

## SUMMARY

The following summarizes the results of the NPCC CP-8 Working Group's additional Tie Benefits analysis performed for the proposed second tie line between New England and New Brunswick. In addition to the 300 MW increase in transfer capability in both directions, a number of changes to the New England data was incorporated, consistent with the current New England RTEP04 assumptions<sup>1</sup>.

The results using the "As-Is" loads show a Maximum Tie Benefit Potential of 1,500 MW for the Maritimes and 3,935 MW for New England. The value for the Maritimes is consistent with the increase in its import capability. The amount estimated for New England is consistent with the total import capability into New England reported in RTEP04. As in the previous analysis, the Maximum Tie Benefit Potential for New England is equal to the sum of the tie limits into the Area. This analysis also shows a Maximum Tie Benefit Potential of 3,480 MW for Quebec, which is the result of New England having more assistance to provide during the winter months and the increased transfer capability between New England and Quebec, through New Brunswick.

Using loads that have been adjusted so that each Area is at 0.1 days/year, the Maximum Tie Benefit Potential for the Maritimes becomes 1,455 MW with the up to 300 MW increase in its import capability. Previously, the tie benefit for the Maritimes was limited by its import capability, but with the increased import capability, it is now limited by the ability of the other Areas to provide assistance. The Maximum Tie Benefit Potential for New England becomes 3,879MW, consistent with the import capability into New England reported in RTEP04. The Maximum Tie Benefit Potential for Quebec becomes 3,120 MW, for the same reasons cited above.

Revised Tables and Figures follow.

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<sup>1</sup> ISO-NE's latest Regional Transmission Expansion Plan (RTEP04) can be found at: [http://www.iso-ne.com/committees/planning\\_advisory\\_committee/RTEP04/RTEP04\\_Exec\\_and\\_Summary\\_Report\\_Final\\_Publication.pdf](http://www.iso-ne.com/committees/planning_advisory_committee/RTEP04/RTEP04_Exec_and_Summary_Report_Final_Publication.pdf).

**Table EX – 1 (rev)**  
**Comparison of Assumed and Estimated**  
**ANNUAL INTERCONNECTION ASSISTANCE – MW**

<b>NPCC Area (Date of Review)</b>	<b>Assistance Reported in Recent NPCC Triennial Reviews of Resource Adequacy</b>	<b>Range of Estimated Annual Tie Benefit CP-8 Study Results for 2006</b>
<b>Québec (11/02)</b>	0	2,720 – 3,480
<b>Maritimes (12/04)</b>	0	930 – 1,500
<b>New England (11/02)</b>	1,800 <sup>1</sup>	487 – 3,935
<b>New York (06/02)</b>	2,100	3,775 – 7,148
<b>Ontario (07/03)</b>	1,500	3,150 – 4,050

<sup>1</sup>The results of the July 2002 tie reliability benefits study by the Independent System Operator of New England showed that the amount available can be as low as 30 MW and as high as 3,300 MW, depending on the assumptions.

**Table 3 (b) (rev)**  
**NPCC Capacity and Load Assumptions for July 2006 - MW**  
**“As Is”**

	<b>Q<sup>1</sup></b>	<b>MT</b>	<b>NE</b>	<b>NY</b>	<b>ON<sup>2</sup></b>
<b>Assumed Capacity</b>	25,003	6,209	30,482	42,105	30,348
<b>Purchase/Sale</b>	4,194	-200	344	-258	0
<b>Peak Load</b>	20,986	3,498	26,585	31,798	24,491
<b>Reserve (%)</b>	39	72	16	32	24
<b>Scheduled Maintenance</b>	(1)	585	0	361	1,152

**Table 5 (rev)**  
**NPCC Operating Procedures Assumptions**  
**(MW)**

<b>Actions</b>	<b>Q</b>	<b>MT</b>	<b>NE</b>	<b>NY</b>	<b>ON</b>
1. Curtail Load / Utility Surplus LRP/SCR/EDRP Manual Voltage Reduction	0 0 0	0 0 0	327 0 0	0 885 0.26% of load	450 0 0
2. No 30-min Reserves	500	229	564	600	441
3. Voltage Reduction or Interruptible Loads *	300	542	1.42 % of load	1.56% of load	580
4. No 10-min Reserves General Public Appeals	1,000 0	665 0	960 0	0 347	1,139 0
5. General Public Appeals No 10-min Reserves	0 -	0 -	0 -	- 1,200	200 -

\* Interruptible Loads for Maritimes (implemented only for the Area), Voltage Reduction for all others

**Table 7 (b) (rev)**  
**ANNUAL INTERCONNECTION ASSISTANCE ESTIMATED FOR 2006**  
**(MW)**

<b>Area</b>	<b>“As Is” Maximum Net Import</b>	<b>“At Criteria” Maximum Net Import</b>	<b>Annual Tie Benefit</b>	<b>Total Import Capability at Time of Area Peak</b>
<b>Q</b>	3,366	3,383	<b>3,480</b>	3,520
<b>MT</b>	1,500	1,500	<b>1,500</b>	1,500
<b>NE</b>	989	2,351	<b>3,935</b>	3,935
<b>NY</b>	87	5,507	<b>7,148</b>	7,300
<b>ON</b> <sup>1</sup>	4,050	4,050	<b>4,050</b>	4,050

<sup>1</sup> Maximum net imports of 4,745 MW (“As is”) and 4,923 MW (“At criteria”) ignoring Ontario external Tie Line constraints.

**Table 8 (rev)**

**ANNUAL INTERCONNECTION ASSISTANCE ESTIMATED FOR 2006 - MW**

<b>Area</b>	<b>With Internal Constraints</b>	<b>Without Internal Constraints</b>	<b>Without Internal Constraints</b>
	<b>“At Criteria” Annual Tie Benefit</b>	<b>“At criteria” Annual Tie Benefit</b>	<b>“As Is” Annual Tie Benefit</b>
<b>Q</b>	<b>2,720</b>	<b>3,120</b>	<b>3,480</b>
<b>MT</b>	<b>930</b>	<b>1,455</b>	<b>1,500</b>
<b>NE</b>	<b>487</b>	<b>3,879</b>	<b>3,935</b>
<b>NY</b>	<b>3,775</b>	<b>5,398</b>	<b>7,148</b>
<b>ON</b>	<b>3,150</b>	<b>3,990</b>	<b>4,050</b>

**Table 9 (rev)**  
**COMPARISON OF ASSUMED AND ESTIMATED**  
**ANNUAL INTERCONNECTION ASSISTANCE - MW**

<b>NPCC Area</b>	<b>Assistance Reported in Recent Area Studies (MW)</b>	<b>Range of Estimated Annual Tie Benefit CP-8 Study Results for 2006 (MW)</b>
<b>Québec</b>	0 <sup>2</sup>	2,720 - 3,480
<b>Maritimes</b>	0 <sup>3</sup>	930 - 1,500
<b>New England</b>	1,800 <sup>4</sup>	487 - 3,935
<b>New York</b>	2,100 <sup>5</sup>	3,775 - 7,148
<b>Ontario</b>	1,500 <sup>6</sup>	3,150 - 4,050

<sup>2</sup> NPCC Triennial Review of Québec Area Resource Adequacy, November 2002.

<sup>3</sup> NPCC Triennial Review of Maritimes Area Resource Adequacy, December 2004.

<sup>4</sup> NPCC Triennial Review of New England Area Resource Adequacy, November 2002.

<sup>5</sup> NPCC Triennial Review of New York Area Resource Adequacy, June 2002.

<sup>6</sup> NPCC Triennial Review of Ontario Area Resource Adequacy, July 2003.

Addendum - Review of Interconnection Assistance Reliability Benefits

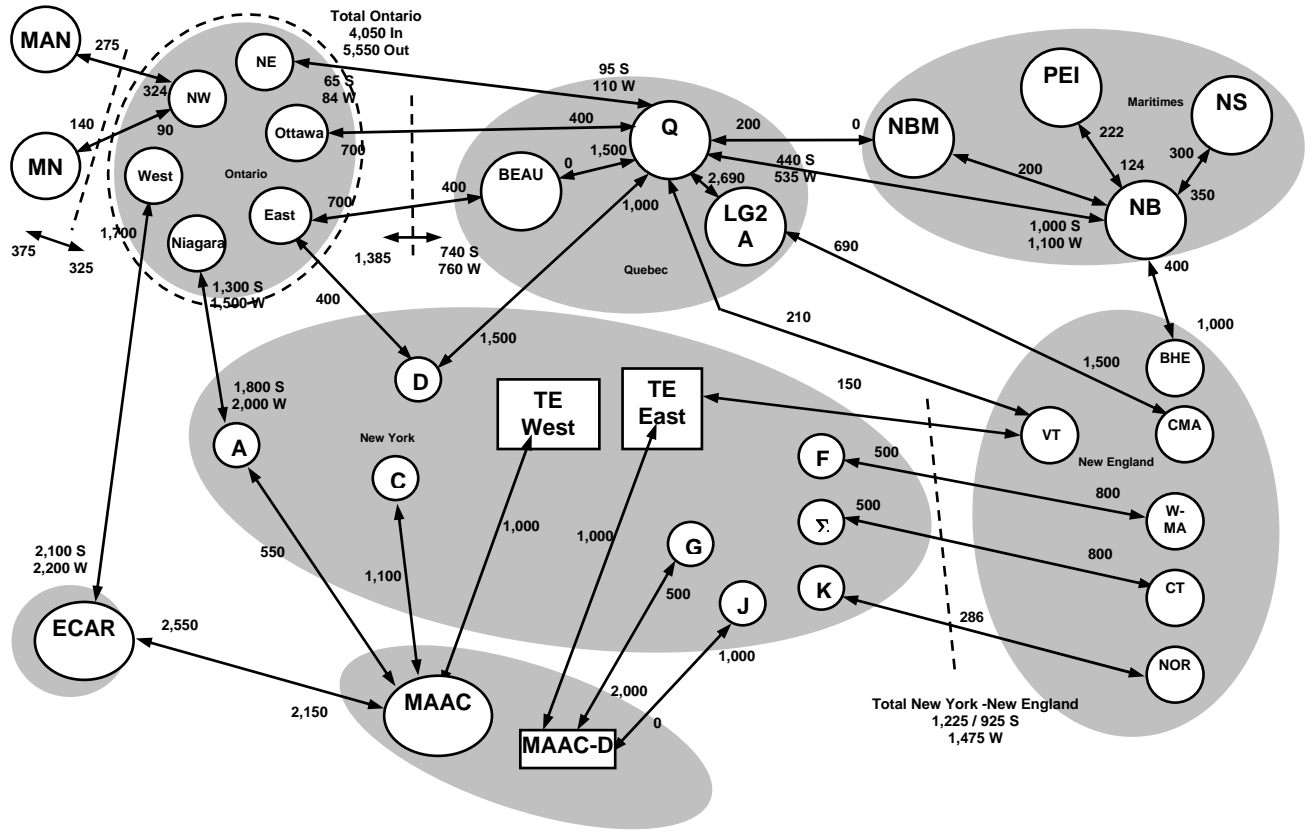


Figure 1 (b) Assumed NPCC Transfer Limits (MW) – 2006 (rev)