument, July 31, 2015, pages 9-10, paragraphs 42-45.

¹⁰⁷ Exhibit 790-X3031, EMMAX submission on Module C preliminary issues, June 9, 2016, pages 7-8;

Exhibit 790-X3047, Medicine Hat reply submission on Module C preliminary issues, June 30, 2016, page 22.

¹⁰⁸ Exhibit 790-X3015, AESO reply submission re Module C, March 10, 2016.

¹⁰⁹ Exhibit 790-X3043, AESO Reply Submissions Module C, June 29, 2016, page 7.

¹¹⁰ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, pages 4-5.

¹¹¹ Exhibit 790-X3049, Capital Power reply submission on Module C preliminary issues, June 30, 2016, pages 1-2;

Exhibit 790-X3050, TransAlta reply submission on Module C preliminary issues, June 30, 2016, pages 6-7;

Exhibit 790-X3046, TransCanada reply submission, June 30, 2016, pages 23-24.

¹¹² Exhibit 790-X3070, AUC letter re AESO data concerns, July 22, 2016.

¹¹³ Exhibit 790-X3028, AUC ruling regarding Module C scope and process schedule, April 21, 2016.

deferral account), or by way of some other (non-tariff based) method. If it is the latter, what jurisdiction does the Commission have to order a non-tariff remedy, what would this method be and how would it be administered? How would a possible mismatch between the amount to be collected and the amount to be reimbursed be resolved?

K: Whether the period for collecting any funds should match the period for distributing any funds.

113. The Commission considers these issues are related and address much of the same subject matter. For that reason they will be dealt with concurrently.

114. In the AESO's May 12, 2016 filing (see paragraph 22 above) setting out the mechanisms and timing of the recovery of the cost of transmission line losses in Alberta, the AESO stated that "[t]he recovery of the cost of losses occurs as part of the AESO's transmission settlement process, which addresses amounts charged to market participants with respect to system access service provided by the AESO," and that loss factors apply to system access service provided under the following rates:¹¹⁴

- Rate STS, Supply Transmission Service
- Rate XOS, Export Opportunity Service
- Rate IOS, Import Opportunity Service
- Rate DOS, Demand Opportunity Service

115. The AESO also noted that "[a]fter loss factors are established, they are entered into the AESO's transmission settlement system ("TSS", sometimes called the billing system) as monthly values for each system access service to which loss factors apply. The loss factors become effective on January 1 and the cost of losses are then recovered through the calendar year."¹¹⁵ Further, the transmission settlement system (TSS) "is capable of correcting an aspect of the applicable bills, such as a change to loss factors, and reissuing the bills for any settlement period back to the initial implementation of TSS in January 2006."¹¹⁶

116. Most parties argued that any collection and reimbursement should be given effect through the ISO tariff,¹¹⁷ while ENMAX suggested uniform uplift charges or a pool trading charge¹¹⁸ and TransAlta argued for payments pursuant to Section 23 of the *Alberta Utilities Commission Act*.¹¹⁹

¹¹⁴ Exhibit 790-X3030, AESO description of losses cost recovery method, May 12, 2016, page 4, paragraphs 4 and 6.

¹¹⁵ Exhibit 790-X3030, AESO description of losses cost recovery method, May 12, 2016, page 6, paragraph 10.

¹¹⁶ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 5.

¹¹⁷ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 5; Exhibit 790-X3039, AltaGas submission on Module C preliminary issues, June 9, 2016, pages 45-47; Exhibit 790-X3041, ATCO Power submission on Module C preliminary issues, June 9, 2016, page 19; Exhibit 790-X3033, Medicine Hat submission on Module C preliminary issues, June 9, 2016, page 7 and Exhibit 790-X3047, Medicine Hat reply submission on Module C preliminary issues, June 30, 2016, pages 3-5; Exhibit 790-X3040, Milner submission on Module C preliminary issues, June 9, 2016, page 7; Exhibit 790-X3035, Powerex submission on Module C preliminary issues, June 9, 2016, pages 7-9; Exhibit 790-X3036, TransCanada submission on Module C preliminary issues, June 9, 2016, pages 32-35; Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 14-15.

¹¹⁸ Exhibit 790-X3031, ENMAX submission on Module C preliminary issues, June 9, 2016, page 8.

¹¹⁹ Exhibit 790-X3037, TransAlta submission on Module C preliminary issues, June 9, 2016, pages 14-15.

117. The Commission found in Decision 790-D02-2015 that those portions of the ISO tariff related to loss changes were interim since January 1, 2006 and that the Commission has the jurisdiction to grant a tariff-based remedy.¹²⁰ In the same decision, the Commission also found that “[t]he tariff provisions of the legislation include all of the remedies available in the legislation and under the applicable common law, including remedies allowing for retroactive and retrospective ratemaking, necessary to remedy the imposition of unlawful tariffs produced by an unlawful ISO rule.”¹²¹ The Commission considers that any recalculation or re-assignment of costs would also be done under the ISO tariff, but parties have raised some possible concerns and proposed solutions for the Commission’s consideration.

118. ATCO Power identified potential sources of any mismatch between the amounts collected by the AESO and the amounts payable by the AESO, were the line loss components of the ISO tariff to be revised from January 1, 2006:¹²²

- Mismatches that arise from the limited precision of loss factors. After raw loss factors are determined, an appropriate shift factor needs to be calculated so that the collected amount matches the actual cost of losses in accordance with Section 31(1)(e) of the *Transmission Regulation*. However, limited precision in the shift factor might prevent an exact match to the actual losses.
- The non-payment of charges by an active market participant.
- The inability of the AESO to notify a former market participant that has previously underpaid.
- The inability of the AESO to notify a former market participant that has previously overpaid.
- The timing difference between the issuance of credits and the collection of charges.

119. For any mismatches, there are ISO rules currently in effect that address non-payment by market participants of their financial obligations to the AESO. These include ISO rule sections 103.3: *Financial Security Requirements*, 103.6: *ISO Fees and Charges* and 103.7: *Financial Default and Remedies*. Further, under the ISO tariff Section 13: *Financial Security, Settlement and Payment Terms*, the AESO has extensive powers to pursue payment from parties and recover any costs associated with non-payment.

120. While the AESO expects there to be minimal mismatches between the amounts to be collected and the amounts to be reimbursed,¹²³ it also pointed out that any mismatches would likely require two settlement processes for the period: “a first to issue and settle loss charges and credits resulting from the loss factors calculated in Module C, followed some time later by a second to issue and settle Rider E...charges and credits to address any shortfall or surplus balances.”¹²⁴ The AESO estimated that the application of the Module B methodology to prior

¹²⁰ AUC Decision 790-D02-2015, paragraphs 251-253.

¹²¹ AUC Decision 790-D02-2015, paragraph 146.

¹²² Exhibit 790-X3058, ATCO Power Reply Submissions, June 30, 2016, page 28.

¹²³ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 5.

¹²⁴ Exhibit 790-X3043, AESO Reply Submissions Module C, June 29, 2016, pages 8-9.

years to recalculate loss factors could take “12 to 18 months following the calculation and release of 2017 loss factors in late 2016, using the same methodology developed for the 2017 loss factors.”¹²⁵ The AESO added that rebilling via TSS “of all services over a multi-year period may take multiple days to process, which may need to be spread over more than one settlement period to avoid conflict with the AESO’s on-going settlement process.”¹²⁶

121. As of the date of this decision, the magnitude of any reissued bills that result in charges or reimbursements remains unknown. In addition, the Commission’s decision to allow interest charges on amounts to be reimbursed could increase the magnitude and number of potential mismatches.

122. The Commission recognizes that a mismatch between the amount to be collected (charges) and the amount to be paid out (credits) is likely to occur, however, at present, the extent of the potential mismatch remains unknown. The AESO has proposed to settle each period back to 2006 using a two-step settlement process that first involves settling loss charges and credits for a particular period and later settling any shortfall or surplus through Rider E for that period. The Commission is not prepared, at this time, to approve the use of Rider E to recover any mismatches between charges and credits. Only after all charges and credits since January 1, 2006 are finalized will the full extent of any mismatch be known. Therefore, the Commission considers that there may be merit in limiting the total reimbursement for a calendar year to the amount that is collected by the AESO for that calendar year. This would require that the AESO first collect amounts owed for a calendar year and, after allowing a reasonable time to collect, issue the reimbursements for that calendar year on a pro-rata basis. To be clear, under this scenario, a market participant would only be reimbursed based on its share of the total credits in that calendar year. On the other hand, if, after attempting to reimburse all credits owed in a calendar year the AESO is left with a surplus,¹²⁷ it could potentially be used to offset any shortfalls in other calendar years.

123. The Commission will make a determination on the approach to be used with respect to a mismatch once it has more information on the extent of any mismatch that may occur. The full extent of the mismatch will only be known after the AESO settles the charges and credits for each calendar year.

124. The Commission considers that a uniform payment as suggested by ENMAX, whether collected through the ISO tariff or as a pool trading charge, would not serve the public interest or achieve the objectives of the governing legislation. As noted by the Commission in Section 3.1 of this decision, the purpose of re-calculating the loss factors is not to punish or harm any generators but, rather, to finalize the interim tariff rates so that they reflect the just and reasonable loss factors calculated by a compliant line loss rule. Since January 1, 2006, some generators have overpaid and some have underpaid for the cost of losses, and it would be contrary to the public interest, unreasonable, and unjust to parties, whether they over or under paid, if the Commission were to order the collection of the funds through a uniform charge on all generators as proposed by ENMAX, rather than adjust the interim rates to reflect cost causation.

¹²⁵ Exhibit 790-X3015, AESO reply re Module C, March 10, 2016.

¹²⁶ Exhibit 790-X3032, AESO submission on Module C preliminary issues, June 9, 2016, page 5.

¹²⁷ For example, if the AESO attempts to reimburse a market participant but, for whatever reason, is unable to do so.

125. Regarding TransAlta's suggestion that reliance be placed on Section 23 of the *Alberta Utilities Commission Act*, there is a readily available and well-understood existing process to reissue ISO tariff bills without the need for the Commission to exercise its broad powers granted under that section. At this time, the Commission is not prepared to exercise its powers pursuant to Section 23 of the *Alberta Utilities Commission Act*.

126. As discussed elsewhere in this decision, the availability of complete and reliable data for the period from 2006 to 2010 remains an issue. As a result, it remains unclear if, and to what extent, if any, the AESO can recalculate loss factors for those years. The Commission will address any data quality issues when more information becomes available.

4 Order

127. The Commission directs the AESO to provide the Commission with a list, in Word or Excel format, that includes the contact name (and alternate contact where possible), company, phone number, mailing address, email address (where possible) and asset ID, for all parties that received an ISO tariff invoice with a loss factor component since January 1, 2006. The Commission directs the AESO to file this information within one month of the release of this decision.

Dated on September 28, 2016.

Alberta Utilities Commission

(original signed by)

Mark Kolesar
Vice-Chair

(original signed by)

Neil Jamieson
Commission Member

(original signed by)

Bohdan (Don) Romaniuk
Acting Commission Member

Appendix 1 – Proceeding participants

Name of organization (abbreviation) counsel or representative
Alberta Electric System Operator (AESO or ISO) Keith F. Miller – Stikeman Elliot LLP
ATCO Power Canada Ltd. (ATCO) Marie H. Buchinski – Bennett Jones LLP
Capital Power Corporation (Capital Power) Douglas Crowther – Dentons Canada LLP
City of Medicine Hat (Medicine Hat) Roger Belland and Rod Crockford
ENMAX Energy Corporation (ENMAX)
Milner Power Inc. (Milner) Monte S. Forester Lewis L. Manning – Lawson Lundell Barristers & Solicitors
Powerex Corp. (Powerex) Chris W. Sanderson – Lawson Lundell LLP
TransAlta Corporation (TransAlta) Laura-Marie Berg
TransCanada Energy Ltd. (TransCanada) David Farmer Steven Kley
Alberta Utilities Commission Commission panel Mark Kolesar, Vice-Chair Neil Jamieson, Commission Member Bohdan (Don) Romaniuk, Acting Commission Member Commission staff JP Mousseau, Commission Counsel Andrew Davison, Senior Market Analyst Greg Andrews, Market Analyst

Appendix 2 – Abbreviations

Abbreviation	Name in full
AESO	Alberta Electric System Operator
ATCO	ATCO Power Ltd.
AUC	Alberta Utilities Commission
Capital Power	Capital Power Corporation
DOS	demand opportunity service
ENMAX	ENMAX Energy Corporation
exception list	exhibit 790-X0289
ILF	incremental loss factor
GSO	generic stacking order
IOS	import opportunity service
ISO	Independent System Operator
LFA	load flow approach
Line Loss Rule	2005 to current ISO rule 9.2: Transmission Loss Factors and Appendix 7: Transmission Loss Factor Methodology and Assumptions and/or ISO rules Section 501.10 Transmission Loss Factor Methodology and Requirements
Medicine Hat	City of Medicine Hat
Milner	Milner Power Inc.
MLF/2	marginal loss factor divide by two
MLL	marginal line loss
MPID	metering point identifier
Powerex	Powerex Corp.
procedure document	exhibit 790-X0347
proposed line loss rule	exhibit 790-X0345
RLF	raw loss factor
SAS	supply access service
STS	supply transmission service
TransAlta	TransAlta Corporation
TCE or TransCanada	TransCanada Energy Ltd.
XOS	export opportunity service