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**BY EMAIL**

June 14, 2018

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Ontario Energy Board (OEB) Staff Interrogatories  
Application for leave to construct Transmission Facilities by  
Hydro One Networks Inc.  
OEB File Number - EB-2018-0098**

In accordance with Procedural Order No. 2, please find attached OEB staff's interrogatories on Intervenor evidence in the above noted proceeding. Hydro One Networks Inc. (Hydro One) has been copied on this filing. Party responses to interrogatories are due by June 21, 2018.

*Original signed by*

Michael Lesychyn  
Case Manager

Encl.

## **Ontario Energy Board (OEB) Staff Interrogatories**

### **APPLICATION FOR LEAVE TO CONSTRUCT A TRANSMISSION LINE AND RELATED FACILITIES BY HYDRO ONE NETWORKS INC. (APPLICANT OR HYDRO ONE)**

**EB-2018-0098**

**June 14, 2018**

**Atlantic Power Corporation (APC) - Evidence Filed June 7, 2018**

**Interrogatory No. 1: The Atlantic Power Facilities**

Reference: Paragraphs 4-6, pages 2-3.

Preamble:

At paragraphs 4 to 6 APC states in its evidence:

Atlantic Power is seeking a fair and objective analysis of whether either or both plants could operate in the future in a manner which would enable H9K to stay within its power flow limits when circuit L21S is out of service and the system load is high, which would have the effect of eliminating the need for the transmission upgrade project proposed by Hydro One.

To-date this analysis has not been undertaken. To do this analysis properly, Atlantic Power proposes that the OEB deny the requested leave to construct pending the completion of evidence that Hydro One and the IESO engaged in a transparent, iterative and fair cycle of discussions with Atlantic Power to identify technical system needs, to identify options to utilize existing facilities to meet those needs, and finally to properly cost those options and compare them to the proposed facility upgrades on an apples-to-apples basis.

Atlantic Power is willing to entertain a mutually agreeable short-term contract, if one is required, to ensure the provision of continued services from either the Calstock GS, the Kapuskasing GS, or both (as needed) past June 2020 to ensure that system needs continue to be met. Such a short-term arrangement would alleviate the schedule pressure that is currently driving Hydro One to seek an expedited response from the OEB, and would allow for a more fulsome consideration of all of the alternatives / options, which in Atlantic Power's view, is in the public interest.

Questions:

- a) Please provide a summary of the options APC is proposing.
- b) What is the length of the contract that APC is proposing, E.g. 1, 2, 5, years, for each of the options identified in a)?
- c) With respect to the short term contract proposed by APC, would the terms of conditions and cost be equivalent? Does APC consider this arrangement to be more cost effective in the short term than Hydro One's LTC Kapuskasing reinforcement? Please explain?

**Interrogatory No. 2: Atlantic Power Concerns**

Reference: Paragraphs 7-8, pages 3-4.

Preamble:

At paragraph 7, APC refers to Hydro One's response to OEB staff Interrogatory 3(a):

*"To respond to this interrogatory, the IESO completed additional analysis, and the estimated the cost on a NPV basis for a 5-year contract is more than \$36 million. This is because the fixed costs associated with re-configuring the existing facilities to become quick start, including existing asset overhaul and/or replacement, would still have to be recovered, just over a shorter period of time."*

Then, at Paragraph 8, APC states:

The estimated NPV of \$36 million substantially overstates the costs of utilizing Atlantic Power's existing facilities to meet the local system needs. Hydro One has not provided the models used to arrive at this estimate, nor have they provided detailed evidence to support all the assumptions made in those models. Hydro One, however, has stated that it assumes "existing asset overhaul and/or replacement". As shown in Appendix "A" and "B", Atlantic Power's existing assets have a lengthy remaining useful life. Atlantic Power has not requested deregistration from IESO for its Kapuskasing plant, and there is no basis for Hydro One to assume either Kapuskasing or Calstock would be deregistered at the end of its OEFC contract term. An existing asset overhaul and/or replacement is not a reasonable assumption in these factual circumstances. Atlantic Power would be willing to enter into negotiations with the IESO and/or Hydro One to better quantify the actual comparable costs (if any) of utilizing Atlantic Power's existing facilities to meet local system needs. This option has not, to-date, been explored by the IESO or Hydro One.

Questions:

- a) Please provide APC's estimate of the costs for a 5 year contract including all the assumptions, calculations and factors that that should be taken into account. The analysis should be presented in a tabular format that would allow ease of comparison to the Hydro One/IESO cost calculations. If APC considers some or all of such a detailed analysis to be confidential it may file its responses in accordance with the OEB's Practice Direction on Confidential [Filing Requirements](#).

### **Interrogatory No. 3: Atlantic Power Concerns**

Reference: Paragraphs 9-10, page 4.

Preamble:

At paragraph 9, APC refers to Hydro One's response to OEB staff Interrogatory 3(a):

*"To meet the local area reliability need, it is also possible to continue to operate the existing generators as they are operated today (i.e. not reconfiguring the existing facilities to become quick start). However, if the units are not reconfigured to have a faster start up time, the units will have to run as baseload generators to ensure they are available when needed, which would result in high energy costs. The IESO estimates that extending the contract with the existing facilities without reconfiguring the facility to become quick start, and assuming baseload generation of 10MW for a 5 year term, would still cost more than \$35 million."*

Then, at Paragraph 10, APC states:

The estimated NPV of "more than \$35 million" substantially overstates the costs of utilizing Atlantic Power's existing facilities to meet the local system need. With regards to Atlantic Power's existing facilities, it is not true that they will "have to run as baseload generators to ensure they are available when needed". As described in Appendix "A", the Calstock GS shuts down on most weekends – and does not run baseloaded at all hours. In addition, Atlantic Power has a degree of operational flexibility that could be utilized to meet system needs with one or both of its existing facilities that has not been accounted for in this analysis. In addition, Atlantic Power could implement targeted incremental changes to one or both facilities that would cost considerably less than a complete asset overhaul or replacement, that would further increase operational flexibility. None of these alternatives have been accounted for in the IESO/Hydro One's analysis.

Questions:

- a) What is the cost of modifying the facilities for quick start capabilities?
- b) Please provide APC's estimate of the costs including all the assumptions, calculations and factors that APC believes should be taken into account for the scenario described in paragraph 8 of APC's evidence. The analysis should be presented in a tabular format that would allow ease of comparison to the Hydro One/IESO cost calculations. If APC considers some or all of such a detailed analysis to be confidential it may file its responses in accordance with the OEB's Practice Direction on Confidential [Filing Requirements](#).

#### **Interrogatory No. 4: Atlantic Power Concerns**

Reference: Paragraph 19, pages 6-7.

Preamble:

At paragraph 19, APC states:

Hydro One's evidence does not explain why the entire cost of a contracted facility would be attributed to meeting local reliability needs given the generation facility would also provide:

- a. Capacity (capacity has an intrinsic value separate from meeting local reliability needs - for example capacity is currently valued by the IESO at \$200/MW-day in the Northeast Region based on the May 10, 2018 IESO demand response auction results)
- b. Energy (energy has an intrinsic value separate from meeting local reliability needs, as determined by the Hourly Ontario Electricity Price ); and
- c. Ancillary services (such as VAR support, which has a value separate from meeting local reliability needs) - in fact the IESO has established market values for some ancillary services with market development underway for other ancillary services.

For an apples-to-apples comparison to take place, the value attributable to capacity, energy and all existing and expected ancillary services that are supplied by a generation facility over the term of evaluation need to be deducted when comparing against a transmission upgrade project that provides none of these additional valuable services.

Questions:

- a) Please provide the rationale for why the Capacity, Energy, Ancillary Services factors (3 Factors) should be considered in the cost benefit analysis of all the options that Hydro One/IESO has considered and those in APC's responses to OEB staff's interrogatories here. Is your rationale affected by whether there is a system need for energy, capacity, or ancillary services?
- b) Please provide examples of where and how the 3 Factors have been included in other similar projects when evaluating generation options versus transmission system reinforcement type options?
- c) To APC's knowledge have the 3 Factors been included in other regulatory jurisdictions when evaluating similar projects?
- d) Please illustrate the impact of the 3 Factors on the costs derived by APC in response to interrogatories 2 and 3.
- e) How would APC propose to verify the quantitative dollar benefits of the 3 Factors to ensure the benefits they provide are not over stated?

**Interrogatory No. 5: Atlantic Power Concerns**

Reference: paragraphs 22-23, pages 7-8.

Preamble:

At paragraph 22, APC refers to Hydro One's response to OEB staff Interrogatory 5(d):

*"When determining the costs of Option 3, the IESO considered two possible modes of operation for the re-contracted existing facility. The first was continuing the present mode of operation and the second was reconfiguring the existing facility and operating it as a quick start facility. The IESO leveraged third party cost estimates for new generation facilities and costs for similar IESO-contracted facilities in Ontario to perform this analysis. The cost of the latter was less expensive than the former but still substantially more expensive than Option 1."*

Then, at Paragraph 23, APC states:

The IESO and Hydro One have failed to consider reasonable alternatives that represent a sensible middle ground between these two extreme modes of operation. Rather than continue in the present mode operation, Atlantic Power would propose exploring the operational flexibility available at the two existing facilities that can be achieved without installing an entirely new generation facility, and without incurring a substantial number of costly upgrades.

Questions:

- a) Please further describe the 'middle ground approach' APC proposes. What would be the cost of this option? Please provide an analysis including all the assumptions, calculations and factors that APC considers need to be taken into account to determine a cost for this 'middle ground approach'. The analysis should be presented in a tabular format that would allow ease of comparison to the Hydro One/IESO cost calculations. If APC considers some or all of such a detailed analysis to be confidential may file its responses in accordance with the OEB's Practice Direction on Confidential [Filing Requirements](#).