



Ontario Energy Board Commission de l'énergie de l'Ontario

DECISION AND ORDER

EB-2016-0325

HYDRO ONE INC.

WEST TORONTO TRANSMISSION ENHANCEMENT PROJECT

Application for approval to upgrade an existing transmission line and expand the Runnymede Transformer Station in the City of Toronto

BEFORE: **Allison Duff**
 Presiding Member

Emad Elsayed
 Member

Peter C.P. Thompson QC
 Member

April 27, 2017

1 INTRODUCTION AND SUMMARY

This is a decision of the Ontario Energy Board (OEB) on an application filed by Hydro One Networks Inc. (Hydro One). Hydro One applied to the OEB under section 92 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B (Act) on November 17, 2016 for approval to construct the West Toronto Transmission Enhancement Project (WTTE Project). The general location of the WTTE Project is presented in a map in Appendix A to this Decision and Order.

The WTTE Project consists of:

- Upgrading the 115 kV circuits (K1W/K3W/K11W/K12W) between Manby Transformer Station (TS) and Wiltshire TS; and
- Expanding the existing 115/27.6 kV Runnymede TS with two 50/83 MVA transformers that will provide an additional 102 MW of transformation capacity.

The need for the WTTE Project is based on load growth forecasted by Toronto Hydro-Electric System Limited (Toronto Hydro), which is the only customer to be connected to the WTTE Project. The WTTE Project will not require any new permanent land rights. The planned in-service date for the WTTE Project is November 30, 2018 assuming a construction commencement date of May 1, 2017. Hydro One's application and evidence includes all of the information required by the OEB's Filing Requirements for Electricity Transmission Applications under section 92 of the Act.

The OEB approves Hydro One's application based on its findings that the WTTE Project is needed; that it is the best alternative to address the need; and that it has no adverse impacts on consumers with respect to price, reliability and quality of service.

The OEB's approval is subject to certain conditions included in Appendix B to this Decision and Order.

2 THE PROCESS

The OEB issued a Notice of Application on January 10, 2017, which Hydro One served and published as the OEB directed. The City of Toronto, the Independent Electricity System Operator (IESO), and Toronto Hydro were granted intervenor status. The OEB proceeded by way of a written hearing and issued Procedural Order No. 1 to set the schedule for written discovery and submissions.

Hydro One asked, on March 9, 2017, that the OEB allow a two-week extension to Hydro One for answering interrogatories. The OEB granted a one-week extension and adjusted the procedural schedule accordingly. On March 16, 2017, Hydro One filed answers to interrogatories from OEB staff and the City of Toronto, and provided updates to its pre-filed evidence at that time. OEB staff filed a written submission on March 30, 2017. OEB staff did not have concerns with any aspect of the WTTE Project. On March 31, 2017, the record for the proceeding was completed with Hydro One's filing of its final argument.

3 STRUCTURE OF THE DECISION AND ORDER

The Decision and Order is organized to address the topics that the OEB considers when determining if approval of an application under section 92 of the Act is in the public interest:

1. Need for the proposed project
2. Alternatives to the proposed project
3. Price of electricity services as impacted by the proposed project
4. Reliability of the electricity services as affected by the proposed project
5. Quality of the electricity service as affected by the proposed project
6. Conditions of approval for the proposed project

These public interest considerations are addressed in Chapter 4 of this Decision and Order. The OEB's Order approving construction of the WTTE Project as presented in Hydro One's application and evidence is included in the Chapter 5 of this Decision and Order.

4 PUBLIC INTEREST CONSIDERATIONS

Section 96 of the Act provides, in part, that in a leave to construct application under section 92 of the Act, the OEB shall make an order granting leave to carry out the work if the OEB is of the opinion that the construction, expansion or reinforcement of the work is in the public interest. Subsection 96 (2) of the Act limits the matters that the OEB may consider when determining whether the transmission project is in the public interest. That subsection reads:

Applications under s. 92

(2) In an application under section 92, the Board shall only consider the following when, under subsection (1), it considers whether the construction, expansion or reinforcement of the electricity transmission line or electricity distribution line, or the making of the interconnection, is in the public interest:

- 1. The interests of consumers with respect to prices and the reliability and quality of electricity service.*
 - 2. Where applicable and in a manner consistent with the policies of the Government of Ontario, the promotion of the use of renewable energy sources.*
- 2009, c. 12, Sched. D, s. 16*

It is noted that promotion of renewable energy sources is not an applicable consideration in the review of the WTTE Project as the development of renewable generation was not part of the project scope. It was also noted in the IESO's Central Toronto Area Integrated Regional Resource Plan (IRRP) that conservation potential or Distributed Generation in the area are not technically feasible options to defer or avoid the needed capacity relief that will be provided by the WTTE Project.¹

In reviewing proposed projects under section 92, the OEB also typically considers the need for the expansion and alternatives to the proposed project. The OEB's findings regarding the need, alternatives, pricing, reliability, quality of service and conditions of approval are addressed in this chapter.

¹ EB-2016-0325 Evidence, Exhibit B, Tab 3, Schedule 1, Attachment 1 "Central Toronto Area Integrated Regional Resource Plan" – April 28, 2015, page 62

4.1 Need

The need for the upgrade is identified and documented in the IESO Central Toronto Area IRRP dated April 28, 2015, and the Metro Toronto Regional Infrastructure Plan (RIP) dated January 12, 2016, as well as in the March 16, 2017 updated evidence of Hydro One. Both the IRRP and the RIP were filed on the record in support of this application. The demand forecasts in the IRRP and the RIP were updated by Hydro One in response to OEB staff interrogatory 1.

According to the updated evidence of Hydro One, 9 MVA of the total 14 MVA of WTTE Project's incremental capacity is to supply the demand from the Metrolinx Eglinton Crosstown Light Railway Transit System (Metrolinx LRT). The remaining 5 MVA of capacity is to supply anticipated mid-term and long-term demand growth in the West Toronto area. Hydro One's proposed in-service date for the WTTE Project is November 30, 2018, when the Metrolinx LRT is planned be connected to Toronto Hydro's system.

Finding

The OEB finds that the evidence supports the need for the WTTE Project.

4.2 Alternatives

Hydro One considered two alternatives to supply the capacity needed by the Metrolinx LRT and by the projected growth in the West Toronto area: (i) the proposed WTTE Project and (ii) the Distribution Feeders Alternative. These two alternatives were also identified and assessed by the IESO in both the IRRP and the RIP. The proposed WTTE Project was the preferred alternative in both the IRRP and the RIP.

The Distribution Feeders Alternative would consist of the construction of additional distribution feeders to permanently transfer load to other stations in the area. The cost of the Distribution Feeders Alternative is estimated at \$70 million, which is higher than the estimated cost of \$54.7 million for the WTTE Project. Hydro One also submitted that the cost estimates for the Distribution Feeders Alternative are less certain compared to the WTTE Project cost estimates. Another shortcoming of the Distribution Feeders Alternative is that it does not provide a longer-term solution for the forecast demand and an additional investment in transmission facilities will be needed in 2025, which would add \$54.7 million to the cost of the alternative, resulting in a total estimated cost of \$124.7 million for the Distribution Feeders Alternative. The Distribution Feeders

Alternative would also require additional permanent land rights, which is not the case with the WTTE Project.²

According to the evidence, the WTTE Project will provide more reliable and better quality service than the Distribution Feeders Alternative. Hydro One explained that due to the close proximity of distribution feeders to loads with the WTTE Project, there would be fewer line losses and voltage drops and therefore higher quality of service. The higher reliability of the WTTE Project is due to the option of underground construction at certain points and fewer river crossings.

Finding

The OEB finds that the evidence supports the selection of the WTTE Project as the best feasible alternative to address the need for the forecast demand.

4.3 Price of Electricity Service

The estimated cost of constructing the WTTE Project is \$54.7 million³, which consists of approximately \$27.0 million for line work and \$27.6 million for station work. Hydro One provided cost information for a comparable project – Barwick TS in Northwestern Ontario – which was completed in 2013.⁴ This comparison suggests that Hydro One's cost estimate for the WTTE Project is reasonable.

As the revenues from incremental loads are insufficient to cover the capital costs for the WTTE Project, Hydro One will require a capital contribution from its only transmission customer served by the WTTE Project – Toronto Hydro.⁵ Hydro One stated that \$50.6 million of the capital costs will be recovered through that capital contribution. The balance of the cost will be recovered through incremental transmission revenues arising from incremental load due to projected growth in the West Toronto area.

² EB-2016-0325 Application and Evidence, Exhibit B, Tab 5, Schedule 1, Updated March 16, 2017, page 2 lines 1-9 and Hydro One's response to OEB staff Interrogatory 3 c)

³ On March 16, 2017, Hydro One updated estimated costs of the WTTE Project by reducing the estimated costs to \$54.7 million from \$59.3 million.

⁴ EB-2016-0325 Application and Evidence, Exhibit B, Tab 7, Schedule 1, Updated March 16, 2017, page 5, Table 2 Costs of Comparable Projects

⁵ A letter of support from Toronto Hydro, was filed at Exhibit B, Tab 1, Schedule 1, Attachment 1

The capital contribution to be paid by Toronto Hydro was calculated using the economic evaluation methodology referred to in section 6.5 of the Transmission System Code (TSC). Hydro One calculated the capital contribution using a discounted cash flow model in accordance with section 6.5 and Appendix 5 of the TSC, and as described in section 2.5 of Hydro One's Transmission Connection Procedures (EB- 2006-0189). Hydro One has entered into a Connection and Cost Recovery Agreement (CCRA) with Toronto Hydro that addresses the capital contribution, among other matters.

According to Hydro One, based on the WTTE Project's initial cost and incremental cash flows to the Line pool, Network Connection pool and Transformation Connection pool, there will be no changes in revenue requirement related to transmission rate base in 2018 with the addition of the WTTE Project. The pool rates will also be unchanged over the 25-year time horizon.

Hydro One's evidence⁶ is that the WTTE Project costs will have no impact on a typical residential customer's bill.

Finding

The OEB finds that Hydro One's evidence demonstrates that the WTTE Project will have no adverse impact on transmission rates or customer bills.

4.4 Reliability and Quality of Electricity Service

The IESO's Draft System Impact Assessment (SIA) dated November 9, 2016 identified no material adverse impacts of the WTTE Project on the reliability of the integrated power system. The IESO recommended in the SIA that a Notification of Conditional Approval for Connection be issued for Runnymede TS, subject to implementation of certain project specific and general requirements⁷ of the SIA.

Hydro One completed and filed with the application a Customer Impact Assessment (CIA) for the WTTE Project dated November 14, 2016, which determined that there are no adverse impacts on existing customers. The CIA examined potential short circuit impacts, voltage impacts and reliability impacts of the WTTE Project on existing customers and found no significant impacts on short-circuit levels, no adverse voltage impact in the

⁶ EB-2016-0325 Application and Evidence, Exhibit B, Tab 9, Schedule 1, Updated March 16, 2017, page 5 lines 14-15

⁷ EB-2016-0325 Hydro One's Evidence Exhibit F, Tab 1, Schedule 1, Attachment 1, SIA Report: "Connection Assessment and Approval Process", Executive Summary pages 1-2

vicinity of the WTTE Project, no adverse impact on supply reliability, and no issues related to thermal loading.⁸

Finding

The OEB has no concerns with respect to potential impacts of the WTTE Project on consumers with respect to reliability and quality of electricity service. The OEB notes that Condition of Approval No. 1 (see Appendix B) states that the leave to construct approval granted by the OEB is subject to (among other things) Hydro One's fulfillment of the requirements of the SIA and CIA.

4.5 Conditions of Approval

OEB staff in its submission recommended three conditions of approval for the OEB to consider. Hydro One in its reply argument indicated that it had no concerns and would fully comply with those proposed conditions. The conditions related to the necessary approvals required for Hydro One to construct, operate and maintain the proposed facilities, the 12-month term of the order granting leave to construct, and the requirement that Hydro One report any proposed material change to the WTTE Project to the OEB.

Finding

The OEB has reviewed the conditions of approval proposed by OEB staff. The OEB finds that an additional condition of approval is necessary with respect to the completion of construction. Hydro One proposed a November 30, 2018 in-service date for the WTTE Project. The OEB understands that a delay may be possible, but it is not prepared to allow construction of this project to continue indefinitely. The OEB has added a condition of approval to address the possibility that construction is delayed by more than 12 months beyond the proposed in-service date. If construction is forecast to be completed later than November 30, 2019, Hydro One would be required to apply to the OEB for an extension to the Order granting Leave to Construct.

The OEB's Order granting Leave to Construct for the WTTE Project is subject to the conditions of approval set out in Appendix B to this Decision and Order.

⁸ EB-2016-0325 Hydro One's Evidence Exhibit G, Tab 1, Schedule 1, Attachment 1, "Customer Impact Assessment Report: "Runnymede TS – Station Expansion and 115 kV Circuit Upgrades" prepared by Hydro One networks Inc., November 14, 2016, Executive Summary, page 3

5 ORDER

THE ONTARIO ENERGY BOARD ORDERS THAT:

1. Hydro One Networks Inc. is granted leave, pursuant to section 92 of the *Ontario Energy Board Act*, to construct upgrades of the 115 kV circuits (K1W/K3W/K11W/K12W) between Manby Transformer Station (TS) and Wiltshire TS; and to expand the existing 115/27.6 kV Runnymede TS with two 50/83 MVA transformers. All of these facilities are located in the City of Toronto as shown in Appendix A. This leave is subject to the conditions in Appendix B.
2. Hydro One Networks Inc. shall pay the OEB's costs incidental to this proceeding upon receipt of the OEB's invoice.

DATED at Toronto April 27, 2017

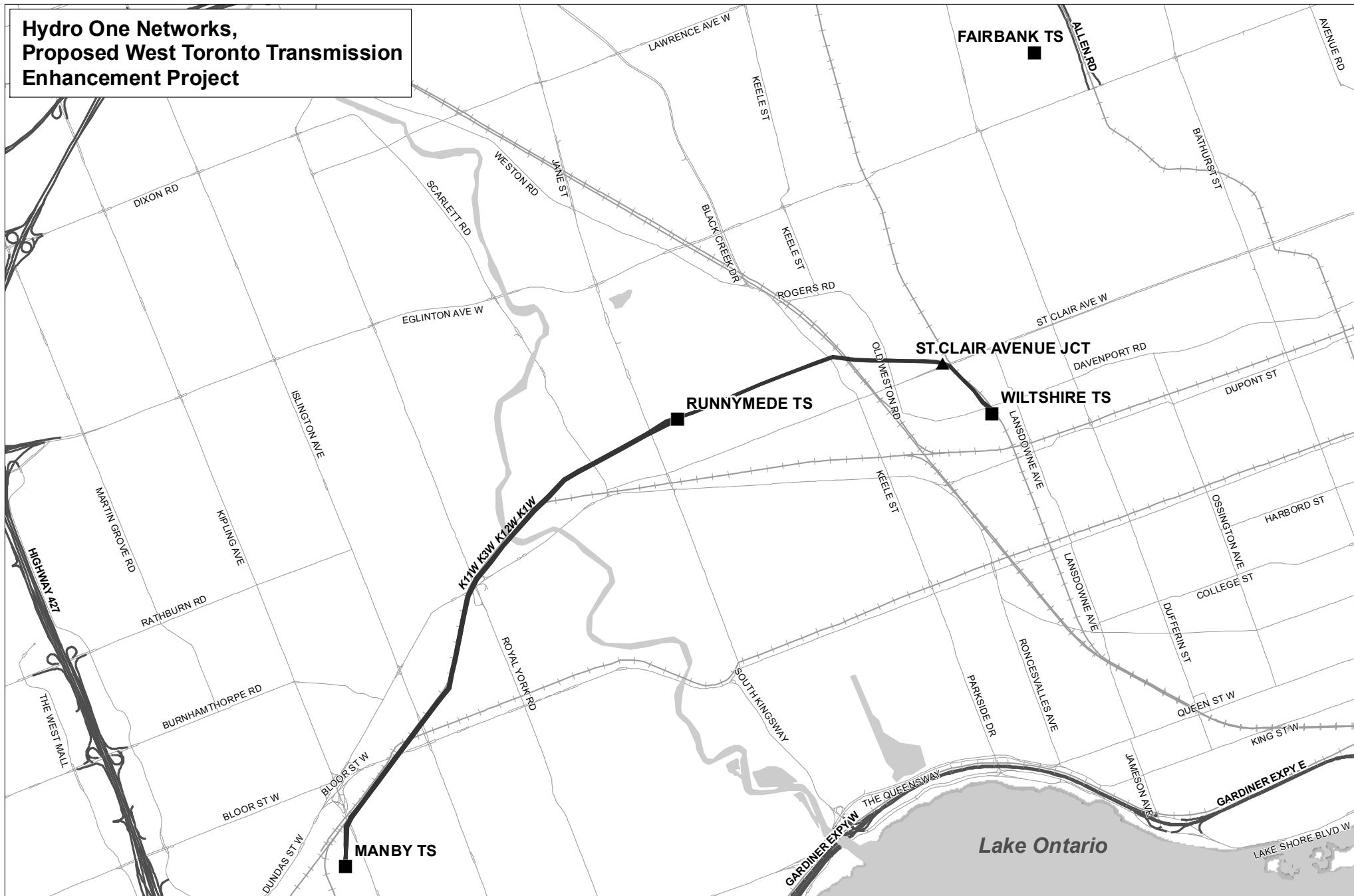
ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

APPENDIX A - PROJECT MAP
DECISION AND ORDER
HYDRO ONE NETWORKS INC.
EB-2016-0325
April 27, 2017

Hydro One Networks, Proposed West Toronto Transmission Enhancement Project



- Transformer and Switching Station
- Junction Station
- 115 kV Existing Transmission Line
- Roads
- Major Highways
- Railway
- Waterbody

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**APPENDIX B – CONDITIONS OF APPROVAL
ORDER**

HYDRO ONE NETWORKS INC.

EB-2016-0325

April 27, 2017

EB-2016-0325

HYDRO ONE NETWORKS INC.

CONDITIONS OF APPROVAL

1. Hydro One Networks Inc. is granted leave pursuant to section 92 of the Act to construct the proposed WTTE Project in accordance with the OEB's Decision and Order in this proceeding and subject to fulfillment of the requirements of the SIA and CIA and all other necessary approvals, permits, licences and certificates required to construct, operate and maintain the proposed facilities.
2. Unless otherwise ordered by the OEB, authorization for Leave to Construct to Hydro One Networks Inc. shall terminate 12 months from the date of this Decision and Order, unless construction has commenced prior to that date.
3. Unless otherwise ordered by the OEB, authorization for Leave to Construct to Hydro One Networks Inc. shall terminate 12 months after the planned in-service date of November 30, 2018 if the WTTE Project construction is not completed by that time.
4. Hydro One Networks Inc. shall advise the OEB of any proposed material change in the WTTE Project, including but not limited to changes in: the proposed route, construction schedule or the necessary environmental assessment approvals, and all other approvals, permits, licences, certificates and rights required to construct the proposed facilities.