

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

April 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, this report, is the second bi-annual report, attached, covering the period October 1, 2020 through March 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.

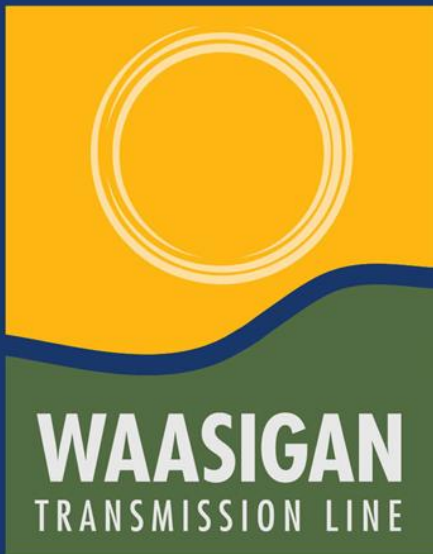
The WTL Project reporting will continue to be submitted to the OEB until such time a leave to construct application for the WTL Project is filed.

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

Sincerely,

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

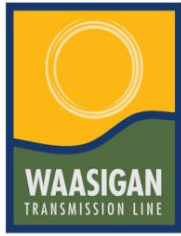
Joanne Richardson



WAASIGAN TRANSMISSION LINE

Ontario Energy Board
Progress Report

October 1, 2020 to March 31, 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 a Terms of Reference prepared and submitted to the Ministry of the Environment, Conservation and Parks for review and approval. A Community Roundtable has been established to ensure a continuous feedback loop between Hydro One and Indigenous communities, municipal officials and staff, industry, businesses, and educational institutions throughout all stages of the project. In addition, two engineering, procurement and construction contractors have been selected for participation in an early contractor involvement procurement model to support in development phase activities.

Hydro One's first semi-annual report issued on October 22, 2020 forecast development phase cost of \$69M. As of March 31, 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. Moderate risks include: potential changes to the Crown's Duty to Consult list and COVID19. Risks with a high likelihood of occurrence include: schedule, scope and cost changes as a result of regulatory approvals.



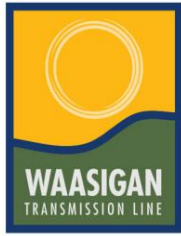


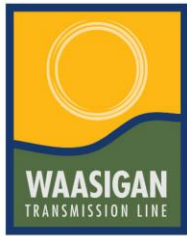
Table of Contents

Background	1
Overall Project Progress	3
Costs.....	6
Schedule	8
Risks and Issues Log	12

List of Tables

Table 1: <i>Project Development Costs</i>	7
Table 2: <i>Project Schedule</i>	10
Table 3: <i>Major Risks and Issues</i>	12





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.

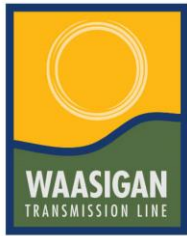
In December 2018, Hydro One requested to change the nature of the North West Bulk Transmission Line Deferral account, from a deferral account to a tracking account, and to change the name of the tracking account to the Waasigan Transmission Tracking Deferral Account. This request was a result of the 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 Application¹, the OEB approved the disposition of approximately \$877k² 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

¹ EB-2019-0082 – Decision and Order dated April 23, 2020, Pg. 159.

² Balance as at 31 December 2018.





capitalisation criteria, as of January 1, 2020, project costs were recorded as construction-work-in-progress ("CWIP") with the account recording what are known as 'tracking'³ 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.

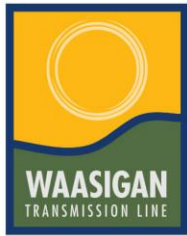
In a letter dated May 5, 2020 the OEB requested that Hydro One prepare semi-annual reports to the OEB that updated on the following matters:

- 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 October 1, 2020 to March 31, 2021.

³ 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.





Overall Project Progress

Between October 1, 2020 and March 31, 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. Since that time, Hydro One has been working with the MECP to address comments raised during this review period. Following completion of this review process, the MECP will provide a decision whether to approve, approve with amendments, or reject the Terms of Reference.

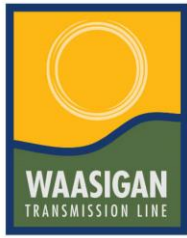
Indigenous Engagement and Consultation

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.

Some of the key activities have included:

- Ongoing coordination and support to Indigenous communities for the implementation of Capacity Funding Agreements. This included the provision of resources to review the draft ToR, retain third-party consultants to review and advise on the Project, and the employment of Community Engagement Coordinators.
- Supporting communities to purchase telecommunication resources (mobile hubs, teleconference equipment etc.) for virtual community meetings in consideration of COVID-19 restrictions.





- Providing support to develop frameworks for the study of Indigenous Knowledge /Traditional Land and Resource Use (IK). At the end of February 2021, 13 communities had initiated work on the development of IK frameworks, and several had completed surveys, local research and first stage studies. A dedicated advisor is retained by Hydro One to assist communities in advancing IK studies.
- The development of enhanced engagement and communication work plans in 2021 to support Indigenous information needs during the COVID-19 pandemic.
- Continuation of modules 1 and 2 of the Training and Skills Development Program (TSDP) aimed to develop local Indigenous communities' skills and capacity in northwestern Ontario in support of the Project, with the intent that the skills gained from this training can be applied to other projects of similar nature. To date, 10 training sessions have been delivered to Indigenous communities/organizations, for a total of 60 participants. The TSDP will continue into 2021.

Other Consultation

Since October 1, 2020 Hydro One has held two Waasigan Community Roundtable meetings virtually. The Roundtable has been established to ensure a continuous feedback loop between Hydro One and Indigenous communities, municipal officials and staff, industry, businesses, and educational institutions throughout all stages of the project. 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.

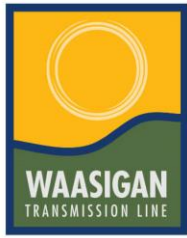
Hydro One was pleased to participate in the Thunder Bay Chamber of Commerce Annual General Meeting on February 3, 2021 in support of the Chamber and their efforts to strengthen and advance business opportunities in the north.

Hydro One is continuing outreach efforts via social media and running a series of social media ads to increase awareness of the Project and the need for more electricity in the north, and to humanize the project team working on the development of the line. Additionally, residents in the project area received a postcard in late November 2020 that provided a high-level project update and community touchpoint. This was also emailed out to our project contact list.

Engineering and Design

In support of development phase activities Hydro One undertook an extensive competitive procurement process in February 2021 to engage the services of two Engineering Procurement and





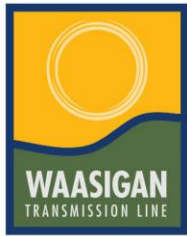
Construction (EPC) contractors for an Early Contractor Involvement (ECI) procurement model. The ECI model will:

- Provide necessary design and engineering information into the environmental assessment and Hydro One's overall development of the Project;
- Allow for the preliminary identification of Project specific Indigenous and non-Indigenous employment, procurement and training opportunities and requirements;
- Identify and integrate innovation in design, materials and procurement early in the Project to enable the development of the best project delivery solution; and,
- Enable ECI Contractors to develop and present a competitive fixed price offer for executing the Project.

The ECI model will continue in 2021 to provide the necessary support to development phase activities.

In addition to supporting the IESO on their regional planning, Hydro One is also working with the IESO to advance system impact studies for Lakehead Transformer Station (TS), Mackenzie TS and Dryden TS to prepare detailed planning specifications by the end of 2021 to advance 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 \$69M⁴ 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 three cost element variances were realized: an increase of \$4.5M for Engineering and Design, a decrease of \$1.5M in Project Management and a decrease in \$3M in Interest and Overhead costs.

The reduction in Interest and Overhead cost is due to a lower than forecast 2020 expenditures. COVID-19 has provided unprecedented challenges in the development of infrastructure projects. Adaptation from in-person to virtual engagement has resulted in lower than planned expenditure on engagement and consultation in 2020. Although virtual engagement and consultation has proven effective, it is anticipated that post-COVID-19 there will be a high interest for in-person activities by Indigenous communities and other stakeholders. As a result, activities from 2020 have been carried forward to 2022. These budgetary carry forwards realized a decrease in interest and overhead costs.

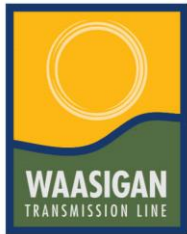
The reduction in estimated Project Management costs is a result of a redistribution of tasks that were better aligned with the administration and management of engineering and design activities. The increase to engineering and design was to align the budget to market based pricing, derived from a competitive procurement of an Owner's Engineer and two Engineering, Procurement and Construction contractors to coordinate and provide the necessary inputs into the development phase project activities. The extensive competitive procurement processes for these contracts provided greater definition on the work effort required to support development phase activities.

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.

⁴ This is additional to the amounts that were recorded in and subsequently approved by the OEB in EB-2019-0082 of approximately \$877k.-

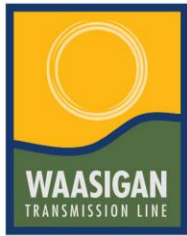
⁵ Association for the Advancement of Cost Engineering



Table 1: *Project Development Costs*⁶

	Actuals Spent			Forecast Budget Variance					
	A	B	C	D	E	F	G	H	I
	<i>Spent this Reporting Period (Millions)</i>	<i>Total Spent to Date (Millions)</i>	<i>Budget per Oct 22, 2020 Report (Millions)</i>	<i>Forecast Budget Change from Last Report (Millions)</i>	<i>Forecast Budget Change from Last Report (%)</i>	<i>Revised Total Budget (Millions)</i>	<i>G = F - B Budget Remaining (Millions)</i>	<i>H = G/F * 100 Budget Remaining (%)</i>	<i>Reasons for Change</i>
Real Estate	\$0.0	\$0.0	\$2.00	\$0.0	0%	\$2.0	\$2.0	100%	
Engineering and Design	\$0.9	\$0.9	\$2.00	\$4.5	225%	\$6.5	\$5.6	86%	Implementation of the Early Contractor Model
Environmental Approvals	\$1.1	\$3.4	\$15.50	\$0.0	0%	\$15.5	\$12.1	78%	
Indigenous Consultation	\$0.2	\$2.2	\$23.00	\$0.0	0%	\$23.0	\$20.8	90%	
Project Management	\$0.1	\$0.9	\$4.50	-\$1.5	-33%	\$3.0	\$2.1	70%	Cost redistribution.
Contingency	\$0.0	\$0.0	\$4.00	\$0.0	0%	\$4.0	\$4.0	100%	
Other Consultation	\$0.2	\$1.0	\$3.00	\$0.0	0%	\$3.0	\$2.0	67%	
Interest and Overhead	\$0.4	\$0.9	\$15.00	-\$3.0	-20%	\$12.0	\$11.1	93%	2020 budget carry forward.
Total	\$2.9	\$9.3	\$69.00	\$0.0	0%	\$69.0	\$59.7	87%	

⁶ Costs included in Table 1, do not include approximately ~\$877k of OM&A costs recorded in a Deferral Account and subsequently approved by the OEB in EB-2019-0082



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.

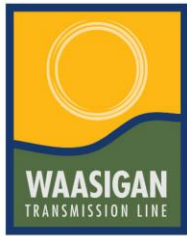
Following this, the IESO issued a letter⁷ to Hydro One dated October 24, 2018 which provided an update on the need and scope for the Project, and a recommendation for Hydro One to proceed with development work on Phases One and Two of the Project.

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). The IESO will be updating its regional planning report in 2021 which should provide current capacity need expectations to help refine the timing of 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 consultation, routing and siting, and the EA. The IESO did not commit to a timeline for the

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

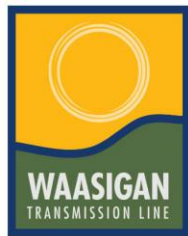




construction of the Project; however, it was indicated that developments will be monitored to determine when construction of the transmission line should begin.

With this in mind Hydro One has built out a development schedule with the goal of completing all development works by December 31, 2024. The IESO is advancing an Integrated Regional Planning session in 2021 to update the need and timing for the Project. Table 2 presents the key milestones and schedule for completing development phase activities.

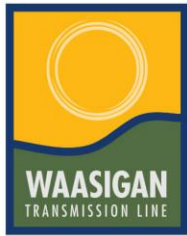


Table 2: *Project Schedule*

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 1, 2020	
Draft Terms of Reference external review	June 1, 2020	June 1, 2020	
Proposed Terms of Reference submitted to the Ministry of the Environment, Conservation and Parks	September/ October 2020	October 13, 2020	
Ministry of the Environment, Conservation and Parks review and approval of the Terms of Reference	December 2020/January 2021	In-progress	Spring 2021
Notice of Commencement of the Environmental Assessment	January 1, 2021		Spring 2021
Evaluation of alternative routes and determination of a preferred route.	November 2020 to May 2021		
Consultation and data collection on the Environmental Assessment study areas	2021 – 2022		
Preliminary design and engineering	2021 – 2022		
Draft Environmental Assessment review	2022		
Cost Estimation	2022		
Leave to Construct (S92) application submission*	2022		
Decision on Environmental Assessment by Ministry of the Environment, Conservation and Parks	2023/2024		
Complete Development Work	By end of 2024		
Leave to Construct (S92) approval	2023/2024		
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 timing for the project.





During this reporting period Hydro One submitted the ToR for the environmental assessment to the MECP. Hydro One has been working with the MECP, Indigenous communities, government agencies and other stakeholders to address comments on the ToR. The MECP review period has been extended due to COVID-19 to allow greater time to receive and integrate comments. Approval of the ToR is currently scheduled for spring 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 Q2 of 2021. Environmental assessment field studies are anticipated to be undertaken in 2021 through to end of 2022. Preliminary design and engineering has commenced to provide support into development phase activities.

Overall, 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 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.

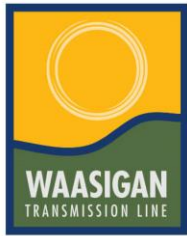
Table 3: *Major Risks and Issues*

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. Duration of risk is unknown.
Regulatory approvals	high	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 Ministry 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.

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. Quick adaptation from 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 USBs and tablets to distribute project materials safely.

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. Through these meetings indications are that added work effort and consultation will be required that will impact schedule, scope and cost. As a result, this risk has transitioned from a moderate to high likelihood of occurrence. This risk will be further defined within the next OEB reporting period. Should the risk materialize, further information will be provided in the April to September 2021 report to the OEB.

