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BY E-MAIL

April 1, 2013
File No.: 101926.1007

Kirsten Walli
Board Secretary
Ontario Energy Board
Yonge-Eglinton Centre
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto ON M4P 1E4

Dear Ms. Walli:

Re: HONI Transmission Rates (Interim ETS Rate) – EB-2012-0031

Enclosed please find the Reply Submissions of the IESO which will also be filed through RESS.

Yours truly,



Glenn Zacher

/sc
Encl.

cc: All Parties

TORONTO
MONTRÉAL
OTTAWA
CALGARY
VANCOUVER
NEWYORK
LONDON
SYDNEY

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S. O. 1998, c. 15, Schedule B;

AND IN THE MATTER OF a review of an application
filed by Hydro One Networks Inc. for an order or orders
approving a transmission revenue requirement and rates
and other charges for the transmission of electricity for
2013 and 2014.

**REPLY SUBMISSIONS OF THE INDEPENDENT
ELECTRICITY SYSTEM OPERATOR
(April 1, 2013)**

April 1, 2013

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AND TO: ALL REGISTERED INTERVENORS

A. OVERVIEW

1. These are the reply submissions of the Independent Electricity System Operator ("IESO").
2. The IESO's submissions reply to the following matters raised by interveners and Board Staff:

Efficiency Analysis

- (a) The Vulnerable Energy Consumers Coalition's ("VECC") assertion that the IESO inappropriately introduced in its final submission a new perspective regarding the measurement of "efficiency"¹; and, Board Staff's observation questioning why the IESO excluded the ETS revenue from its analysis of consumer surplus.²

Requests for Further Investigation and Study

- (b) Board Staff's request that:
 - (i) the IESO investigate "non-price factors" to trading that are within its purview and which might facilitate additional SBG trading;
 - (ii) the IESO undertake further monitoring, study and modelling to determine the effect of tariff changes on trading behaviour, with particular reference to SBG trading;
 - (iii) the IESO comment on the ability of either the Two-Tiered Option B put forth in the CRA study or the alternative

¹ VECC Final Written Submissions, paras. 42-45.

² Board Staff Submissions, p. 6.

suggested by APPrO's expert Mr. Hamal of a \$2.50/MWh on-peak and \$0/MWh off-peak to help in alleviating the SBG issues through lower off-peak rates.³

- (c) VECC's request that the IESO be directed to prepare a report for Hydro One's next rate proceeding outlining the extent to which market and system conditions have evolved as assumed in the current CRA study and whether the ETS tariff needs to be revisited as part of the 2017-18 Hydro One rate proceeding in light of these changes.⁴

3. As more fully explained below, the IESO sought to assist the Board Panel by highlighting the contrasting regional efficiency benefits of a zero tariff vis-à-vis the consumer surplus benefits of a higher tariff; and, as well, put matters in context by assessing the magnitude of the impact of a zero tariff on a typical consumer.

B. IESO EFFICIENCY ANALYSIS

4. VECC asserts that "the use of 'Net Benefit' to Ontario as the measure of efficiency gain/loss was dictated to CRA by the IESO" and VECC objects to the IESO advancing a "new perspective regarding the measurement of efficiency" in its final submissions. VECC further objects to the IESO's use of different measures of efficiency when addressing generation vis-à-vis transmission.⁵ Board Staff similarly question why in its analysis, the IESO omitted ETS revenue in its consideration of consumer surplus.⁶ In response to these submissions, the IESO offers the following remarks to clarify the purpose of its analysis.

³ Board Staff Submissions, pp. 11, 14.

⁴ VECC Final Submissions, para. 101.

⁵ VECC Final Submissions, paras. 42 - 45.

⁶ Board Staff Submissions, p. 6. Several other intervenors, who adopted or supported VECC's Submissions, also questioned IESO's efficiency analysis (i.e., SEC, CCC, CME).

5. Contrary to VECC's assertion, the IESO did not dictate the efficiency measures CRA used in carrying out its ETS study. The efficiency measures and other metrics CRA employed were developed by CRA with input from stakeholders, including VECC, as part of the IESO's ETS Stakeholder Engagement process. The IESO administered the study, but did not dictate the manner in which the study was carried out.⁷

6. CRA considered two measures of economic efficiency in its study, regional efficiency⁸ and the 'Net Benefit' to Ontario. Regional efficiency considers the impact of the change in tariff on all affected parties - which may include consumers and generators located in and outside of Ontario. By contrast, the 'Net Benefit' to Ontario considers only the surplus changes to Ontario consumers and generators located in Ontario.⁹ It is the IESO's position that these are both valid measures of efficiency that the Board may consider under its object of promoting economic efficiency and cost-effectiveness and protecting consumers. The IESO is not, as VECC suggests, proposing that the Board consider an alternative measure of efficiency, nor proposing that it give primacy to one measure of efficiency over the other.

7. Nor did the IESO inappropriately introduce a new perspective on efficiency in its final submissions. The IESO has sought to assist the Board Panel by analyzing the CRA study and the other evidence in light of its core responsibilities under the

⁷ Exhibit H1, Tab 5, Schedule 2, pp. 1- 2 and Appendix A (see May 30, July 13 and Sept. 19 SE-94 presentations).

⁸ Exhibit H1, Tab 5, Schedule 2, Appendix B, pp. v, 32, 46, 52, 91.

⁹ In its study, CRA states "we did not measure the effects on surplus on a regional basis, nor did we measure we measure the effects on surplus accruing to anyone outside of Ontario. However, we have measured the impacts of ETS tariff changes in Ontario on total North American production costs. This is a measure of the overall regional efficiency effects associated with the various scenarios..." The CRA study calculated "Net Benefit" to Ontario as the sum of consumer surplus, producer surplus and intertie congestion revenue. CRA Study, Exhibit H1-5-2 Appendix B, Page 32. The IESO agrees with the CRA approach.

Electricity Act — namely, to promote economic efficiency and cost effectiveness in the generation, transmission and sale of electricity.¹⁰

8. In this regard, the IESO referenced the accepted economic principle that the efficient use of assets (in this case generation and transmission) is obtained when they are priced at their short-run marginal cost.¹¹ The IESO cited this principle for two reasons: (i) to highlight how the efficient use of generation and transmission assets is consistent with the attainment of regional efficiency¹²; but, (ii) conversely, to illustrate how pricing transmission for exports above marginal cost, and hence sacrificing some efficient use of both the generation and transmission assets, may nonetheless benefit Ontario consumers.

9. Regional efficiency is an important consideration for Ontario because “within an interconnected region, prices will tend to equalize as lower-cost production from one region displaces higher-cost production in another”.¹³ Lower trade barriers, including low tariffs, thereby tend to reduce price and increase regional welfare for all consumers, including Ontario consumers.

10. On the other hand, the potential countervailing impact on consumer surplus through reduced ETS tariff revenues should also be considered. The IESO illustrated this second point by converting the CRA estimates of consumer surplus

¹⁰ The IESO also assessed the evidence in light of the IESO’s objectives with regards to reliable operation of the power system. See paragraphs 18 to 20 of the IESO March 8, 2013 Submission.

¹¹ “When we turn to the practical problems of price making we will find that there is no single answer to these questions. But the economic principles are clear-cut. They are two. First, the essential criterion of what belongs in marginal cost and what not, and of which marginal costs should be reflected in price, is causal responsibility. All the purchasers of any commodity or service should be made to bear such additional costs – only such, but also all such – as are imposed on the economy by the provision of one additional unit. And second, it is short-run marginal cost to which price should at any given time – hence always – be equated, because it is short-run marginal cost that reflects the social opportunity cost of providing the additional unit that buyers are at any given time trying to decide whether to buy.” Alfred Kahn, “The Economics of Regulation: Principles and Institution, Volumes 1-2, page 71.

¹² The CRA report also frequently refers to the ETS as a barrier to trade and states that such export tariffs tend to “impede this trade, leading to higher total cost and reducing total regional welfare”: Exhibit H1, Tab 5, Schedule 2, p. 46.

¹³ Exhibit H1, Tab 5, Schedule 2, p. 46.

into average residential bill impacts. This conversion shows how the Unilateral Elimination option, while promoting more efficient use of Ontario's generation assets and benefitting Ontario consumers by lowering the commodity cost portion of their bill, nonetheless imposes additional cost on consumers by increasing the transmission portion of their bill (which outweighs the reductions to the commodity portion of the bill).

11. Therefore, the IESO does not, as VECC suggests, discount CRA's assessment of 'Net Benefit' to Ontario. To the contrary, the IESO agrees that the CRA analysis is very helpful and that the overall impact of tariff changes on Ontario consumers and generators is an important consideration for the Board to address in assessing an appropriate tariff level, albeit one that must be assessed in light of regional efficiency considerations and the magnitude of potential impacts on consumers and generators.

12. In reply to Board Staff's query why "the IESO's Submission with respect to consumer surplus only considers the commodity change and does not take into account the \$42 million reduction in ETS revenue in the zero tariff scenario", the IESO did consider this reduction. As outlined above, the IESO included the total change in consumer surplus (both the commodity portion and the ETS revenue) when converting CRA's consumer surplus measure into an overall bill impact and evaluating the Unilateral Elimination option against other tariff options, though it notes the impact on a typical customer consuming 800 kWh/month would be relatively modest (\$0.09 to \$0.17 per month).¹⁴

¹⁴ See IESO Final Written Submissions, para. 33.

C. REQUESTS FOR FURTHER INVESTIGATION AND STUDY

(a) Board Staff Requests

13. Board Staff states that SBG is an important issue and that it “tends to believe that a zero price in the off-peak period would have some beneficial effect on SBG exports in that period, but acknowledges there is no compelling evidence to that effect in this proceeding”. In light of this, Board Staff suggests the IESO:

- investigate “non-price factors” to trading that are within its purview that might facilitate additional SBG trading;
- undertake further monitoring, study and modelling, if appropriate, to determine the effect of tariff changes on trading behaviour, with particular reference to SBG trading; and
- comment on the ability of either the Two-Tiered Option B put forth in the CRA study or the alternative suggested by APPrO’s expert Mr. Hamal of a \$2.50/MWh on-peak and \$0/MWh off-peak to help in alleviating the SBG issues through lower off-peak rates.

14. The IESO is well aware of non-price factors that may limit export volumes during SBG periods. These include control actions taken by the IESO and other system operators during SBG periods and “seams issues” between the IESO and adjacent markets.¹⁵ The IESO also has been and is continuing to take steps to reduce these non-price limitations and to generally mitigate SBG. For example:

- When Ontario is experiencing SBG conditions, neighbouring jurisdictions are often experiencing similar conditions. Like the IESO, these system operators take actions that limit the import of energy into their jurisdictions and hence

¹⁵ Joint Experts Statement, p. 17.

the export of energy out of Ontario. There are limitations to what the IESO can do to alleviate import constraints in other markets, however, the IESO regularly coordinates with its neighbouring system operators to facilitate trade during SBG periods.

- The IESO is exploring initiatives to address seams issues that increase uncertainty and risk for traders during all hours including SBG hours. These initiatives include more frequent scheduling of imports/exports. At present, offers/bids must be committed two hours prior to real-time; however, the IESO is considering shorter offer bid/windows (30 minutes prior to real time) and dispatch (15 minutes).
- The IESO's SE-91 Renewable Integration engagement, which has been ongoing and is largely complete, will substantially assist in mitigating and managing SBG conditions, by among other things, providing centralized wind forecasting and integrating renewable resources into economic dispatch. This will reduce the importance of exports as tool for managing SBG conditions.

15. For the foregoing reasons, it is the IESO's position that it is not necessary and would not be a useful expenditure of the IESO's resources to direct it to further study non-price obstacles to trading during SBG periods.

16. It is also the IESO's view that it would not be useful for the Board to direct it to further monitor, study and model the effect of tariff changes on trading behaviour, with particular reference to SBG trading. This has been sufficiently done by CRA and the IESO disagrees with Board Staff that further analysis is required.

17. The IESO (and other stakeholders) agreed that SBG was an important matter, which is why the CRA study took SBG into account. CRA analyzed the impact of

the various tariff options on SBG and found that all of the tariff options (from \$0/MWh to \$5.80/MWh) would not materially affect the volume of exports during SBG periods.¹⁶

18. The IESO agrees with the model inputs and assumptions that CRA included in assessing SBG impacts and based on CRA's conclusions — and the IESO's recent experience operating the Ontario power system — is satisfied that none of the ETS tariff options would materially impact export volumes during SBG periods or impair the IESO's ability to reliably manage the power system during SBG conditions.

19. Lastly, CRA found that the two-tiered Option B (i.e., \$5.80/MWh on-peak and \$0/MWh off-peak) did not impact export volumes during SBG conditions. The IESO accepts this finding. In regards to Mr. Hamel's proposed alternative of a \$2.50/MWh on-peak and \$0/MWh off-peak rate, since these rates fall within the extreme bounds of the \$5.80/\$0MWh assessed by CRA, the IESO also does not believe that this alternative rate would have any material effect on export volumes during SBG periods.

(b) VECC Request

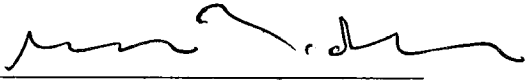
20. The IESO disagrees with VECC's request that the IESO be directed to prepare a report for Hydro One's next rate proceeding outlining the extent to which market and system conditions have evolved as assumed in the current CRA study and whether the ETS tariff needs to be revisited as part of the 2017-18 Hydro One rate proceeding in light of these changes. It would be time consuming and costly to undertake this; the IESO cannot practically do it without re-engaging CRA; and, it would be premature to direct such further effort without some pressing and demonstrable need.

¹⁶ Exhibit H1, Tab 5, Schedule 2, Appendix B, pp. iv, 22; Joint Experts Statement, p. 17.

21. The CRA study and model drew on a wealth of system information, much of which was proprietary in nature, related to regions external to Ontario and is not accessible by the IESO — e.g., generator characteristics, gas and oil price forecasts, environmental policies, transfer limits among regions, and wheeling charges.¹⁷ The data the IESO provided to CRA for use in their model was limited — e.g., OPA demand/supply mix data, historical demand/supply schedules for model calibration, rules to manage SBG, etc. The IESO would not be able to perform the requested analysis without initiating another contract with CRA, which would entail some considerable time and cost.

22. The IESO submits that the Board should refuse VECC's request. Alternatively, if the Board believes there is value in directing that this be done for Hydro One's next rate case, the IESO suggests that the Board direct this be done by the Applicant Hydro One. The IESO will of course provide any necessary data and assist as necessary.

All of which is respectfully submitted this 1st day of April, 2013.



Glenn Zacher,
Counsel for the IESO

¹⁷ Exhibit H1, Tab 5, Schedule 2, Appendix B, pp. 58-59.