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Susan Frank

Vice President and Chief Regulatory Officer
Regulatory Affairs

BY COURIER

April 10, 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-2005-0315 – Supply to York Region - Hydro One Networks Response to Ontario Energy Board March 26, 2007 Direction for an Area Transmission Planning Report

As requested by the Board in its March 26, 2007 letter, Hydro One Networks is providing the attached report (8 paper copies and one electronic copy in PDF format to the Board Secretary email address).

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

- c. P. Conboy, PowerStream
- Gaye-Donna Young, Newmarket Hydro
- Miriam Heinz, Ontario Power Authority
- Kim Warren, Independent Electricity System Operator

Attach.

Northern York Region Supply EB-2005-0315
Hydro One Networks Response to Ontario Energy Board March 26, 2007 Direction for an
Area Transmission Planning Report

Introduction

Hydro One Networks Inc. (“Hydro One”) is pleased to respond to the Ontario Energy Board’s (“the Board”) request to provide more information on Hydro One’s plans to address the inadequate transmission capacity in the Northern York Region. We understand this information will give the Board a more complete understanding of the capability of the system at the Armitage Transformer Station (“TS”) to handle the anticipated electricity demand.

Specifically, the Board has requested a report identifying the expected delay (covering best and worst scenarios) in securing environmental permitting for the construction of the Holland Junction Transformer Station (“HJTS”). For each scenario, Hydro One has identified the amount load will exceed capacity at Armitage TS and the potential service reliability impacts to customers supplied by Armitage TS.

Securing Environmental Approvals

The following chronology outlines the steps Hydro One took to secure the environmental approvals and to investigate other options.

January 2006:

Hydro One initiated the EA Process for HJTS. The Process involved numerous consultations with the municipalities of King Township and East Gwillimbury, provincial ministries, general public, Conservation Authorities and other agencies (e.g. Ontario Nature and Ontario Heritage Foundation). Consultation was ongoing throughout the process.

June, July and August 2006:

The Draft Environmental Summary Report (ESR) for Holland TS was released in June for a 30 day review period. During that time, ten requests to bump-up the approval process from a Class EA to an Individual EA were received. Responses were issued to all parties who requested bump-up. Continuous contacts were made with King Township, culminating in a meeting on August 30, 2006. At that meeting, King Township again requested burial of distribution lines or other benefits which would make the project more acceptable to area residents. Hydro One could not agree to their request at that time. There are no prospects of finding a more acceptable site in King Township or neighbouring communities.

September 2006:

Hydro One issued a letter to the Minister recommending rejection of the bump-up requests. On September 29, the first meeting was held with the Director of Environmental Assessments and Approvals Branch and an MOE appointed facilitator. The facilitator asked a series of questions focusing on benefits that could be provided to King Township.

October 2006:

In October, a second meeting with the MOE facilitator was held. He indicated no plans to bring the parties together.

December 22, 2006:

Hydro One received a response from the Ministry of Environment with some specific questions and with direction to consult additional First Nations and Conservation groups who were not a party to the bump-up request. The First Nations included the Huron Wendat First Nation based north of Quebec City and seven signatories of the Williams Treaties (1922). The Conservation groups were Lake Simcoe Conservation Authority, Ontario Nature, Ontario Heritage Foundation and Municipal Affairs Greenbelt plan representatives.

January 2007 to March 2007:

Responses were provided to the MOE questions. Notifications were sent to the identified First Nations and follow-up phone calls made to offer the opportunity for meetings. To date, none have requested a meeting.

March 2, 2007:

Although the Lake Simcoe Region Conservation Authority did not request a bump-up or express any concerns during the Class EA process, as the result of recent MOE contact, they requested additional information and that Hydro One undertake a more extensive study of the adjacent Provincially Significant Wetland. Study requirements are seasonally dependent and will therefore not be complete until late this summer.

March 2, 2007:

Hydro One presented a briefing on the status of project approvals to OEB, IESO and OPA.

March 13, 2007:

The OPA met with Newmarket Hydro, PowerStream and Hydro One Distribution to request that each review and revise, as required, the information in the OPA's September 30, 2005 report and to consider potential contingency plans.

March 29, 2007:

Newmarket Hydro, PowerStream and Hydro One Distribution met to discuss distribution plans and CDM programs to assist in alleviating the electricity supply shortage issue in the Northern York Region. The results of this discussion are outlined in a joint letter to the OEB dated April 10, 2007.

April 2, 2007:

The OPA met with Newmarket Hydro, PowerStream and Hydro One Distribution to discuss all the ongoing and upcoming CDM programs that will assist in lowering the electricity demand in the northern York Region area. These combined initiatives are outlined in the joint utility letter to the OEB dated April 10, 2007 as well as a letter to the OEB from the OPA outlining their CDM programs dated April 9, 2007.

Best Case Scenario

The best case scenario would be for the Minister of Environment to deny the bump-up requests. Before this will happen, the Ministry has indicated their intent to undertake a consultation process with interested First Nations. We understand that this will take at least 5 months. This consultation process may result in additional studies or conditions that could affect project costs and further extend the decision date beyond 5 months. During this process, Hydro One will complete the requested Conservation Authority study described above. Under this scenario, the earliest conceivable EA approval date would be November 2007 and the proposed Holland Junction TS would be in service before the summer of 2009.

Armitage TS consists of two 230/44 kV supply points (T1/T2 & T3/T4). Through the installation of four additional shunt capacitors at the station in 2006, the capacity was increased by 23 MW to a combined summer capacity of about 340 MW or 352 MVA, based on a 97% power factor. The total summer peak loading at Armitage TS has exceeded its transformation capacity for sustained periods since 2002 (by about 50 MW in 2006 even with the new shunt capacitors).

Hydro One is also undertaking a number of initiatives to mitigate equipment risks at the station including:

- increasing the frequency of normal maintenance activities such as oil testing and inspections.
- addressing, immediately, identified deficiencies at the station
- ensuring a spare transformer is available in the event of a transformer failure.
- investigating more extensive solutions to improve operational flexibility and response.

Worst Case Scenario

If the Minister chooses to accept the bump-up requests now or following their First Nations consultation process, the approval date will likely slip to late 2009 at the earliest. The individual EA process is a multi-step process that takes a minimum of 2 years. The steps include preparation, review and approval of a *terms of reference*; preparation and review of an EA document; government and public review periods; public hearings; an Environmental Review Tribunal report and a final decision. Consequently, an individual EA process could run from late 2007 to late 2009.

The Class EA process requires consultation with affected First Nations. There was and is no reason to believe that any First Nations will be affected by this project. Hunting and fishing on the property are not possible, given the proximity to area homes. Seven of the eight potentially interested First Nations fully relinquished all hunting and fishing rights (Williams Treaties of 1922). This was upheld by the Ontario Supreme Court in a recent challenge (Decision dated March 13, 1992, the Ontario Court of Appeal (8 O.R. (3d) 225).) The eighth First Nation is based in Quebec. Their concerns relate to potential archaeological finds. This is a post EA issue and can be addressed without affecting EA approval timelines.

Under the worse case scenario, the earliest HJTS would come into service would be the summer of 2011. Considering the amount of load that needs to be served, the short term transmission mitigation activities that could be undertaken in this area, as described above, will not address the shortfall. The OPA’s next step in their recommended Plan for this area is to work on a local generation solution. In the event that a successful procurement contract for local generation cannot be concluded, OPA’s alternative option is to upgrade the line from the Buttonville station to Gormley with a double-circuit 230 kV line and build a station at Gormley as outlined in page 99 of OPA Plan, Discussion Paper Chapter 5; Transmission dated November 13, 2006. Hydro One will make best efforts to build the transmission line reinforcement on a schedule that is consistent with the OPA’s IPSP direction.

Reliability

The following table shows how much the load at Armitage TS would exceed capacity during summer peaks if HJTS is not in service. It has been assumed that the 2006 peak load of 390 MW grows at 4% per year based on the LDC's load forecast (“optimistic” scenario). The table illustrates the amount of load that would be interrupted following a contingency during peak load periods.

Year	Total Load (MW)	Load Exceeding Capacity (MW)	TS Availability
2006	390	50	
2007	406	66	
2008	422	82	
2009	439	99	becomes available under best case
2010	456	116	
2011	474	134	becomes available under worst case

Conclusion

Hydro One will continue to aggressively pursue the approval of the HJTS Class EA. Other efforts by the OPA and the York region LDCs to manage the load shortfall will also be supported by Hydro One.