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

BY EMAIL

August 6, 2026

Ritchie Murray
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Dear Ritchie Murray:

Re: Hydro One Networks Inc.
Leave to Construct Application – Longwood x Lakeshore Project
Ontario Energy Board Staff Interrogatories
OEB File Number: EB-2026-0128

In accordance with Procedural Order No. 1, please find attached the Ontario Energy Board (OEB) staff interrogatories for the above proceeding. This document has been sent to Hydro One Networks Inc. (Hydro One Networks) and to all other registered parties to this proceeding.

Hydro One Networks is reminded that its responses to interrogatories are due by **August 20, 2026**. Responses to interrogatories, including supporting documentation, must not include personal information (as that phrase is defined in the *Freedom of Information and Protection of Privacy Act*), unless filed in accordance with rule 9A of the OEB's Rules of Practice and Procedure.

Yours truly,

Harout Manougian
Digitally signed by Harout Manougian
Date: 2026.08.06 13:56:45 -04'00'

Harout Manougian
Sr. Advisor, Transmission
Encl.

OEB Staff Interrogatories
Hydro One Networks Inc.
Leave to Construct Application – Longwood to Lakeshore Project
EB-2026-0128

Staff – 1

Ref. 1: Exhibit B, Tab 1, Schedule 1, pp. 2-3

Ref. 2: Exhibit B, Tab 10, Schedule 1, p. 1

Ref. 3: Exhibit E, Tab 1, Schedule 1, pp. 6-9

Preamble:

According to Reference 1, five local First Nations will have the opportunity to invest in a 50% equity stake in the lines component of the Longwood to Lakeshore Project (Project).

According to Reference 2, Hydro One Networks will track the lines component of the Project's costs in its OEB-approved Affiliate Transmission Project (ATP) Account, pending the formation and licensing of a new transmission partnership.

Questions:

a) Please provide any updates about the formation and details of the partnership, including the expected timeline for the completion of the partnership structure.

b) Please identify the five local First Nations that will have the opportunity to participate in the partnership.

c) Please identify any lines-related assets that are expected to remain under Hydro One Networks' ownership after the expected transfer of assets to the future partnership. Specifically, will the real estate rights (covering both Line 1 and Line 2) acquired through the agreements mentioned in Reference 3 be transferred to the partnership or remain with Hydro One Networks?

d) Does Hydro One Networks anticipate that the same partnership will own and operate the future Line 2 mentioned in Reference 3?

Staff – 2

Ref. 1: Exhibit B, Tab 3, Schedule 1, Attachment 6, p. 4

Ref. 2: Exhibit H, Tab 1, Schedule 1, Attachment 1, p. 53

Preamble:

According to Reference 2, the bulk planning study concluded that "[p]reserving the capability for the recommended single circuit 500 kV line to accommodate a future additional circuit warrants further consideration and study." Reference 1 and Reference 2 acknowledge that any future conversion of the single-circuit line into a double-circuit line would not serve as a replacement for a second single-circuit line, but as an additional enhancement.

Questions:

a) Please confirm whether or not the proposed design preserves the capability for the single circuit 500 kV line to accommodate a future additional 500 kV circuit.

b) Please provide the analysis and reports resulting from the further consideration and study mentioned in Reference 2.

Staff – 3

Ref. 1: Exhibit B, Tab 5, Schedule 1, pp. 1-3

Ref. 2: EB-2023-0197 Interrogatory Response, Exhibit I, Tab 2, Schedule 1, Attachment 1

Ref. 3: EB-2026-0154 Application, Exhibit B, Tab 5, Schedule 1

Preamble:

According to Reference 1, the conductor size alternative analysis was conducted in accordance with Hydro One Networks' Transmission Line Loss Guideline, as filed in Reference 2. Reference 2 points to revision R2 (December 15, 2023) of Hydro One Networks' Transmission Line Loss Guideline.

Questions:

a) Typically, will a conductor with a larger cross-sectional area of aluminum (measured in kcmil) be more expensive or less expensive to procure per unit length than another conductor with a smaller cross-sectional area of aluminum, but of the same type (e.g. ACSR, ACSR/TW, etc.)?

b) Typically, will ACSR/TW conductor be more expensive or less expensive to procure per unit length than ACSR conductor of the same size?

c) According to Table 1 and Table 2 in Reference 1, the 585 kcmil ACSR alternative has a higher net capital cost ($886.820 million) than the 732 kcmil ACSR/TW alternative ($878.499 million).

i. Other than the difference in material procurement costs of the two conductor alternatives, what other factors contribute to the difference in their net capital cost ($8.321 million)?

ii. Were there any errors made in calculating the net capital cost of these two conductor alternatives as presented in Table 1 and Table 2 of Reference 1?

d) Please provide the calculation showing how the $164,052/MW capacity price used in Table 2 of Reference 1 was derived. Which year's IESO capacity auction results is this calculation based on?

e) According to Reference 3, Hydro One Networks' leave-to-construct (LTC) application for the Northeast Power Line (NEPL) Project evaluated bundled conductor with 3 subconductors and 4 subconductors for its single-circuit 500 kV line. For each of the three conductor alternatives evaluated in Reference 1, please identify the number of subconductors per bundle.

f) According to Reference 3, the NEPL also considered 4-conductor 795 kcmil ACSR and 3-conductor 997.2 kcmil ACSR/TW as conductor size alternatives, ultimately recommending 4-795 kcmil ACSR for that proposed single-circuit 500 kV transmission line. Please supplement the conductor size alternative analysis in Reference 1 by including 4-conductor 795 kcmil ACSR and 3-conductor 997.2 kcmil ACSR/TW as additional alternatives. Please provide the complete calculations for the NPV sensitivity analysis in Microsoft Excel format, including all formulas used, for these two additional alternatives as well as the original three alternatives included in Table 2 of Reference 1.

Staff – 4

Ref. 1: Exhibit B, Tab 6, Schedule 1, p. 2

Preamble:

According to Reference 1, the Project will bring both short-term and long-term employment, training, and business opportunities to the regions for both Indigenous and non-Indigenous communities, governments, and businesses.

Question:

a) Please expand on how the Project will support economic growth in the region and provide examples to substantiate the employment, training, and business opportunities mentioned in Reference 1.

Staff – 5

Ref. 1: Exhibit B, Tab 7, Schedule 1, pp. 1-5

Preamble:

According to Reference 1, the $1,163.5 million estimated total capital cost for the Project includes $76.8 million and $12.2 million for contingencies associated with lines work and stations work, respectively. The estimates themselves are based on a project definition that would yield a confidence range of -20% to +30%.

Reference 1 also states that “the cost estimate reflects current market-tested EPC pricing to deliver the project and corresponding risk premiums that will be transferred to the EPC contractor.”

Questions:

a) Considering the inclusion of the contingency costs and the fixed-price EPC contract, what is Hydro One Networks’ confidence range for the $1,163.5 million capital cost estimate?

b) Please provide a detailed breakdown of the contingency costs for the lines work and stations work by project risk, for the list of risks identified in Reference 1.

c) If contingency costs are not realized due to effective risk mitigation, will Hydro One Networks still be required to pay the contingency costs identified in Table 1 and Table 2 of Reference 1 to the EPC Contractor?

Staff – 6

Ref. 1: Exhibit B, Tab 7, Schedule 1, pp. 5-10

Preamble:

Reference 1 compares the estimated cost of the lines component of the Project against three different comparable 500 kV line projects.

Questions:

a) Please specify the transmission line's minimum design clearance to ground of the Project and the three comparable projects.

b) In comparing the estimated cost of the Project against the three comparable 500 kV line projects, adjustments are not made to account for the difference in conductor size and bundle geometry. Please update Table 3 of Reference 1 to account for differences in conductor size, bundle geometry, and minimum design clearance to ground.

c) The real estate costs for the Project ($269.2 million) are significantly higher than for the Bruce to Milton Transmission Line ($95.8 million), which was a longer double-circuit line traversing similar rural agricultural land. Furthermore, the Project will repurpose portions of two existing idle transmission corridors. Please provide a breakdown of how the real estate costs for the two projects were calculated and provide an explanation for the discrepancy between these two projects.

d) Does the $269.2 million in real estate costs identified for the Project in Table 3 of Reference 1 include any real estate costs for a future Line 2 to be developed parallel to the Project. If it does, what is the amount attributable to a future Line 2?

e) No adjustment factor was included in Table 3 of Reference 1 for temporary agricultural land access for the Bruce to Milton Transmission Line. Please confirm whether the Bruce to Milton Transmission Line required temporary access roads along agricultural farmed lands. If it did, please update Table 3 of Reference 1 to account for this additional factor.

f) Did the EPC Contractors that Hydro One Networks engaged for the Project have any involvement in the comparable 500 kV line projects included in Reference 1?

g) Please describe any efforts that Hydro One Networks is undertaking to minimize the cost impact of newly-enacted tariffs for the lines component of the Project, especially with regard to sourcing materials from within Ontario and Canada.

h) According to Reference 1, Hydro One Networks selected a 60% adjustment factor to normalize the double-circuit transmission line comparator projects to a single-circuit equivalent. If the Project were to be built as a double-circuit line, what would be the approximate percentage increases for each of the following components of the Line Cost of the Project, as provided in Table 1 of Reference 1?

i. Materials

ii. Labour

iii. Equipment Rental & Contractor Costs

iv. Sundry

v. Contingencies

vi. Overhead

vii. Allowance for Funds Used During Construction

viii. Real Estate

Staff – 7

Ref. 1: Exhibit B, Tab 7, Schedule 1, pp. 11-14

Preamble:

Reference 1 compares the estimated cost of the stations component of the Project against comparable 500 kV stations projects.

Questions:

a) According to Table 4 of Reference 1, Evergreen SS and Ashfield SS include three 500 kV breakers each, while Bruce A TS/Bruce B TS and Longwood TS include two 500 kV breakers each. Please update Table 4 of Reference 1 by including an adjustment factor for the number of breakers within the scope of the projects.

b) According to Table 5 of Reference 1, Clarington TS includes 22 new breakers while Lakeshore TS includes only 4 new breakers. Please update Table 5 by including an adjustment factor for the number of breakers within the scope of the projects.

c) Hydro One Networks states that Essa TS is planned to be placed in service in June 2026. Please update the forecasted costs for Essa TS in Table 5 with the latest available information.

d) Please describe any efforts that Hydro One Networks has undertaken to minimize the cost impact of newly-enacted tariffs for the stations component of the Project, especially with regard to sourcing materials from within Ontario and Canada.

Staff – 8

Ref. 1: Exhibit C, Tab 1, Schedule 1, p. 2

Preamble:

According to Reference 1, the transmission line structures will be supported by helical pile foundations.

Questions:

a) Under what conditions are helical pile foundations more cost effective than an alternative design?

b) For the Longwood to Lakeshore Project specifically, what alternatives to helical pile foundations were evaluated and on what basis were helical pile foundations selected?

c) What are the estimated cost savings resulting from the use of helical pile foundations for the Project, expressed both as a total and per structure?

Staff – 9

Ref. 1: Exhibit C, Tab 1, Schedule 1, p. 3

Ref. 2: Exhibit B, Tab 7, Schedule 1, pp. 5-10

Ref. 3: EB-2007-0050 Application, Exhibit B, Tab 4, Schedule 2, p. 5

Ref. 4: EB-2026-0154 Application, Exhibit B, Tab 7, Schedule 1, p. 9

Ref. 5: EB-2026-0154 Application, Exhibit C, Tab 1, Schedule 1, pp. 3-4

Preamble:

Reference 1 shows the typical suspension tower and typical dead-end tower to be used for the project.

Questions:

a) Please confirm that none of the comparable line projects in Reference 2 used the same tower designs as those proposed for the Project, as shown in Reference 1.

b) Please name previous projects for which the tower designs in Reference 1 have been used, if any.

c) For the projects named in the response to part b), please compare the line project costs to the Longwood x Lakeshore Project in a similar format to Reference 2.

d) Reference 3 suggests that Hydro One Networks' most recent 500 kV lines have all used V1 type towers, which are designed for double-circuit lines. Please provide estimated material and installation costs for:

i. One V1 type suspension tower, as used for the Bruce to Milton project

ii. One V1 type suspension tower, modified to remove the crossarms for a second circuit

iii. One suspension tower of the type shown in Reference 1

e) If V1 type towers were used for this Project, what would be the necessary right-of-way width to accommodate a double circuit in the future?

f) Reference 4 suggests that the use of guyed towers instead of self-supporting lattice structures could result in an approximate 30% reduction in structure costs.

i. Please explain why guyed towers were not recommended for the Longwood to Lakeshore Project.

ii. Please provide estimated material and installation costs for one structure for each of the suspension towers shown in Figure 1a, Figure 1b, and Figure 1c of Reference 5.

Staff – 10

Ref. 1: *Energy for Generations, Ontario's Integrated Plan to Power the Strongest Economy in the G7 (June 2025)*

Preamble:

The Ontario government released its Integrated Energy Plan (IEP) in June 2025.

Question:

a) Please discuss if there are portions of the IEP that Hydro One Networks considers relevant to this application.