Hydro One Networks Inc. 7th 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

October 21, 2021

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

Dear Ms. Long:

EB-2019-0151 – Waasigan Transmission Line Project ("WTL") – Bi-Annual Report

On May 5, 2020, Hydro One Networks Inc. ("Hydro One") received a letter (the "Letter") from the Ontario Energy Board (OEB) asking for Hydro One to furnish bi-annual Project reports regarding the development of the WTL Project. The Letter outlined the elements the OEB expected to be included in the reporting.

In accordance with the aforementioned Letter, the attached report covers the period April 1, 2021 through September 31, 2021. Reports are to be submitted to the OEB within 15 business days of the close of the reporting period to which the WTL Project report pertains.

The WTL Project reporting will continue to be submitted to the OEB until such time a leave to construct application for the WTL Project is filed.

An electronic copy of the complete bi-annual report has been filed using the Board's Regulatory Electronic Submission System (RESS).

Sincerely,

Joanne Richardson





WAASIGAN TRANSMISSION LINE

Ontario Energy Board Progress Report

April 1, 2021 to September 30, 2021





EXECUTIVE SUMMARY

The Waasigan Transmission Line Project (Project), formerly called the Northwest Bulk Transmission Line, is a priority project identified in the 2013 Long Term Energy Plan. In October 2018 the Independent Electricity System Operator (IESO) confirmed that supply needs West of Thunder Bay and even North of Dryden will be met by electricity infrastructure. The IESO also recommended that Hydro One begin development work on Phases 1 and 2 of the Project as soon as possible to shorten the Project lead time required to have the assets ready to be in service to meet the electricity capacity needs when they materialize (expected mid-2030s but could occur earlier).

In a letter dated May 5, 2020 the OEB requested that Hydro One Networks Inc. (Hydro One) prepare semi-annual reports to the OEB that update the OEB on the following matters: overall progress of the Project, Project cost, development work schedule, risks and issues. Reports are to be filed in October for the reporting period of April 1 to September 30 and in April for the reporting period of October 1 to March 31.

Hydro One continues to proceed with Project development work on schedule. Ongoing consultation and engagement is occurring with Indigenous communities and organizations (19 Indigenous communities and 2 regional organizations), government agencies, the public and other interested parties. Work is being done to promote and advance Indigenous knowledge, training and procurement in the development phase of the Project. The environmental assessment continues to be advanced with an amended Terms of Reference¹ submitted to the Ministry of the Environment, Conservation and Parks for a decision on approval. A Community Roundtable continues to meet biannually to provide feedback to Hydro One. Indigenous communities, municipal officials and staff, industry, businesses, and educational institutions that continue to be consulted throughout all stages of the project. In addition, two engineering, procurement and construction contractors have been advancing preliminary design to support development work and have been meeting with Indigenous communities to better understand employment, training and procurement.

¹Amendments were submitted on June 18, 2021.





Hydro One's first semi-annual report issued on October 22, 2020 forecast development phase cost of \$69M. As of September 30, 2021 the overall forecast development phase cost is estimated to remain unchanged at \$69M. The Project is being monitored continually for risks and risk mitigation is implemented as a matter of routine activity by the Project team. COVID19 remains a risk that is being managed, however; increased vaccination rates and effective health and safety protocols have enabled opportunities for in-person meetings to resume. Delays in regulatory approvals remain an active risk that Hydro One is working with regulators to manage. Should these risks have a greater impact on the Project they will be included in the subsequent progress reports.













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Background

The Waasigan Project (Project), formerly called the Northwest Bulk Transmission Line, is a priority project identified in the 2013 Long Term Energy Plan. In January 2014, the Ontario Energy Board (OEB) amended Hydro One's transmission's licence to include the following condition:

The Licensee shall develop and seek approvals for the expansion or reinforcement of a portion or portions of the Licencee's electricity transmission network in the area west of Thunder Bay (the "Northwest Bulk Transmission Line Project"). The scope and timing of the Northwest Bulk Transmission Line Project shall be in accordance with the recommendations of the Ontario Power Authority.

In March 2015, the OEB approved Hydro One's request to establish the North West Bulk Transmission Line Deferral account (EB-2014-0311). Thereafter, Hydro One recorded in the account expenses related to preliminary engineering, design and environmental assessment work associated with the Project prior to the point from which the costs would qualify to be recorded in construction work-in-progress.

In December 2018, Hydro One requested to change the nature of the North West Bulk Transmission Line Deferral account, from a deferral account to a tracking account, and to change the name of the tracking account to the Waasigan Transmission Tracking Deferral Account. This request was a result of the October 2018 Independent Electricity System Operator (IESO) letter that confirmed that supply needs West of Thunder Bay and North of Dryden will be met by electricity infrastructure. The letter also recommended that Hydro One begin development work on Phases 1 and 2 of the Project as soon as possible to shorten the Project lead time required to have the assets ready to be in service to meet the electricity capacity needs when they materialize (expected mid-2030s but could occur earlier). The OEB approved these requests in September 2019.

In Hydro One's 2020-22, Transmission Rate Application², the OEB approved the disposition of approximately \$877k³ that was recorded in the North West Bulk Transmission Line Account. This was prior to receiving the OEB's approval to change the nature, and name, of the account to a tracking account, rather than a deferral account, as outlined above. Having satisfied the capitalisation criteria, as of January 1, 2020, project costs were recorded as construction-work-in-

³ Balance as at 31 December 2018.



² EB-2019-0082 – Decision and Order dated April 23, 2020, Pg. 159.





progress ("CWIP") with the account recording what are known as 'tracking'⁴ entries in the approved deferral account.

Having advanced development activities on the project, in particular in the area of engagement with Indigenous communities, in alignment with Hydro One's strategy to remain as a trusted partner to Indigenous communities, Hydro One is confident the Waasigan Transmission Line will be owned by a partnership comprising Hydro One and a number of Indigenous communities. The date of formation of this partnership is yet to be determined, however; in alignment with other Indigenous partnerships that Hydro One has formed, it is likely to be close to the in-service date for the transmission line.

In a letter dated May 5, 2020 the OEB requested that Hydro One prepare semi-annual reports to the OEB that updated on the following matters:

- Overall Project progress,
- Cost
- Development work schedule
- Risks and Issues Log

Reports are to be filed in October for the reporting period of April 1 to September 30 and in April for the reporting period of October 1 to March 31. In response to Hydro One's initial report, the OEB issued a letter dated December 1, 2020 requesting modification to future reports. This report reflects all the aforementioned matters, including those modifications requested by the OEB in its December 1, 2020 letter, for the period of April 1, 2021 to September 30, 2021.

Hydro One's Recent OEB-Approved Affiliate Transmission Projects Regulatory Account

On October 7, 2021, the OEB approved Hydro One's application for an accounting order to establish a new regulatory account, the "Affiliate Transmission Projects Account" (ATP Account). The ATP Account will apply where:

9 ÷ 101 +



⁴ Entries that are made to track the level of costs spent on the project, however the costs are not balances that are expected to be disposed off in a rate filing, the costs are expected to be capitalised when the project is completed and added to the Rate Base of the entity who will ultimately own the assets.





- Hydro One has or will receive a letter from the Independent Electricity System Operator (IESO) identifying transmission system needs, and/or an Order in Council or direction of the Minister of Energy, Northern Development and Mines (ENDM) for the development or construction of a transmission project and,
- 2. All or part of the project is expected to be owned by and included in the rate base of a New Partnership, as a licenced transmitter, such that the ATP Account Project will not form part of Hydro One's rate base.

Prior to the approval of this ATP Account Hydro One had OEB approval to track these types of costs in a distinct regulatory account that was only for this project, known as the Waasigan Transmission Tracking Deferral Account (WTTDA). The transfer of balances from the WTTDA to the ATP Account will occur now that the OEB has approved the ATP Account's establishment, and the former WTTDA will be closed.













Overall Project Progress

Between April 1, 2021 and September 30, 2021 the Waasigan Transmission Line Project (Project) advanced environmental approvals, consultation, engineering and design activities. Hydro One continues to proceed with development work on the Project. The following summarises the work that was undertaken within the reporting period.

Environmental Approvals

On October 16, 2020 Hydro One submitted a proposed Terms of Reference (ToR) for the Waasigan Transmission Line environmental assessment for approval by the Ministry of the Environment, Conservation and Parks (MECP). A ToR is a work plan that outlines how the environmental assessment will be completed, including the studies and consultation activities. The MECP held a review period for the ToR that ended on November 16, 2020. Based on comments received during the ToR review process and advice from the MECP, Hydro One amended the ToR and submitted an amended document to the MECP on June 18, 2021. Since that time, the MECP continues to work towards a decision by the Minister to approve, approve with amendments, or reject the Terms of Reference.

The *Training and Skills Development Program*, a program developed for local Indigenous communities' to help build skills and capacity in northwestern Ontario in support of the Waasigan project, has continued to be offered to local Indigenous communities. To date, the training program has been delivered to over 100 participants.

Indigenous Engagement and Consultation

Hydro One has continued to engage and consult with 21 Indigenous communities and organisations on a weekly basis through general outreach and regularly scheduled meetings. In consideration of COVID-19 challenges, Hydro One has enhanced efforts to stay connected and frequently shares the latest information with communities.

Key engagement activities have focused on the following areas:











- Building relationships: Hydro One has continued to outreach and connect with Indigenous communities on a regular basis to support relationship building and continued familiarization with the Project overall. These activities include telephone and email contact, as well as virtual and in-person meetings and presentations about the Project.
- Capacity Support: Hydro One worked with Indigenous communities to progress the deliverables of the Capacity Funding Agreements (CFAs). This includes the development and administration of CFAs, as well as providing ongoing advisory support where needed. In the last period, several communities have completed the deliverables of their first CFAs, and consequently second phase work plans with new budgets have been negotiated and approved. Budgets continue to be provided for Community Engagement Coordinators, Indigenous Knowledge studies, training, skills development, and the procurement of professional services by communities to support their participation in the Project's studies.
- Communications: An Indigenous Engagement Communications Strategy has been developed to improve communications and engagement with Indigenous communities related to the Project. The Strategy incorporates feedback from Indigenous communities specific to communications as well as best practices as a result of COVID-19.
- Early Contractor Involvement (ECI) Process: Hydro One has facilitated introductory and follow-up meetings between interested Indigenous communities and the two Engineering, Procurement and Construction (EPC) contractors to initiate early-stage dialogue regarding Indigenous training, employment and procurement interests in the Project.
- Indigenous Knowledge (IK): A more defined IK commitment and strategy has been developed during the period to underscore the Project's approach to Indigenous Knowledge collection and incorporation into EA decision-making.

Other Consultation

Hydro One has continued with engagement efforts across the period of this report including participation in Northwestern Ontario Municipal Association (NOMA)'s annual meeting in May 2021. Hydro One's Chief Corporate Affairs and Customer Care Officer Jason Fitzsimmons shared with NOMA how the Project will support growth potential in the region.

In addition, during the reporting period, virtual project update presentations were delivered to municipal elected officials across the study area, including a formal deputation to the City of



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Thunder Bay. Other engagement opportunities include ongoing social media ads and direct mail to increase project awareness.

Planning is underway for the third Waasigan Community Roundtable (Roundtable) meeting. Members of the Roundtable act in an advisory capacity to Hydro One to ensure that local developments, knowledge, interests and values are considered throughout the various stages of the project. Currently the Roundtable meets biannually.

Engineering and Design

In support of the Project's development phase activities Hydro One undertook an extensive competitive procurement process in February 2021 to engage the services of EPC contractors for an Early Contractor Involvement (ECI) procurement model. Within the period of this report, the ECI model has:

- Provided necessary design and engineering information into the environmental assessment and Hydro One's overall development of the Project;
- Advanced preliminary identification of Project specific Indigenous and non-Indigenous employment, procurement and training opportunities and requirements through extensive meetings with Indigenous communities and organisations; and
- Has identified opportunities for innovation in design, materials and procurement early in the Project to enable the development of the best project delivery solution.

In addition to supporting the IESO with their bulk and regional planning activities, Hydro One has also been working with the IESO to complete advance system impact studies for Lakehead Transformer Station (TS), Mackenzie TS and Dryden TS and has prepared a draft preliminary planning specification that will assist in advancing project scoping as it relates to transmission station design requirements.











Costs

Hydro One's first semi-annual report issued on October 22, 2020 forecast development phase cost to be estimated at 69M at an accuracy of AACE⁵ Class 3 (-10%/+15%). Table 1 below summarizes the project development costs for the current reporting period. As of March 31, 2021 the overall forecast development phase cost is estimated to remain unchanged at 69M. During the reporting period two cost element variances were realized in comparison to the previous reporting period: an increase of 1M for Engineering and Design and a decrease of 1M in Interest and Overhead.

The reduction in Interest and Overhead cost is due to a lower than forecast 2021 expenditures. COVID-19 has provided unprecedented challenges in the development of infrastructure projects both in 2020 and 2021. The continuation of virtual engagement has resulted in lower than planned expenditure on engagement and consultation in 2021. Although virtual engagement and consultation has proven effective, it is anticipated that beginning in fall 2021 increased vaccination rates and effective health and safety protocols will result in a higher interest for in-person activities by Indigenous communities and other stakeholders. As a result, activities from 2021 have been carried forward to fall 2021 and into 2022. These budgetary carry forwards to-date have realized a decrease in interest and overhead costs.

The increase to engineering and design was to align the budget to the requirements of the development phase activities of the Project. Increased engineering and design effort will be required to assess alternative routing as well as in meeting with Indigenous communities to assess employment, training and procurement.

The Project is being managed within the forecast development phase cost estimate of 69M (-10%/+15%). Cost variances may occur as the Project matures and as greater definition is obtained on specific cost elements, redistribution of costs will be required and undertaken within the 69M. This will also result in variances to forecast interest and overhead costs over the term of the project. The OEB will be notified in the event that any variances are required outside the 69M.

⁵ Association for the Advancement of Cost Engineering

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Total



Actuals Spent Forecast Budget Variance A B С D Ε F G н T Forecast Budget H = G/F * 100Spent this Budget per Oct Forecast Budget G = F - BTotal Spent to **Revised Total** 22, 2020 Change from Change from Budget Budget Reporting **Reasons for Change** Date Budget Period Last Report Last Report Remaining Remaining Report (Millions) (Millions) (Millions) (Millions) (Millions) (Millions) (%) (%) **Real Estate** \$0.0 \$0.0 \$2.00 \$0.0 0% \$2.0 \$2.0 100% Increased effort by ECI contractors is expected with respect to Indigneous **Engineering and** \$2.00 \$3.7 50% \$2.6 \$3.8 \$1.0 15% \$7.5 engagement as well as engineering and Design design to prepare a complete fixed price proposal. Environmental \$0.6 \$3.7 \$15.50 \$0.0 0% \$15.5 \$11.8 76% Approvals Indigenous \$2.0 \$4.1 \$23.00 \$0.0 0% \$23.0 \$18.9 82% **Consultation** \$1.0 \$4.50 \$3.0 \$2.0 \$0.1 \$0.0 0% 67% **Project Management** \$0.0 \$0.0 \$4.0 100% Contingency \$4.00 \$0.0 0% \$4.0 **Other Consultation** \$0.1 \$1.1 \$3.00 \$0.0 0% \$3.0 \$1.9 63% Interest and \$0.7 \$1.7 \$15.00 -\$1.0 -8% \$11.0 \$9.3 85% Overhead 2021 budget carry forward. \$6.1 \$15.4 \$69.00 \$0.0 0% \$69.0 \$53.6 78%

Table 1: Project Development Costs⁶

⁶ Costs included in Table 1, include approximately ~\$877k of OM&A costs recorded in a Deferral Account and subsequently approved by the OEB in EB-2019-0082. This was last reported incorrectly as not being included in Table 1.

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Schedule

In January 2014, Hydro One's transmission licence was amended by the OEB ordering Hydro One to work with the IESO to establish the scope and timing of the Project, and to develop and seek approvals. In 2016 and 2017, the Ministry of Energy and IESO reassessed the scope and schedule of the Project and reconfirmed the need for the Project to support growth and maintain reliable electricity supply in northwestern Ontario. It was determined that the Project will proceed in phases with development work for the first two phases to proceed at the same time. The phases are as follows:

- Phase One a line from Thunder Bay to Atikokan;
- Phase Two a line from Atikokan to Dryden; and,
- Phase Three a line from Dryden to the Manitoba border, to enable the better integration of provincial electricity grids.

Following this, the IESO issued a letter⁷ to Hydro One dated October 24, 2018 which provided an update on the need and scope for the Project, and a recommendation for Hydro One to proceed with development work on Phases One and Two of the Project.

In this letter, the IESO indicated that the updated forecast considered new loads from potential industrial developments (e.g., mines), the connection of remote communities and the cancellation of the Energy East pipeline conversion project. Based on the forecast, the area west of Thunder Bay and north of Dryden is adequately supplied today; however, a need for additional capacity will arise in the mid-2030s (IESO, 2018). Also, under the IESO's high growth scenario, which considers development of the Ring of Fire mineral deposit area with electricity supplied by the Ontario transmission system, a capacity need could potentially arise in the early 2020s (IESO, 2018). As part of the Regional Planning exercise, the IESO will be issuing its Integrated Regional Resource Plan (IRRP) in 2022 which will be leveraged to better understand the drivers of load growth and to help inform a need date for the Project.

Given the risks associated with load forecast uncertainty and the potential for large industrial projects to add significant load to the area utilizing the remaining capacity margin sooner than anticipated, the IESO recommended that Hydro One begin development work on Phases One and Two of the Project to shorten the lead time required should the need materialize⁷. The scope of development work includes preliminary design/engineering, cost estimation, engagement and

⁷ The IESO letter to Hydro One dated October 24, 2018 is provided at **Attachment 3**.





consultation, routing and siting, and the EA. The IESO did not commit to a timeline for the construction of the Project; however, it was indicated that developments will be monitored to determine when construction of the transmission line should begin.

In consideration of the above, Hydro One has built out a development schedule with the goal of completing all development works by December 31, 2024. Should a change to this date materialize it will be included in subsequent bi-annual Project reports. As mentioned above, Table 2 presents the key milestones and schedule for completing development phase activities.













Table 2: Project Schedule

Milestones	Schedule	Completed	Delayed to
Notice of Commencement of Terms of Reference	April 24, 2019	April 24, 2019	
Development of route alternatives and data collection	Spring 2019 – Spring 2020	June 2020	
Draft Terms of Reference external review	June 2020	June 2020	
Proposed Terms of Reference submitted to the Ministry of the Environment, Conservation and Parks	September/ October 2020	October 16, 2020	
Ministry of the Environment, Conservation and Parks review and approval of the Terms of Reference	December 2020/January 2021	In-progress	Fall 2021
Notice of Commencement of the Environmental Assessment	January 1, 2021		Winter 2022
Evaluation of alternative routes and determination of a preferred route.	November 2020 to May 2021		Winter to Spring 2022
Consultation and data collection on the Environmental Assessment study areas	2021 - 2022		2022-2023
Preliminary design and engineering	2021 - 2022		2022-2023
Draft Environmental Assessment review	2022		2023
Cost Estimation	2022		2023
Leave to Construct (S92) application submission*	2022		2023
Decision on Environmental Assessment by Ministry of the Environment, Conservation and Parks	2023/2024		2024
Complete Development Work	By end of 2024		
Leave to Construct (592) approval	2023/2024		2024
Start of Execution Phase	To be determined		

* Leave to construct under Section 92 of the Ontario Energy Board Act is a regulatory process to obtain approval from the OEB to build and operate a transmission line. Hydro One will not apply for this approval until direction is received by the IESO on the timeing for the project.











During this reporting period Hydro One worked with the MECP, Indigenous communities, government agencies and other stakeholders to address comments on the ToR. This led to an amended ToR being submitted to the MECP in June 2021. Approval of the ToR is currently anticipated for fall 2021.

Consultation and engagement on the Project will continue through to the end of development and will consist of Project-specific capacity building (training, funding, procurement and employment) for Indigenous communities, information sharing, IK gathering and participation in development activities. Alternative routes identified in the ToR will be evaluated with a determination of a preferred route expected in Q1 to Q2 of 2022. Environmental assessment field studies are anticipated to be undertaken in 2022. Preliminary design and engineering will continue to provide support into development phase activities.

Currently, the Project remains on schedule to complete the development work by end of 2024.













Risks and Issues Log

The Project is being monitored continually for risks and risk mitigation implemented as a matter of routine activity by the project team. Risks will be formally re-evaluated on a quarterly basis. Table 3 below lists major development risks being managed to date. Project execution risks will be identified at a later date and will be included in the OEB Leave to Construct (Section 92) application.

Risk Description	Likelihood of Occurrence	Impact of Risk on the Project	Mitigation
Consultation	realized; Duty to Consult list has changed	Scope, Schedule and cost	Risk remains that the scope of Indigenous and non-Indigenous consultation could change as the Project matures. Hydro One meets regularly with ENDM and MECP.
Health & Safety	realized; Covid-19	Schedule and cost	Alternative engagement activities, sensitive to health and safety, have been implemented and have proven to be effective. The risk continues to be monitored with adjustments to work programs made as needed.
Regulatory approvals	realized; delay to ToR approval	Scope, Schedule and cost	Decisions by various Regulators may result in changes to scope, schedule and cost of the Project. This includes delays to the approval of the Terms of Reference for the environmental assessment by the MECP, delays in the review and comment on environmental field study work plans by MECP Species at Risk Branch and Ministy of Natural Resources and Forestry. Mitigation involves meeting with Regulators to discuss and address issues and providing sufficient time and opportunity for Regulators to undertake their reviews, comments and approvals.

Table 3: Major Risks and Issues

Ministry of Energy, Northern Development and Mines (ENDM) issued an initial DTC letter to Hydro One in Oct 2018, which was revised in April 2020. Hydro One and ENDM have a Memorandum of Understanding that outlines the DTC roles and responsibilities of the two parties regarding major projects. Hydro One meets monthly with ENDM and other agencies to provide Indigenous consultation and engagement updates and to keep the Crown apprised of any potential challenges in the consultation process and how we can work together to find solutions.







COVID-19 has provided unprecedented challenges in the development of infrastructure projects. Timely adaptation from the more traditional in-person to virtual engagement has been required. Hydro One has developed and successfully implemented a wide variety of versatile virtual tools including the use of telepresence meetings, webinars, virtual town-halls and the use of USB storage sticks and tablets to distribute project materials safely. With increasing vaccination rates and the implementation of effective health and safety protocols a return to in-person engagement is happening. Health and safety is a priority to Hydro One and our project activities will continue to be monitored and adapted.

As the Project matures, external stakeholders such as energy and environmental regulators can influence the schedule and scope of the Project. Hydro One meets regularly with regulators to keep them apprised of Project progress and to work together to manage expectations. Based on comments received during the ToR review process and advice from the MECP, Hydro One amended the ToR and submitted an amended document to the MECP on June 18, 2021. The ToR currently resides with the MECP for a decision expected in fall 2021. In addition, Hydro One has been meeting with ENDM to address requests for added consultation. This risk will continue to be further defined within the next OEB reporting period. Further information will be provided in the October 2021 to March 2022 report to the OEB.







