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March 10, 2010

BY EMAIL & COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St, Suite 2701
Toronto ON M4P 1E4

Dear Ms. Walli:

Board File No. EB-2009-0425 – Hydro One Networks Inc.

**Leave to Construct Application – Toronto Midtown Transmission Reinforcement Project
Interrogatories of Energy Probe**

Pursuant to the Notice of Application and Hearing issued by the Board on January 28, 2010, please find attached the Interrogatories of Energy Probe Research Foundation (Energy Probe) in the EB-2009-0425. An electronic version of this communication will be forwarded in PDF format.

Should you require additional information, please do not hesitate to contact me.

Yours truly,

David S. MacIntosh
Case Manager

cc: Anne-Marie Reilly, Hydro One Networks Inc. (By email)
Michael Engelberg, Hydro One Networks Inc. (By email)
Peter Faye, Counsel to Energy Probe (By email)

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Ontario Energy Board

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

AND IN THE MATTER OF an application by Hydro One
Networks Inc. for an Order granting leave to construct the
Toronto Midtown Transmission Reinforcement Project.

**INTERROGATORIES OF
ENERGY PROBE RESEARCH FOUNDATION
("ENERGY PROBE")**

March 10, 2010

**HYDRO ONE NETWORKS INC. – LEAVE TO CONSTRUCT
TORONTO MIDTOWN TRANSMISSION REINFORCEMENT PROJECT
EB-2009-0425**

**ENERGY PROBE RESEARCH FOUNDATION
INTERROGATORIES**

Interrogatory # 1

Ref: Exhibit B, Tab 1, Schedule 2

The map of existing facilities shows the three circuits L13W, L14W and L15W. Please provide diagrams showing the tower type and conductor arrangement for each of the tower lines.

Interrogatory # 2

Ref: Exhibit B, Tab 1, Schedule 3

The schematic on this schedule shows an idle circuit on part of the L14W tower line.

- a) Please explain why this section is idle.
- b) Are the underground portions of the three circuits in ductbanks? If yes, please provide a cross sectional view of the duct structures.
- c) If there are existing duct structures please explain why replacement of the underground portion of L14W cannot be done in those duct structures.

Interrogatory # 3

Ref: Exhibit B, Tab 1, Schedule 4, page 5

Table 1 on this page shows the corridor limit at 272 MW.

- a) What size and type of conductor is used on the overhead portion of the circuits?
- b) What size and type of cable is used on the underground portion of the circuits?

- c) If larger conductor and cable were installed, would the corridor limit be higher than 272 MW on the overhead portion? If not, why not? If yes, how much higher a limit than 272 MW would be possible with reconductoring and recabbling?
- d) Is conductor sag a limiting factor for the existing circuits? If yes, would retensioning of the existing conductors provide a higher load limit? If not, why not? If yes, how much higher a limit than 272 MW would retensioning the circuits provide?

Interrogatory # 4

Ref: Exhibit B, Tab 1, Schedule 4, page 5

Table 1 on this page shows the load forecast for the corridor circuits declining from a 2006 high of 302 MW to 286 MW in 2009.

- a) What caused the decline in load from 2006 to 2009?
- b) Why does Hydro One think that this trend will be reversed and follow an upward trend for the years 2010 to 2018?
- c) Is the 2010 load of 290 MW a forecast or actual figure? If forecast, please provide the 2010 actual load.
- d) Area load is expected to grow by about 3MW per year according to the evidence in this chart. What are the principal driving factors behind this expected load growth?
- e) Has Hydro One analyzed the impact of the current recession on these factors to determine whether lower load growth should be expected? If yes, please provide the analysis. If no, please explain why such an analysis is not necessary.

Interrogatory # 5

Ref: Exhibit B, Tab 2, Schedule 1, page 1

This schedule describes the work proposed.

- a) Will the construction of the new 3 cct overhead tower line require taking L14W and/or L15W out of service during construction? If yes, how will supply to Bridgman TS be maintained during the construction period? If no, why is a single cct. steel pole line to provide a third cct., not an alternative?**
- b) The overhead work between Birch Jct. and Bridgman TS consists of reconductoring existing L14W and the idle section. How will supply to Bridgman TS be maintained while reconductoring is taking place?**

Interrogatory # 6

Ref: Exhibit B, Tab 3, Schedule 1

This schedule describes the alternatives considered.

- a) Was a low voltage solution considered? For example, would it be possible to build a 2-cct 44 kV overhead and underground line between Leaside TS and Bridgman TS to provide the needed capacity? If not, why not. If yes, please explain why the option was discarded.**
- b) Open cut trenching and deep tunneling were the options considered for the underground portions of the new cable ccts. Was directional boring considered? If not, please explain why this technology was not considered. If yes, please explain why the option was discarded.**

Interrogatory # 7

Ref: Exhibit B, Tab 4, Schedule 2, page 1

This schedule states at lines 26-28 that tunneling is the only option for crossing Yonge St. Please explain how Hydro One arrived at this conclusion?

Interrogatory # 8

Ref: Exhibit B, Tab 4, Schedule 2, page 2

Table 2 on this schedule shows estimated construction costs and lists AFUDC (allowance for funds used during construction). The entries for this budget are based on Hydro One's long term debt rates.

- a) Please explain why construction could not be financed at lower short term rates and then converted to long term debt at the end of the project.**
- b) How much less would AFUDC costs be if short term rates were applied?**

Interrogatory # 9

Ref: Exhibit B, Tab 4, Schedule 2, pages 3 and 4

This schedule lists risks and contingencies.

- a) Does Hydro One intend to have the overhead and underground work in this application done by contractors?**
- b) If yes, why is adverse weather (listed as a risk in this schedule) not a contractor risk?**
- c) "unexpected surface conditions" is listed as a risk on page 4. Should this have read "unexpected *subsurface* conditions"? If not, please explain what sort of surface conditions would not be obvious?**
- d) Lines 6-16 list possible risks that are not included in the 25% contingency. These include risks associated with a lack of engineering being completed on the tunneling project. Please provide an estimate of the potential error in the tunneling cost estimate that could result from this lack of engineering.**

Interrogatory # 10

Ref: Exhibit B, Tab 4, Schedule 3, page 3

This schedule refers to the tunnel as “a standard size 3 meter diameter tunnel” on lines 1-2.

- a) Please explain why a 3 meter diameter tunnel is the standard size of tunnel.**
- b) Are there other standard sized tunnels that could have been used? If yes how did Hydro One decide on the 3 meter diameter tunnel?**