



THE BOARD OF DIRECTORS

Chair, GAIL REGAN

President, Cara Holdings Ltd.

President, PATRICIA ADAMS

MAX ALLEN

Producer, IDEAS, CBC Radio

GEORGE CONNELL

President Emeritus, University of Toronto

ANDREW COYNE

Journalist

IAN GRAY

President, St. Lawrence Starch Co.

Secretary Treasurer, ANNETTA TURNER

DAVID NOWLAN

Professor Emeritus, Economics, University of Toronto

CLIFFORD ORWIN

Professor of Political Science, University of Toronto

ANDREW ROMAN

Barrister & Solicitor, Miller Thomson

MARGARET WENTE

Columnist, Globe and Mail

March 8, 2008

VIA EMAIL & VIA COURIER

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

Dear Ms. Walli:

Board Files No. EB-2007-0050
Hydro One Networks Inc.
Energy Probe – Interrogatories Set # 2

Pursuant to Procedural Order No. 5, issued February 25, 2008, please find 10 hard copies of the Interrogatories of Energy Probe Research Foundation (Energy Probe) Set # 2. An electronic copy of this message will be provided in PDF format.

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

Yours truly,

David S. MacIntosh
Case Manager

cc: Glen MacDonald, Hydro One Networks Inc. (By email)
Michael Engelberg, Hydro One Networks Inc. (By email)
Gordon Nettleton, Osler, Hoskin and Harcourt LLP (By email)
Peter Faye, Energy Probe Counsel (By email)
Interested Parties (By email)

Energy Probe Research Foundation 225 BRUNSWICK AVE., TORONTO, ONTARIO M5S 2M6

Phone: (416) 964-9223 Fax: (416) 964-8239 E-mail: EnergyProbe@nextcity.com Internet: www.EnergyProbe.org

Ontario Energy Board

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

AND IN THE MATTER OF an Application by Hydro One Networks Inc. pursuant to section 92 of the Act, for an Order or Orders granting leave to construct a transmission reinforcement project between the Bruce Power Facility and Milton Switching Station, all in the Province of Ontario.

**INTERROGATORIES OF
ENERGY PROBE RESEARCH FOUNDATION
 (“ENERGY PROBE”)**

SET NUMBER 2

March 8, 2008

**HYDRO ONE NETWORKS INC.
BRUCE TO MILTON LEAVE TO CONSTRUCT
EB-2007-0050**

**ENERGY PROBE RESEARCH FOUNDATION
INTERROGATORIES – SET NUMBER 2**

Interrogatory # 10

Ref: Exh. B/T 6/S 2

Issue 2.4(b): Have appropriate comparisons been carried out on all reasonable alternatives with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

The evidence at Schedule 2 is the final version of the IESO System Impact Assessment Report, dated March 27, 2007. Section 8 is entitled *Reference Load Flow Diagrams with all eight units in-service*. At Page 10, Subsection 8.2 focuses on *Contingency Conditions*.

- a) Please explain how the contingency scenarios analyzed in the System Impact Study were chosen?
- b) Were any contingency scenarios other than the ones cited in the study analyzed? If so please provide the analyses.
- c) How frequently have the contingency scenarios in the System Impact Study actually occurred in the past 20 years?
- d) The study references breaker failure as the precipitating event for two of the contingencies in the study. What sort of events are contemplated that would result in the loss of two 500 kV circuits in the two transmission line contingencies?

Interrogatory # 11

Ref: Exh. B/T 6/S 2

Issue 2.4(b): Have appropriate comparisons been carried out on all reasonable alternatives with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

The evidence at Schedule 2 is the final version of the IESO System Impact Assessment Report, dated March 27, 2007. Section 5 is entitled *Forecast Primary Demand* and states:

The primary demand used in the model was 28,400MW, representing the value that has been forecast for the extreme weather condition for the summer-2010.

- a) Please explain the rationale for using the extreme weather condition loading rather than the peak demand forecast for the summer of 2010 in the System Impact Study.
- b) How frequently have extreme weather demand forecasts actually materialized in the past 20 years?

Interrogatory # 12

Ref: Exh. B/T 6/S 2

Issue 2.4(b): Have appropriate comparisons been carried out on all reasonable alternatives with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

The evidence at Schedule 2 is the final version of the IESO System Impact Assessment Report, dated March 27, 2007. Section 3 is entitled *Background*, and discusses among other matters, the generation of power from wind.

- a) Wind generation included in the study is noted as 725 MW at the top of page 3. Is this number the combined installed capacity of all the wind generators expected to be in service by 2010? If so, please provide the rationale for not using the effective capacity of wind generation. If not, please provide the analysis used to arrive at the effective capacity of wind generation.

- b) Have any analyses been conducted to determine the probability that wind generation in the Bruce will peak coincident with the weather conditions on which the extreme weather demand forecast is based? If so please provide the studies.

Interrogatory # 13

Ref: Exh. B/T 6/S 2

Issue 2.4(b): Have appropriate comparisons been carried out on all reasonable alternatives with respect to reliability and quality of electricity service, including stability and transient stability levels, voltage performance and Loss of Load Expectation projections under normal and post-contingency conditions?

The evidence at Schedule 2 is the final version of the IESO System Impact Assessment Report, dated March 27, 2007. Section 7 is entitled *Study Criteria*. Table 1 at Page 6 is entitled Long-Term Emergency Ratings for the ‘Critical’ Circuits in the Study Area.

Please explain the term “long term emergency rating” as it applies to transmission lines analyzed in the System Impact Study.

Interrogatory # 14

Ref: Exh. B/T 4/S 2

Issue 2.6: Are the project’s rate impacts and costs reasonable for:

- the transmission line;
- the station modifications; and,
- the Operating, Maintenance and Administration requirements

- a) At the bottom of page 3 of the schedule reference is made to “zero incremental network load”. Please provide the analysis that led to this conclusion.
- b) Has Hydro One considered the Transmission rate impact of the Bruce B units being laid up when they reach the end of their useful design life? If so, please provide the analysis. If not, please explain why this would not be a relevant consideration in evaluating the application.