



November 6, 2008

Milner Power
1220-715 5 Avenue SW
Calgary, AB T2P 2X6

Dear Mr. McCormack:

Re: Responses to Comments/Questions Received from Milner Power Inc. on Draft Loss Factors for 2009

Thank you for taking the time to provide comments. Your comments/questions provided on behalf of Milner Power on October 29 via an email in regards to the AESO's Loss Factor letter of October 20th and Stakeholder Session on October 27th are repeated below with the AESO response highlighted in red:

Milner Power Email:

On October 27, 2008 the second loss factor stakeholder meeting of the year was held. Prior to the meeting, on October 20, 2008 the AESO posted a letter and draft loss factors for 2009. The following questions and comments refer to both the comments in the agenda circulated at the October 27 meeting and the letter and draft loss factors for 2009 posted on October 20, 2008.

In the agenda of the October 27 meeting the AESO indicated,

2009 GSO – Timing

- If the attribute of a project changes in the GSO, then ISO will only update if the change > than 0.25%.

Question: Can the AESO confirm the discussion at the meeting that the AESO rule is that the AESO will update if the change *in loss factor of any one generator* is > 0.25%.

Answer: As per ISO Rule 9.2.2 b),

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*“if the ISO determines that, in its opinion, an enhancement or upgrade to the transmission system materially affects **loss factors** it may adjust the **loss factors** in accordance with this **rule 9.2.2**. A material change for the purpose of this **rule** would be any change in **loss factor** to one or more **generating units** of 0.25%.”*

Generally, the AESO has discretion to assess if enhancements or upgrades will result in a material change to loss factors. At the time of the October 27 AESO stakeholder session the AESO was not aware of any material upgrade or enhancements to the GSO data that was posted by the AESO on August 27, 2008

The AESO has asked for comments and questions by October 29 2008 for the 2009 loss factors. As stakeholders recall, the intent of the October 27 meeting is to provide a forum for discussion and ensure the AESO has followed the process and associated rules. Some changes may be made to input actual modeling data if it is shown to be incorrect. The AESO has worked with stakeholders to ensure information, such as new asset data, are reasonably represented in the Generic Stacking Order during the development of the cases. The GSO data confirmation occurred during June and July with the final posting on August 27, 2008. Changes on project data already requested will likely not be modified as the opportunity for this input has been made several times previously.

In the agenda of the October 27 meeting the AESO has indicated that any input to the 2009 loss factors is required by October 29, 2008. However, the AESO has also indicated that responses to any comments or questions will be after the final loss factors are published on November 7, 2008.

Question: As was discussed at the meeting, can the AESO indicate on the November 7, loss factors what changes, if any, were made in response to the comments received from stakeholders at, and following, the October 27, 2008 meeting?

Answer: The AESO will post final 2009 loss factors on November 07, 2008. As per the ISO rules, the AESO will identify any changes in the final loss factors from the draft loss factors, if any are required. Generally, no changes have been made between the draft and final determinations as the GSO and base case data has been offered for review to stakeholders prior to the final calculation.

The final GSO for 2009 was posted on August 27, 2008. In this GSO the AESO has incorporated changes to the treatment of TMR that were proposed in their letter of May 13, 2008. In the new practice, TMR generation in the GSO is included on a purely historical basis. This allows a comparison of actual TMR volumes dispatched in 2008 to those the AESO included in the 2008 GSO. For comparison purposes, the TMR dispatches in the Rainbow and Grande Prairie areas are considered separately.

The Rainbow area TMR dispatches included in the 2008 GSO and the actual TMR dispatch levels are shown in the Table below. The simple average of

the TMR included in the 12 cases in the 2008 GSO is 101.67 MW. The simple average of the actual TMR dispatches is 90.1 MW indicating the TMR dispatches in the 2008 GSO were overstated by approximately 12.7%

Rainbow Area TMR (MW)

	WP	WM	WL	SPP	SPM	SPL	SP	SM	SL	FP	FM	FL
2008 GSO	110	105	95	110	95	95	105	95	110	110	95	95
2008 Actual (2009 GSO)	83.3	97.3	92.8	104.2	92.9	91.6	65.1	84.7	84	98.3	95.8	92.1

The Grande Prairie area TMR dispatches included in the 2008 GSO and the actual TMR dispatch levels are shown in the Table below. The simple average of the TMR included in the 12 cases in the 2008 GSO is 11.67 MW. The simple average of the actual TMR dispatches is 9.43 MW indicating the TMR dispatches in the 2008 GSO were overstated by approximately 23.7%.

Grande Prairie Area TMR (MW)

	WP	WM	WL	SPP	SPM	SPL	SP	SM	SL	FP	FM	FL
2008 GSO	50	30	0	30	0	0	0	0	0	30	0	0
2008 Actual (2009 GSO)	25.5	8.8	0	24.1	8.1	3.8	4.8	2.1	0.4	23.1	10.9	1.6

In its letter of October 27, 2008 the AESO indicates that

“The Rainbow area is historically sensitive to load and generation changes. A small deviation in the Rainbow Area net flow can result in a swing in the loss factors on the generators. The loss factor sensitivity in the area is consistent with previous year’s findings.”

The draft loss factors for 2009 show a marked increase in the loss factors for Rainbow area generators. The AESO has indicated that,

“These results are due primarily to lower Ft. Nelson area load levels in the 2009 base case levels”

It is apparent from OPP 501 that the TMR dispatches in the Northwest are primarily related to load levels. Higher load levels require higher levels of

TMR. However, the AESO is forecasting lower load levels but is not reflecting this in lower TMR dispatches in the GSO. In the past the AESO has increased TMR dispatches in the GSO from historical levels. It follows that the AESO should reduce TMR dispatches in the GSO if it foresees a reduced requirement for TMR. Since TMR dispatches are out of merit dispatches, it should not be assumed that reduced need for TMR (due to lower area load levels) will be offset by increased in merit energy market dispatches.

Question: Given the known sensitivity of loss factors in the northwest to generation and load changes and the forecast reduction in load (and consequent TMR requirements) will the AESO reduce the volume of TMR dispatches in the Rainbow area in the GSO to better reflect anticipated requirements?

Answer: The dispatches in the northwest (NW) are a combination of TMR and energy market dispatches. The AESO published changes regarding NW generation volumes on May 13, 2008 (http://www.aeso.ca/downloads/GSO_TMR_changes_2009.pdf). Based on past experience, the AESO believes the changes in process will continue to yield even more realistic results. The amounts calculated for the 2009 GSO are lower than those in the 2008 GSO, a result your work appears to confirm. If AESO would have used the same process as used in the 2008 GSO, it would further increase NW generation and hence loss factors. The AESO believes the change will benefit the overall loss factor results.

The AESO rule states, "*The base cases comprising **load** profiles using the **ISO load forecast***" (**Appendix 6, Section 3.1**). The AESO rules also states "...GSO constructed according to historical point of supply (POS) metering records for existing units" (**Appendix 6, Section 3.2**).

The AESO believes the question asked here is procedural in nature and related to rules or rule changes. To reiterate, the October 27, 2008 meeting was organized to discuss the results and whether questions exist regarding adherence to the rules. The AESO would be open for discussion and possible rule changes for next year based on stakeholder input.

In its letter of October 20, 2008, the AESO indicates,

"The preliminary shift factor for 2009 has been determined at 0.85%. The 2008 shift factor was 0.81%, representing a difference of 0.04%. The lower level of shift factor reflects the improvement in the accuracy of the overall process."

Question: Why does the AESO say "the lower level of shift factor reflects the improvement in the accuracy of the overall process" when the level of the shift factor is not lower but has increased?

Answer: The AESO did not indicate the 2009 shift factors are lower than the 2008 shift factors. The AESO did state, "The lower level of the shift factor reflects the improvement in the accuracy of the overall process. The main components in the process are the forecast of losses, the load forecast, the generic stacking order, the base case development, and the determination of the loss factors." The lower levels of shift factors are occurring since 2006.

The AESO mentions that the main components in the process include the forecast of losses. Since January 2006 the quarterly Rider E values indicate that the AESO has always over collected for losses. The Rider E value of 0.84% credit for Q4 2008 is the largest refund yet recorded. This suggests that the AESO's process for forecasting loss volumes contains a bias towards over forecasting losses. The conversion of the KEG transmission to 500 kV in the spring of this year is expected to materially reduce future losses on the system.

Question: Can the AESO indicate if the forecast loss volumes for 2009 fairly reflect the anticipated reductions in losses as a result of the KEG conversion? Please elaborate on how the impact of the KEG conversion is captured in the forecast of losses.

Answer: The AESO's model for estimating losses for each year includes the effects of new assets and facilities added to the power system. Major projects with in-service dates in 2009 (provided by proponents) are included in our models. New generation was included in the GSO (published on August 27, 2008) and new facilities on the transmission system were delivered on October 15, 2008. Once a facility has been added, its effect on system losses is captured in the data being recorded. The data is then used to estimate future loss forecasts.

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Once again, thank you for taking the time to provide input. If you require any further clarification please call me.

Yours truly,

Robert Baker, P.Eng.  
Regulatory Forecasting

cc: Doyle Sullivan, P.Eng.  
Ashikur Bhuiya, P.Eng.