

December 7, 2012

*******NOT TO BE FILED ON RESS*******
Sent By Email Only

Ms. Kirsten Walli
Board Secretary
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Dear Ms. Walli:

**Hydro One Transmission Rates 2013-2014 (EB-2012-0031)
Experts' Conference – Navigant Discussion Points**

Further to Procedural Order No. 8 in the above-noted proceeding, please find attached a copy of the discussion points prepared by Mr. Cliff Hamal (Navigant) for the upcoming Experts' Conference. This document is being distributed to Board counsel and counsel for the parties participating in the Experts' Conference. Please contact me if you have any questions.

Yours very truly,

Original signed by

Richard King
Partner

RK/mnm

Enclosure

Cop(y/ies) to: Ljuba Djurdjevic (OEB)
George Vegh (for HQEM)
Glenn Zacher (for IESO)
Cliff Hamal (Navigant)

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**Discussion Points
Related to the Export Tariff**

By Cliff W. Hamal

**On Behalf of the
Association of Power Producers of Ontario
(APPrO)**

**For Filing in the
Hydro One Networks, Inc.
Rate Proceeding Before the
Ontario Energy Board
EB-2012-0031**

December 7, 2012

I. Introduction

The points that follow are provided in response to Ontario Energy Board's (Board's) Procedural Order No. 8 (Order), dated November 15, 2012, concerning the export tariff for Ontario which is under review in the Hydro One Networks Inc. (HONI) rate application. My response is based on the evidence I provided on October 1, 2012 on behalf of the Association of Power Producers of Ontario (APPrO). In accordance with the Order, my discussion points draw upon a comparison of my evidence with the other expert witnesses that will participate in the Experts' Conference scheduled for December 12, 2012. Primarily, my discussion points focus on the Charles River Associates (CRA) report, "Export Transmission Service (ETS) Tariff Study," dated May 16, 2012, which was prepared for the Independent Electricity System Operator (IESO). I also address Elenchus Research Associates Inc.'s (Elenchus') report, "Ontario Cost Allocation and Export Tariff Service," dated October 1, 2012, which was prepared for HQ Energy Marketing Inc.

My goal in preparing these discussion points is to provide a starting point for the preparation of the Joint Written Statement described in the Order, which provides a means for the Board to compare differences among experts. In this instance, there are considerable differences in the scope of evidence that has been provided by the experts. I addressed issues in the CRA report directly in my evidence, and only tangentially addressed issues that were raised in the Elenchus report which was filed concurrently with mine.

The discussion points that follow contain a very brief statement of issues, not a detailed analysis, in order to serve as a guide to further discussion. In many instances I have also provided what I believe is a fair summation of the views of others. I took this step with some trepidation, recognizing that CRA and Elenchus are certainly able to present their own views. My decision to include such input in this draft was borne from the conclusion that a first attempt on my part would assist in providing contrast to differing views, as opposed to simply presenting stand-alone summations of my conclusions. In instances where I did not think my attempt at summarizing others' opinions would be helpful, I left the entry blank.

II. Areas of Potential Agreement with CRA

1. Quantitative analysis is helpful in evaluating ETS options with respect to effects on trade, market operations, consumer surplus, producer surplus and other factors.
2. Analysis needs to consider Ontario's unique market structure, including regulated rates, OPA contracts and global adjustment.
3. The NEEMs model is generally appropriate for evaluating electricity markets in general, although such models have limitations.
4. The use of deterministic models such as NEEMs to capture the behavior of traders is inherently challenging as such models essentially assume efficient markets, yet traders' activities are centered on capitalizing on market inefficiencies.
5. It is appropriate to calculate intertie congestion revenue when export limits are constraining. The export trades are assumed to clear at a separate intertie price and the ICR is calculated by multiplying the quantity of energy times the price difference between the neighboring region's price (which is a proxy for the intertie price) and HOEP.
6. All of the producer surplus calculated in CRA's analysis is associated with OPG's non-prescribed hydroelectric generation.
7. In evaluating the effect of a change in the ETS, a better estimate can be made for 2013, than 2015 or 2017, because uncertainties increase further into the future.

III. Areas Where There May Be Differences of Opinion with CRA

8. Calibration of the CRA model.

Hamal: The steps taken in calibration demonstrate weaknesses in the model and raise concerns about the validity of the model. This is particularly true with respect to prices and trade during periods of very low prices.

CRA: The steps taken in calibration validate the model and provide an appropriate starting point for measuring changes in the ETS.

9. Evaluation of trading behavior in the CRA model.

Hamal: The analysis captures general trends in trading, but fails to reflect actual trading behavior, which results from price uncertainties, challenges in dealing with timing issues (day ahead and real time markets, to name just one such issue) and other issues.

CRA:

10. The effect of export tariff on surplus baseload generation.

Hamal: The CRA analysis' conclusion that changes in the export tariff will have no effect on trade during SBG conditions is not credible. The problem with this modeling outcome is that it rests on the combined effect of assumptions related to perfect trading outcomes, improper benchmarking during low-price periods to restrict transmission capabilities, unreasonable projections of prices in neighboring regions, binding transmission constrains during SBG conditions and the analysis' inability to properly reflect the implications of IESO actions in managing SBG on likely trading behavior.

CRA: Changes in the export tariff have no effect on exports during SBG events.

11. Treatment of changes in intertie congestion rents (ICR).

Hamal: While the process by which ICR is paid out is subject to uncertainties and delays, in evaluating the export tariff, ICR changes should accrue to consumers.

CRA: ICR is calculated and will benefit Ontario overall, but no opinion is offered as to whether this will accrue to consumers or producers.

12. Consideration of changes in producer surplus.

Hamal: The producer surplus calculated in the CRA analysis will eventually accrue to consumers over the long run. To be specific, all of the calculated producer surplus results from changes in revenues to OPG's unregulated hydroelectric generation. As OPG is provincially owned, the beneficiary is the province. This may result in reducing stranded Ontario Hydro debt,

which would otherwise be paid by consumers, or in benefits to the province more directly, which will benefit taxpayers, who are largely electricity consumers.

CRA: The producer surplus flows to OPG's bottom line, which in turn affects Ontario's fiscal balance to the benefit of Ontario taxpayers/consumers.

13. Uncertainties in future years.

Hamal: Uncertainties generally increase further into the future in any study. Here, this is particularly true because of uncertainties over the Western Climate Initiative (WCI), U.S. environmental regulations and market changes in Ontario (such as nuclear and wind curtailment). These issues, coupled with the ability of the Board to change the ETS, give strong support for focusing on the near-term analyses (i.e., 2013) in evaluating tariff levels.

CRA:

14. Analysis of tiered rate structures (tariffs that vary by time of day)

Hamal: The CRA analysis of tiered rate structures is particularly problematic. The NEEMs model is not a chronological model, and the bundling of hours by load level does not produce results consistent with rates that would be time-of-day dependent.

CRA:

15. Consideration of rate options not included in the CRA analysis

Hamal: It is reasonable, as a first order approximation, to estimate options that were not studied by interpolating between options that were. This is particularly relevant in the development of an option with a \$1/MWh tariff in all hours, in order to better understand the Tier B (\$3.50/MWh on-peak, \$1.00/MWh off-peak) option.

CRA:

IV. Areas of Potential Agreement with Elenchus

16. Exports impose much less cost to the system than does serving native loads. Exports may impose as little as zero incremental cost.
17. The cost to the system from exporting energy can be a substantial negative value during periods when the alternative might involve out-of-market actions with significant costs, such as shutting down a nuclear unit for several days.
18. Exports receive a lower quality of service than that associated with serving native load.

V. Areas Where There May Be Difference of Opinion with Elenchus

19. Recommendations of the criteria to be used for selecting tariff levels.

Hamal: There are no strict boundaries on what may be considered in evaluating tariff levels, and it is fair to consider all possible criteria, including consistency, simplicity, fairness, efficiency, cost-causality, market-participant-class impacts, history and other precedent. In this issue, across the range of tariff options presented in the CRA report, the issues of efficiency and fairness as it applies to Ontario overall and to customers in particular, are most important considerations. Analysis demonstrates that lower tariffs provide clear benefits on the basis of efficiency and fairness. Analyses of the other criteria do not provide a basis of concluding that the tariff should be at a higher level. In particular, this conclusion that the tariff should be reduced is generally consistent with the cost causality criterion.

Elenchus: The tariff should be established on the basis of cost causality.