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BY EMAIL AND RESS

November 21, 2024

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

Dear Ms. Marconi,

**EB-2022-0142 – Hydro One Networks Inc.'s Southwest Ontario Transmission Line Projects –
Bi-annual Reporting for the Period: May 1, 2024, to October 31, 2024**

Please find attached Hydro One Networks Inc.'s, ("Hydro One") bi-annual reporting pertaining to the Southwest Ontario Transmission Line Projects, for the reporting period May 1, 2024, to October 31, 2024, consistent with the direction provided to Hydro One by the Ontario Energy Board ("OEB" or the "Board") in its letter dated May 24, 2022.

The two attached reports contain three of the four Southwest Ontario Transmission Line Projects, and are organised as follows;

- The first report contains two separately identified transmission circuit projects that will span between Longwood Transformer Station ("TS") to Lakeshore TS. The two circuits have separately identified in-service date expectations.
- The second report contains the Windsor Area to Lakeshore Transmission Line Project.

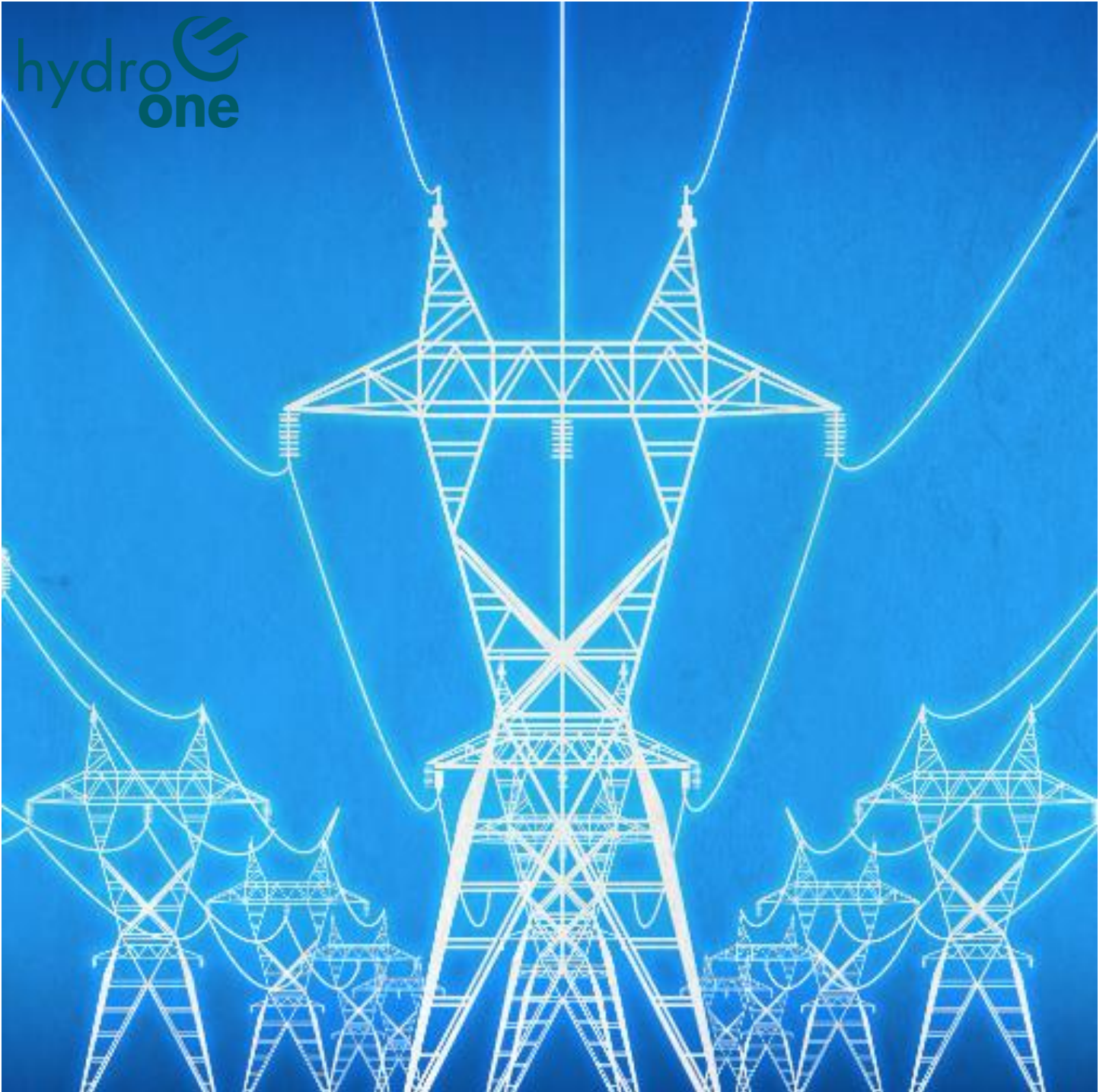
The fourth project, the St. Clair Transmission Line Project, is no longer included in the bi-annual reporting because the Project has entered an active leave to construct approval phase with the OEB. Please refer to the s.92 Application docket# EB-2024-0155.

An electronic copy of the Bi-annual reports has been submitted using the Board's Regulatory Electronic Submission System.

Sincerely,



Joanne Richardson



Southwest Ontario Transmission Line Projects

Longwood TS to Lakeshore TS Transmission Line Projects

Ontario Energy Board Progress Report

May 1, 2024, to October 31, 2024

EXECUTIVE SUMMARY

On April 6, 2022, the Ontario Energy Board (“OEB”)¹ amended Hydro One Network Inc.’s (“Hydro One”) transmission licence (ET-2003-0035) to include a requirement for Hydro One to develop and seek all necessary approvals for four new transmission projects located in Southwestern Ontario as per the Directive approved by the Lieutenant Governor in Council on March 31, 2022, as Order in Council (“OIC”) No. 875/2022.

On May 24, 2022², the OEB requested Hydro One prepare semi-annual project update reports.

This document includes the project reporting for two of the four new individual transmission projects stemming from the forementioned OIC, referred to as Project #2 - a new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations; and Project #3 - a second new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations. This report provides information on activities related to the development of the two new 500 kV transmission lines from Longwood Transformer Station to Lakeshore Transformer Station.

At this time, the second project included in this Report (referred to as Project #3) requires further IESO study and direction in terms of timing of the in-service date. Aligned with the directive, expenditures incurred for Project #3 relate to the Environmental Assessment and other activities to develop the project and reduce lead times for future construction and energization of the line when timing of the in-service date is provided by the IESO, and to the extent that they are incrementally separable from Project #2. This work is being conducted in parallel with Project #2.

Once projects are in the active development stage, such as the Longwood to Lakeshore transmission line Projects (Project #2 and Project #3), they are monitored for risks. Risk mitigation is implemented as a matter of routine activity by the Project teams. Delays in regulatory approvals remain an active risk that Hydro One is working with regulators to manage.

Hydro One’s guiding recommendations for the four transmission reinforcement projects in the Southwestern Ontario Area are driven by two specific reports by the IESO:

1. [West of London Bulk Study – Need for Bulk System Reinforcements West of London](#) (Sept 2021)
2. [Windsor-Essex IRRP Addendum Report](#) – (February 2022)

¹ EB-2022-0142

² EB-2022-0142 (The letter is attached at **Attachment 1** to this document)

The West of London Bulk Study references these projects in Section 7.3 Near Term Recommendations (Project #1), Section 8.3 Long Term Recommendations (Projects #2 and #3) and Section 9.3 Interdependency with Regional Planning (Project #4). *The West of London Bulk Study* identified the need and timing of Project #2. Section 6.1.2 *Coordination with the West of London Bulk Plan of the Windsor-Essex IRRP Addendum Report* also references Project #4.

These four identified transmission line projects included in Hydro One's licence are expected to be owned by and included in the rate base of a new partnership, a licenced transmitter. The line costs will be included in the Affiliate Transmission Projects Account ("ATP Account") and will not form part of Hydro One's rate base. On October 7, 2021, the OEB approved Hydro One's application for an accounting order to establish the new regulatory ATP Account for a project where Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction of the Ministry of Energy for the development or construction of a transmission line project, that is expected to form a new partnership. The associated station work for the Projects is expected to form part of Hydro One's transmission rate base. Once the project is in-serviced, and for any Project station work not sufficiently forecast and included in Hydro One's OEB-approved transmission revenue requirement, Hydro One intends to use its OEB-approved Externally Driven Work Account³ ("EDWA"), to record any such revenues for recovery. The EDWA would be used until such time the station assets and associated facilities can be included in Hydro One's rate base.

³ Hydro One's Externally Driven Work Account was granted by the OEB as part of the JRAP Settlement (EB-2021-0110). This account records the revenue requirement impact of mandatory transmission work required by governmental authorities.

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BACKGROUND

On April 4, 2022, the Minister of Energy issued a Directive to the OEB under section 28.6.1 of the Ontario Energy Board Act (“Directive”) requiring the OEB to amend Hydro One’s electricity transmission licence to require Hydro One to develop and seek approvals for four transmission line projects located in Southwest Ontario (collectively referred to as the Projects), that were approved by the Lieutenant Governor in Council on March 31, 2022, as Order in Council No. 875/2022. The four projects are as follows:

1. A new 230 kilovolt (kV) transmission line from Lambton Transformer Station to Chatham Switching Station, including associated station facility expansions or upgrades required at the terminal stations;
2. A new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations;
3. A second new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations; and
4. A new 230 kV transmission line that connects the Windsor area to the Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations.

The Directive also required the OEB to amend Hydro One’s licence to include a condition that the scope and timing for the Projects accord with the recommendations of the Independent Electricity System Operator (“IESO”), and it also directed the OEB to require that Hydro One provide such reporting to the OEB as the OEB may consider appropriate with respect to budget, timing, and risks in relation to the development of the Projects.

The Order in Council accompanying the Directive states that expansion of Ontario’s transmission system is critical to provide a reliable and adequate supply of electricity to Southwestern Ontario to support economic growth in the region, including the rapidly growing agricultural sector and the potential for growth in the electric vehicle and broader automotive sectors.

Two of the projects listed in the Directive (Project #1 and #2 above) have been declared to be needed as priority projects pursuant to section 96.1 of the Act in Order in Council 876/2022 dated March 31, 2022. As of the reporting date, no meaningful, and / or separately identifiable planning or development activities have commenced pertaining to Project #4. Project #4 is pending further technical studies, to be led by the IESO. Project #4 is the subject of a separate bi-annual report, that is filed to the OEB in conjunction with this report.

In a letter dated May 24, 2022, the OEB requested that Hydro One prepare semi-annual reports to the OEB that provided updates on the following matters:

- Overall Project progress
- Development cost
- Development work schedule
- Risks and Issues Log
- Project scope and timing recommendations provided by the IESO.

The reports should be filed as follows:

- May 1 to October 31 for reporting in November
- November 1 to April 30 for reporting in May.

This report covers Projects #2 and #3, the two single-circuit 500 kV transmission lines from Longwood to Lakeshore. Since both Projects are distinct but have the same terminal facilities, they have been included together in this report.

Hydro One's 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. The ATP Account will be used for a transmission line project where:

1. Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction from the Minister of Energy for the development or construction of a transmission line project and,
2. All or part of the transmission line project is expected to be owned by and included in the rate base of a new partnership, as a licensed transmitter, such that costs included in the ATP Account Project will not form part of Hydro One's rate base.

The four new transmission line projects, two of which are reported on in this document, are expected to be owned by and included in the rate base of a new partnership, as a licensed transmitter, such that costs included in the ATP Account Project will not form part of Hydro One's rate base. On October 7, 2021, the OEB approved Hydro One's application for an accounting order to establish the new ATP Account for use where Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction from the Minister of Energy for the development or construction of a transmission line project.

In this bi-annual report to the OEB, Hydro One is including individual updates for Projects #2 and #3, to the extent that there are updates on which to provide. For the purposes of maintaining regulatory efficiency, Hydro One has included two reports, by project, in this document. Projects #2 and #3 are in active development while Project #3 requires further studies by IESO to

determine the in-service date. As the Class Environmental Assessment (“EA”) covers both projects, Hydro One’s intention is to continue to prepare and submit the updates together until the EA is complete. Following completion of the EA, Hydro One will propose if it remains efficient to continue to report bi-annual progress of both projects within the same report moving forward.

Project Summary Table

For ease of reference, and comparison, Table 1 below provides a summary of the two individual projects included in this report. A map of southwestern Ontario and the new transmission projects, including Projects #2 and #3, can be found at Attachment 2 to this document.

Table 1 - Summary of Project #2 and Project #3 – Longwood to Lakeshore Transmission Line Projects

Project	Status	Line Name	Voltage (kV)	Length (KM)	Circuit Type	Completion	Project Stage	Notes
Project #2	To Be Developed and Prioritized for Construction	Longwood to Lakeshore Transmission Line	500 kV	Approx. 135	Single	2030	Under development	Preliminary Development underway
Project #3	To Be Developed	Longwood to Lakeshore Transmission Line	500 kV	Approx. 135	Single	No current Timeline established	Under development	Further Study by IESO Required to establish the date the project is required to be energized

PROJECT REPORT

Project 2 - 500 kV Transmission Line from Longwood TS to Lakeshore TS

This project, identified as Project #2 in the listing above, is also known as “Phase 1” of the total circuits contemplated between Longwood TS to Lakeshore TS. The Directive to Hydro One called for two new 500 kV transmission lines between these two stations. The two projects are expected to have different construction and in-service timelines.

OVERALL PROGRESS BY PROJECT

In the IESO’s “Need for Bulk System Reinforcements West of London” report issued in September 2021, among other things, the IESO identified a need for a single-circuit 135 km, 500 kV transmission line from Longwood TS to Lakeshore TS (also known and referred to as “Phase 1”, due to another 500 kV circuit project of the same nature also being defined between those two stations) in 2030. In the same report, the IESO also indicated a second 500 kV single-circuit transmission line (also known and referred to as “Phase 2”), approximately 135 km in length in the area should be considered as an option to address higher growth. Via an OIC, dated March 31, 2022, the Government declared the first single-circuit 500 kV line a priority project, and designated Hydro One as the transmitter.

To better coordinate rights-holder and stakeholder consultations for the second 500 kV circuit (Phase 2), the development work for Project #3, consisting of the environmental assessment activities and consultations, has commenced and includes those elements for both 500 kV projects (Phase 1 and Phase 2). However, at this time Hydro One expects it will seek separate OEB Leave to Construct approvals for each phase, starting with Project #2 (Phase 1), a single 500 kV line. As part of ongoing regional and bulk planning assessments, as led by the IESO, the IESO is expected to determine the timing of Project #3 (Phase 2) in the future. When further details are known, Hydro One will include those details in future Project reporting.

Hydro One began development work in October 2022 and continues to proceed with development work for Phase 1 and Phase 2. The following summarises the work that was undertaken within the reporting period.

Environmental Approvals

Hydro One continues to proceed with development work for this Project. In consultation with IESO, and with their support, Hydro One is proceeding with the EA for both Project Phase 1 and Phase 2 as soon as possible to shorten the overall Project lead time required to have the assets ready to be in service to meet the electricity capacity needs, for Phase 1, and, when the in-service date is finalized by the IESO for Phase 2.

During the period May 2024 to October 2024 Hydro One continued to progress the Class EA with a focus on learning more about the route alternatives included in the Notice of Commencement (“NoC”) through undertaking natural environment field work, additional technical analyses, and engaging with rights-holders and stakeholders. This work provided Hydro One with a more in-depth understanding of the conditions surrounding each of the proposed route alternatives and resulted in some refinements to the original route alternatives. The route refinements were released in a Project Update in October 2024 and further details are available on Hydro One’s external website.⁴ In conjunction with the release of the route refinements, Hydro One has completed a number of engagement activities aimed at sharing the route updates and seeking feedback on them. Key engagement activities during this reporting period included:

- Delivery of landowner packages to potentially impacted landowners along the alternative routes; and
- Numerous meetings with potentially impacted stakeholders, including for example municipalities and interest groups, and potentially impacted landowners;

Key engagement activities related to the route refinements and other project details that will occur in the following reporting period include:

- Four in-person Community Open Houses (“COHs”) in Comber, Chatham, Appin and Thamesville on November 19, 20, 27, and 28, 2024 respectively.

The EA process is expected to continue through the end of 2025, with the near-term focus on the evaluation of route alternatives with the intent of selecting a preferred route in early-mid 2025.

Hydro One continues to proceed with development work on Phase 1 of this Project,. Ongoing consultation and engagement are being performed with ten Indigenous communities, government agencies, the public and other interested parties. Capacity, in the form of funding and training, is being provided to Indigenous communities to assure opportunity for extensive participation and consultation in the Project.

Key engagement activities during this reporting period with Indigenous communities included:

- Community Open House at Chippewas of the Thames First Nation on May 28, 2024;
- Community Open House at Kettle and Stoney Point First Nation on August 28, 2024;
- Community Open House at Aamjiwnaang First Nation on September 21, 2024; and
- Indigenous Technical Advisory Committee meeting on September 19, 2024, to seek input into the Indigenous Culture, Values, and Land Use route evaluation criteria.

⁴ <https://www.hydroone.com/about/corporate-information/major-projects/longwood-to-lakeshore>

Engineering and Design

Engineering and design work continues for the expansion of two of Hydro One's transmission stations, i) Longwood TS, and ii) Lakeshore TS, to support the need for Phase 1. Engineering and design for the line work has also begun for Phase 1 as required to support the development work.

COSTS

The IESO indicated that the planning level allowance used in the economic assessment of the solution for the "*Need for Bulk System Reinforcements West of London report September 2021*" utilized a range of between \$800M and \$1,150M for Phase 1, with a contingency allowance of 50% for the transmission line portion of the Project.

Consistent with the Order in Council for this Project, and the timing requirements for its delivery, Hydro One has commenced development work for the Project, as indicated by the expenditures to date shown in Table 2, below. Hydro One will be determining a Project Development Cost Budget once there is more clarity regarding the preferred route.

Table 2 - Project Development Costs – Project 2 – 500 kV transmission line from Longwood TS to Lakeshore TS (Phase 1)

	Actuals Spent		C	Forecast Budget Variance					
	A	B		D	E	F	G	H	I
	Spent this Reporting Period (Millions)	Total Spent to Date (Millions)		Forecast Budget Change from Last Report (Millions)	Forecast Budget Change from Last Report (%)	Revised Total Budget (Millions)	G = F - B Budget Remaining (Millions)	H = G/F * 100 Budget Remaining (%)	Reasons for Change
Real Estate	\$0.53	\$0.71	\$0.8	\$0.00	0%	\$0.00	TBD	TBD	
Engineering and Design	\$3.28	\$5.55	\$9.3	\$0.00	0%	\$0.00	TBD	TBD	
Environmental Approvals	\$0.92	\$2.52	\$3.1	\$0.00	0%	\$0.00	TBD	TBD	
Indigenous Consultation	\$0.39	\$1.41	\$4.0	\$0.00	0%	\$0.00	TBD	TBD	
Project Management	\$0.76	\$2.06	\$2.2	\$0.00	0%	\$0.00	TBD	TBD	
Contingency	\$0.00	\$0.00	\$1.7	\$0.00	0%	\$0.00	TBD	TBD	
Other Consultation	\$1.01	\$2.99	\$5.8	\$0.00	0%	\$0.00	TBD	TBD	
Interest and Overhead	\$0.39	\$0.87	\$2.5	\$0.00	0%	\$0.00	TBD	TBD	
Total	\$7.28	\$16.11	\$29.4	\$0.00	0%	\$0.00	TBD	TBD	

⁵ Budget amounts shown in *Column C* are for the Project's EA phase only. A total project development budget requires clarity on preferred route.

PROJECT SCHEDULE

In the IESO “*Need for Bulk System Reinforcements West of London report September 2021*” the IESO indicated that the Longwood to Lakeshore Transmission Line (Phase 1) would be required to be in service by 2030. Hydro One has built out a development schedule with the goal of completing all development work by the end of 2026, which will allow time to construct and in-service the line by the need date. Table 3 presents the key milestones involved in completing development.

Table 3 - Project Schedule – Project 2 – 500 kV transmission line from Longwood TS to Lakeshore TS (Phase 1)

Milestones	Schedule	Completed	Adjusted To
Notice of Commencement of Terms of Reference (TOR)	February 2023	February 27, 2023, to March 3, 2023. (With pre-release to Indigenous Communities and key stakeholders occurring February 13, 2023, to February 24, 2023)	-
Community Open House #1	March 2023	March 21, 22, 23, 29, 30, 2023	-
Virtual Open House #1	April 2023	April 13, 2023	-
Data collection, and development of route alternatives	From Early 2023 to Late 2023	Route Alternatives shared publicly in NoC of Class EA in March 2024.	-
Notice of Commencement of Class EA	March 2024	Distribution began the week of March 4, 2024	-
Community Open House #2	Early 2024	March 26 and 27, 2024, and April 3 and 4, 2024	-
Virtual Open House #2	Early 2024	April 24, 2024	-
Consultation and data collection in support of the EA	2024	Ongoing	-
Route Refinements	Late 2024	Route refinements shared publicly in October 2024	
Community Open House #3	November 2024	November 19, 20, 27, 28, 2024	
Selection of preferred routes	Early-mid 2025	-	-
Publish the draft Environmental Study Report (ESR) for public review	Mid 2025	-	-
Submit Final ESR and complete the Class EA process	Late 2025	-	-
Leave to Construction (Section 92) application	2026	-	-
Construction	2027-2030	-	-

RISKS AND ISSUES LOG

The below risks have been identified for the EA stage of this Project. Risks for further stages of the Project development work will be identified as Project development work, and stages progress.

- There is a risk of delay to the Project as a result of an extended route evaluation and selection of preferred route process, due to unknown constraints being discovered late in the route evaluation process. To mitigate this risk, Hydro One is conducting an extensive consultation program to seek local information from landowners, as well as undertaking natural environment and technical surveys on all route alternatives to minimize route refinements late in the process and support a thorough route evaluation process.
- There's a risk of delay to the Project as a result of Section 16 Order requests. To mitigate this risk, Hydro One continues to offer engagement opportunities with Indigenous communities proximate to the Project's EA study area, which includes offering the provision of capacity funding to potentially impacted communities, to support these consultation activities and involvement in the EA process.

PROJECT SCOPE AND TIMING RECOMMENDATIONS PROVIDED BY THE IESO

Should the IESO provide updates to the scope and/or timing recommendations to Hydro One for Phase 1, those details will be provided to the OEB and summarised in this section of the Report going forward. Information in this section will reflect any update/s provided to Hydro One within the semi-annual reporting period to which the report pertains.

Updates - Nothing to report during the period.

PROJECT REPORT

Project 3 - A second new 500 kV transmission line from Longwood TS to Lakeshore TS

This Project, identified as Project #3 in the listing above, is also known as “Phase 2”, the second circuit contemplated between Longwood TS to Lakeshore TS.

OVERALL PROGRESS BY PROJECT

The Phase 1 and Phase 2 Environmental Assessment (“EA”) study areas directly overlap. To better coordinate rights-holder and stakeholder consultations for Project #3 for the second 500 kV circuit (also known as Phase 2), development work consisting of EA activities has commenced and includes scope for both 500 kV projects (i.e., Phase 1 and Phase 2). Therefore, independent Phase 2 development activities consist of a subset of overall Phase 1 activities, as listed in the Phase 1 project update.

Environmental Approvals

Given the joint nature of Environmental Approvals for Phase 1 and 2 of this Project, all updates associated with Environmental Approvals are the same as those detailed in Phase 1 Project Update above.

Engineering and Design

Engineering and design work has begun for the expansion of two of Hydro One transmission stations, i) Longwood TS, and ii) Lakeshore TS, to support the need for Phase 1 work. Engineering and design basis for the line work has begun for Phase 1, which is also applicable to Phase 2.

COSTS

Hydro One will be determining a project-specific development budget once there is more clarity on the line routes and the incremental subset of development activities related to Phase 2. As at the reporting date, only minor costs have been incurred for Phase 2, so far as they are distinguishable from Phase 1. The majority of cost-related activity for both Phase 1 and Phase 2 project's is attributable to the Project EA work, that is being undertaking for both projects/phases in parallel.

Table 4 - Project Development Costs – Project 3 – 500 kV transmission line from Longwood TS to Lakeshore TS (Phase 2)

	Actuals Spent		C	Forecast Budget Variance					
	A	B		D	E	F	G	H	I
	Spent this Reporting Period (Millions)	Total Spent to Date (Millions)		Forecast Budget Change from Last Report (Millions)	Forecast Budget Change from Last Report (%)	Revised Total Budget (Millions)	G = F - B Budget Remaining (Millions)	H = G/F * 100 Budget Remaining (%)	Reasons for Change
Real Estate	\$0.00	\$0.02	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Engineering and Design	\$0.00	\$0.00	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Environmental Approvals	\$0.00	\$0.27	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Indigenous Consultation	\$0.00	\$0.00	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Project Management	\$0.00	\$0.05	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Contingency	\$0.00	\$0.00	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Other Consultation	\$0.00	\$0.08	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Interest and Overhead	\$0.01	\$0.05	TBD	\$0.00	0%	\$0.00	TBD	TBD	
Total	\$0.00	\$0.47	TBD	\$0.00	0%	\$0.00	TBD	TBD	

⁶ A Phase 2 project development budget will be determined after obtaining clarity on the Phase 2 (i.e. Project #3) route.

PROJECT SCHEDULE

A separate Project Schedule has not been developed for Phase 2 at this time. Key Phase 2 interface activities and milestones have been included in Phase 1 schedule as most activities currently planned are not separable from Phase 1. Currently Project 3 has no defined in-service date. The EA work for both Project phases is being undertaken concurrently, (i.e., study areas for Project #2 and Project #3) and is effectively identical, at this early stage of the development for both projects. Work in common is identified in the Table 3 Project Schedule above. No other significant project development work for Phase 2, separate to that from Phase 1, has occurred as at the reporting date.

RISKS AND ISSUES LOG

The below risks have been identified for the EA stage of this Project. Risks for further stages of the Project development work will be identified as the Project progresses.

- There is a risk of delay to the Project as a result of an extended route evaluation and selection of preferred route process, due to unknown constraints being discovered late in the route evaluation process. To mitigate this risk, Hydro One is conducting an extensive consultation program to seek local information from landowners, as well as undertaking natural environment and technical surveys on all route alternatives to minimize route refinements late in the process and support a thorough route evaluation process.
- There's a risk of delay to the Project as a result of Section 16 Order requests. To mitigate this risk, Hydro One continues to offer engagement opportunities with Indigenous communities proximate to the Project's EA study area, which has included offering to provide capacity funding to the communities, to support these consultation activities and involvement in the EA process.

PROJECT SCOPE AND TIMING RECOMMENDATIONS PROVIDED BY THE IESO

Should the IESO provide updates to the scope and/or timing recommendations to Hydro One for Project #3, those details will be provided to the OEB and summarised in this section of the Report going forward. Information in this section will reflect any update/s provided to Hydro One within the semi-annual reporting period to which the report pertains.

Additional IESO studies for Project #3 will provide more project definition, scope, and in-service timing, prior to Hydro One commencing further meaningful project development work beyond the EA work, that is being undertaken in parallel with Phase 1. Hydro One's future semi-annual reports will include more details when they become available.

Updates - Nothing to report during the period.

ATTACHMENT 1

OEB Letter to Hydro One Re: New Transmission Lines in Southwestern Ontario

Dated May 24, 2022
OEB File Number: EB-2022-0142



BY EMAIL

May 24, 2022

Ms. Joanne Richardson
Director, Major Projects and Partnerships
Hydro One Networks Inc.
483 Bay Street, 7th Floor South Tower
Toronto, ON M5G 2P5
Joanne.Richardson@HydroOne.com

Dear Ms. Richardson:

**Re: New Transmission Lines in Southwestern Ontario
Board File Number: EB-2022-0142**

This letter acknowledges receipt of your letter of April 12, 2022 in which Hydro One Networks Inc. (Hydro One) provided a copy of the Independent Electricity System Operator's (IESO's) recommendations regarding the scope and timing of four new transmission line projects, as required by the Ontario Energy Board (OEB) in its April 6, 2022 Decision and Order.

The four transmission line projects (collectively referred to as the Projects) are:

1. A new 230 kilovolt (kV) transmission line from Lambton Transformer Station to Chatham Switching Station, including associated station facility expansions or upgrades required at the terminal stations;
2. A new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations;
3. A second new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations; and
4. A new 230 kV transmission line that connect the Windsor area to the Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations.

Section 19.8.1 of Hydro One's licence, as amended on April 6, 2022, requires Hydro One to develop and seek approvals for the Projects.

In addition to requiring the amendment of Hydro One's licence, the Minister's Directive, dated March 31, 2022, also directed the OEB to require that Hydro One provide such reporting to the OEB as the OEB may consider appropriate with respect to budget, timing and risks in relation to the development of the Projects. This letter sets out the OEB's reporting requirements for the Projects.

Separate reports shall be provided by Hydro One for each of the four transmission line projects. Reports for a specific transmission line project shall be provided until a leave to construct application for that transmission line project is filed. The reports should be filed as follows:

- May 1 to October 31 for reporting in November
- November 1 to April 30 for reporting in May

All reports are to be filed by the 15th business day of the month following the end of each reporting period. The first set of reports should be filed on November 15, 2022.

In each report, Hydro One shall provide an update on the following matters:

- *Overall Project Progress:* An executive summary of work progress, cost and schedule status, and any emerging issues/risks and proposed mitigation.
- *Development Cost:* Development costs shall be reported in the form of the attached table. A forecast of the development cost is to be provided in the first set of reports (in column 'C' of the table) and will be used as the reference for future reports. A future hearing will examine the prudence of development costs incurred by Hydro One for the Projects.
- *Development Work Schedule:* The milestones completed and the status of milestones in-progress. The schedule and milestones for development work provided in the first report will be used as the reference for future reports. For milestones that are overdue or delayed, the reasons for delay, the magnitude and impact of the delay on broader project timelines and cost, and any mitigating steps that have or will be taken to complete the task.
- *Risks and Issues Log:* An assessment of the risks and issues with respect to project development, potential impact on schedule, cost or scope, as well as potential options for mitigating or eliminating the risk or issue.
- *Project scope and timing recommendations provided by the IESO:* If the IESO updates its scope and timing recommendations these should be included.

Any questions relating to this letter should be directed to Andrew Pietrewicz at Andrew.Pietrewicz@oeb.ca.

Yours truly,

Brian Hewson
Vice President, Consumer Protection & Industry Performance

Attachment: Project Development Cost Reporting Table

Project Development Cost Reporting Table for Use in Bi-annual Reports

All bi-annual reports should include the following table that summarizes budgeted vs. actual expenditures to date, as well as any forecast changes in budget and the revised total budget. Percentage values in the cost table should be used to two decimal places.

Project Development Cost Reporting Table

	Actuals Spent			Forecast Budget Variance					
	A Spent this Reporting Period (millions)	B Total Spent to Date (millions)	C Budget per November 15, 2022 Report (millions)	D Forecast Budget Change from Last Report (millions)	E Forecast Budget Change from Last Report (%)	F Revised Total Budget (millions)	G = F – B Budget Remaining (millions)	H = G/F *100 Budget Remaining (%)	Reasons for Change
Real Estate									
Engineering and Design									
Environmental Approvals									
Indigenous Consultation									
Project Management									
Contingency									
Other Consultation									
Interest and Overhead									
Total									

Notes on the Project Development Cost Reporting Table

- Column 'A' should reflect expenditures since the last reporting period.
- Column 'B' should reflect all expenditures to date for the specific transmission line project.
- Budgeted costs in Column 'C' should be those reported in Hydro One's first bi-annual report and are to be held fixed.

ATTACHMENT 2

Map of the New Transmission Lines in Southwestern Ontario

Of the four transmission lines included in the Attachment 2 Map of the *Southwest Ontario Transmission Projects*, the Projects whose information is included in this Bi-annual Report are for Project's #2 and #3, and are circuits planned to span between Longwood TS and Lakeshore TS. Project's #2 and #3 are also referred to in this report as Phase 1 and 2, due to the different execution and in-service expectations.

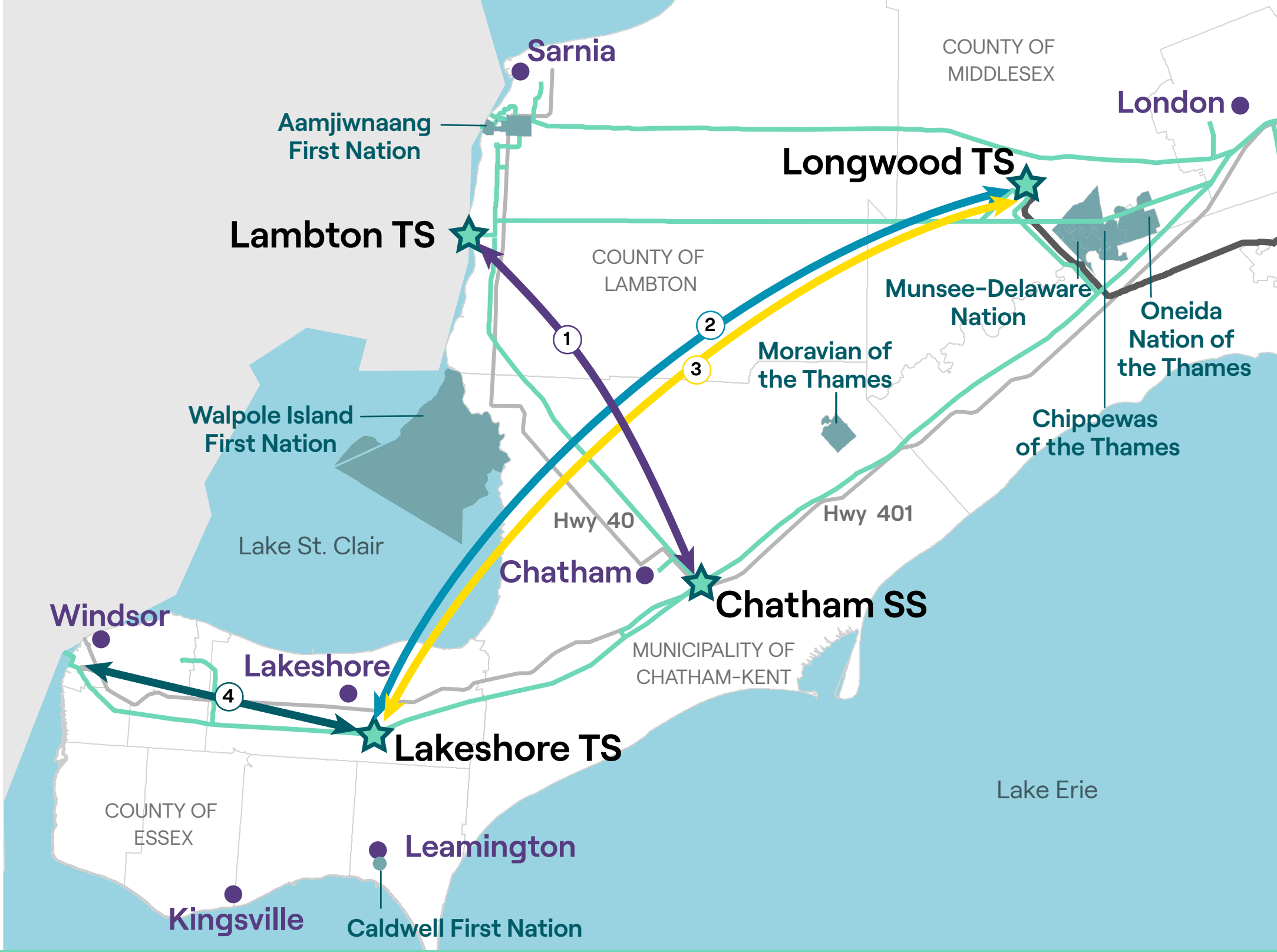


Southwest Ontario Transmission Projects

- 1 St. Clair 230 kV Transmission Line (2028)
- 2 Longwood to Lakeshore 500 kV Transmission Line (2030)
- 3 Longwood to Lakeshore 500 kV Transmission Line (TBD)
- 4 Windsor to Lakeshore 230 kV Transmission Line (TBD)

Map Legend

- 230 kV Existing Transmission Line
- 500 kV Existing Transmission Line
- Existing Transformer Station
- City/Town
- Highway
- First Nation





Southwest Ontario Transmission Line Projects
Windsor Area to Lakeshore Transmission Line Project

Ontario Energy Board Progress Report

May 1, 2024, to October 31, 2024

EXECUTIVE SUMMARY

On April 6, 2022, the Ontario Energy Board (“OEB”)¹ amended Hydro One Network Inc.’s (“Hydro One”) transmission licence (ET-2003-0035) to include a requirement for Hydro One to develop and seek all necessary approvals for four new transmission projects located in Southwestern Ontario as per the Directive approved by the Lieutenant Governor in Council on March 31, 2022, as Order in Council (“OIC”) No. 875/2022.

On May 24, 2022², the OEB requested Hydro One prepare semi-annual project update reports.

This Report contains the semi-annual reporting requirements for the project known as ‘Project #4’, described as a new 230 kV transmission line that will connect the Windsor area to the Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations.

Once Project #4 enters the active development stage, which it currently is not, it will be monitored for risks. Risk mitigation is implemented as a matter of routine activity by the Project team.

Hydro One’s guiding recommendations for the four transmission reinforcement projects in the Southwestern Ontario Area are driven by two specific reports by the IESO:

1. [West of London Bulk Study – Need for Bulk System Reinforcements West of London](#) (Sept 2021)
2. [Windsor-Essex IRRP Addendum Report](#) – (February 2022)

The West of London Bulk Study references these projects in Section 7.3 Near Term Recommendations (Project #1), Section 8.3 Long Term Recommendations (Projects #2 and #3) and Section 9.3 Interdependency with Regional Planning (Project #4). *The West of London Bulk Study* identified the need and timing of Project #2. Section 6.1.2 *Coordination with the West of London Bulk Plan of the Windsor-Essex IRRP Addendum Report* also references Project #4.

These four identified transmission line projects are expected to be owned by and included in the rate base of a new partnership, as a licenced transmitter, such that line costs will be included in the Affiliate Transmission Projects Account (“ATP Account”) and will not form part of Hydro One’s rate base. On October 7, 2021, the OEB approved Hydro One’s application for an accounting order to establish the new regulatory ATP Account for a project where Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction of the Ministry of Energy for the development or construction of a transmission line project, that is expected to form a new partnership. The associated station work for the Project is expected to form part of Hydro One’s transmission rate base. Once the project is in-serviced, and

¹ EB-2022-0142

² EB-2022-0142 (Please see **Attachment 1**)

for any Project station work not sufficiently forecast and included in Hydro One's OEB-approved transmission revenue requirement, Hydro One intends to use its OEB-approved Externally Driven Work Account³ ("EDWA"), to record any such revenues for recovery. The EDWA would be used until such time the station assets and associated facilities can be included in Hydro One's rate base.

³ Hydro One's Externally Driven Work Account was granted by the OEB as part of the JRAP Settlement (EB-2021-0110). This account records the revenue requirement impact of mandatory transmission work required by governmental authorities.

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BACKGROUND

On April 4, 2022, the Minister of Energy, issued a Directive to the OEB under section 28.6.1 of the Ontario Energy Board Act (“Directive”) requiring the OEB to amend Hydro One’s electricity transmission licence to require Hydro One to develop and seek approvals for four transmission line projects located in Southwest Ontario (collectively referred to as the Projects), that were approved by the Lieutenant Governor in Council on March 31, 2022, as Order in Council No. 875/2022. The four projects are as follows:

1. Project #1 - A new 230 kilovolt (kV) transmission line from Lambton Transformer Station to Chatham Switching Station, including associated station facility expansions or upgrades required at the terminal stations;
2. Project #2 - A new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations;
3. Project #3 - A second new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations; and
4. Project #4 - A new 230 kV transmission line that connect the Windsor area to the Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations.

The Directive also required the OEB to amend Hydro One’s licence to include a condition that the scope and timing for the Projects accord with the recommendations of the Independent Electricity System Operator (“IESO”), and it also directed the OEB to require that Hydro One provide such reporting to the OEB as the OEB may consider appropriate with respect to budget, timing, and risks in relation to the development of the Projects.

The Order in Council accompanying the Directive states that expansion of Ontario’s transmission system is critical to provide a reliable and adequate supply of electricity to Southwestern Ontario to support economic growth in the region, including the rapidly growing agricultural sector and the potential for growth in the electric vehicle and broader automotive sectors.

Two of the projects listed in the Order in Council 876/2022 dated March 31, 2022 (Project #1 and #2 above) have been declared to be needed as priority projects pursuant to section 96.1 of the Act.

In a letter dated May 24, 2022, the OEB requested that Hydro One prepare semi-annual reports updating on the following matters:

- Overall Project progress,
- Development cost
- Development work schedule
- Risks and Issues Log
- Project scope and timing recommendations provided by the IESO.

The reports should be filed as follows:

- May 1 to October 31 for reporting in November
- November 1 to April 30 for reporting in May.

This report includes individual updates for Project #4. Project #4 is currently not in active development, requiring further studies and hence at this stage does not have material updates to provide.

Project #1, now referred to by Hydro One as the St. Clair Transmission Line Project, and previously included in this report in the past, is now the subject of an active s.92 leave to construct application⁴, as filed with the OEB on May 28, 2024, and therefore it is no longer subject to the reporting requirement.

Projects #2 and #3, as identified above, both pertain to new 500 kV circuits between the same termination stations Longwood TS and Lakeshore TS, and for this reason, both those projects are included in a single report, separate from this report.

Hydro One's 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. The ATP Account will be used for a transmission line project where:

1. Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction of the Minister of Energy for the development or construction of a transmission line project and,
2. All or part of the transmission line project is expected to be owned by and included in the rate base of a new partnership, as a licensed transmitter, such that costs included in the ATP Account Project will not form part of Hydro One's rate base.

The four new transmission line projects, one of which is reported on in this document, are expected to be owned by and included in the rate base of a new partnership, as a licenced

⁴ Filed with the OEB on May 28, 2024

transmitter, such that costs included in the ATP Account Project will not form part of Hydro One's rate base. On October 7, 2021, the OEB approved Hydro One's application for an accounting order to establish the new ATP Account for use where Hydro One has, or will, receive a letter from the IESO identifying transmission system needs, and/or an Order in Council or direction of the Minister of Energy for the development or construction of a transmission line project.

Project Summary Table

For ease of reference, Table 1 below provides a summary of the status of Project #4. A map of southwestern Ontario and the new transmission projects can be found at **Attachment 2** to this document.

Table 1 - Summary of Windsor to Lakeshore Transmission Line Project

Status	Line Name	Voltage (kV)	Length (KM)	Circuit Type	Completion	Project Stage	Notes
To Be Developed	Windsor to Lakeshore Transmission Line	230 kV	42 ⁵	Double	No current Timeline established	To be developed	Further Study by IESO Required

⁵ The circuit length is an estimate only. The circuit's actual proposed length will be a function of the preferred route selected, which has not yet been completed.

PROJECT REPORT

Project 4 - A new 230 kV Transmission line that connects the Windsor Area to Lakeshore TS

OVERALL PROGRESS BY PROJECT

The project team has completed an initial feasibility assessment of station entry options and mapping of environmental constraints. Further development work is pending both additional technical studies and regional planning by the IESO.

COSTS

Development work for this project is in its infancy. Hydro One will determine a project development cost budget later once additional technical studies and regional planning by the IESO has been completed.

PROJECT SCHEDULE

Consistent with the description of the status of the Project above and due to the infancy of this Project's development phase, a Project Schedule has not yet been prepared. Hydro One's future semi-annual reports will include a Project Schedule when the technical studies and regional planning has been completed by the IESO.

RISKS AND ISSUES LOG

The Project Risks and Issues Log for this Project has not yet been prepared due to the infancy of the Project in its development phase. Hydro One's future semi-annual reports will include information for this Project when the technical studies and regional planning has been completed by the IESO.

PROJECT SCOPE AND TIMING RECOMMENDATIONS PROVIDED BY THE IESO

Should the IESO provide an update to the scope, need, and/or timing recommendations to Hydro One for the Project, those details will be provided to the OEB and summarised in this section of the Report going forward. Information in this section will reflect any update/s provided to Hydro One within the semi-annual reporting period to which the report pertains.

Additional IESO studies for this Project are required add more definition to the Project and provide in-service timing, prior to Hydro One recommencing any further meaningful project development work. Hydro One's future semi-annual reports will include more details once available.

Updates - Nothing to report during the period.

ATTACHMENT 1

OEB Letter to Hydro One Re: New Transmission Lines in Southwestern Ontario

Dated May 24, 2022

OEB File Number: EB-2022-0142



BY EMAIL

May 24, 2022

Ms. Joanne Richardson
Director, Major Projects and Partnerships
Hydro One Networks Inc.
483 Bay Street, 7th Floor South Tower
Toronto, ON M5G 2P5
Joanne.Richardson@HydroOne.com

Dear Ms. Richardson:

**Re: New Transmission Lines in Southwestern Ontario
Board File Number: EB-2022-0142**

This letter acknowledges receipt of your letter of April 12, 2022 in which Hydro One Networks Inc. (Hydro One) provided a copy of the Independent Electricity System Operator's (IESO's) recommendations regarding the scope and timing of four new transmission line projects, as required by the Ontario Energy Board (OEB) in its April 6, 2022 Decision and Order.

The four transmission line projects (collectively referred to as the Projects) are:

1. A new 230 kilovolt (kV) transmission line from Lambton Transformer Station to Chatham Switching Station, including associated station facility expansions or upgrades required at the terminal stations;
2. A new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations;
3. A second new 500 kV transmission line from Longwood Transformer Station to Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations; and
4. A new 230 kV transmission line that connect the Windsor area to the Lakeshore Transformer Station, including associated station facility expansions or upgrades required at the terminal stations.

Section 19.8.1 of Hydro One's licence, as amended on April 6, 2022, requires Hydro One to develop and seek approvals for the Projects.

In addition to requiring the amendment of Hydro One's licence, the Minister's Directive, dated March 31, 2022, also directed the OEB to require that Hydro One provide such reporting to the OEB as the OEB may consider appropriate with respect to budget, timing and risks in relation to the development of the Projects. This letter sets out the OEB's reporting requirements for the Projects.

Separate reports shall be provided by Hydro One for each of the four transmission line projects. Reports for a specific transmission line project shall be provided until a leave to construct application for that transmission line project is filed. The reports should be filed as follows:

- May 1 to October 31 for reporting in November
- November 1 to April 30 for reporting in May

All reports are to be filed by the 15th business day of the month following the end of each reporting period. The first set of reports should be filed on November 15, 2022.

In each report, Hydro One shall provide an update on the following matters:

- *Overall Project Progress:* An executive summary of work progress, cost and schedule status, and any emerging issues/risks and proposed mitigation.
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- *Development Work Schedule:* The milestones completed and the status of milestones in-progress. The schedule and milestones for development work provided in the first report will be used as the reference for future reports. For milestones that are overdue or delayed, the reasons for delay, the magnitude and impact of the delay on broader project timelines and cost, and any mitigating steps that have or will be taken to complete the task.
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Yours truly,

Brian Hewson
Vice President, Consumer Protection & Industry Performance

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Project Development Cost Reporting Table

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Engineering and Design									
Environmental Approvals									
Indigenous Consultation									
Project Management									
Contingency									
Other Consultation									
Interest and Overhead									
Total									

Notes on the Project Development Cost Reporting Table

- Column 'A' should reflect expenditures since the last reporting period.
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ATTACHMENT 2
Map of the New Transmission Lines in Southwestern Ontario



Southwest Ontario Transmission Projects

- 1 St. Clair 230 kV Transmission Line (2028)
- 2 Longwood to Lakeshore 500 kV Transmission Line (2030)
- 3 Longwood to Lakeshore 500 kV Transmission Line (TBD)
- 4 Windsor to Lakeshore 230 kV Transmission Line (TBD)

Map Legend

- 230 kV Existing Transmission Line
- 500 kV Existing Transmission Line
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- City/Town
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