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BY COURIER

September 28, 2009

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

Dear Ms. Walli:

EB-2009-0079 – Hydro One Networks' Section 92 – Woodstock East Transmission Line Upgrade Project – Hydro One Reply Submission

I am attaching three (3) copies of the Hydro One Networks' Reply Submission to OEB Staff.

An electronic copy of the responses has been filed using the Board's Regulatory Electronic Submission System (RESS) and the proof of successful submission slip is attached.

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

Attach.

HYDRO ONE REPLY SUBMISSION

1.0 INTRODUCTION

Hydro One has applied to the Board for an order granting leave to construct transmission line facilities in the Woodstock Area pursuant to Section 92 of the *OEB Act*.

The work and the proposed line facilities to be constructed, owned, and operated by Hydro One are:

- Build approximately 4 km of 230 kV double-circuit line to replace the existing B8W single-circuit 115kV line on the existing right-of-way ("ROW") between Woodstock TS and the proposed Commerce Way TS. Connect this new line to the new double-circuit line K7/K12 (scheduled to be in-service in December 2011 and approved in EB-2007-0027) at Woodstock TS and the remaining portion of B8W at Commerce Way TS. The new line will initially operate at 115 kV subject to future anticipated transmission enhancements in the area.
- Build approximately 0.1 km double-circuit line tap from the above rebuilt line to the new Commerce Way TS.
- Remove approximately 4 km of the existing 115 kV circuit line B8W from Woodstock TS to Commerce Way TS. Toyota Woodstock TS will be supplied temporarily from the Brant TS end during rebuilding of the line facilities.
- In conjunction with the proposed new transmission line facilities, Hydro One is also building a new transformer station, Commerce Way TS, at the request of the local LDCs. This station is to be constructed, owned, and operated by Hydro One.

The Woodstock East line upgrade project and new Commerce Way TS will be the third of three projects to upgrade capacity and reliability in the Woodstock Area. Previously the Board has approved EB-2006-0352 for the Toyota connection, and the EB-2007-0027 Woodstock Area Transmission Reinforcement.

In Hydro One's view, the proposed line facilities are in the public interest as they:

- Will ensure the availability of electricity supply to consumers in the Woodstock Area;
- Will increase transmission capacity in the area to meet expected load growth in a reliable manner;
- Will maintain required quality of supply (i.e. adequate post-contingency voltage levels); and
- Will not have a material impact on the price of electricity.

The need for the proposed line facilities was confirmed in a Hydro One load and capacity analysis conducted with input from the LDCs in the Woodstock Area. This analysis was updated in February 2009.

2.0 BOARD STAFF POSITION

Board Staff's Submission and Hydro One's Reply are summarized under the following four main subject areas:

(i) Project Type (Transmission Line Requirement)

Board staff, in their submission state "Board Staff accepts that transmission line B8W needs replacement due to the fact that it is nearing its end of life and that although this project may have discretionary aspects, it is primarily non-discretionary due to end-of-life considerations for the asset in question."

Hydro One agrees with Staff's assessment.

(ii) Relevant Hydro One/IESO Transmission Operating Guidelines

Board Staff submits that providing for more reliability and system redundancy by installing a double-circuit transmission facility at this juncture is discretionary on the part of Hydro One. Further, the load projected for this upgrade does not meet the 150

1 MW threshold of the Load Restoration Criteria, it only approaches this level at some
2 point in the future. In its response to Board Staff Interrogatory #2, Hydro One states that
3 load delivery of 145 MW on the circuit B8W is forecast to occur in the year 2040.

4
5 Hydro One respectfully disagrees with Staff's assessment. The implications of Staff's
6 position on cost responsibility and need for a second circuit to provide adequate
7 reliability of service are addressed in (iv) below.

8
9 (iii) *Project Type (Transmission Station Requirement)*

10 Board staff respectfully disagrees with Hydro One's assertion that it does not require
11 section 92 approval for the transformer station in question. In fact, section 92(1) of
12 the *Act* states as follows:

13
14 *"No person shall construct, expand or reinforce an electricity transmission line*
15 *or an electricity distribution line or make an interconnection without first*
16 *obtaining from the Board an order granting leave to construct, expand or*
17 *reinforce such line or interconnection."*

18
19 Importantly however, section 89 of the *Act* defines "electricity transmission line" to
20 mean "...a line, transformers, plant or equipment used for conveying electricity at
21 voltages of higher than 50 kilovolts".

22
23 Hydro One agrees with Staff's assessment, as far as it goes. The *Act* does indeed
24 define electricity transmission lines to include transformer stations. However, in
25 Hydro One's view Regulation 161/99, s. 6.2 (1) provides further and important
26 guidance in interpreting the above definition. That section contains a criterion which
27 effectively limits the application of section 92 to transmission lines greater than 2
28 kilometres in length. This serves to appropriately narrow the scope of the Board's
29 review and ensure that minor transmission line extensions, including line taps to
30 stations, which are typically short given standard planning practice of building

1 stations close to the line right-of-way where possible, are not subject to section 92
2 requirements.

3
4 It is important to note that there is no corresponding criterion in the regulation
5 dealing with stations. That is, there is nothing that sets a materiality threshold for the
6 Board's review in regard to stations. This means in theory that ALL stations,
7 regardless of size or cost, are subject to section 92 review. In Hydro One's view, this
8 reading would not only be impractical to implement but would be inconsistent with
9 the above-noted exclusion regarding station line taps. If stations are subject to
10 section 92, why would the line tap to the station be excluded?

11
12 Hydro One believes that the combined effect of the criteria in the regulation – i.e.,
13 the inclusion of a line length criterion which largely operates to exclude station line
14 taps, and the absence of any criterion which sets a materiality threshold for stations
15 (e.g., by transformer size or station cost) – suggests that the intent of the regulations
16 is to focus the application of section 92 on lines and not stations. In Hydro One's
17 view, this is the only practical means to interpret and implement the regulation and
18 the underlying legislation. Not to accept this definition would mean a large increase
19 in the number of projects subject to section 92 review as it would capture all
20 transmission stations built in the province.

21
22 Hydro One believes that that level of review for stations would be unnecessary. In
23 this regard, the building of new stations almost always occurs at customer request
24 and typically results, based on the TSC's well-established rules regarding cost
25 responsibility, in a sizable capital contribution from the requesting customer(s). As
26 such, the Board can take assurance through the operation of the TSC rules that
27 facilities are sized appropriately to meet the need and not over-built (if facilities were
28 over-built, customers' capital contributions would increase), and that transmission
29 ratepayers are held harmless.

1 Further, the costs of station projects are almost always large enough to exceed the
2 individual project disclosure threshold in Hydro One's transmission rate applications.
3 This ensures that the Board has an opportunity through the rate-setting process to
4 review and approve Hydro One's station investments. A further section 92 review
5 on top of that is unnecessary. Additionally, land requirements for stations are
6 typically small compared to lines, so that the impact on landowners, one of the key
7 concerns of section 92 reviews, tends to be minor.

8
9 Finally, Hydro One notes that information on station costs and the related land and
10 financial impacts have been provided in the application to provide context to the
11 requested line approval. The Board accordingly has the information and can gauge
12 the impacts of the station. Hydro One is simply suggesting that formal Board
13 approval for the station aspects of the project is not required, for the reasons outlined
14 above.

15
16 *(iv) Project Economics, Cost Feasibility, and Cost Allocation*

17 Board Staff submits that end of life considerations regarding the B8W transmission
18 line support the rebuilding of this circuit. In addition, Board Staff submits that
19 rebuilding this line to a facility with identical load delivery capacity (105 MW) is not
20 prudent and so it is reasonable for Hydro One to propose a new line with some degree
21 of additional capacity.

22
23 Board Staff accepts Hydro One's reasoning for cost allocation regarding the 100 metre
24 connection from the transmission line ROW to the location of Commerce West TS and
25 agrees that the transmission customers at this location should pay for this facility.
26 Board Staff disagrees, however with Hydro One's assertion that rebuilding the
27 existing end-of-life line to 230 kV standards and installing a second 230 kV circuit
28 from Woodstock TS to the tap to Commerce Way TS and upgrading the
29 telecommunication resources for the 230 kV transmission system should all be paid
30 for by the transmission connection pool. Board Staff submits that the cost difference

1 between a 230kV single circuit transmission line and a 230kV double circuit
2 transmission line should be paid for by the transmission customers (Hydro One
3 Distribution, Woodstock Hydro and Toyota) at this location that benefit from the
4 increased transmission reliability that a double-circuit transmission line affords. Staff
5 also submits that if the Woodstock area needed reliability improvement, Hydro One
6 should have made reference to existing delivery point performance of the B8W line.

7
8 With respect to Staff's last point concerning the lack of delivery point performance
9 evidence in the application, Hydro One notes that such evidence was not provided
10 because the reliability context for this line is for system reliability and future long term
11 transmission expansion plans of transmitter rather than specific delivery point
12 performance of Woodstock TS or Commerce Way TS. However, in Hydro One's
13 view reliability concerns are also likely to increase in the future based on the
14 increasing load expected over the forecast period, especially for time-sensitive
15 manufacturing loads, if the proposed upgrade is not undertaken.

16
17 More importantly and as indicated in Hydro One's evidence:

- 18
19 a) The load over the forecast period approaches the 150 MW threshold for 4-hour
20 restoration required under IESO standards (Section 7.2 of the IESO's Ontario
21 Resource and Transmission Assessment Criteria), which standard is essentially
22 impossible to achieve without a double-circuit configuration;
- 23
24 b) The installation of the 2nd circuit is also required to comply with the IESO's load
25 restoration criteria for loads less than 150 MW (see above for citation), which
26 requires that "all loads must be restored within approximately 8 hours for a single
27 contingency". This requirement cannot be met on the single circuit transmission
28 line B8W as there are no other facilities in the Woodstock area to supply the
29 entire load, in the event of a failure on the line. During storm conditions, it could
30 take up to a day to mobilize repair crews; and
- 31

1 c) As noted in the response to Interrogatory 5 (c):

2 “Depending on the characteristics and capability of the distribution network, two
3 sources of transmission supply are provided for most loads in excess of about 25
4 to 50 MW in order to have the capability to restore the load within a few hours
5 upon the loss of a supply circuit. An exception would be in an area where the
6 distribution system has sufficient redundancy built-in in order to provide this
7 capability. The distribution system in the Woodstock area has insufficient
8 redundancy to provide this capability. Hence, historically dual supply is provided
9 for most loads in excess of about 25 to 50 MW. The load on B8W exceeds this
10 range.” (emphasis added)
11

12 With respect to Staff’s position that the additional costs of the second circuit should be
13 paid by customers, given that (in Staff’s view) the second circuit is unnecessary,
14 Hydro One disagrees. As noted in the pre-filed material at Exhibit B, Tab 1, Schedule
15 4, page 5, the incremental cost to upgrade the line to 230 kV standards now compared
16 to the cost to rebuild the line at 115 kV is minor. In Hydro One’s view, this holds all
17 the more with respect to installing a second 230 kV circuit now, compared with
18 deferring the work and doing it at a later date. The incremental costs of installing the
19 second circuit now are small whereas the costs of doing that work later would be much
20 greater, for similar reasons to those adduced in the response to Interrogatory # 4;
21 namely, the duplicated mobilization costs. These costs would include costs to again
22 rebuild and remove access roads, bring heavy equipment to and from the site, provide
23 barriers and police protection, and relocate underground facilities to avoid damage
24 when anchoring heavy equipment.
25

26 The incremental cost of installing the second circuit is estimated at \$550 thousand
27 (materials plus installation for conductor and insulators) over the approximately 4
28 kilometre length of the proposed line, if the work is done concurrently with the rest of
29 the project. The cost to do the work later is estimated at \$1.9 million (uninflated),
30 due to the duplicated mobilization costs. The above cost information was not

1 available at the time of filing the pre-filed application and Interrogatory responses.
2 Hydro One is providing it by way of Argument so that Staff and the Board have the
3 most up-to-date information available.
4

5 In Hydro One's view, stringing the second circuit at the same time as the rest of the
6 work is being undertaken is a demonstrably more efficient approach. It would also
7 avoid future disruption to local residents, a particular concern given the narrow
8 working area available on the existing corridor. It would also tie in to future system
9 enhancement plans for the area which contemplate completion of the double-circuit
10 230 kV system, already underway in other nearby sections.
11

12 For all of the above reasons, Hydro One believes that it is appropriate to install the
13 second circuit now and to treat the work as non-discretionary. It does not believe,
14 given the facts of the case, that customers should be asked to pay for an efficient and
15 prudent planning approach.
16

17 All of which is respectfully submitted for the Board's consideration.
18