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Susan Frank

Vice President and Chief Regulatory Officer
Regulatory Affairs



BY COURIER

December 7, 2006

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

Dear Ms. Walli:

EB-2006-0215 – Hydro One Networks' Section 92 Hurontario Station and Transmission Line Reinforcement Application – Interrogatory Responses

As required by Procedural Order 1, I am attaching ten (10) copies of Hydro One Networks' interrogatory responses. An electronic copy (text searchable Acrobat format on CD) will be emailed to the Board Secretary at Boardsec@oeb.gov.on.ca and to IESO.

Sincerely,

A handwritten signature in cursive script that reads "Susan Frank".

Susan Frank

Attach.

1 **Ontario Energy Board (Board Staff) INTERROGATORY #1**

2
3 **Interrogatory**

4
5 Ref. Exh. A/Tab 1/Sch. 1/p. 3/lines 18 to 20
6

7
8 **Preamble:**

9
10 “Hydro One has requested a Declaration Order from the Ministry of Environment to
11 exempt the new station for EA Act approval consistent with other existing facilities
12 within the Parkway Belt.”
13

14 **Questions:**

- 15
16 (i) What is the status of the Declaration Order?
17
18 (ii) Please identify if there are any other permits and approvals that will be required
19 prior to commencement of the proposed project construction. What is the status
20 of, and the time-line for obtaining, these permits and approvals?
21

22 **Response**

- 23
24 (i) The status of the Declaration Order has not changed from the Section 92
25 submission where it stated that approval of the Order was expected in early 2007.
26 Hydro One will apprise the Board as soon as we receive a response from the
27 Ministry of Environment.
28
29 (ii) The following permits will be required. They will be requested after OEB
30 approval. The time-line for each permit has been included.
31
32 • MTO Encroachment Agreement for Hwy 410 (2 months)
33 • Road Occupation Permits/Entrance Permits (2 weeks)
34 • Pipeline Crossing Permits (2 weeks)
35 • Conservation Authority Act, Fill, Construction and Alteration Permits at
36 1-4 locations (Tx line only) (1-2 months)
37 • Possible Navigatable Waters Protection Act Application for Etobicoke
38 Creek (2 months)

1 (ii) The numbers in italics indicate that the emergency rating is exceeded.

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Without Hurontario SS, the anticipated maximum load flows* are:

Sections	2006 (MW)	2009 (MW)	2012 (MW)
Hanlan Jct. to Hurontario SS	<i>434</i>	<i>484</i>	<i>530</i>
Hurontario SS to Jim Yarrow MTS	<i>434</i>	<i>484</i>	<i>530</i>
Jim Yarrow MTS to Pleasant TS	334	359	405

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* respecting loss of a single circuit

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With Hurontario SS in-service, the anticipated maximum load flows* are:

Sections	2006 (MW)	2009 (MW)	2012 (MW)
Hanlan Jct. to Hurontario SS	<i>434</i>	<i>228</i>	<i>250</i>
Hurontario SS to Jim Yarrow MTS	<i>434</i>	<i>484**</i>	<i>530**</i>
Jim Yarrow MTS to Pleasant TS	334	359	405

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* respecting loss of a single circuit

** these numbers reflect the maximum load flows considering only this application. The numbers do not reflect the changes that will occur after the Jim Yarrow MTS to Pleasant TS reinforcement. That will be presented in a subsequent application.

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(iii) The line section from Hurontario SS to Jim Yarrow MTS is planned to be reinforced by Mid-2009. An upgrade from Jim Yarrow MTS to Pleasant TS is required by 2013.

(iv) No money is proposed for such a purpose.

1 **Ontario Energy Board (Board Staff) INTERROGATORY #3**

2
3 **Interrogatory**

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5 Ref. Exh. B/Tab 4/Sch. 2/pp. 1-2/Tables 2 and 3

6
7 **Requests:**

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9 Please provide actual costs for the last three 230 kV transmission line construction
10 projects completed by Hydro One, or a predecessor company, that have the most similar
11 construction conditions and engineering design (e.g., terrain, soil conditions, project
12 design) to the proposed project; please detail these costs as:

- 13
14 (i) Materials, by major component;
15 (ii) Construction;
16 (iii) Engineering;
17 (iv) Commissioning;
18 (v) Contingencies;
19 (vi) Overheads (break down into Direct Overheads and Indirect Overheads);
20 (vii) and AFUDC.

21
22
23 **Response**

24
25 Hydro One has only provided costs for one project that was completed in 2005 since it
26 has similar construction conditions and design to the proposed project as shown in the
27 Table below. Hydro One has no other projects that provide reasonable “apples-to-apples”
28 comparisons with the proposed project. Other 2 circuit 230 kV lines projects either have
29 used significantly different designs for location-specific reasons or were completed many
30 years ago. For example the recently completed Parkway TS to Richmond Hill TS line
31 used substantially different structures due to adjacent residential development.
32

	Hurontario Stn. and Line Reinforcement	Bramalea x Cardiff 2 circuit 230kV line
	<i>Estimate**</i>	<i>Actual</i>
Length (km) In Service Date	4.2 2009	1.9 2005
	<i>\$K</i>	<i>\$K</i>
Material	2,505	1,225
Construction	3,280	1,700
Engineering	425	195
Contingencies	900	-
Overheads	970	515
Interest	345	130
TOTAL	8,425	3,765

1 ** Costs illustrate Hurontario Line Work Only, and excludes the cost of replacing
 2 skywire on other transmission lines connected to Hurontario SS and the cost of
 3 Hurontario SS which if included would total \$42M.
 4

5 Please note, the Hurontario project proposal is more costly on a per kilometer basis than
 6 the Bramalea x Cardiff 2 circuit 230kV line since it includes more complex road
 7 crossings (i.e. crossing Highway 410) as well as includes different types of structures in
 8 areas within close proximity of the airport. These elements increase the cost per kilometer
 9 of this proposal.
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1 **Ontario Energy Board (Board Staff) INTERROGATORY #4**

2
3 **Interrogatory**

4
5 Ref. Exh. B/Tab 4/Sch. 2/pp. 1-2/Tables 2 and 3

6
7 **Requests:**

- 8
9 (i) Please provide a break down of Overheads into "Direct Overheads" and "Indirect
10 Overheads".
11
12 (ii) Please provide the detailed calculation of AFUDC.

13
14 **Response**

- 15
16 (i) All overhead costs allocated to the project are for asset management and corporate
17 services costs. These costs are charged to capital projects through a standard
18 overhead capitalization rate. As such they are considered "Indirect Overheads."
19
20 (ii) Per Tables 2 and 3 of Exhibit B, Tab 4, Schedule 2 approximately \$2.0 million of
21 AFUDC has been included in the total project costs of \$42.0 million. The
22 AFUDC amount is derived by applying Hydro One's forecast average cost of
23 long-term debt to the project's forecast monthly cash flows and the carry-forward
24 closing balance from the preceding year. The forecast AFUDC rates are:

25
26

2006	6.3%
2007	5.9%
2008	5.8%
2009	5.9%

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1 **Ontario Energy Board (Board Staff) INTERROGATORY #5**

2
3 **Interrogatory**

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5 Ref. (a) Exh. B/Tab 4/Sch. 2/pp. 1-2/Tables 2 and 3

6
7 **Requests:**

8
9 Please indicate the following,

- 10
11 (i) those items that will be subject to competitive bidding;
12
13 (ii) those items that will be subcontracted out without competitive bidding;
14
15 (iii) those items that will be neither competitively bid nor subcontracted out;
16
17 (iv) the reasons why the items listed under (iii) are neither subcontracted out nor
18 competitively bid?

19
20 **Response**

- 21
22 (i) All permanent equipment & materials, supplies, consumable materials, most
23 transport & work equipment, surveys and geotechnical investigations are
24 competitively bid.
25
26 (ii) In accordance with company purchasing policy, no items over \$6,000 in value can
27 be subcontracted without competitive bidding, unless specific permission is given.
28
29 (iii) There are no material items that will neither be competitively bid nor contracted
30 out. The majority of engineering, commissioning and construction labour are
31 performed by Hydro One regular employees and casual construction trades and
32 therefore do not require a bidding process.
33
34 (iv) These services are generally provided by Hydro One regular employees and
35 casual construction trade as provided under Hydro One's labour agreements with
36 its unions. These groups have the specific experience and knowledge of the Hydro
37 One power system facilities to carry out this work safely and efficiently.
38
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2 **Ontario Energy Board (Board Staff) INTERROGATORY #6**
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4 **Interrogatory**
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6 Ref. Exh. B/Tab 5/Sch. 2/p. 1
7

8 **Questions:**
9

- 10 (i) The referenced table shows a detailed construction schedule for the project. Please
11 verify that this schedule remains accurate.
12
13 (ii) If there are any changes, please provide an explanation on why they changed.
14
15

16 **Response**
17

- 18 (i) The table remains accurate.
19
20 (ii) There are no changes to the project schedule, assuming Board approval in January
21 2007.
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