



Agenda Item 5 – Tie line import and export issues

September 13, 2005

Purpose:

This discussion summarizes some import and export questions. Specifically:

1. The application of the incremental load or generation in the virtual power flow model.
2. TCE's request to show the results of an import and a generator of the same size at the BC border.

Scenarios:

This analysis is based on the following four scenarios:

1. Base Case – Version 5 cases with variation of 200 and 600 MW of tie activities at the BC border and 75 and 150 MW at the SK border.
2. BC less inter-tie – all inter-tie and DOS components are removed from the base cases and Based on the V5 cases.
3. Generator – a 200 MW generator is considered at the BC border with the same forecasted energy volume as for the import. 0 MW is set for inter-tie.
4. Import – a 200 MW of import is considered in the cases from BC with the forecasted energy volume.

Assumptions:

1. Opportunity services use incremental calculation approach.
2. Generators use average calculation approach.
3. Distributed load option prorates all load buses in Alberta to achieve the desired interchange.
4. Distributed generation option prorates all generation buses in Alberta to achieve the desired interchange.

Outcome:

AESO is going to use the distributed load option to calculate loss factors for opportunity services. Even though the distributed load and the distributed generation options achieve roughly the same results, the distributed load option is preferred because it does not affect the GSO.

1. A generator modeled at the border results in a small loss factor charge.
2. A similar sized import in the same scenario results a moderately sized credit.
3. In the case of a generator at the BC border, generators in the north, in general, will have larger credit.
4. In the case of a generator at the BC border, generators in the south, in general, will have larger charges.
5. In the case of a generator at the BC border, loss factors of all Alberta generators will be affected; a similar sized import will not affect generators.