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ONTARIO ENERGY BOARD

In the matter of the *Ontario Energy Board Act, 1998*;

And in the matter of an Application by Hydro One Networks Inc., for an Order or Orders granting leave to construct a new 500 kV transmission line in southwestern Ontario and the Greater Toronto Area, from the Bruce Power Complex on Lake Huron to the town of Milton (the “Bruce to Milton Transmission Reinforcement Project” or the “Project”).

APPLICATION

1. The Applicant is Hydro One Networks Inc. (Hydro One), a subsidiary of Hydro One Inc. The Applicant is an Ontario corporation with its head office in the City of Toronto. Hydro One carries on the business, among other things, of owning and operating transmission facilities within Ontario.

2. Hydro One hereby applies to the Ontario Energy Board (the Board) pursuant to section 92 of the *Ontario Energy Board Act, 1998* for an order or orders granting leave to construct approximately 180 km of double-circuit 500 kV transmission line in Bruce, Grey, Wellington, and Dufferin counties, in the regional municipality of Halton, and in the municipalities of Kincardine, Brockton, Hanover, West Grey, Southgate, Wellington North, Erin, East Luther Grand Valley, East Garafraxa, Halton Hills and Milton.

3. The Ontario Power Authority (OPA) has determined that the 500 kV line is required to meet the increased need for transmission transfer capability from the Bruce to the Greater Toronto Area associated with the development of committed and forecast wind power in the Bruce area, and the return to service of two nuclear units at the

1 Bruce Power Complex, and has advised Hydro One to initiate the activities necessary
2 to build the new line. The Bruce project was included in the OPA's preliminary
3 IPSP; however, the OPA has indicated that the project cannot await the outcome of
4 the IPSP proceeding if it is to meet the earliest possible in-service date of December,
5 2011. The OPA's determination is included in a letter sent to Hydro One on March
6 23, 2007 and included in this application at Exhibit B, Tab 6, Schedule 5, Appendix
7 5.

8

9 4. A map showing the general location of the proposed transmission line is included in
10 Exhibit B, Tab 2, Schedule 2.

11

12 5. The proposed line will run within a widened existing 500 kV and/or 230 kV
13 transmission corridor from the Bruce Power Complex to Hydro One's Milton
14 Switching Station (SS). Hydro One will seek to negotiate directly with landowners to
15 secure the land rights associated with the widened corridor, including those required
16 for temporary construction access, and expects that it will be able to acquire these
17 rights, for the most part, through easement agreements with landowners. Where
18 residential dwellings and/or major operational buildings are affected by the widened
19 corridor, buyouts of entire properties may be involved. Landowner discussions will
20 begin during the section 92 proceeding. In order to meet the urgent in-
21 service timelines, Hydro One plans to utilize the expropriation process under the
22 *Ontario Energy Board Act* and the *Expropriations Act* after receiving section 92
23 approval. At the point of filing this section 92 application, no direct
24 consultation/negotiation with private landowners has occurred.

25

26 5. Hydro One expects shortly to apply under section 98 of the *OEB Act* for an Interim
27 Order of the Board providing for access by Hydro One and its agents to land
28 affected by the proposed facilities, prior to receiving leave to construct approval for

1 those facilities from the Board. The access being sought is for the limited purpose
2 of conducting legal and engineering surveys, soil testing, property appraisals,
3 biological and archaeological surveys and environmental investigations, together
4 with route access for testing-related vehicles and equipment.

5

6 6. This Application is supported by written evidence which includes details of the
7 Applicant's proposal for the new transmission line reinforcement. The evidence has
8 been prepared consistent with the Board's Filing Guidelines for Transmission and
9 Distribution Applications (EB-2006-0170). The written evidence is pre-filed as
10 attached and may be amended from time to time, prior to the Board's final decision
11 on this Application. Further, the Applicant may seek meetings with Board Staff and
12 intervenors in an attempt to identify and reach agreements to settle issues arising out
13 of this Application.

14

15 7. The project is subject to an individual Environmental Assessment (EA) under Part
16 II of the *Environmental Assessment Act*. Hydro One has begun the EA process and
17 expects to receive EA approval by October 2008, which is likely to be well after the
18 Board is ready to render a decision on this section 92 application. Should EA
19 approval not be received prior to the Board making its determination on this
20 Application, Hydro One requests that the Board grant leave to construct approval
21 conditional on EA approval.

22

23 8. Hydro One requests that a copy of all documents filed with the Board be served on
24 the Applicant and the Applicant's counsel, as follows:

25

1 a) The Applicant:

2

3 Mr. Glen MacDonald

4 Senior Advisor - Regulatory Research and Administration

5 Hydro One Networks Inc.

6

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SUMMARY OF PREFILED EVIDENCE

1
2
3 Hydro One has applied to the Board for an order granting leave to construct a 500 kV
4 transmission line passing through four counties and one regional municipality (Bruce,
5 Grey, Wellington, Dufferin, and Halton, respectively) and eleven municipalities
6 (Kincardine, Brockton, Hanover, West Grey, Southgate, Wellington North, Erin, East
7 Luther Grand Valley, East Garafraxa, Halton Hills and Milton) pursuant to Section 92 of
8 the *Ontario Energy Board Act, 1998*.

9
10 The line facilities are in the public interest. As confirmed by the Independent Electricity
11 System Operator in its System Impact Assessment (refer to Exhibit B, Tab 6,
12 Schedule 2), by the Ontario Power Authority in its determination of need, discussion
13 papers and letters (refer to Exhibit B, Tab 6, Schedule 5), and by Hydro One in its
14 Customer Impact Assessment (refer to Exhibit B, Tab 6, Schedule 3) the new line will
15 improve the adequacy, reliability, and quality of electric service to consumers and will
16 not have an adverse impact on the system or other transmission customers. The new line
17 will have an average bill impact of approximately 0.41% or \$5.88 per year on the
18 delivered cost of electricity for the typical Ontario residential customer consuming 1000
19 kWh per month. Under the *OEB Act, 1998, s. 96 (2)*, “public interest” is defined to mean
20 the interests of consumers with respect to prices and the reliability and quality of
21 electricity service.

22
23 The OPA has determined that a new 500 kV double-circuit transmission line is needed
24 from the Bruce area to the Greater Toronto Area (see Exhibit B, Tab 6, Schedule 5,
25 Appendix 1). The only alternative that meets the need and the key objectives highlighted
26 in Exhibit B, Tab 3, Schedule 1 is a new line from the Bruce Power Complex to Milton
27 SS within a widened existing Bruce to Milton transmission corridor. The proposed

1 facilities will also meet the technical requirements of the Transmission System Code
2 (TSC) and all other relevant codes and guidelines.

3
4 The proposed line supports the Government's off-coal initiatives and also has a
5 secondary benefit of allowing the existing provincial transmission system to
6 accommodate additional renewable generation development in northern Ontario.

7
8 The proposed line will be owned and operated by Hydro One, and will include the
9 following facilities:

- 10
- 11 ▪ A 3 km 500 kV single-circuit line from the Bruce A Transmission Station (TS) to
12 Bruce Junction along the existing multi-line corridor within the Bruce Power
13 Complex.
 - 14 ▪ A 3 km 500 kV single-circuit line from the Bruce B Switching Station (SS) to Bruce
15 Junction along the existing multi-line corridor within the Bruce Power Complex.
 - 16 ▪ A 173 km 500 kV double-circuit line from the Bruce Junction to Milton TS within a
17 widened existing transmission corridor.
 - 18 ▪ Modifications at Milton SS, Bruce A TS and Bruce B SS to terminate and
19 accommodate the new transmission line.

20
21 A map showing the proposed location of the transmission facilities is provided in Exhibit
22 B, Tab 2, Schedule 2.

23
24 As part of the Integrated Power System Plan (IPSP) development work, the OPA has
25 identified the need to increase the transmission capacity out of the Bruce area as quickly
26 as possible (see the Transmission Discussion Paper No. 5 in Exhibit B, Tab 6, Schedule
27 5, pages 39 to 53). The IESO also highlighted the need for these transmission

1 enhancements in its March 2007 Ontario Reliability Outlook at pages 8 to 9 and Table 3
2 at page 12. The 2007 Outlook is filed as Exhibit B, Tab 6, Schedule 4.

3
4 The IESO has carried out its System Impact Assessment (SIA) of the proposed facilities
5 in accordance with the Grid Connection Requirements of the Market Rules and the
6 associated IESO Connection Assessment and Approval Process. The IESO's SIA filed as
7 Exhibit B, Tab 6, Schedule 2 confirms that the proposed facilities will satisfy the need for
8 this project as identified by the OPA. The IESO SIA also indicates that Hydro One's
9 proposed transmission solution is adequate and does not adversely impact the IESO-
10 controlled grid.

11
12 Hydro One carried out a Customer Impact Assessment (CIA) in accordance with the TSC
13 to determine the impact of the proposed facilities on transmission customers. Hydro
14 One's CIA filed as Exhibit 6, Tab 6, Schedule 3 presents results of short-circuit and
15 voltage performance study analyses. The new 500 kV transmission line can be
16 incorporated without any adverse impacts on southwestern Ontario customers.

17
18 The total cost of the project is estimated to be \$635 million. The costs of the new
19 facilities are to be recovered through incremental transmission Network Pool Rates. No
20 capital contribution is required, consistent with the applicable provisions of the TSC.

21
22 Prior to making this application, Hydro One has completed the initial stage of its
23 consultation process for the project. Subsequent to this application, Hydro One will
24 undertake an extensive consultation program. Further details can be found in Exhibit B,
25 Tab 6, Schedule 6.

26
27 The project is subject to an Individual Environmental Assessment (EA) under Ontario's
28 *Environmental Assessment Act*. The EA will rely upon the previous work of the OPA to

1 address need and alternatives. Hydro One will seek to scope the EA in accordance with
2 the OPA's assessment and determination, the conclusions of which are found in the
3 March 23rd OPA letter to Hydro One (Exhibit B, Tab 6, Schedule 5, Appendix 4).

4
5 To meet the target in-service date, it is expected that the Terms of Reference (TOR) for
6 the individual EA will be submitted in June 2007 and approved by September of 2007.
7 Throughout the EA process, Hydro One will consult with various levels of government,
8 Aboriginal groups, landowners, and other interested parties (refer to Exhibit B, Tab 6,
9 Schedule 6, Exhibit B, Tab 6, Schedule 7 and Exhibit B, Tab 6, Schedule 8). EA
10 approval is required by September 2008 to meet the target in-service date.

11
12 A widening of the existing transmission corridor by approximately 53 m to 61 m (175 ft
13 to 200 ft) for the entire length of the line is required as the existing corridor is not wide
14 enough to accommodate the new line. Further details can be found in Exhibit B, Tab 6,
15 Schedule 9. Discussions with landowners to secure the land rights required for the
16 widened corridor will begin during the section 92 proceeding. In order to meet the
17 urgent in-service timelines, Hydro One plans to utilize the expropriation process under
18 the *Ontario Energy Board Act* and the *Expropriations Act* after receiving section 92
19 approval. In addition, Hydro One will be applying for early access rights under Section
20 98 of the *OEB Act* to conduct surveys and other pre-construction activities prior to
21 receiving Leave to Construct approval.

22
23 A detailed construction schedule may be found at Exhibit B, Tab 5, Schedule 2. This
24 schedule assumes Board approval by October 2007 and EA Approval by September 2008
25 to enable a December 2011 in-service date. These timelines are challenging and will
26 depend on cooperation amongst all stakeholders in the Section 92, the EA and the
27 negotiation/expropriation processes.

1 For the reasons provided in support of this Application, Hydro One respectfully submits
2 that the proposed transmission reinforcement within the municipalities listed above is in
3 the public interest and should be approved under Section 92 of the *OEB Act, 1998*.
4 Accordingly, Hydro One requests an Order from the Board pursuant to Section 92 of the
5 *Ontario Energy Board Act* granting leave to construct the proposed line by October 2007.

6

Filed: March 29, 2007
EB-2007-0050
Exhibit A
Tab 3
Schedule 1
Page 1 of 1

1 **PROCEDURAL ORDERS / AFFIDAVITS / CORRESPONDENCE**

2

1

NOTICES OF MOTION

2

EXHIBIT LIST

<u>Exh</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
A			Administration
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	3	1	Procedural Orders/Affidavits/Correspondence
	4	1	Notices of Motion
	5	1	Exhibit List
B			Applicant's Prefiled Evidence
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	1	2	Map of Existing Facilities
	1	3	Need for Proposed Facilities
	1	4	Existing Facilities: Bruce X Milton Schematic Diagram
	1	5	Existing Facilities: Bruce A TS Schematic Diagram
	1	6	Existing Facilities: Bruce B SS Schematic Diagram
	1	7	Existing Facilities: Milton SS Schematic Diagram
	2	1	Description of Proposed Facilities
	2	2	Map Showing Location of Proposed Facilities
	2	3	Cross Sections of the Tower Types - Existing and Proposed

2	4	Proposed Facilities: Bruce X Milton Schematic Diagram
2	5	Proposed Facilities: Bruce A TS Schematic Diagram
2	6	Proposed Facilities: Bruce B SS Schematic Diagram
2	7	Proposed Facilities: Milton SS Schematic Diagram
3	1	Transmission Alternatives Considered
4	1	Project Costs, Economics, and Other Public Interest Considerations
4	2	Project Costs
4	3	Project Economics
4	4	DCF and Rate Impact Analysis
4	5	Other Public Interest Considerations
5	1	Construction and Project Administration
5	2	Chart Showing Project Schedule
6	1	Other Matters / Agreements / Approvals
6	2	The IESO's System Impact Assessment
6	3	Customer Impact Assessment
6	4	Ontario's Reliability Outlook - March 2007
6	5	Ontario Power Authority Materials
6	6	Stakeholder and Community Consultation

6	7	Aboriginal Engagement Process
6	8	Environmental Assessment Status
6	9	Land Matters
6	10	Legal Agreements / Forms
6	11	Land Maps