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BY E-MAIL

September 3, 2010

Board Secretary
Ontario Energy Board
2300 Yonge Street, Ste., 2701
Toronto ON M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

Re: Board Staff Interrogatories on Intervenor Evidence - AMPCO
2011/2012 Electricity Transmission Revenue Requirement and Rates
Hydro One Networks Inc. - Board File No. EB-2010-0002

In accordance with Procedural Order No. 2, please find attached Board staff interrogatories on intervenor evidence in this proceeding. Please forward the attached to AMPCO, Hydro One Networks Inc. and to all other intervenors in the proceeding.

Sincerely,

Original Signed By

Harold Thiessen
Board Staff
Case Manager, EB-2010-0002

Attachment

HYDRO ONE NETWORKS INC.
2011/2012 ELECTRICITY TRANSMISSION REVENUE REQUIREMENT AND RATES APPLICATION
EB-2010-0002

BOARD STAFF INTERROGATORIES ON INTERVENOR EVIDENCE

Evidence filed by
Association of Major Power Consumers in Ontario (AMPCO)
August 26, 2010

References:

1. AMPCO Evidence: "Potential efficiencies from improving transmission rate design in Ontario" , August 26, 2010

2. AMPCO Expert Evidence of Anindya Sen "Will greater load shifting by industrials result in lower electricity prices for all? Evidence from Ontario, Canada", August 2010

3. Exhibit H1 / Tab 5 / Schedule 1 / Attachment 1: Power Advisory "Assessment of AMPCO's High 5 Proposal for Establishing Network Charge Determinants", July 6, 2010

1) Ref: # 1, p. 3

AMPCO quotes A.E.Kahn, The Economics of Regulation, in an excerpt at p. 89 from Chapter 4, "The Application of Long- and Short-Run Marginal Costs".

a. Please file a copy of the paragraph that follows the one quoted in AMPCO's evidence. In light of the third caveat expressed in that paragraph, does AMPCO suggest that it would be practical for Hydro One to set its Network charge at marginal cost in 2012, or the foreseeable future?

b. Please file a copy of Kahn's text pp. 106-107. If necessary please file any additional excerpts that AMPCO considers would be helpful in understanding the second paragraph on p. 107 and assessing its applicability to AMPCO's High 5 proposal.

2) Ref: #1, p. 4

AMPCO quotes K Viscusi et al, Economics of Regulation and Antitrust, p. 352, to the effect that Ramsey pricing is economically efficient.

a. Please file the section titled "Ramsey Pricing", i.e. pp. 350 – 353.

b. Does AMPCO recommend that Hydro One should develop a Network rate

structure with two (or more) prices within the peak period, based on differing elasticities of demand?

c. If so, does AMPCO suggest that this structure should have two rates (distinguishing between LDCs and Power Producers on the one hand and Directs on the other), a structure with multiple rates (for example, distinguishing amongst the industrial sectors such as those studied by Dr. Sen), or some other structure?

d. In light of the second from last paragraph in the requested excerpt, does AMPCO recommend that Hydro One adopt "value of service" as a principle in its Network rate design?

3) Ref: #1, p. 5

Has AMPCO received any indication from Hydro One that the highest hour of each of the 5 highest peak days of demand in Ontario is the most appropriate number of hours and days to reflect cost causation, for either the whole network or Hydro One's predominant share of the network? Conversely, has AMPCO received any indication that some other number of hours, days, or another combination would be more appropriate for that purpose?

4) Ref: #1, p. 5, and Exhibit H1 / Tab 3 / Schedule 1 / p. 5

a. Please confirm that the numerator in equation 1 should read June 2012. Alternatively, please explain the relevance of June 2010.

b. Is the purpose of Equation 1 to clarify Hydro One's formula with respect to an example with dates, or is it to correct the formula by removing one of the terms in the equation?

5) Ref: # 1, p. 9

AMPCO's evidence shows that industrial customers in at least some market sectors have shifted their loads toward off-peak periods in response to the hourly price structure of the electricity commodity.

a. Does AMPCO have information on the load-carrying capability of the Ontario network as it existed prior to the introduction of the commodity market, and as a result does AMPCO have information on what proportion of the existing network capability was planned or placed in service prior to the load shifting that has been done by industrial customers?

b. Does AMPCO consider that its members should have some responsibility for the Network revenue requirement associated with capacity that may be under-utilized as a result of load shifting by those customers?

6) Ref: #1, p. 13

AMPCO shows in Figure 2 that line losses are a non-linear function of total load, and makes the additional point that the higher cost of energy when load is high augments the cost of losses at peak times.

a. Does AMPCO recommend that Hydro One implement a loss factor for transmission that would be a separate component of the tariff?

b. If so, does AMPCO recommend that the loss factor should vary by time-of-use, or in a real time manner responsive to total load, in order to reflect the non-linear function shown in Figure 2?

7) Ref # 2, p. 9

The IESO provided hourly demand data by industry sector, and Hourly Ontario Energy Price ("HOEP") is publicly available.

a. Please confirm that adequate data was available to enable an analysis of load shifting from a daily peak period of say, four or six hours daily, into an off-peak period or a shoulder period elsewhere in the day.

b. Please confirm that the analysis of elasticities in this paper is of demand during a twelve-hour peak period and a twelve-hour off-peak period.

c. If the previous statements are confirmed, and since this paper is apparently submitted in support of the AMPCO's High 5 proposal, why is the analysis not designed to estimate load shifting out of a shorter peak period?

8) Ref: # 2, pp. 7-8

a. Please state whether any of the other analyses of demand elasticities cited in the paper provide information on load shifting from a short peak period. (Please include only those that concern industrial customers' demand. Include all studies in which the peak periods are shorter than the Ontario uniform network charge.) If possible, please state whether the hours of the peak period were fixed, or alternatively were determined in a responsive manner, for example based on system cost or load.

b. Please provide a copy of the unpublished document "Industrial and Commercial Customer Response to Real Time Electricity Price", Boisvert et al, 2004, if possible.

c. Please describe the extent of response by industrial customers to the highest prices amongst the real time prices in the study by Boisvert et al. In particular, please state whether the response found by Boisvert et al is greater than found in Dr. Sen's study which is based on twelve-hour fixed time intervals.

9) Ref: #2, and Exhibit I / Tab 4 / Schedule 67

Power Advisory stated, in response to VECC interrogatory # 67(c), that it is reasonable to expect that the elasticity of substitution between peak and off-peak is greater with a shorter definition of the peak period.

a. Does Dr. Sen agree with Power Advisory's statement?

b. Does Dr. Sen agree that the elasticities derived in ref # 2, and/or the other studies cited, are likely lower than the elasticities that would be found if the peak period were defined as a narrower period?

10) Ref: # 2, pp.10-14, and Ref # 3, pp. 39-40

Commenting on Dr. Sen's previous analysis, cited in this study as Sen (2009), Power Advisory stated that the "estimated coefficients are not robust under different estimation time frames" (p. 39), and go on to summarize results using two definitions of the off-peak price that differ from each other (p. 40).

a. Does the model specification in this study include any modifications to improve the robustness of the coefficients, in particular with respect to the time frame of peak and off-peak definitions, relative to the results of the earlier study that Power Advisory was commenting on?

b. If so, please describe the modification(s) that have been made.

11) Ref: #2, p. 43

One of the industry sectors analysed by Dr. Sen is electric power generation, transmission, and distribution excluding LDCs. The coefficients for the price variables are found in column G, and are larger for this sector than for any of the other six sectors.

a. Please provide a description of what the electricity is used for in this sector, if available

b. If the demand of the sector includes use within the generating stations, pumped storage, line losses, and use within transformer and distribution stations, is it reasonable to expect that the electricity demand for any of these uses would be responsive to peak and off-peak prices in a pattern similar to the other sectors? Are there other uses in this sector that would be expected to be sensitive to peak and off-peak prices?

12) Ref: # 2, p. 15

a. Please explain the rationale for including the Herfindahl-Hirschman Index as a variable in the regression analysis. What is the expected sign of the coefficient?

b. How frequently is the Herfindahl-Hirschman Index recalculated for use in this analysis: hourly, monthly, annually, other?