



December 1, 2005

Dear Stakeholders:

Revision to Alberta-BC Interconnection Transfer Limits

On November 1, 2005, the AESO issued a revision to OPP 304 Alberta-BC Interconnection Transfer Limits to reflect import and export limits for the winter operating season. OPP 304 provides base import and export limits and also includes a Calgary generation adder (calculated on a real time basis) to account for the positive effect that these units have on export capability.

Several stakeholders noted that the winter export limits are significantly reduced from the summer export limits. The purpose of this memo is to explain the key factors contributing to the decrease in export limits and also describe work underway to restore export limits on the Alberta-BC Interconnection.

Changes in Generation Patterns

In the preparation of the winter operating studies it became apparent that some southern generating units (not including Sheerness and Battle River) have modified their operation from base load operation to a more unpredictable (market-based) mode of operation. The power flow cases were therefore modified to recognize this change in generation operating patterns. It is estimated that this change to generation patterns had the effect of reducing the base export limits in OPP 304 by about 50 % (i.e. about 150 – 200 + MW).

Southern generators that were previously online in the base cases to determine export limits are now considered as an export capability adder in the same manner as the Calgary generation adder that was implemented on August 30, 2005. Generation that is actually operating will be added back into the dynamic ATC calculation (1 hour in advance of real time).

Modification to Base Case Assumptions

The System Controllers recently experienced voltage control (240 kV) problems at maximum export limits and this prompted further analysis to determine the cause of the low voltages. In essence, modeled system operation and studies used to determine the export limits did not match what the System Controller observed during actual system operation.

We investigated a number of possible causes to determine reasons for the low voltages including; review of the relationship of Calgary load to overall Alberta load, review of Calgary area load power factors, and comparison of actual generator reactive power capabilities to modeled capabilities.

It was determined that Calgary area load is growing at a faster rate than the rest of the province. Calgary area also has a smaller industrial component and consequently a lower overall load factor than the rest of the province. In the winter studies, the export capability relative to Alberta load was adjusted to account for the accelerated load growth in Calgary.

It was also determined that the previous winter and summer export studies did not adequately account for generation station service load (a total of about 400 MW). This led to an overstatement of export capabilities. The winter export studies and models were adjusted to account for generator station service loads. The changes described in this and the preceding paragraph account for the other 50% decrease in export capability.

As a result of our examination of these issues, the AESO has determined that the limiting contingency (eg. loss of the Sheerness Plant) which reduces the off-peak export capability can be mitigated through additional operating procedures and tools. The mitigation of this contingency will result in an increase in export capability of about 150 MW during off-peak conditions. The revised export limits will be effective on December 15, 2005 and a revised draft to OPP 304 will be posted on the website.

The AESO remains committed to maximizing export capabilities. We will continue to work with participants on initiatives that provide incremental increases to export capabilities. These initiatives include implementing a generator remedial action scheme and consideration of refinements to modeling techniques such as determining export capability as a function of other system parameters (i.e. the South of KEG (SOK) cut plane flow). Further, we are also examining our business practices to ensure they do not impose any unnecessary restriction on the operation of the competitive market, including imports and exports.

We apologize for any inconvenience or confusion that this may have caused. Please call me (539- 2496) if you require further clarification on this matter.

Yours truly,

Original signed by Jerry Mossing

Jerry Mossing
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