December 05, 2007

Alberta Loss Factor Stakeholder Group

Re: Summary of 2012 Loss Factor Estimates

The AESO is pleased to present a summary of 2012 Loss Factor Estimates as agreed to by stakeholders during the Loss Factor Rule development. The purpose of the fifth year non-binding estimates is to provide a simple 'what-if' forecast of loss factors to assist business planning for generator proponents. Since the new loss factor process only provides binding loss factors for one year, proponents wished to have an indication of loss factors five years out.

Attached is a summary of the loss factor estimates for 2012 (the fifth year, based on the 2008 Generic Stacking Order or GSO) for the Alberta Interconnected Electric System (AIES). New generation and the 2012 load are included in the calculation of the 2012 estimates. Retired generation has been removed.

In order to provide an assessment of the possible range of 2012 loss factors, the following three scenarios were evaluated:

A. 2012, base case (system average loss: 4.00%)
B. 2012, no 500 kV line from Edmonton to Calgary (system average loss: 4.07%)
C. 2012, no Keephills 3
D. 2012, no 500 kV line from Edmonton to Calgary and no Keephills 3 generation

Owing to the confidential nature of the generation development, base cases will not be provided for the fifth year. The GSO for 2012 was used as the basis for dispatching generation.

The following assumptions were used to develop the loss estimates for 2012 (the 10 Year Transmission System Plan (2007-2016) was used as a basis):

- Major transmission upgrades (240 kV) were included in the southeast, southwest and northwest.
- The 500 kV KEG conversion was included.
- The 500 kV Edmonton to Calgary line, except in scenarios B and D.
- All loss factor assessments are made on raw loss factors evaluations and then normalized and compressed as necessary based on the existing rule effective until December 31 2008
- Wind Generation additions are consistent with the AESO Ten Year Plan.
- Several generation projects in the 2012 timeframe have submitted cancellation notices or have made requests to modify their output since the data was compiled.
- For the non-500 kV case (B and D), 2008 loss forecast was used.

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Conditions and Details. Please note the information used to calculate these loss factor estimates will likely change over the next five years, specifically:

- All existing generation has been included in the 2012 cases, with the exception of any retired generation.
- All topology in the 2012 cases is as per the best information available from the AESO 10 Year Transmission System Plan, on the AESO web site.
- All proposed generation in the 2012 GSO has not been approved by the AEUB. Generators used in the analysis have project inquiries and is based on the 10 year Generation plan. This information was used to build the base cases.
- Major transmission enhancements in the cases following 2008, with the exception of several 240 kV connections and the 500 kV connections due in 2010, have not been approved by the AEUB. As a result, the transmission system may also change.

Please note individual loss factors will not be presented.

A background map of Alberta along with area loss factor ranges (Figure 1) is attached for your reference.

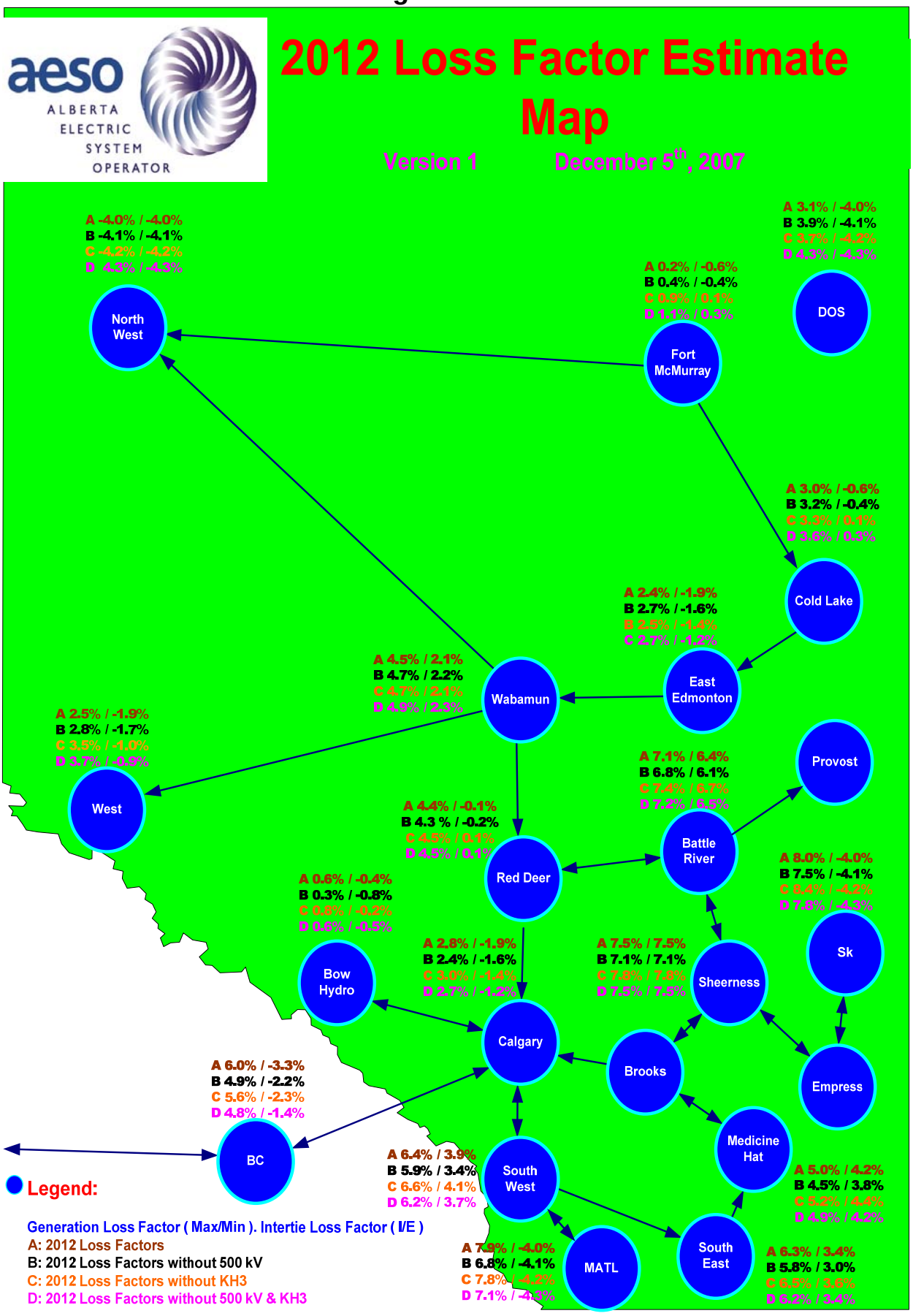
If you have any questions contact me at lossfactor@aeso.ca or at 403 539 2614.

Yours truly,

Original signed by

Robert Baker, P.Eng.
Manager, Operations Forecasting

Figure 1


2012 Loss Factor Estimate Map
Version 1
December 5th, 2007
aeso
ALBERTA ELECTRIC SYSTEM OPERATOR
North West
A -4.0% / -4.0%
B -4.1% / -4.1%
C -4.2% / -4.2%
D -4.3% / -4.3%
DOS
A 3.1% / -4.0%
B 3.9% / -4.1%
C 3.7% / -4.2%
D 4.3% / -4.3%
Fort McMurray
A 0.2% / -0.6%
B 0.4% / -0.4%
C 0.9% / 0.1%
D 1.1% / 0.3%
Cold Lake
A 3.0% / -0.6%
B 3.2% / -0.4%
C 3.3% / 0.1%
D 3.6% / 0.3%
East Edmonton
A 2.4% / -1.9%
B 2.7% / -1.6%
C 2.5% / -1.4%
D 2.7% / -1.2%
Wabamun
A 4.5% / 2.1%
B 4.7% / 2.2%
C 4.7% / 2.1%
D 4.9% / 2.3%
West
A 2.5% / -1.9%
B 2.8% / -1.7%
C 3.5% / -1.0%
D 3.7% / -0.9%
Provost
A 7.1% / 6.4%
B 6.8% / 6.1%
C 7.4% / 6.7%
D 7.2% / 6.5%
Battle River
Red Deer
A 4.4% / -0.1%
B 4.3 % / -0.2%
C 4.5% / 0.1%
D 4.5% / 0.1%
Sk
A 8.0% / -4.0%
B 7.5% / -4.1%
C 8.4% / -4.2%
D 7.8% / -4.3%
Sheerness
A 7.5% / 7.5%
B 7.1% / 7.1%
C 7.9% / 7.9%
D 7.5% / 7.5%
Bow Hydro
A 0.6% / -0.4%
B 0.3% / -0.8%
C 0.8% / -0.2%
D 0.6% / -0.5%
A 2.8% / -1.9%
B 2.4% / -1.6%
C 3.0% / -1.4%
D 2.7% / -1.2%
Calgary
Brooks
Empress
Medicine Hat
A 6.0% / -3.3%
B 4.9% / -2.2%
C 5.6% / -2.3%
D 4.8% / -1.4%
BC
A 6.4% / 3.9%
B 5.9% / 3.4%
C 6.6% / 4.1%
D 6.2% / 3.7%
South West
A 5.0% / 4.2%
B 4.5% / 3.8%
C 5.2% / 4.4%
D 4.9% / 4.2%
MATL
A 7.9% / -4.0%
B 6.8% / -4.1%
C 7.8% / -4.2%
D 7.1% / -4.3%
South East
A 6.3% / 3.4%
B 5.8% / 3.0%
C 6.5% / 3.6%
D 6.2% / 3.4%
Legend:
Generation Loss Factor (Max/Min). Intertie Loss Factor (I/E)
A: 2012 Loss Factors
B: 2012 Loss Factors without 500 kV
C: 2012 Loss Factors without KH3
D: 2012 Loss Factors without 500 kV & KH3