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September 5, 2012

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Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, ON M4P 1E4

Your reference
EB-2012-0031

Our reference
01015413-0030

Direct line
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Dear Ms. Walli:

## Hydro One Networks Inc. – Transmission Rates (EB-2012-0031)

Enclosed are the interrogatories of APPrO in the above noted proceeding. Please note that the questions, although submitted to Hydro One Networks Inc., all relate to the Export Transmission Service Charge and should be answered by the IESO and/or Charles River Associates as appropriate (as was done in the last Hydro One Networks Inc. rate proceeding)

Also note that APPrO does intend to file evidence in this proceeding on or before October 1, 2012 (as established in Procedural Order No. 1).

Please do not hesitate to contact me should you have any questions or concerns.

Yours very truly,

*Original signed by*

John Beauchamp

JB/mnm

cc: Interested parties

# Hydro One Networks Inc.
# Transmission Rate Proceeding 2013 and 2014
# EB-2012-0031

# Association of Power Producers of Ontario (APPrO)
# Interrogatories

## EXPORT TRANSMISSION SERVICE RATES

**Issue 23.0 What is the appropriate Export Transmission Rates in Ontario?**

**23.0 APPrO #1**

**Ref: EB-2010-0002, Exhibit H1, Tab 5, Schedule 2, Pages 5-7**
**EB-2012-0031, Exhibit H1, Tab 5, Schedule 2, Pages 1-2**

In its 2011/2012 transmission rate application, Hydro One Networks Inc. stated the following in its evidence:

> "As the deployment of renewable electricity resources become more prevalent in Ontario, supply is expected to become more variable and exports can help manage such variability through capturing the benefits of resource diversity in the region, as well as potentially contributing to short, intermediate and long-term energy balancing (e.g., by way of better sharing of reserve and regulation through the interties).
>
> In view of this, the IESO concluded that greater value or weighting should be placed on tariff design principles, or an ETS tariff, which will maximize the benefits of integrated regional electricity markets and trades with our neighbours. Accordingly, the IESO found that implementing an ETS tariff such as Option 2 (EANC), while appearing to be attractive from the perspective of increased export revenues, would place downward pressure on export volumes in a climate of lower electricity demands and a future faced by potentially significant increases in variable renewable generation. In the IESO's view, this would not be a prudent decision considering the new reality of the electricity market in Ontario."

The IESO ultimately recommended maintaining the ETS tariff at $1/MWh.

Does the IESO have a recommendation as to the ETS tariff level that would best respond to the Ontario electricity market for the period from January 1, 2013 to December 31, 2014, taking into account the objects of the IESO as set out in the *Electricity Act, 1998* (as amended) and accompanying regulation?

**23.0 APPrO #2**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B, Page 22 (Page 13 of Export Transmission Service Tariff Study (ETS Tariff Study))**

In the ETS Tariff Study, Charles River Associates (CRA) states:

> "The calibration run detected SBG in 8 months in 2011, while SBG occurred in all 12 month is actuality. The calibration run found nuclear shutdowns in May and June, while in actuality they occurred in May, June, but also August."

a) Please explain the reason(s) why SBG is understated in the calibration run versus the actual SBG occurrences. Please provide the frequency and magnitude of the discrepancy.

b) Please provide the difference between the load block demand and the lowest forecast value in each of the 120 load blocks for the three years included in the ETS Tariff Study.

c) If corrective action is taken to align the model to actual SBG in the calibration run, can its effects on SBG be extrapolated in the forecast results in terms of frequency and magnitude?

**23.0 APPrO #3**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B, Page 16 (Page 7 of ETS Tariff Study)**

In the ETS Tariff Study, CRA states:

> "Thus, while neighbouring regions do experience the equivalent of SBG, in 2011 limitations on exports do not appear to have been the result of these types of conditions in most SBG hours"

a) Please provide a summary of the likely presence of SBG equivalent conditions in 2013, 2015 and 2017 for the following neighbouring jurisdictions: MISO, NY-ISO, NE, Quebec and PJM.

b) Please provide a detailed summary of the pricing of baseload resources in neighbouring jurisdictions as used in the model for each of the three years modelled (2013, 2015 and 2017).

c) Please provide a histogram of neighbouring markets forecast clearing prices for 2013, 2015 and 2017.

d) What is the IESO's estimate of Ontario's SBG in each year from 2013 to 2017 and what is the IESO's opinion of the SBG conclusions reached by CRA in the ETS Tariff Study?

**23.0 APPrO #4**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B, Page 31 (Page 22 of ETS Tariff Study)**

In the ETS Tariff Study, CRA states:

> "It appears that the differentials in baseload variable costs between Ontario sources and US baseload generation, which is mainly coal based, are so large that none of the proposed tariff changes would alter export decisions during SBG events"

Please provide the price of energy for each of Ontario, NY-ISO, MISO, PJM, NE, in each of the load blocks for each year, for each ETS case, for each of the 2 SBG management assumptions. Further, please identify which load blocks are on-peak and off-peak as identified in the study.

**23.0 APPrO #5**

**Ref: Exhibit H1, Tab 5, Schedule 2, page 2**

**SE-94 – "Responses to questions not addressed in the stakeholder meeting on May 24th, 2012" (June 22, 2012) –http://ieso.ca/imoweb/pubs/consult/se94/se94-20120622-Responses_to_Stakeholder_Questions.pdf**

Upon completing a draft of the ETS Tariff Study, the IESO held a stakeholder meeting on May 24, 2012 where CRA discussed the report's findings and answered questions from stakeholders. Certain stakeholder questions not addressed in this stakeholder meeting were later answered and published on the IESO's website on June 22, 2012. Question #7 and the response read as follows:

> 7. Was any compensation included for spilled hydro at OPG's regulated hydro assets in determining the producer surplus?
>
> Response:
>
> Yes. The assumption with respect to OPG's regulated assets is that the rates prescribed by the Ontario Energy Board for generation from these assets compensate OPG for its costs, including costs associated with spilled hydro.

a) Please provide the hydro energy incrementally spilled relative to the status quo case by month for each of the non status-quo ETS rates.

b) What was the lost revenue to the Ontario Government from reduced Hydro Gross Revenue Charge payments due to spill in the various scenarios and how would these numbers be affected by increased instances of SBG?

**23.0 APPrO #6**

**Ref: Exhibit H1, Tab 5, Schedule 2, page 2**

**SE-94 – "Export Transmission Service Tariff Study Review of Rates in Neighbouring Markets" (completed by CRA dated May 16, 2012) - http://ieso.ca/imoweb/pubs/consult/se94/se94-20120516-ETS_Rates_Study-Revised.pdf**

In the above-mentioned document completed as part of the SE-94 process, CRA writes:

> "As a result of the need to improve the efficiency of inter-market transactions, FERC has mandated, to the extent practicable, that all inter-market transmission should be eliminated, thus removing the 'pancaking' of rates, which tends to discourage exports and wheeling transactions."

a) In light of the FERC mandate and the actions taken in neighbouring jurisdictions, which ETS tariff rate would most closely match the expected future state of ETS rates in neighbouring jurisdictions?

b) Please provide an update on any actions taken either by the IESO or neighbouring jurisdictions to explore the bilateral elimination of the export tariffs since the decision of the Board in the last Hydro One rate proceeding (EB-2010-0002)?

c) Has the IESO performed any assessment or analysis of the benefit to Ontario when Ontario is importing electricity, if the neighbouring jurisdiction were to have eliminated their export tariff to Ontario?

**23.0 APPrO #7**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B, Page 32 (Page 23 of ETS Tariff Study)**

In the ETS Tariff Study, CRA states:

> "While we have calculated surplus for each group within the economy, it should be recognized that the allocation of that surplus is based on assumptions that are somewhat subjective, particularly in a system with a high degree of government ownership. By way of example, we have treated net income earned by OPG on its non.prescribed hydro operations as producer surplus, but that revenue flows to OPG's bottom line, which in turn affects Ontario's fiscal balance to the benefit of Ontario taxpayers/consumers."

Please provide a specific breakdown of the portion of the producer surplus in each of the scenarios that is directly attributable to OPG's non-prescribed hydro production.

**23.0 APPrO #8**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B**
- **Table 7 – Page 36 (Page 27 of ETS Tariff Study)**
- **Table 8 – Page 40 (Page 31 of ETS Tariff Study)**
- **Table 9 – Page 43 (Page 34 of ETS Tariff Study)**
- **Table 10 – Page 44 (Page 35 of ETS Tariff Study)**

With respect to the above-mentioned tables:

a) Please provide the results of the study, as shown in Tables 7, 8, 9 and 10, separately for on and off-peak periods as defined in the ETS Tariff Study.

b) Please provide the results of the study, as shown in Tables 7, 8, 9 and 10, separately for on and off-peak periods where on-peak is defined as hours ending 7 to 22.

**23.0 APPrO #9**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B**

a) Please provide a cross reference to the study material that supports the following quantities used in the evaluation tables on pages 52 – 55 of Appendix B (pages 43-46 of ETS Tariff Study):

i) On page 52 (page 43 of ETS Tariff Study) under fairness "The net cost to consumers versus the status quo rate in 2013, 2015, and 2017 is $13.5 million, $28.8 million, and $31.5 million, respectively."

ii) On page 53 (page 44 of ETS Tariff Study) under fairness "Reduces costs for Ontario consumers by an annual average of about $50 million per year…"

iii) On page 54 (page 45 of ETS Tariff Study) under fairness "Small net benefit to consumers v. status quo, averaging $3 million per year."

iv) On page 55 (page 46 of ETS Tariff Study) under fairness "Net benefit of $16 million to Ontario consumers in 2013. Little change subsequently."

b) How do the above statements of consumer benefit or cost differ from Consumer Surplus or Net Ontario Benefit?

**23.0 APPrO #10**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B**

10. Were the additional internal ramp and transmission costs for flowing through one market to inject to another market accounted for in the ETS Tariff Study? For example, the cost to move power from Ontario to PJM via MISO.

**23.0 APPrO #11**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B**

11. For each of the 3 years covered by the ETS Study, for each of the 5 ETS cases, and for each of the 2 SBG management assumptions, in each of the loads blocks for each year, please provide energy

values for: Ontario Demand, Exports, and Supply (Imports, NUGS, Nuclear, Hydro, Non-NUG gas, Coal, Wind, Solar, and Other). Further, please identify which load blocks are on-peak and off-peak as identified in the study.

**23.0 APPrO #12**

**Ref: Exhibit H1, Tab 5, Schedule 2, Appendix B**

12. If the Board ordered a change in the ETS tariff level, is it Hydro One's proposal to make any such change effective January 1, 2013?