Hydro One Networks Inc.
8th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5700
Fax: (416) 345-5870
Cell: (416) 258-9383
Susan.E.Frank@HydroOne.com

Susan Frank
Vice President and Chief Regulatory Officer
Regulatory Affairs

hydro one

BY COURIER

August 3, 2007

Ms. Kirsten Walli
Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON.
M4P 1E4

Dear Ms. Walli:

EB-2007-0027 – Hydro One Networks' Section 92 Woodstock Area Transmission Reinforcement Project Application – Responses to Supplementary Interrogatory Questions

I am attaching ten (10) paper copies of Hydro One Networks' responses to supplementary interrogatory questions. An electronic copy in accessible, searchable PDF format will be emailed to the Board Secretary at Boardsec@oeb.gov.on.ca, to Robert Caputo at robert.caputo@oeb.gov.on.ca and Board Counsel, Kristi Sebalj at kristi.sebalj@oeb.gov.on.ca at the OEB, and to IESO.

Sincerely,

Susan Frank

Susan Frank

Attach.

c. Mr. Carl Burrell, Independent Electricity System Operator
Mr. John Rattray, Independent Electricity System Operator
Mr. Jay Heaman, Woodstock Hydro Services
Mr. Scott Stoll, Aird and Berlis
Mr. Allen Forrester, Township of South-West Oxford

SUPPLEMENTARY INTERROGATORY # 1

Interrogatory

1.0 Aboriginal Consultation

Reference: (1) Hydro One response to Board Staff Interrogatories EB-2007-0027 filed May 28, 2007, Exh. C, Tab 1, Question 8
(2) The Board's proposed Aboriginal Consultation Policy issued on June 18, 2007 (see the Board's website at http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_aboriginal-consultation-policy.htm)

Preamble

The above-noted reference indicates that Hydro One has consulted all of the 6 First Nations communities that may be affected by the proposed project and that only one of the six communities responded.
It is also stated in the reference that three of the six First Nations have outstanding land claims or litigation that may be affected by the proposed project.

Questions / Requests

i. Please provide an update on the status of Hydro One's consultations with the Aboriginal Communities. Does Hydro One consider this as appropriate and complete consultation and accommodation in accordance with the Board's proposed Aboriginal Consultation Policy (Ref 2)?

ii. If the consultations are considered complete, please explain the rationale for this determination.

iii. If the consultations are not considered complete, please advise what further steps are planned and the proposed timing.

Response

i) The First Nations groups deemed to have a potential interest in the project were identified through research and consultation with representatives from the Ontario Secretariat Aboriginal Affairs (OSAA), and Indian and Northern Affairs Canada (INAC).

Hydro One has identified six First Nations communities who may be affected by the proposed project. They are Chippewas of the Thames First Nation, Walpole Island First Nation, Munsee-Delaware Nation, Oneida Nation of the Thames, Mississaugas of the New Credit, and Six Nations of the Grand River.

The six First Nations identified above were contacted by telephone on or about April 3 and an information package about the Woodstock project similar to the one provided to the municipalities for review was sent to the following parties:

Chief Joseph Gilbert
Walpole Island First Nation

Chief Kelly Riley
Chippewas of the Thames First Nation

Chief D.M. General
Chief A. MacNaughton
Six Nations of the Grand River

Chief Randall Phillips
Oneida Nation of the Thames

Chief Patrick Waddilove
Munsee-Delaware Nation

Chief Bryan LaForme
Mississaugas of the New Credit

The First Nations listed above were invited to contact Hydro One for any additional information required or to discuss any concerns. To date, Hydro One has only been contacted by the Six Nations of the Grand River who did not identify any specific issues or concerns with the proposed project. Hydro one will continue to work with all interested affected community throughout the project.

The consultations Hydro One has done, as described above, with the Aboriginal Communities (EB-2007-0027, Exhibit C, Tab 1, Question 8, filed on May 28, 2007) is appropriate and complete, and appears to be consistent with the Board's Draft Aboriginal Consultation Policy. No other Aboriginal Community has come forward since the last consultation.

As noted in Hydro One's comments to the Board on its Draft Aboriginal Consultation Policy dated July 20, 2007:

"Hydro One...has substantially followed the proposed filing guidelines for applications for approvals, whether these entail section 92 proceedings or transmission revenue requirement and transmission rate proceedings."

ii) Hydro One considers the consultations with the Aboriginal Communities are consistent with the guidelines set out in Appendix A of the Board's Draft Aboriginal Policy. Hydro One has

- identified all of the Aboriginal Peoples affected by this project;
- contacted all the affected Aboriginal Peoples;
- indicated how the Aboriginal Peoples were identified;
- when the contact was first initiated;
- provided a listing including names and dates of contacts;
- provided relevant information to the Aboriginal Peoples;
- identified any specific issues (in this case none) raised by Aboriginal Peoples in respect of the project, and
- identified that the Six Nations of the Grand River wrote back and had no objection to the project proceeding.

Refer to Interrogatory Answer 8 (EB-2007-0027, Exhibit C, Tab 1) filed on May 28, 2007.

While Hydro One considers the consultation complete, if any future concerns get identified by the First Nations communities, Hydro One will continue to work with these communities.

iii) N/A

SUPPLEMENTARY INTERROGATORY # 2

Interrogatory

2.0 Environmental Assessment

Reference: Hydro One response to Board Staff Interrogatories EB-2007-0027 filed May 28, 2007, Exh. C, Tab 1, Question 6, items (iii) and (iv)

Preamble

The above-noted reference indicates that the Draft Environmental Study Report (ESR) will be ready approximately two weeks following the second Public Information Centre planned for May 29, 2007.
Board Staff would like an update on the EA process including outstanding issues, expected timing for their resolution and completion of the EA process.

Questions / Requests

i. Please provide an update on the status of the EA process including results of the second Public Information Centre on May 29, 2007;

ii. Has there been any challenges to the Class EA process or any additional issues identified;

iii. Has the ESR been completed? If not, please explain the delay and provide the expected completion date;

iv. What is the expected completion date of the EA process including the 30-day waiting period?

Response

i) The second Public Information Centre (PIC) was held on May 29, 2007 and local municipal officials were invited to a preview of the PIC at the same location, earlier in the day. The PIC involved the announcement of the preferred route and transformer station site. In total, 52 individual attended the PIC. This included a number of key property owners as well as several residents from the west end of the City of Woodstock.

The only issue brought up at the PIC, was the Mayor of Woodstock's request that Hydro One considers installing steel poles within the built-up area between Woodstock TS and the western city limit of Woodstock. Subsequently, Hydro

One held a Community Consultation on July 18, 2007 at the Southside Aquatic Centre in the City of Woodstock. The consultation session offered residents who live along this transmission corridor the opportunity to view two alternative tower types and to state their preference. Residents can submit their preference in writing to Hydro One by August 31, 2007. Hydro One will accept the preference of the community, as long as the steel poles can be placed in the same location as the existing poles and the easement holders agree with the proposal.

ii) Hydro One is not aware of any challenges to the Class EA process. The outstanding issue includes Township of South-West Oxford's request to relocate the centreline of the proposed transmission line. The transmission line concern relates to the proximity of the right of way to Karn Road as explained in Supplemental Interrogatory #3 below.

The decision of using the narrow-base lattice towers versus steel poles between Woodstock TS and the western city limit of Woodstock as discussed above, will be determined after August 31, 2007.

iii) The Draft Environmental Study Report (ESR) has been completed following the second Public Information Centre (PIC). It was posted on the Hydro One project website, as well as in various public libraries and clerk offices within the Study Area on June 20, 2007 for the 30-day review period. This period ended on July 20, 2007 with no bump-up requests being received. Any public or agency comments will be incorporated and the ESR will then be finalized by the end of August 2007, when the review of the Mayor's request is complete.

iv) The 30-day review period of the Draft ESR ended on July 20, 2007, and the Final ESR is expected to be completed by the end of August 2007. The EA process will conclude once the Final ESR is filed.

SUPPLEMENTARY INTERROGATORY # 3

Interrogatory

3.0 Land Matters

Reference: Hydro One response to Board Staff Interrogatories EB-2007-0027 filed May 28, 2007, Exh. C, Tab 1, Question 7, item (iv)

Preamble

The above-noted reference indicates the concern expressed by Township of South-West Oxford regarding the placement of the proposed transmission line within the road allowance of Karn Road has not been resolved and that Hydro One is taking certain actions to address the concern.

Questions / Requests

i. Please provide an update on the status of the negotiations with the Township of South-West Oxford.

ii. Is the resolution of the Township's concern likely to require a re-routing of the transmission line?

iii. If a re-routing is required, what impact would it have on the scope and timing of the EA process?

Response

i) Hydro One has recently offered to meet with Members of Council and the municipal staff to make a presentation on the Woodstock project and its status, as well as to discuss working with the municipality should it decide to make improvements along Karn Road. This presentation would re-iterate that both the EA process and public input have shown that the least impactive proposal is to use the existing transmission right of way in this area. There are other mitigative measures, such as protecting the towers to limit any road accidents involving the structures. A date for this presentation has not yet been determined.

(ii) It is not anticipated that the resolution of the Township's concern will require a re-routing of the transmission line. Relocating the existing transmission line would contravene Provincial policy as articulated in the Ministry of Municipal Affairs and Housing, 2005 Provincial Policy Statement referred to on page 3 of

Exhibit B, Tab 3, Schedule 1. Also there are other mitigative measures that that can remedy any future concerns.

(iii) It is not anticipated that any re-routing will be required.

SUPPLEMENTARY INTERROGATORY #4

Interrogatory

4.0 Project Costs and Alternatives

Reference: Hydro One response to Board Staff Interrogatories EB-2007-0027 filed May 28, 2007, Exh. C, Tab 1, Question 3, items (iii) to (iiv)

Preamble

The above-noted reference indicates that the 2 km portion of the new line from Karn TS to Woodstock TS (initially operated at 115 kV) will be built to 230 kV standards because:

- of the potential future need for this line to operate at 230 kV;

- the incremental additional cost of building the line at 230 kV is $ 0.5 to 1.0 million and that this is substantially less than replacing the 115 kV line with a new 230 kV line later;

- depending on the overall load growth at Woodstock TS, Brant TS, Powerline MTS and other potential new stations in the area, consideration will be given to converting all the stations to 230 kV and supplying them at 230 kV via the proposed line between Ingersoll TS and Woodstock TS. It is further stated that if conversion to 230 kV were to occur, it would likely be in the 10 to 20 year time horizon;

Board Staff would like to explore the option of converting the affected stations to 230 kV supply initially.

Questions / Requests

i. If Hydro One decides to convert the transformer stations affected by the proposed transmission line to 230 kV supply in 10-20 years, what plan does Hydro One have for what would be a "relatively new" Karn TS?

ii. Has Hydro One considered the option of converting appropriate stations to 230 kV supply initially and avoiding the need to build Karn TS (estimated to cost $28.7 million)? If not, why not?

iii. Please provide comparative cost estimates including net present value (NPV) over an appropriate time horizon for the following two options:

a. Proceed with current proposal and convert appropriate stations to 230 kV supply when required; and

b. Build the proposed 230 kV line and carry out other work necessary to supply the appropriate stations at 230 kV initially, or adopting a staged approach if economic and feasible, and avoid building Karn TS.

iv. Please comment on the results in (iii) and provide the rationale for the preferred plan.

Response

(i) If the existing transformer stations in the area were converted to 230 kV supply the autotransformers and circuit breakers at Karn TS would be removed and would either be relocated to other stations or would become part of the spares inventory for future use. The Karn TS site could then either be used for a 230 kV switching station which would increase the reliability of supply to the increasing loads in the area or as a transformer station stepping down voltage from 230 kV to distribution voltage to supply load in the area.

(ii) Hydro One did not include the option of converting the Woodstock area transformer stations to 230 kV as part of this project for the following reasons.

- The Woodstock TS is physically confined between a busy road, residences, and a popular Southside Park. There is, therefore, no room for any additional facilities in the station, so the existing equipment would have to be taken out of service to install new equipment which would require lengthy outages. Also, the existing station site may not be able to accommodate larger transformers and additional feeder egress from the station.

- Due to the urgent need for supply to the new Toyota plant in 2007, the Toyota TS supply was built at 115/13.8 kV since 230 kV supply was not available in the area. This means that the Woodstock TS needs to continue to accommodate the 115 kV voltage into the station.

- The existing 115 kV transmission line between the Woodstock area and Brant TS provides back-up supply for Brant TS and Powerline MTS (see Exhibit B, Tab 1, Schedule 3). If a 230/115 kV Karn TS were not built, there would be an immediate need to build additional 230 kV circuits in the area since the existing 115 kV line would not be able to be tied into the system.

(iii) The comparative cost estimates are provided in the attached Table 1. The cost estimates shown in Table 1 are based on high level planning estimates without detailed analysis of approval requirements, route & site constraints, property requirements and design and engineering for the lines and stations. The facility

requirements and cost estimates in Table 1 do not include measures that may be required as discussed in item (ii) above. The layout and methodology for Table 1 is similar to the tables in Appendix J of Exhibit B, Tab 6, Schedule 5.

As shown in Table 1, the Net Present Value (NPV) cost of Option A ranges between $ 149 million and $ 176 million. (depending on the escalation rate). The NPV of Option B ranges between $ 173 million and $ 187 million.

(iv) The NPV of the Option A is lower than the NPV for Option B (depending on the escalation rate). Furthermore, Option A is adaptable to various load growth scenarios. Under a lower than forecast load growth scenario, Karn TS would remain at 115 kV. Under a higher than forecast load growth scenario, the plan is the first step towards converting the Woodstock area and possibly the Brant area to 230 kV supply with timing catered to the future need. Option B does not have that flexibility. Option A is therefore the preferred Plan.

Table 1: Cost Comparison of Options as per OEB Staff Supplementary Interrogatory # 4 (iii)

Option A: Proceed with current proposal and convert appropriate transformer stations to 230 kV supply when required

	Year		Base Cost	0% Escalation NPV 2006	2% Escalation NPV 2006
*	2006	Losses	3	3.0	3.0
*	2007	Cap at Woodstock TS	1.3	1.2	1.3
*	2007	Cap at Brant TS	1.3	1.2	1.3
**	2010	Brantford Auto (1 x 250MVA)	14	11.1	12.0
**	2010	Alford x Auto 115kV Line	8	6.4	6.9
**	2010	Two Switchers at East of Alford	2	1.6	1.7
*	2010	Karn TS (2 x 250MVA Auto's)	28	22.2	24.0
*	2010	Woodstock East TS (2 x 115kV 50/83MVA reconnectable at 230kV)	16.9	13.4	14.5
*	2010	Cap at Woodstock East TS	1.3	1.0	1.1
*	2010	15km 230kV line (Ingersoll x Karn x Woodstock)	40	31.8	34.3
	2010	4km 230kV line operated at 115kV (Woodstock x Woodstock East)	10.7	8.5	9.2
	2010	1km 230kV line operated at 115kV (Woodstock East x Toyota)	2.7	2.1	2.3
*	2010	5km x4 Dist feeders (connects load in SE)	4	3.2	3.4
*	2016	Second Cap at Woodstock East TS	1.3	0.7	0.9
	2025	Brant Auto TS (2 x 250MVA Auto's from Karn TS)	15	5.0	7.2
	2025	Woodstock TS (2 x 230/27.6kV 50/83MVA)	16.9	5.7	8.1
	2025	Toyota TS (2 x 230/13.8kV 50/83MVA)	7	2.3	3.4
	2025	30km 230kV line (Toyota x Brant)	80	26.8	38.5
*	2027	Salford x Ingersoll Re-conductor	6	1.8	2.7
	Total			**149.1**	**175.6**

* - Items included under Alternative 1 of Exhibit B, Tab 6, Schedule 5 page 67, which has a total NPV 2006 (2% Escalation) of 107M.
** - In-service date revised from previous study to reflect earliest possible date facilities can be placed into operation.

Option B: Build the proposed 230 kV line and carry out other work necessary to supply the appropriate stations at 230 kV initially to avoid building Karn TS

Year		Base Cost	0% Escalation NPV 2006	2% Escalation NPV 2006
2006	Losses	3	3.0	3.0
2007	Cap at Woodstock TS	1.3	1.2	1.3
2007	Cap at Brant TS	1.3	1.2	1.3
2010	Brant Auto TS (2 x 250MVA Auto's)	28	22.2	24.0
2010	15km 230kV line (Ingersoll x Karn x Woodstock)	40	31.8	34.3
2010	Woodstock TS (2 x 230/27.6kV 50/83MVA)	16.9	13.4	14.5
2010	4km 230kV line (Woodstock x Woodstock East)	10.7	8.5	9.2
2010	Woodstock East TS (2 x 230kV 50/83MVA)	16.9	13.4	14.5
2010	Cap at Woodstock East TS	1.3	1.0	1.1
2010	1km 230kV line (Woodstock East x Toyota)	2.7	2.1	2.3
2010	Toyota TS (2 x 230/13.8kV 50/83MVA)	7	5.6	6.0
2010	30km 230kV line (Toyota x Brant)	80	63.5	68.6
2010	5km x4 Dist feeders (connects load in SE)	4	3.2	3.4
2016	Second Cap at Woodstock East TS	1.3	0.7	0.9
2027	Salford x Ingersoll Re-conductor	6	1.8	2.7
Total			**172.8**	**186.9**