THE POWER OF POSSIBILITY

February 15, 2005

Dear Stakeholders:

Re: Transmission Loss Factor Methodology

Attached for your information is a table comparing 2005 and 2010 Loss Factors using the Corrected R Matrix 50% Area Load Adjustment Methodology. The first column titled 2005[1] contains power loss factors using only two base cases, summer and winter peak. The second column titled 2010[1] contains power loss factors using summer and winter peak base cases. The column titled 2005[2] contains normalized loss factors based on 12 load flow conditions and actual forecast volumes and energy losses for 2005. The reason AESO used only two base cases for the comparison of 2005 and 2010 loss factors is that the summer and winter peak bases for 2010 were the only bases cases the AESO current has developed for 2010.

AESO believes that the results of the loss factor model demonstrate consistency and the changes to raw loss factor numbers are reasonable. The most significant impacts on loss factors in 2010 are the addition of the 240 kV line, Pincher Creek to Fort McLeod, and the 500 kV line, Edmonton to Calgary. The results show that generators located south of Edmonton have an increase in their loss factors and most generators north of Edmonton have a decrease in their loss factors. Also based on the new methodology the average system losses decline as expected. Another test is to compare the loss factors of adjacent generators in the 2005 scenario and the 2010 scenario (i.e. the generators in the Fort McMurray area maintain the same relative loss factors between generators in both years; the generation in the Wabamun area maintain the same relative loss factors between generators for both years).

The attached loss factor curves for opportunity import transactions are based on the four high load base cases and opportunity export transactions are based on the four median and four light load base cases. Teshmont has applied the shift factor, for unassigned energy, to the generators with the imports and exports being exempted from the shift factor (The shift factor is required when the power loss factors are converted to energy. One of the components of unassigned loss energy is the losses associated with the SPRD generating units which are exempt from losses). This allows the export and import loss factors to initially be the same value except for sign. As the graphs indicate, imports initially receive credits until the volume of the transaction

begins to add to system losses. These loss factor curves would only be used in option #1 of the discussion paper "Loss Factor Rule Discussion Paper" issued last week to stakeholders (see Appendix A).

Your feedback on these two attachments is welcomed. As discussed in the January 28th Stakeholder Meeting on Transmission Loss Factors, now that the 2005 to 2010 loss factor comparison has been issued along with the opportunity import/export losses, the AESO will be polling each participant for their support of the recommended loss factor methodology, "Corrected R Matrix 50% Area Load Adjustment.

Further, your participation in the next stakeholder meeting on the 2005 versus 2010 results is welcomed. Please RSVP your intention to attend by Feb 18, 2005. Please contact Rob Baker (rob.baker@aeso.ca, 403 539 2614) or Wayne Poole (216 2140 Ext. 263) if you have any questions.

Sincerely,

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Attachments: 2005 – 2010 Loss Factors
Import/Export Loss Factor Curves