



EB-2004-0476

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c. 15, Schedule B;

AND IN THE MATTER OF an Application by Hydro One
Networks Inc., for an order or orders granting leave to
construct a transmission reinforcement project in the Niagara
Peninsula area.

BEFORE: Cathy Spoel
Presiding Member

Pamela Nowina
Member

DECISION AND ORDER

1. THE APPLICATION AND THE PROCEEDING

1.1 The Application and Intervenors

Hydro One Networks Inc. (the “Applicant” or “Hydro One”) owns and operates transmission facilities within Ontario. By application dated October 29, 2004 (the “Application”), the Applicant seeks Ontario Energy Board (the “Board”) approval, pursuant to section 92 of the *Ontario Energy Board Act, 1998* (the “Act”), to construct transmission facilities in the Niagara region (the “Project”) in order to alleviate transmission constraints at the Queenston Flow West transmission interface (the “QFW”). Specifically, the Applicant proposes to construct transmission facilities that are comprised of a new 76-kilometer (km) double circuit 230 kilovolt (kV) transmission line primarily along existing Hydro One rights-of-way between Allanburg Transformer Station (“TS”) and Middleport TS. New rights-of-way will only be required for approximately 0.5 km of the proposed route. The proposed project also involves upgrades to Middleport TS and a provision that would enable a section of one new 230 kV line (from Caledonia TS to St. Ann's Junction TS) to be operated at 115 kV as emergency back-up supply for Dunnville TS. The cost of the Project is estimated at \$116 million. The proposed facilities will be constructed, owned and operated by Hydro One. The planned in-service date is the summer of 2007.

The following parties intervened in this proceeding: the Association of Major Power Consumers in Ontario (“AMPCO”); the Independent Electricity System Operator (“IESO”); Imperial Oil Limited (“Imperial Oil”); and Susan Morrison and John Palcic (the “Landowners”) (collectively, the “Intervenors”).

1.2 The Proceeding

On May 18, 2005, the Board issued an Interim Decision in this proceeding. The history of this proceeding up to May 18, 2005 is set out in detail in the Interim Decision, and the description below is limited to subsequent events.

In its Interim Decision, the Board stated that it would not grant leave to construct the Project at that time as there was insufficient evidence before the Board to allow it to make a determination that the Project was in the public interest as required by the Act. However, the Board also stated that it accepted that the combination of the benefits of congestion reduction and reliability enhancement that may result from the Project could be considerable. The Board therefore directed the Applicant to file additional evidence in support of the Project.

On May 18, 2005, the Board also issued Procedural Order No. 5, which identified four broad areas of additional evidence to be filed by the Applicant. Procedural Order No. 5 also required that the Applicant contact Board staff by May 27, 2005 to develop a schedule for the filing of evidence by the Applicant.

On May 27, 2005, the Applicant filed with the Board, and delivered to all Intervenors, a letter in response to Procedural Order No. 5. In its letter, the Applicant indicated that it could provide additional evidence on two of the four broad areas, namely, the supply to Dunnville and the easement that applies to the Landowners' property. With respect to the two remaining areas, the Applicant submitted that the quantification of the benefits associated with congestion relief and system reliability should be completed by the entities that have the information and the mandate under the *Electricity Act, 1998* to complete the necessary studies (namely, the Ontario Power Authority (the OPA) and the IESO). The Applicant also indicated its willingness to work with the OPA and the IESO in order to complete the necessary studies.

On June 7, 2005, the Applicant submitted additional evidence on the issues of both the supply to Dunnville and the easement. By letter dated June 14, 2005, the Applicant confirmed that it did not intend to file any further evidence in this proceeding beyond that which had already been filed in respect of the Landowner and Dunnville supply issues. No further evidence has been provided to the Board in relation to the other matters raised in Procedural Order No. 5.

On June 21, 2005, the Board issued Procedural Order No. 6 which offered Intervenors an opportunity to comment on the Applicant's letter dated May 27, 2005, and the additional evidence filed by the Applicant on June 7, 2005. The deadline for submissions was June 24, 2005.

On June 24, 2005 the Board received a submission from the Landowners. On that date the Board also received a letter from AMPCO requesting an extension of the deadline from June 24, 2005, to June 30, 2005. The Board issued Procedural Order No. 7 extending the deadline for filing of AMPCO's submissions and these were received from AMPCO on June 30, 2005.

On July 5, 2005 the Board issued Procedural Order No. 8 allowing the Applicant an opportunity to reply to the submissions of the Landowners and AMPCO dated June 24, 2005 and June 30, 2005, respectively. The Board received the Applicant's submissions on July 6, 2005.

DECISION AND ORDER

The full record of this proceeding is available at the Board's offices. The Board has considered the full record but refers in this Decision and Order only to those portions of the record that it considers necessary to explain its findings.

2. SUBMISSIONS AND FINDINGS

Reference should be made to the Board's Interim Decision in this matter, issued May 18, 2005, for a description of the evidence and submission of the parties received by the Board prior to the Interim Decision. The submissions and findings set out below are limited to those that are of continuing relevance to the Board's final decision in this matter, and relate principally to the elements of additional evidence identified in the Board's Procedural Order No. 5.

2.1 Large Customer Impact

AMPCO recommended that if the Board grants leave to construct, the Board should as a condition of approval, require Hydro One to compensate customers for any financial losses caused directly or indirectly by outages necessary to enable the construction of the Project.

AMPCO's concerns are tied to the Customer Impact Assessment, completed by Hydro One in relation to the Project. The Customer Impact Assessment identifies an adverse impact on Imperial Oil's Nanticoke facility if Hydro One adopts the IESO's proposal that both of the new circuits be connected into the East Middleport switchyard. In that case, Imperial Oil will experience outages of its 230 kV supply to allow the work on the Project to proceed. The interruption of the Hydro One 230 kV supply to accommodate Hydro One's construction program will result in the transfer of the Imperial Oil load to a supply from Hydro One's distribution facilities at a cost to Imperial Oil of \$147,000 per month even if the interruption is only for one hour. AMPCO also indicated that the same Customer Impact Assessment identified that Abitibi-Thorold would experience some outages to connect the new circuits (and reconnect their 230kV supply to Q28A). AMPCO submitted that Hydro One should be required to co-ordinate its outages with Abitibi-Thorold so as to avoid negative impacts on the customer's operations.

In its reply submission dated March 24, 2005 Hydro One indicated that Imperial Oil may or may not be affected by outages during construction, depending on the circuit termination configuration at the Middleport TS. Should there be a need for an outage during construction, Imperial Oil, due to its chosen connection arrangement with Hydro One, would incur double-peaking charges for any load transferred to Hydro One's distribution facilities. Hydro One stated that, in this case, it is simply applying its approved tariffs, but will coordinate its outage schedule with Imperial Oil to minimize the charges.

The Board finds that Imperial Oil should be compensated for any additional charges that it incurs as a result of an outage event related to the construction of the Project. The extent of the compensation is limited to reimbursement of any additional charges related to the plant being supplied from the low voltage backup supply. Hydro One should include the resultant costs in the Project construction costs. This will be included as a condition of the Board's approval of the Project.

Also in its reply submission, Hydro One indicated that its current expectation is that there will be no need for Abitibi-Thorold to experience outages during construction due to the use of a recently tested switching procedure. However, should a short outage be required due to safety concerns during implementation of the revised connection arrangement, Hydro One has submitted that its schedules will be coordinated to minimize the impact on Abitibi-Thorold's operations.

The Board notes that the situation for Abitibi-Thorold seems to be controllable, and that Hydro One will use its best efforts to avoid such interruptions. The Board will include this as a condition of its approval of the Project.

2.2 Landowner Issues

The Landowners have raised a number of issues regarding the Project and its impact on their property, including the adequacy of Hydro One's consultation process, the adverse health effects of electro-magnetic fields and the sufficiency of the easement relative to the work proposed to be done by Hydro One.

Many of the concerns raised by the Landowners in their June 24, 2005 submission involved issues concerning the environmental effects of the Project which are properly dealt with as part of the environmental assessment process. Hydro One has a valid environmental assessment approval for the Project from the Ministry of the Environment. The Board does not have jurisdiction over environmental matters in leave to construct applications and will not interfere with the results of, or duplicate, the environmental assessment process.

With respect to the sufficiency of the easement, the Landowners also reaffirmed their position that the easement over their property which has been in place since 1930 does not allow for the work that Hydro One has proposed. On June 7, 2005, Hydro One submitted a detailed description of the nature of the work to be done on the Landowners' property including, but not limited to, the exact location and design of the towers.

The Board is of the view that the existing easement is sufficiently broad to cover the work that is proposed to be done by Hydro One on the Landowners' property.

2.3 Project Costs

The Board noted in its Interim Decision that the forecast costs of the Project did not include the cost of removing the existing 115 kV line which is presently used as a backup supply for the town of Dunnville. In accordance with the Transmission System Code, the cost of removing the existing 115 kV line should have been included as part of the estimated Project cost.

In its June 7, 2005 submission, Hydro One provided additional evidence in response to the Board's request for a revised estimate of the capital cost of the Project to reflect the cost of removing the existing 115 kV line presently used as a back-up supply for the town of Dunnville. Hydro One advised that the cost to remove the existing 115 kV line from Allanburg TS to Caledonia was previously estimated at \$3.5 million. This removal cost has already been identified and included in an earlier project (released in 2003) to address the 115 kV transmission circuits A8N and A11N from Allanburg TS to Caledonia TS, which have reached their end-of-life.

As the cost of removal of the pertinent portion of the 115 kV line, estimated at \$3.5 million, has been included as part of an earlier project, the Board is satisfied that there is no need to add this removal cost to the cost of the Project.

In its Interim Decision, the Board indicated that, in accordance with the Transmission System Code, the cost of replacing the 115 kV line should be used to reduce the total cost of the Project if that replacement was scheduled to occur during the study horizon applicable to the Project. In its submission dated June 7, 2005, Hydro One provided some detail regarding the various options it considered for back-up supply to Dunnville, and concluded that there has been no preferred option identified. As a result, the costs for a partial back-up to Dunnville TS cannot be meaningfully determined.

Based on the foregoing, the Board finds the capital cost estimates of the Project do not need to be reduced to reflect any scheduled replacement of the 115 kV line presently used as a back-up supply for the town of Dunnville.

2.4 Economic and Reliability Issues

In its submission of June 30, 2005, AMPCO argued that the reliability benefits of the Project have not been quantified and, therefore, that leave to construct the Project should not be given. AMPCO reiterated points made in earlier submissions on the shortcomings in the evidence on this issue. In addition, AMPCO submitted that the IESO had the power to declare that the Project is essential for reliability purposes and has not done so. Hydro One in its reply of July 6, 2005 responded that the evidence showed that the IESO was clearly in support of the project and that there is no provision in the legislation that says the project can only be found in the public interest if the IESO says it is essential.

Section 96(1) of the Act provides that the Board shall grant an applicant leave to construct a transmission line if the Board is of the opinion that the Project is in the public interest. By Section 96(2) of the Act, in determining whether a project is in the public interest the Board must consider “the interests of consumers with respect to prices and the reliability and quality of electricity service.”

The Board’s interim decision in this matter, released May 18, 2005, included a finding that there are reliability benefits of the project, but that Hydro One had failed to establish the economic benefits of the project. The Board considered all of the relevant factors of prices, reliability and quality of electricity service. The Board found that there were reliability and enhanced supply benefits from transmission reinforcement on the Queenston Flow West interface, but was unable to adequately consider the economic impact of the project. Although the Act does not require the Board to make specific findings on economic impact, and also does not require the Board to conclude that there is a net positive economic impact it is difficult for the Board to make a finding that a project is in the public interest without understanding the economic costs and benefits of the project.

Information on economic benefits was wanting in this case. Hydro One initially claimed that the economic benefits of the Project consisted of annual savings of \$60 million in reduced congestion costs. It then acknowledged that these annual savings were more in the range of \$6 million. Hydro One claimed that the real grounds for the project were to enhance supply by increasing the capability of importing power from the state of New York and to increase reliability. However, Hydro One made no attempt to either substantiate the \$6 million in savings or to quantify reliability benefits. The Board’s interim decision therefore directed Hydro One to file evidence to assist the Board in its consideration of the economic benefits of increasing reliability.

Hydro One responded to this direction by letter dated May 27, 2005, in which it stated that other public institutions, namely the OPA and the IESO would be in a better position to provide evidence that provides a financial quantification of benefits. The letter concluded that Hydro One would work with those other institutions to provide this evidence. Such evidence has not been provided to the Board. In their letter dated June 14, 2005, Hydro One stated that it would not be filing any additional evidence.

The result is that the Board is still not in a position to make a determination on whether the Project is in the public interest with respect to price because it cannot determine the net costs of the Project. Indeed, with no evidence to the contrary, the Board must conclude that the net cost to ratepayers, if approved in a rate case, could be the full \$116 million. The reasons for this state of affairs are threefold.

First, quantifying the benefits of reliability is inherently difficult. Because the reliability investments in projects of this nature are not made to serve incremental load that provides an incremental revenue stream, the benefits of investment are less straightforward when evaluating reliability than when evaluating a load serving investment.

Second, Ontario now has several electricity entities with various responsibilities. Prior to the break up of Ontario Hydro, the three main monopoly utility functions of planning, dispatch and transmission were all within one organization. They have now been allocated among the OPA, the IESO and Hydro One, respectively. As appears from Hydro One's May 27, 2005 letter, these three agencies must still gain a further understanding of how to coordinate their activities in order to meet their legislative requirements under Section 96(2) of the Act. This lack of coordination is understandable given the newness of the institutional arrangements, but it certainly exacerbates the first point, i.e., the inherent difficulty of quantifying reliability benefits.

Third, although Hydro One is the applicant in this case, it appears to take the position that it is not responsible for demonstrating its case. Specifically, it has indicated that there are reliability benefits, but has failed to quantify these benefits or to make a credible economic case for the investment to increase reliability. Instead, it has asserted that this is the responsibility of the OPA and the IESO. This stance exacerbates the first two points, i.e., the inherent difficulty of quantifying reliability benefits and the uncertainty of the institutional responsibilities of the OPA, the IESO and Hydro One.

These factors combine to make a difficult environment in which to make a confident decision with respect to the economic case for the Project. It is also clear that further work will be required to address these matters in future cases. Having said this, the Board does not believe it would be in the public interest to defer its decision in this case pending the resolution of these issues. The Board finds that in respect of reliability and quality of service the Project is in the public interest. The Board will therefore grant the application requested and, in addition, makes the following observations.

First, leave to construct in this case is granted without a determination that the Applicant has proven the financial benefits of the Project. As a result, this decision cannot be taken as a finding that the costs of the Project are appropriately recovered from ratepayers. Hydro One will have to demonstrate this when seeking to recover those costs in the future.

Second, the Board recognizes that there is a need for greater clarity on the criteria it should apply when assessing the benefits of investments in reliability.

THE BOARD THEREFORE ORDERS THAT:

The application of Hydro One Networks Inc. for the leave to construct transmission facilities in the Niagara Region, comprising a new 76-kilometer double circuit 230 kilovolt transmission line and upgrades to the Middleport Transformer Station, is approved subject to the conditions attached as Appendix A to this Decision and Order.

Dated at Toronto, July 8, 2005

ONTARIO ENERGY BOARD

Original signed by

Peter H. O'Dell
Assistant Board Secretary

APPENDIX A

Conditions of Approval Hydro One Networks Inc. EB - 2004- 0476

1. General Requirements

- 1.1 Hydro One Networks Inc. ("Hydro One") shall construct the facilities and restore the land in accordance with the Application, evidence and undertakings, except as modified by the Board's Decision and Order dated July 8, 2005 (the "Order") and these Conditions of Approval.
- 1.2 Unless otherwise ordered by the Board, authorization for leave to construct granted by the Board shall expire on December 31, 2006, unless construction has commenced prior to that date.
- 1.3 Hydro One shall advise the Board's designated representative of any proposed material change in the project, including changes in: the proposed route; construction techniques; construction schedule; restoration procedures; or any other impacts of construction. Hydro One shall not make a material change without the prior approval of the Board or its designated representative.

2. Project and Communications Requirements

- 2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Facilities.
- 2.2 Hydro One shall designate a person as project engineer and shall provide the name of the individual to the Board's designated representative. The project engineer will be responsible for the fulfilment of these Conditions of Approval on the construction site. Hydro One shall provide a copy of the Order and of these Conditions of Approval to the project engineer, within seven days of the date of the Order or within seven days of the appointment of the project engineer, whichever is the later, and in any event prior to commencement of construction.
- 2.3 Hydro One shall give the Board's designated representative ten days written notice in advance of the commencement of construction.
- 2.4 Hydro One shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order and these Conditions of Approval.

- 2.5 Hydro One shall develop as soon as possible, and prior to start of construction, a detailed construction plan. The detailed construction plan shall cover all activities and associated outages and also include proposed outage management plans. These plans should be discussed with affected transmission customers before being finalized. Upon completion of the detailed plans, Hydro One shall provide 5 copies to the Board's designated representative.
- 2.6 Hydro One shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. This written confirmation shall be provided within one month of the completion of construction.
- 2.7 Within fifteen months of the completion of construction, Hydro One shall file with the Board a written Post Construction Financial Report. The report shall indicate the actual capital costs of the project with a detailed explanation of all cost components and explain all significant variances from the estimates filed with the Board.

3. Mitigating Outage Impacts on Transmission Customers During Construction

- 3.1 Without limiting the generality of Condition 2.5 above, Hydro One will work with Abitibi-Thorold to create a plan to avoid outages for Abitibi-Thorold's plant during construction of the project. This will be accomplished using a recently tested switching procedure. However, should a short outage be required due to safety concerns during implementation of the revised connection arrangement, Hydro One's schedules will be coordinated to minimize the impact on Abitibi-Thorold's operations.
- 3.2 With regard to Imperial Oil's Nanticoke plant, should outages occur to the plant's high voltage supply, Hydro One will hold the customer harmless with regard to extra charges. This is to be implemented by calculating the additional charges of supplying the plant from the low voltage backup supply, reimbursing Imperial Oil with that amount, and including that same amount as additional costs attributable to the construction of the project.

4. Monitoring and Reporting Requirements

- 4.1 Both during and after construction, Hydro One shall monitor the impacts of construction, and shall file five copies of a monitoring report with the Board within fifteen months of the completion of construction. Hydro One shall attach to the monitoring report a log of all complaints related to construction that have been received. The log shall record the person making the complaint, the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.

- 4.2 The monitoring report shall confirm Hydro One's adherence to these Conditions of Approval and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction and the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of these Conditions of Approval shall be explained.

5. System Impact Assessment

- 5.1 Hydro One shall implement all the recommendations of the Independent Electricity System Operator ("IESO"), as set out in the System Impact Assessment Report dated October 26, 2004.

6. Customer Impact Assessment

- 6.1 Hydro One shall implement all recommendations of the Customer Impact Assessment dated October 28, 2004. As the Customer Impact Assessment suggested, Hydro One shall carry out additional analysis in the event that Hydro One implements a suggestion by the IESO to change the termination of the two 230 kV circuits (operating designations - Q26AM and Q32AM) in the Middleport switchyard.

7. Easement Agreement

- 7.1 Hydro One shall offer the form of easement agreement approved by the Board to each landowner where no such agreement exists, or as may be required if existing easement rights need to be expanded, along the route of the proposed work.

8. Other Approvals

- 8.1 Hydro One shall obtain, prior to commencement of construction, all other approvals, permits, licences, certificates, and authorizations required to construct, operate and maintain the proposed project.