

**Hydro One Networks Inc.**

7<sup>th</sup> Floor, South Tower  
483 Bay Street  
Toronto, Ontario M5G 2P5  
www.HydroOne.com

Tel: (416) 345-5393  
Cell: (416) 902-4326  
Fax: (416) 345-6833  
Joanne.Richardson@HydroOne.com



**Joanne Richardson**

Director – Major Projects and Partnerships  
Regulatory Affairs

BY EMAIL AND RESS

March 30, 2021

Ms. Christine E. Long  
Registrar  
Ontario Energy Board  
Suite 2700, 2300 Yonge Street  
P.O. Box 2319  
Toronto, ON M4P 1E4

Dear Ms. Long:

**EB-2020-0265 – Hydro One Networks Inc. Leave to Construct Application – Hawthorne to Merivale Reconductoring Project – Reply Submission**

In accordance with Procedural Order No. 4, please find enclosed Hydro One Networks Inc.'s reply submission in regards to Environmental Defence and Ontario Energy Board ("OEB") Staff's March 23, 2021 submissions on the Leave to Construct Application.

Additionally, for the OEB's information, an electronic copy of the reply submission has been submitted using the Board's Regulatory Electronic Submission System.

Sincerely,

A handwritten signature in black ink, appearing to read "Joanne Richardson", written in a cursive style.

Joanne Richardson

c/ EB-2020-0265 Intervenor (Electronic only)

**And in the matter of** an Application by Hydro One Networks Inc. pursuant to s. 92 of the *Ontario Energy Board Act, 1998* for an Order or Orders granting leave to reconductor existing transmission line facilities (“the HMR Project”) in the Ottawa area.

**And in the matter of** an Application by Hydro One Networks Inc. pursuant to s. 97 of the *Ontario Energy Board Act, 1998* for an Order granting approval of the forms of the agreement offered or to be offered to affected landowners.

## REPLY SUBMISSION OF HYDRO ONE NETWORKS INC.

### EB-2020-0265

#### BACKGROUND

1. Hydro One Networks Inc. (“Hydro One”) is applying to the Ontario Energy Board (the “Board”) pursuant to Section 92 of the *Ontario Energy Board Act, 1998* (“the Act”) for an Order or Orders granting leave to reconductor two 230 kV transmission line circuits spanning approximately 12 km between Merivale Transformer Station (“TS”) and Hawthorne TS, and to install new optical ground wire (“OPGW”) along one span of towers to take advantage of the same construction period opportunity and circuit outage.
2. The 230 kV line reconductoring work that will be undertaken by Hydro One on circuits known as M30A and M31A is referred to as the Hawthorne to Merivale Reconductoring Project (the “HMR Project”, or the “Project”). The increased conductor size on these circuits is required to increase the supply capacity on this transmission path, which will benefit the reliability in the area and facilitate increased flows from eastern Ontario toward the direction of the Greater Toronto Area (“GTA”).
3. In addition to the prefiled evidence and Interrogatory responses that Hydro One provided in this proceeding, the Board held a Technical Conference (“TC”) on March 16, 2021, at the request of Environmental Defence (“ED”). ED was granted<sup>1</sup> approval to submit its own evidence on this Application, prior to the scheduled TC<sup>2</sup>. The OEB stated in Procedural Order 4 that a TC would be held to “to clarify matters arising from the interrogatories related to Alternatives 3 and 4 **only** [emphasis added]”<sup>3</sup>. Having

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<sup>1</sup> Via Procedural Order 3, Issued February 12, 2021.

<sup>2</sup> Via Procedural Order 4, Issued February 19, 2021.

<sup>3</sup> Procedural Order No. 3 February 12, 2021, page 4.

established the TC dates and scope, Board Staff requested the Board to allow the TC scope to be expanded to accommodate clarification of matters arising from the interrogatories related to project need, which expansion the Board subsequently granted<sup>4</sup>.

4. Hydro One received submissions from Board Staff, ED and NAVCAN<sup>5</sup> on March 23, 2021. This is Hydro One's Reply Submission.

## **SUMMARY OF SUBMISSIONS**

5. NAVCAN's submission stated that they have no objections to the HMR Project as submitted and effectively requested that, as a condition of approval, Hydro One notify them 10 days prior to the start of any construction activities that would impact certain towers. Aside from this request, NAVCAN made no further submissions on any additional issues. Hydro One addresses this request below in the Conditions of Approval section of its submission.
6. ED supports Hydro One's Application but has asked Hydro One to improve its assessment and documentation of project alternatives in future applications with respect to transmission loss evaluation and the monetary value of system-wide benefits. In doing so, they have provided several recommendations. Hydro One addresses ED's submission in the Line Losses section below.
7. OEB Staff submits that the Application, interrogatory responses and IESO testimony provided at the TC have not demonstrated that the Project addresses an identifiable need or that the Project would be the appropriate alternative for addressing a need, if it did exist. In doing so, they have invited Hydro One and the IESO to explain further in

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<sup>4</sup> Procedural Order No. 6 March 15, 2021

<sup>5</sup> NAVCAN is another Board-approved registered intervenor in this proceeding.

reply submissions why the planning analysis is adequate to support the need for this Project. Hydro One addresses OEB Staff's submission in the Project Need and Approval Conditions sections below.

8. If the Project need is confirmed, Board Staff appears to support the rest of the Application, saying:

- Hydro One's analysis was reasonable given the set of options it focused on (i.e. wires options) and given its role as transmitter;
- the Project budget demonstrates that the cost estimate is reasonable;
- the Project will have very small, acceptable impacts on customers. The costs of the Project will be recovered through network pool rates and no customer contributions will be required because the line is a network pool asset that ultimately provides benefit to all provincial ratepayers;
- the proposed forms of land agreements are acceptable; and
- Board Staff have no concerns about the reliability and quality of service associated with the Project.

Hydro One will be responding to Project Need, Line Losses, Conditions of Approval and the Approval Conditions Suggested by Board Staff. All other areas of the Application appear to be in agreement by all parties.

## **PROJECT NEED**

9. The IESO provided a Handoff Letter<sup>6</sup> issued February 1, 2019 ("the Letter"). The Letter underscored an immediate need, based on the IESO's latest forecast and the latest information on Eastern Ontario resources and load flow studies, which show that the

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<sup>6</sup> Exhibit B, Tab 3, Schedule 1, Attachment 1

M30A and M31A circuits are inadequate even today for the required bulk power transfers under summer peak conditions. The Letter stated that over the next 10 years, the overload will continue to become even more severe as demand is forecast to increase.

10. The Letter confirmed that the HMR Project would meet the requirements of that established need, as provided on page 2, with the IESO providing the following;

*Considering the relatively low cost, technical feasibility and short implementation timelines, the conductor uprate option is the preferred solution for reinforcing the M30/31A circuits and increasing the capability of the HxM path.*

11. When the IESO provides Hydro One with a Handoff Letter<sup>7</sup> for a specific project, and in consideration of the IESO's role as defined in the *Electricity Act, 1998*, it is with that designation and accountability in mind that Hydro One moves forward with designing, developing and constructing the most cost-effective transmission solution project to meet the electricity needs that have been identified.
12. For the HMR project, extensive technical evaluations have been completed by both Hydro One and the IESO since 2014<sup>8</sup>. The findings of these assessments clearly indicate that the M30A and M31A circuits need to be upgraded, as they are overloaded under peak transfer conditions.

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<sup>7</sup> Often also referred to as a Hand-Off letter.

<sup>8</sup> These pertain to reports referred to in the IESO's Hand-off letter, submitted in this Application's evidence at Exhibit B, Tab 3, Schedule 1, Attachment 1. The reports were; (1) Review of Ontario Interties-report prepared for the Minister of Energy by the IESO and OPA 2014; and (2) Ontario-Quebec Interconnection Capability Report prepared for the Deputy Minister of Energy by the IESO in 2017. Additionally the other relevant report is Hydro One's 2015 Regional Infrastructure Plan Report referenced in Exhibit I, Tab 1, Schedule 6, part h).

13. OEB Staff's submission focuses on the TC testimony and appears to disregard the prefiled evidence and interrogatory responses. For example, a concise summary of the HMR Project's need can be found in the IESO's Handoff Letter<sup>9</sup>, which states:

*"In the past years, the M30/31A circuits have been operating near capacity at the time of summer peak supplying the peak demand of loads in the Ottawa area and carrying transfers from Ontario generating resources located in Eastern Ontario to the rest of the Ontario grid".*

14. Therefore, Hydro One agrees with the IESO recommendation on the need for the HMR Project.

## **LINE LOSSES**

15. ED's submission primarily focused on the issue of line losses and the valuation of those losses. ED's submission and evidence agrees that Alternative #3 is the most cost-effective alternative and states that ED "strongly supports the project"<sup>10</sup>, and requests that the Board approve the application as filed "and that the Project should proceed as proposed to avoid delay."<sup>11</sup>
16. ED's focus in this proceeding is driven by their belief that during the process of transmission system planning in Ontario, "transmission losses are greatly and inaccurately undervalued"<sup>12</sup>.
17. ED's submission requests that in the future, the Board ask Hydro One to (i) improve its valuation of loss reduction benefits in comparing project alternatives, and (ii) work

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<sup>9</sup> Exhibit B, Tab 3, Schedule 1, Attachment 1.

<sup>10</sup> ED Submission Pg. 2

<sup>11</sup> ED Submission Pg. 3

<sup>12</sup> ED Submission Pg. 2

with the IESO to develop a protocol to determine the monetary value of the relative system benefits (e.g. capacity) of project alternatives, or the lack thereof.

18. Hydro One has adequately demonstrated its losses evaluation methodology, which has identified that Alternative 3 is the most cost-effective option. In addition, Hydro One will be providing the line loss process details in its next transmission rate filing application expected to be filed with the Board later in 2021.
19. In that evidence, Hydro One will provide its transmission line loss guidelines (the “Guidelines”) that will, i) delineate the transmission line loss process, and ii) where transmission line losses are material, describe an investment option analysis methodology for transmission line capital projects. Hydro One has been developing these Guidelines to increase the transparency of its processes and to satisfy the Board’s direction in EB-2019-0082 regarding transmission line losses.
20. Hydro One will assist the IESO to determine the monetary value of the relative system benefits (e.g., capacity) of project alternatives if the IESO advises that there are system benefits.
21. Hydro One believes it is appropriate to clarify the record regarding representations ED made pertaining to what Hydro One witnesses said about ED’s evidence in this hearing. ED states, “Hydro One specifically stated that it has “no comments” on Mr. Lusney’s report and does not disagree with it”.<sup>13</sup>
22. ED references the basis for this opinion is located on page 154 of the TC transcript. However, nowhere in the discussion on page 154, or anywhere else in the TC transcript for that matter, does Hydro One see any of its witnesses saying something to the effect

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<sup>13</sup> ED Submission Pg. 10



that Hydro One does not disagree with it, or words to that effect. This statement by ED is an incorrect misrepresentation of the Hydro One witness's comments. There is a clear distinction between Hydro One not wishing to comment on materials it did not produce, or even contribute to, and Hydro One stating that Hydro One "does not disagree with it".

23. What Hydro One did understand from that ED-submitted evidence is that the conclusion was the same as that provided by Hydro One, however differently arrived at. That conclusion was, and is, that Alternative #3 is the best and most appropriate alternative to meet the need established by the IESO, while also being the most cost-effective alternative for ratepayers to meet that need.

24. Hydro One already considers many of the points raised by ED; and while Hydro One's methodology may be different from that recommended by ED, it is demonstrated to be effective, as supported by ED's consultant, who arrives at the same conclusion as that of Hydro One and the IESO, namely that Alternative #3 is the most cost-efficient solution.

#### **ADDITIONAL BENEFIT OF THE HMR PROJECT**

25. As stated above, the purpose of the HMR Project is to satisfy a serious reliability need that already exists today. However, approval of the Project will result in an additional benefit.

26. The additional benefit in that the above-noted assessments by the IESO and Hydro One also show that the Project will allow the full existing import capability from Hydro-Quebec to be utilized.

## **CONDITIONS OF APPROVAL**

27. Hydro One agrees with Board Staff's submission that the Application should be approved, subject to the OEB's standard conditions of approval as proposed in Board Staff's interrogatory #13.
28. Hydro One received a letter from NAVCAN<sup>14</sup> requesting that Hydro One notify NAVCAN at least 10 business days prior to the start of construction on certain transmission towers (referred to in the NAVCAN letter as 'pylons'). These towers are specifically identified and listed in NAVCAN's letter and in supporting attachments accompanying the letter to Hydro One. Hydro One does not oppose NAVCAN's request and will commit to it, but Hydro One sees no reason for the Board to add this to the OEB's standard conditions of approval. Hydro One believe this is adequately covered in Condition of Approval #1<sup>15</sup>, as proposed by Board Staff, but will not object if the Board does wish to make it a separate condition.
29. In its Submission, ED made no specific submission on Board Staff's proposed conditions of approval, nor did it include any other condition that it wished the Board to implement.

## **APPROVAL CONDITIONS SUGGESTED BY BOARD STAFF**

30. Hydro One submits that the role of the Board is to determine whether the Project is in the public interest when considering price, reliability and quality of electricity service<sup>16</sup>. Hydro One has provided such evidence. The evidence on the record, also reinforced in the IESO's submission, is that this Project is needed now and that a transmission

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<sup>14</sup> Letter addressed to Hydro One dated March 22, 2021, and included on the OEB's Document Webdrawer for this Application EB-2020-0265.

<sup>15</sup> Exhibit I, Tab 1, Schedule 13, Pg. 1

<sup>16</sup> Chapter 4 of the Filing Requirements for Electricity Transmission Applications.

wires solutions is the most economical solution to meet the energy needs on the transmission system.

31. Hydro One works in close coordination with the IESO as part of the planning process to review wires and non-wires options. As stated earlier, for this Project, non-wire options are neither practical nor cost-effective because this area has sufficient generation resources, including imports from Hydro-Quebec.
32. Board Staff have submitted that if the OEB is not satisfied with the need evidence submitted in this hearing, the Board has two options available to it to avoid rejecting the Application outright; (1) approve the Project but not the Project budget, which would be subject to OEB review in the future; or (2) hold the application in abeyance until further notice, pending the filing and examination of further evidence justifying project need, reliability benefits and the appropriateness of the proposed alternative.
33. Hydro One submits that Board Staff's submission with respect to the two options they have proposed is unreasonable and misaligned with the purpose of a S.92 leave to construct application and also goes against general principles of regulatory recovery.
34. One of the purposes of an applicant seeking leave to construct approval is to provide some assurance that there will be a reasonable expectation of cost recovery of the project. If the Board is persuaded not to provide cost recovery assurance to Hydro One at the time of granting leave to construct, Hydro One will not be in a position to undertake further development or construction-related activities and will not incur any additional expense until such time as leave is granted. Hydro One cannot undertake major resource-intensive work and exercise appropriate stewardship of the system if the basic regulatory principles that provide a 'reasonable opportunity' to recover its costs are not afforded to it.

35. OEB Staff have also suggested putting the Application in abeyance. Hydro One responds that it is imperative to proceed with the HMR Project at this time. The M30A and M31A circuits are on the same towers as the 500 kV circuits supplying Ottawa. Reconductoring of these 230 kV circuits requires taking one 500 kV line out of service, and this will affect the supply to the entire Ottawa region if the other 500 kV line were to go out of service. Outages on 500 kV are therefore extremely complex and very difficult to obtain. This situation will worsen in the future, as the flow on the 500 kV circuits is increasing, and outages will be nearly impossible to obtain for the extended duration required to reductor the circuits. If the Project is not proceeding at this time, in the future any new alternative would be at significantly higher cost.
36. The HMR Project is required to increase the supply capacity on this transmission path. The increase in supply capacity is necessary to ensure reliability of the bulk electric system and to support area load.
37. Both of Board Staff's proposed options will impose reliability risks on Ontario electricity customers, and both will delay construction of the Project, a Project that has been reviewed and planned for over six years, including being included in Hydro One's 2015 Regional Infrastructure Plan Report<sup>17</sup>). The Project is needed to address an *existing need* which is to increase the supply capacity on this transmission path to overcome an already-existing bottleneck on this section of the network. The increase in supply capacity will benefit the reliability in the area and facilitate increased flows from eastern Ontario toward the direction of the GTA and will therefore benefit all Ontario ratepayers.

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<sup>17</sup> Hydro One's 2015 Regional Infrastructure Plan Report was referenced in Exhibit I, Tab 1, Schedule 6, part h).

## **CONCLUSION**

38. The HMR Project is the most cost-effective solution to address the magnitude of the need as identified by the IESO. Furthermore, the Project is in the interests of consumers with respect to price, reliability and quality of electricity service. The Project will provide increased reliability benefits to the transmission network and will meet the immediate near-term and medium-term increased supply capacity needs.
39. Hydro One believes that given the available generation resources and the bottleneck created by the M30A and M31A circuits, the wires solution proposed is by far the only solution that has technical and financial merit.
40. Furthermore, as stated above, the Project will have a benefit additional to addressing existing and future reliability needs, and that additional benefit is to permit the full utilization of the existing interconnection capacity between Ontario and Quebec.
41. There is no demonstrated benefit or regulatory principle that requires this Application to be held in abeyance, but there is ample evidence that doing so would result in harm. Holding the Application and Project in abeyance would set a dangerous precedent and would call into question the IESO's character and role in the development of transmission in Ontario. The Board has been provided strong evidence regarding need, in both the prefiled evidence and during the TC. The need for this Project has been demonstrated clearly.
42. Hydro One submits that the HMR Project is in the public interest and that the Application should be approved as filed, and the Applicant would appreciate it if the Board were able to provide an expedited approval.
43. All of which is respectfully submitted.