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Joanne Richardson
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Regulatory Affairs

BY EMAIL AND RESS

May 28, 2021

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

Dear Ms. Long:

EB-2021-0169 – Hydro One Networks Inc. Request for an Accounting Order to Establish a Regulatory Account for Affiliate Transmission Projects – Application and Evidence

Hydro One Networks Inc. (“Hydro One”) is applying to the Ontario Energy Board (“the Board”) under section 78.1 of the Ontario Energy Board Act, 1998, for an Accounting Order, or Orders, authorizing Hydro One to establish a new regulatory account, the Affiliate Transmission Projects Account (“ATP Account”), effective May 28, 2021.

The ATP Account will apply where Hydro One has, or will, receive project direction from the Independent Electricity System Operator, or an Order in Council or directive from the Minister of Energy, Northern Development and Mines for the development or construction of a transmission project, and all or part of the project is expected to be owned by and included in the rate base of a transmission-licensed New Partnership, and will not form part of Hydro One’s rate base.

The ATP Account is proposed to apply to future projects that meet this criteria as well as three projects currently under development that are subject to the above-mentioned direction and will not form part of Hydro One’s transmission rate base.

An electronic copy of this Application has been filed through the OEB's Regulatory Electronic Submission System.

Sincerely,

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

Joanne Richardson

IN THE MATTER OF the Ontario Energy Board Act,
under section 78 of the Ontario Energy Board Act, 1998,
S.O. 1998, c. 15 (Schedule B).

AND IN THE MATTER OF an application by Hydro One
Networks Inc. for an accounting order to establish a deferral
account for the purpose of recording and tracking
development and capital costs relating to large transmission
projects expected to in-serviced in an Affiliate company.

HYDRO ONE NETWORKS INC.

**ACCOUNTING ORDER TO ESTABLISH A
REGULATORY ACCOUNT FOR AFFILIATE
TRANSMISSION PROJECTS**

OEB File No. EB-2021-0169

May 28, 2021

1 **1.0 INTRODUCTION**

2
3 Hydro One Networks Inc. (Hydro One) is applying to the Ontario Energy Board (OEB or
4 the Board) for an accounting order authorizing Hydro One Transmission to establish a new
5 regulatory account referred to as the Affiliate Transmission Projects Account (“ATP
6 Account”). The ATP Account will apply where:

- 7 (i) Hydro One has or will receive a project direction from the Independent Electricity
8 System Operator (“IESO”), or an Order in Council or direction of the Minister of
9 Energy, Northern Development and Mines (the “Ministry”) in respect of Hydro
10 One or its OEB Transmission Licence for the development or construction of a
11 transmission project; and
12 (ii) all or part of the project is expected to be owned by and included in the rate base of
13 a New Partnership, as a licenced transmitter, and will not form part of Hydro One’s
14 rate base.

15
16 The ATP Account is proposed to apply to future projects that meet this criteria as well as
17 three projects currently under development that are subject to a directive and will not form
18 part of Hydro One’s transmission rate base, including:

- 19 (i) Waasigan Transmission Line (see Attachment A)
20 (ii) Chatham to Lakeshore Transmission Line (see Attachments B and C); and
21 (iii) Lambton to Chatham Transmission Line (see Attachment D).

22
23 **2.0 BACKGROUND**

24
25 From time to time the IESO or Ministry will direct that Hydro One develop, or develop
26 and construct, a new transmission line. While the direction may require Hydro One to

1 undertake the development work, or the development and construction work,¹ some of the
2 assets associated with these projects are likely to be in-serviced through a new transmission
3 licenced corporation or partnership, much like B2M LP and NRLP² (where projects
4 traverse traditional territories, Hydro One may have one or more Indigenous partners in
5 respect of the ownership and operation of the lines assets). Once a project is at or near in-
6 servicing, the assets are expected to be transferred via sale to a newly licenced partnership
7 (New Partnership) following the OEB's approval of the transfer pursuant to Section 86 of
8 the OEB Act.

9

10 Transmission projects that are subject to an IESO or Ministerial direction are typically
11 large transmission projects that have higher levels of risk and uncertainty due to their size,
12 impact on landowners, environmental impacts and lengthy timelines in both the
13 development and construction phase. These risks impact project schedule, costs, and in
14 some cases the need for the project. In order to meet the required in-service dates expected
15 by the Ministry and/or the IESO, development activities must commence many years in
16 advance of when the project starts construction. At the commencement of the development
17 phase there are key unknowns, such as project route, preliminary engineering information,
18 land acquisition requirements, etc., that are required to produce a project cost estimate.
19 Furthermore, the need giving rise to the direction can change and may impact the
20 continuation of development activities and the direction itself. In addition, since the
21 applicable project is not expected to be included in Hydro One's transmission rate base,
22 Hydro One believes a regulatory account treatment that will clearly identify all project

¹ If the directive specifies that Hydro One develop or develop and construct a project, Hydro One and not the New Partnership must do the work as outlined in the directive and bring the leave to construct application before the OEB

² Most new transmission projects include both transmission lines as well as supporting upgrades and modifications to existing assets, such as stations, to enable the new line to energize. The ATP Account will only be used to record assets that are expected to form part of the rate base of the New Partnership. Hydro One will record costs in the manner consistent with B2M LP and NRLP which only comprise the development and lines costs associated with those projects.

1 costs until they transition to a New Partnership is appropriate. In the event the project does
2 not proceed to completion as a result of circumstances that are beyond Hydro One's
3 control, Hydro One would seek to recover its prudently incurred development costs,
4 construction costs and reasonable wind-up costs recorded in the ATP Account to the extent
5 that the amount meets the established materiality threshold.

6
7 To mitigate these uncertainties and to provide transparency, Hydro One requests approval
8 of the ATP Account (i) to capture the development costs incurred prior to the point where
9 capitalization is appropriate, and (ii) to track the project's expenditures once Hydro One's
10 capitalization criteria has been met.

11
12 The following detail outlines the nature of the ATP Account, including details on how it
13 will meet the OEB's eligibility criteria for establishment of regulatory accounts.

14 15 **3.0 DESCRIPTION OF THE SUB-ACCOUNTS**

16
17 The ATP Account would have two sub-accounts, the (i) *ATP - Project Development,*
18 *Preliminary Engineering and Planning Work* deferral account, and the (ii) *ATP – Project*
19 *Construction Costs* tracking account. Each of these sub-accounts, as described below, will
20 record costs by individual project.

21 22 **3.1 ATP Account – Sub-Account - Project development, Preliminary Engineering** 23 **and Planning Work (Deferral Account)**

24 This sub-account will record costs related to project preparation work conducted by Hydro
25 One prior to the point from where costs qualify to be recorded in construction-work-in-
26 progress (CWIP), including items such as: preliminary design/engineering and planning,
27 cost estimation, public engagement/consultation, routing and siting, real estate assessment
28 costs, and environmental assessment, similar to that approved for the North West Bulk

1 Transmission Line (NWBTL) Deferral Account.³ Costs recorded in this account would be
2 maintained with interest accrued until disposition, consistent with the OEB’s guidelines for
3 Deferral and Variance Accounts (DVAs) and other Hydro One OEB-approved DVAs.
4 These costs will be recovered by Hydro One at a future disposition of the sub-account
5 unless the account is transferred to the New Partnership as part of its interest in the project
6 – in that case, disposition would be sought by the New Partnership.

7
8 The accounting entries outlined in *Appendix 1 – Draft Accounting Order – Accounting*
9 *Entries* illustrate how the costs will be recorded in this sub-account prior to capitalization.

10
11 **3.2 ATP Account - Sub-Account - Project Construction Costs (Tracking Account)**

12 Once a project meets Hydro One’s capitalization policy criteria, expenditures will be
13 recorded in the ATP Account – *Sub-Account Project Construction Costs*. The capitalized
14 costs will be transferred by way of sale to the New Partnership once the project is at or near
15 its in-service date, following the OEB’s approval pursuant to section 86 of the *Ontario*
16 *Energy Board Act, 1998*.⁴ At that time cost tracking in the ATP Account will cease.

17
18 The accounting entries outlined in *Appendix 1 – Draft Accounting Order – Accounting*
19 *Entries* illustrate how the costs will be recorded consistent with the description and process
20 described above.

³ EB-2014-0311/EB-2019-0151

⁴ If the transfer occurs prior to in-service, as part of the Section 86 application, an order will be sought to transfer the ATP account to the New Partnership.

1 **4.0 TEST FOR ESTABLISHMENT OF A REGULATORY ACCOUNT**

2
3 In order to establish a regulatory account, the Board’s *Filing Requirements for Electricity*
4 *Transmission Applications* (dated February 11, 2016) (“Filing Requirements”), outline that
5 the eligibility criteria of causation, materiality and prudence must be met. In addition, the
6 Applicant must provide a Draft Accounting Order.

7
8 **4.1 Causation**

9 The Board’s Filing Requirements define Causation as “the forecasted expense must be
10 clearly outside of the base upon which revenue requirement(s) were derived”.⁵

11
12 Hydro One has not, and does not, intend to include the costs captured in the ATP Account
13 in any OEB-approved revenue requirement for Hydro One⁶. Therefore, as required in the
14 Filing Requirements the forecast expense is outside of the base upon which Hydro One’s
15 revenue requirement is derived. In addition, as noted above, the timing of when the
16 expenditures will occur and the magnitude of them remain unknown. The uncertainty is
17 due to the inherent nature of these projects that typically have a long timeline to completion,
18 starting at development, to leave to construct approval, and then subsequent construction
19 and energization (in-service).

20
21 Hydro One would ensure that records are maintained to provide a line of sight to
22 expenditures for each unique project. This will include ring-fencing each project’s recorded
23 or tracked costs in both the development and subsequent construction phases.

⁵ Chapter 2 Filing Requirements for Electricity Transmission Applications, February 11, 2016, p. 35

⁶ Unless, for some reason the project does not proceed to completion as a result of circumstances that are beyond Hydro One’s control

1 **4.2 Materiality**

2 The Board’s Filing Requirement (page 35) definition of Materiality is:

3
4 “The forecasted amounts must exceed the OEB-defined materiality threshold and
5 have a significant influence on the operation of the transmitter. Otherwise they
6 must be expensed in the normal course and addressed through organizational
7 productivity improvements.”

8
9 As per the Board’s Filing Requirements (Section 2.1.1), Hydro One Transmission’s
10 materiality threshold is \$3 million. Hydro One believes the amounts recorded in the
11 proposed deferral account will be material and exceed this level of expenditure. Total
12 development and construction costs for projects of this nature are expected to exceed \$3
13 million and will most likely be in the hundreds of millions of dollars. Hydro One expects
14 costs captured by the ATP Account will meet the materiality threshold criteria.

15
16 Given that the costs to be incurred are non-discretionary and material, this account should
17 be established.

18
19 **4.3 Prudence**

20 The Board’s Filing Requirement (page 35) definition of Prudence is:

21 “The nature of the costs and forecasted quantum must be reasonably incurred,
22 although the final determination of prudence will be made at the time of disposition.
23 In terms of the quantum, this means that the applicant must provide evidence
24 demonstrating why the option selected represents the cost-effective option (not
25 necessarily least initial cost) for ratepayers.”

26
27 Given that Hydro One is undertaking these activities pursuant to either a condition of its
28 transmission licence, an Order-in-Council or a hand-off letter containing direction from the
29 IESO, and given that costs to be incurred are non-discretionary, the applicable project will

1 reflect the option required to fulfill the need underpinning the direction. The costs to be
2 recorded are for activities that are necessary for developing the project and obtaining
3 required approvals, including putting Hydro One in a position to file an application for
4 leave to construct. On this basis, it is reasonable for Hydro One to incur the costs in
5 question and to record them in the ATP Account.

6
7 The final determination of prudence will be made at the time Hydro One or the New
8 Partnership applies for disposition of all or part of the ATP Account. In the case of
9 development costs incurred prior to the point of capitalization and recorded in the sub-
10 account, recovery would be sought in the future by Hydro One or the New Partnership (if
11 the sub-account is transferred to the New Partnership) at a future date. For costs incurred
12 that meet the capitalization criteria, they will be tracked until the assets are in-service and
13 subsequently included in the New Partnership's rate base for recovery in that entity's
14 separate revenue requirement application. In both instances, the Board and other
15 stakeholders will have the opportunity to review the prudence of those costs at that time.

16
17 Hydro One is not seeking recovery of any costs at this time or in Hydro One's pending
18 Joint Rate Application for transmission and distribution.

19 20 **5.0 APPLICATION OF THE ACCOUNT**

21 22 **5.1 Multi-project Application**

23 If approved, the ATP Account would be available to record costs for individual projects
24 that are currently being developed (as described below) and for those that are not yet known
25 but that may be initiated in the future, potentially during the rate period covered by the
26 pending Hydro One Joint Rate Application for transmission and distribution. Hydro One
27 is seeking OEB approval to use the ATP Account for: (i) the Chatham to Lakeshore
28 Transmission Line, (ii) the Waasigan Transmission Reinforcement, (iii) the Chatham to
29 Lambton Transmission Line, and (iv) any other similar-type projects that qualify by

1 meeting the criteria as discussed above. These projects will be developed and constructed
2 by Hydro One but some or all of the assets associated with each project are anticipated to
3 be owned and operated by a distinct New Partnership.

4 For all future projects, that meet the criteria for the ATP account, Hydro One will inform
5 the OEB that it intends to record their costs in the account.

6 7 **5.2 Chatham to Lakeshore Transmission Line Project**

8 On December 17, 2020 the Ministry of Energy, Northern Development and Mines issued
9 a directive to the OEB to amend Hydro One’s electricity transmission license to include a
10 requirement that Hydro One proceed to develop and seek all necessary approvals for the
11 Chatham to Lakeshore Transmission Line Project. On December 23, 2020 the OEB issued
12 a Decision and Order amending Hydro One’s transmission licence requiring Hydro One
13 to:

14
15 “develop and seek approvals for a new 230 kilovolt double-circuit transmission line
16 from the existing Chatham Switching Station to the new Lakeshore Transformer
17 Station to be located at Leamington Junction (Chatham to Lakeshore Line),
18 including associated station facilities to connect the Chatham to Lakeshore Line at
19 the terminal stations. Development of the Chatham to Lakeshore Line shall accord
20 with the project scope and timing recommended by the Independent Electricity
21 System Operator.”

22
23 Development work commenced on this project in 2019, after receipt a letter⁷ from the IESO
24 requesting Hydro One to initiate the Chatham to Lakeshore Project including the
25 development and regulatory approvals (Environmental Assessment and Leave to

⁷ Attachment B

1 Construction) and subsequent construction of the Chatham to Lakeshore Project. As a
2 result, the Project met Hydro One’s criteria for capitalization in 2019.

3
4 If the ATP regulatory account is approved, Hydro One would track any previously
5 capitalized costs and track any future capital expenditures to the ATP tracking account.
6 These project costs will eventually form part of the New Partnership’s rate base. The costs
7 for this Project that are recorded in Hydro One’s CWIP, will then no longer be part of the
8 Hydro One Transmission regulated entity and therefore will not form part of Hydro One’s
9 future rate application.

10
11 Station related project work associated with this project will be included in Hydro One’s
12 rate base.

13
14 **5.3 Waasigan Transmission Line**

15 On December 11, 2013 the Ontario Ministry of Energy assigned the development work,
16 including “engineering work and the preparation of regulatory approvals” to Hydro One in
17 respect of the NWBTL, now “Waasigan Transmission Line”⁸. On October 3, 2014 Hydro
18 One requested OEB approval for the North West Bulk Transmission Deferral Account⁹ to
19 record development costs prior to the point costs qualify to be recorded in CWIP. The
20 account was approved on March 27, 2015. On December 21, 2018, Hydro One wrote to
21 the OEB requesting that the North West Bulk Transmission Line Deferral Account be
22 changed to a tracking account (effective January 1, 2019), as the IESO had confirmed the
23 need for additional electricity capacity in the area,¹⁰ such that costs met Hydro One’s

⁸ Attachment A

⁹ EB-2014-0311

¹⁰ The IESO recommended that Hydro One begin development work on Phase 1 and 2 of the NWBTL Project as soon as possible to shorten the Project lead time required to have the assets ready to be in-serviced in order to meet the electricity capacity needs when they materialize (expected mid-2030s but could occur earlier).

1 accounting policy for capitalization. On September 12, 2019 the OEB approved this
2 request.¹¹ The project and its accompanying regulatory account have been renamed
3 Waasigan Transmission Reinforcement Project and the Waasigan Transmission Line
4 Tracking Deferral Account (the “Waasigan Tracking Deferral Account”).

5
6 In Hydro One’s most recent transmission revenue requirement application (EB-2019-0082)
7 the OEB approved disposition of \$0.8 million to December 31, 2018. Costs after this date,
8 from January 1, 2019, have been recorded in Hydro One’s CWIP account.

9
10 If the ATP regulatory account is approved, Hydro One requests that the Waasigan
11 Transmission Line Tracking Deferral Account (WTTDA), previously approved by the
12 OEB in EB-2019-0151, be closed. Any previous balances tracked in the WTTDA account
13 would then be transferred to and tracked in the ATP Account, and likewise, any future
14 capital expenditures will be tracked to the same account. These project costs will
15 eventually form part of a New Partnership’s rate base. The costs for this Project that are
16 recorded in Hydro One’s CWIP, will then no longer be part of the Hydro One Transmission
17 regulated entity and therefore will not form part of Hydro One’s future rate application.

18
19 Station related project work associated with this project will be included in Hydro One’s
20 rate base.

21
22 **5.4 Lambton x Chatham Transmission Line**

23 In correspondence dated March 26, 2021 from the IESO¹² to Hydro One, the IESO
24 identified “the need for a new 230 kV double-circuit line from the Lambton transformer

¹¹ EB-2019-0151

¹² Attachment D

1 station (“TS”) to the Chatham switching station (“SS”) and the associated station facility
2 expansions or upgrades required at the terminal stations.” These facilities are to:

- 3
- 4 “• Ensure sufficient bulk transfer capability east of Chatham to supply the forecast
 - 5 load in the Windsor-Essex region and surrounding Chatham area in the near- to
 - 6 mid-term; and
 - 7 • Improve the deliverability of resources in the Lambton-Sarnia area for intra-zonal
 - 8 and provincial supply.”

9

10 The IESO recommended that Hydro One initiate the work, various engagement activities,
11 including seeking Environmental Assessment and Leave-to-Construct approvals that are
12 required to develop and construct a new 230 kV double-circuit line from Lambton TS
13 southwards to Chatham SS and associated station facility expansions or upgrades required
14 at the terminal stations.

15

16 If the ATP regulatory account is approved, Hydro One would track all capital expenditures
17 to the ATP tracking account. These project costs will eventually form part of the New
18 Partnership’s rate base. The costs for this Project that are recorded in Hydro One’s CWIP,
19 will then no longer be part of the Hydro One Transmission regulated entity and therefore
20 will not form part of Hydro One’s future rate application.

21

22 Station related project work associated with this project will be included in Hydro One’s
23 rate base.

1 **5.5 Future Projects**

2 Hydro One expects that there will be future Greenfield projects where a New Partnership
3 is expected to be created to own and operate some or all of the transmission project.¹³

4 Hydro One seeks to use the ATP Account in a similar manner for these projects. As part
5 of the OEB's order in this proceeding, Hydro One requests that the OEB establish a process
6 where upon the receipt of a direction to develop and/or construct a project which will be
7 ultimately be expected to be owned and operated by a partnership or corporation other than
8 Hydro One, and on Hydro One filing the appropriate documentation in writing, the OEB
9 will permit Hydro One to record amounts in the ATP Account and the appropriate sub-
10 account, on the basis of the filed written documentation.

11
12 Hydro One proposes to file the following information, where appropriate, prior to
13 recording any amounts in the sub-accounts:

- 14 • Project description and expected in-service date;
- 15 • Direction provided to Hydro One to commence development activities and
16 confirmation that the project is in accordance with the direction set forth by the Minister
17 of Energy, Northern Development and Mines and/or the IESO handoff letter;
- 18 • Confirmation that project costs will not be included in any revenue requirement
19 applications;
- 20 • Confirmation that project costs are expected to meet Hydro One's materiality threshold
21 of \$3 million.

22
23 Permitting the recording of costs of a new project on the basis of the above process upon
24 meeting the above criteria will increase regulatory efficiency. All costs tracked and
25 recorded in any deferral account will still be subject to review upon disposition.

¹³ As noted previously, Hydro One expects that the line portions of new projects will form part of a new Partnership, however, the Station work, may remain 100% with Hydro One

1 **6.0 ACCOUNTING AND REPORTING PROCESS FOR ESTABLISHMENT**
2 **OF A DEFERRAL ACCOUNT**

3
4 The accounts requested above will be managed in the same manner as existing Hydro One
5 variance, deferral and tracking accounts. They will be updated monthly and interest
6 applied (where appropriate¹⁴) consistent with the OEB-approved rate. Balances will be
7 reported to the OEB as part of the annual reporting process. The outstanding balances will
8 be submitted for approval to the OEB as part of a future rate filing, either Hydro One's or
9 the applicable New Partnership's.

10
11 Draft accounting entries for all transactions related to the two sub-accounts being requested
12 in this application are submitted in the Draft Accounting Order at Appendix 1, as prescribed
13 by the OEB's filing requirements.

14
15 Hydro One requests the account be effective on the date of this application, being May 28,
16 2021. Hydro One requests an interim order of the OEB establishing the Regulatory
17 Account effective from the date of this application to enable Hydro One to record costs in
18 the proposed Regulatory Account in advance of the final decision of the OEB.

19
20 **7.0 CONCLUSION**

21
22 Hydro One is proposing that, for directed transmission lines that are expected to eventually
23 be owned and operated by a New Partnership, the ATP Account be approved to (i) capture
24 the development costs incurred prior to capitalization, and (ii) track the project costs once

¹⁴ Capital tracking accounts, by their nature will not attract interest improvement.

1 the capitalization criteria has been met. The costs for any potential transmission projects
2 will be identified by project, and recorded and/or tracked in the applicable sub-accounts.

3 Because the capital project costs will ultimately be recovered in the rate base of a
4 partnership or corporation other than Hydro One and the development and capital costs are
5 uncertain for these types of transmission line projects, the Board's deferral and variance
6 regulatory account eligibility criteria of causation, materiality and prudence are met. The
7 timing of when the expenditures will occur and the magnitude of them remain unknown.
8 The uncertainty is due to the inherent nature of these projects that typically have a long
9 timeline to completion, starting at development, to leave to construct approval, and then
10 subsequent construction and energization (in-service). Hydro One believes a regulatory
11 account treatment that will clearly identify these costs until they transition to a new
12 transmitter is appropriate and transparent. The costs to be incurred for affiliate transmission
13 projects will meet a government objective to implement a transmission priority project, and
14 therefore the costs will be prudently incurred and appropriately justified.

1 **APPENDIX 1**

2
3 **Hydro One Transmission Draft Accounting Order**

4
5 **Accounting Entries**

6
7 **1) Large Transmission Project Costs Deferral Account – Development, Preliminary**
8 **Engineering and Planning Costs**

9

<u>USofA #</u>	<u>Account Description</u>
10 Dr 4XXX	Transmission Expense
11 Cr 2205	Accounts Payable

12
13

14 To record the preliminary recognition of Hydro One’s development, preliminary
15 engineering and planning costs incurred for Affiliate Transmission Projects prior to the
16 point where capitalization can occur.

17

<u>USofA #</u>	<u>Account Description</u>
18 Dr 1508	Other Regulatory Assets – Sub account “ATP Account – 19 Development, Preliminary Engineering and Planning Costs”
20 Cr 4XXX	Transmission Expense

21
22

23 Where Hydro One incurs incremental costs due to Affiliate Transmission Projects, during
24 the phase prior to the point where costs can be capitalized, this entry will record the costs
25 for development, preliminary engineering and planning of the these Affiliate Transmission
26 Projects in a deferral account for future disposition.

<u>USofA #</u>	<u>Account Description</u>
Dr 1508	Other Regulatory Assets – Sub account “ATP Account – Development, Preliminary Engineering and Planning Costs”
Cr 6035	Other Interest Expense

5

6 To record interest improvement on the principal balance of the “Affiliate Transmission
7 Projects Deferral Account”.

8

9 **2) Affiliate Transmission Project Construction Costs Tracking Account**

10

11 Once the project has moved into a phase where project costs can be capitalized per Hydro
12 One’s capitalization policy and where it is expected that the project will be completed and
13 placed in-service, the following accounting entries will be recorded;

14

<u>USofA #</u>	<u>Account Description</u>
Dr: 2055	Construction Work in Progress – Electric (“CWIP”)
Cr: 2205	Accounts Payable

15 To record project construction expenditures incurred by Hydro One relating to the Affiliate
16 Transmission Project.

17

<u>USofA #</u>	<u>Account Description</u>
Dr: 1508	Other Regulatory Assets – Sub account “ATP Account – Project Construction Costs”
Cr: 1508	Other Regulatory Assets – Sub account “ATP Account – Project Construction Costs – Contra Account”

18 To record specific CWIP costs, along with a contra-entry to enable Hydro One to track the
19 construction costs incurred by Hydro One on Affiliate Transmission Projects where the

1 project is expected to be in-serviced outside Hydro One's rate base post-construction
2 completion. The regulatory account at this stage is used as a tracking account until the
3 project is placed in-service.

4 Depending on how the transfer of assets is structured (i.e – via equity or cash), Hydro One
5 will record the applicable journal entries to reflect this transfer.

6

<u>USofA #</u>	<u>Account Description</u>
Dr: 1605-1999 ¹⁵	Non-Current Property Plant and Equipment – Transmission Assets
Cr: 2055	Construction Work in Progress – Electric

7 New Partnership's entry to record the completion of project and the movement of the
8 construction costs of the project to in-service. This will trigger interest improvement on the
9 project to cease.

10

11 **Projects Not Completed and Placed In-Service**

12 In the event that a particular Affiliate Transmission Project that has received approval to
13 be recorded in the ATP Account is ultimately not placed in-service, Hydro One would
14 record the following accounting entries;

15

<u>USofA #</u>	<u>Account Description</u>
Dr: 1508	Other Regulatory Assets – Sub account “ATP Account – Project Construction Costs – Contra Account”
Cr: 2055	Construction Work in Progress – Electric

16 To effectively remove the construction costs for a specific project from CWIP, to the ATP
17 Account.

¹⁵ USofA account may vary

1 At this point, the deferral account will have a positive debit balance (the ‘Contra Account’
2 balance is reduced to nil) and that sub-account no longer functions as a ‘tracking’ account.
3 The balance would be held in this account until Hydro One can apply to the Board for
4 disposition in a future rate rebasing application.

<u>USofA #</u>	<u>Account Description</u>
Dr: 1508	Other Regulatory Assets – Sub account “ATP Account – Project Construction Costs - Interest Improvement”
Cr: 6035	Other Interest Expense

5
6 To record interest improvement on the debit principal balance of the ATP Account –
7 Project Construction Costs account at the OEB’s published CWIP rate.

1 **LIST OF ATTACHMENTS**

2

3 **Attachment A**

4 Directive from Minister of Energy

5 For the Waasigan Project (formerly known as the NWBTL Project)

6

7 **Attachment B**

8 IESO Handoff Letter

9 For the Chatham to Lakeshore Transmission Line Project

10

11 **Attachment C**

12 Directive from Minister of Energy

13 For the Chatham to Lakeshore Transmission Line Project

14

15 **Attachment D**

16 IESO Handoff letter

17 For the Lambton to Chatham Transmission Line Project



Ontario
Executive Council
Conseil des ministres

Order in Council
Décret

DEC 11 2013

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that:

Sur la recommandation du soussigné, le lieutenant-gouverneur, sur l'avis et avec le consentement du Conseil des ministres, décrète ce qui suit:

WHEREAS the Ontario Government finds it prudent to initiate development work to expand Ontario's transmission system in order to better serve the expected growth in the area west of Thunder Bay given anticipated growth in electrical load, to promote the use of clean and renewable energy sources from Ontario's supply mix, and to enhance opportunities for the development and connection of new renewable generation facilities over the long term;

AND WHEREAS the electricity transmission network in the area west of Thunder Bay is composed of the high-voltage circuits connecting Thunder Bay to Kenora, through Atikokan, Dryden, and Fort Frances;

AND WHEREAS it is intended that the development work focus on the expansion or reinforcement of a portion or portions of that electricity transmission network in the area west of Thunder Bay (the "Northwest Bulk Transmission Line Project");

AND WHEREAS it is anticipated that the Ontario Power Authority ("OPA") would make recommendations concerning the specific scope and timing of the above-noted project in accordance with its statutory mandate, objects and responsibilities pursuant to the *Electricity Act, 1998*, and as a function of its ongoing electricity resource planning activities;

AND WHEREAS the Government has determined that the preferred manner of proceeding is to require Hydro One Networks Inc. to undertake the development of the Northwest Bulk Transmission Line Project including to undertake any and all steps which are deemed to be necessary and desirable in order to seek required approvals;

AND WHEREAS the Minister of Energy has, with the approval of the Lieutenant Governor in Council, the authority to issue Directives pursuant to section 28.6 of the *Ontario Energy Board Act, 1998*, which relate to the connection of renewable energy generation facilities to a transmitter's transmission system or to a distributor's distribution system;

NOW THEREFORE the Directive attached hereto, is approved.

Recommended: _____

Minister of Energy

Concurred: _____

Chair of Cabinet

Approved and Ordered: _____

NOV 27 2013
Date

Lieutenant Governor

O.C./Décret 1701/2013

Certified to be a true copy

Anna Valero

Deputy Clerk, Executive Council

MINISTER'S DIRECTIVE

TO: THE ONTARIO ENERGY BOARD

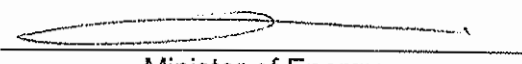
I, Bob Chiarelli, hereby direct the Ontario Energy Board ("Board") pursuant to section 28.6 of the *Ontario Energy Board Act, 1998* as follows:

1. The Board shall amend the licence conditions of Hydro One Networks Inc.'s ("Hydro One") electricity transmission licence to include a requirement that Hydro One proceed to do the following related to the expansion or reinforcement of its transmission system, in order to accommodate load due to forecast demand growth over the long term, to promote the use of clean and renewable energy sources from Ontario's supply mix, and to enhance opportunities for the development and connection of new renewable generation facilities over the long term:

- (i) Develop and seek approvals for the Northwest Bulk Transmission Line Project, which shall be composed of the expansion or reinforcement of a portion or portions of the electricity transmission network in the area west of Thunder Bay.
- (ii) Immediately work in co-operation with the Ontario Power Authority ("OPA") to establish the scope and timing for the Northwest Bulk Transmission Line Project. The scope and timing of the project to be carried out by Hydro One shall accord with the recommendations of the OPA.

It is anticipated that the OPA's recommendations will be made in the course of the OPA's transmission planning activities, conducted in accordance with its statutory mandate, objects and responsibilities under the *Electricity Act, 1998*, including with any transmission planning activities identified in any direction issued, or to be issued, by the Minister of Energy to the OPA pursuant to Part II.2 of that Act.

2. The Board shall make the amendments to the electricity transmission licence of Hydro One without holding a hearing.


Minister of Energy

June 11, 2019

Robert Reinmuller
Director, Transmission System Planning
Hydro One Networks, Inc.
483 Bay Street
Toronto, ON M5G 2P5

Dear Robert:

Re: Building a new 230 kV double-circuit line from Chatham SS to Lakeshore TS to reinforce the bulk transmission system west of Chatham

The purpose of this letter is to request Hydro One to initiate the work and activities, including seeking Environmental Assessment and Leave-to-Construct approvals, and subsequent construction of a new 230 kV double-circuit line from the Chatham Switching Station ("SS") to the new Lakeshore Transformer Station ("TS") located at Leamington Junction and associated station facilities at the terminal stations. The required in-service date for these facilities is prior to the winter of 2025/2026.

The purpose of these new facilities is to:

- Increase the overall transfer capability of the bulk transmission system west of Chatham in order to reliably supply the forecast load growth in the Kingsville-Leamington area and the broader Windsor-Essex Region in the near- to mid-term,
- Permit the resources and bulk facilities in this region to operate efficiently for local and system needs, and
- Maintain existing interchange capability on the Ontario-Michigan interconnection between Windsor and Detroit.

More details regarding the needs and solution options for reinforcing the bulk transmission system west of Chatham are documented in an IESO's report entitled "Need for Bulk Transmission Reinforcement in the Windsor-Essex Region, June 13, 2019".

Background

The west of Chatham bulk transmission system extends from Chatham in the east to Windsor in the west and is part of the larger west of London bulk transmission network, as shown in Figure 1.

This system is comprised of a 230 kV and 115 kV high voltage network interconnecting the load centers and large generators in the region to the Ontario electricity grid. As well, it provides a point of interconnection with the power system in Michigan. The west of Chatham system plays an important role in providing an adequate and reliable electricity supply to customers in the

Windsor-Essex region and enabling efficient operations of the resources in the region and on the interconnection.

There has been a significant increase in the demand forecast for electricity in the Kingsville-Leamington area. Primarily, this is driven by rapid expansion in the greenhouse sector and aggressive adoption of artificial crop lighting. As a result, the electricity demand in the Windsor-Essex region is forecast to double over the next five years and continue to grow in the longer term beyond that.

While the current demand in this region is being adequately supplied from local generation and from the region's bulk transmission system at this time, the significant and sustained growth forecast for the Kingsville-Leamington area and the broader Windsor-Essex region will require reinforcement of the existing supply. Studies conducted by the IESO, with support from Hydro One and the local LDCs, concluded that reinforcement of the existing transmission system, both the bulk and regional networks, is necessary and is the most economical solution to address the region's near- to mid-term electricity needs. New supply options were considered, but found to be less economic than the transmission solution. The studies also identify that supplementing the available supply with demand-side and interim solutions, while the transmission solution is being implemented, is also beneficial.

Integrated Transmission Solution

The recommended transmission solution comprises two stages:

- Stage 1: A new switching station at the Leamington Junction ("Lakeshore TS") to be in-service by the end of 2022, as identified in the hand-off letter¹ issued by the IESO to Hydro One on January 31, 2019. This will improve the capability of the system to connect and supply additional transformer stations and large transmission customers that are currently planning to connect.
- Stage 2: A new 230 kV double-circuit transmission line connecting Chatham SS to Lakeshore TS and associated terminal facilities, with an in-service date prior to the winter of 2025/2026, in order to address the specified bulk system level needs, as documented in the aforementioned report.

The ongoing Windsor-Essex Integrated Regional Resource Plan ("IRRP") will incorporate these transmission solution recommendations and continue to look at needs of the local area, focus on investigation of non-wires alternatives to manage evolving capacity needs in the region, and provide customers in the region with adequate line connection and step-down transformation capacity, while maintaining a level of reliability consistent with accepted planning standards.

West of Chatham (Chatham to Lakeshore) Transmission Line Project Scope

Based on the above considerations, the IESO recommends that Hydro One initiate the work and activities, including seeking Environmental Assessment and Leave-to-Construct approvals, and subsequent construction of a new 230 kV double-circuit line from Chatham SS to the new

¹ Further details on the switching station can be found here: http://www.ieso.ca/-/media/Files/IESO/Document-Library/regional-planning/Windsor-Essex/Switching-Station-in-the-Leamington-Area_Signed_Jan-31-2018.pdf?la=en

Lakeshore TS and associated station facilities at the terminal stations. Single-line diagrams of the existing and proposed facilities are shown in Figures 2 and 3 respectively. The work for the new line will need to be coordinated with the Lakeshore TS development, in order to appropriately plan the station layout for connection and allow for the installation of any reactive facilities, as required.

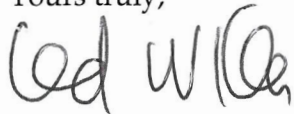
The project and its related costs and timelines have been discussed with Hydro One. The IESO understands that an in-service date of prior to the winter of 2025/2026 is achievable, while recognizing that earlier implementation will only further support growth in the region. Hydro One has indicated that costs for the project are projected to range between \$115 M and \$150 M. If project costs are forecasted to exceed the upper end of this range, and/or the delivery timeline cannot meet the targeted in-service date, Hydro One will notify the IESO so that the assessment of the bulk system reinforcement plan in the Windsor-Essex region can be updated.

Future Activities

The subject transmission line is the second stage of a number of improvements to the bulk transmission system that will be required to support load growth in the Windsor-Essex region. Together, the new line and station form the basis for accommodating mid- and long-term needs in the Windsor-Essex region and into the broader West of London area. The IESO will continue to monitor the progress of load and generation developments in the area. Future stages of system reinforcement will be triggered as required. The IESO feels that this is a prudent approach to meeting the need in the region.

IESO will continue to work with, and provide support to, Hydro One in the implementation of this project. We look forward to an ongoing exchange of information as Hydro One proceeds with the development of the project.

Yours truly,



Leonard Kula, P. Eng.

Vice President, Planning, Acquisition and Operations, and Chief Operating Officer

cc:

Terry Young, IESO
Jessica Savage, IESO
Bob Chow, IESO
IESO Records

Figures: System Maps

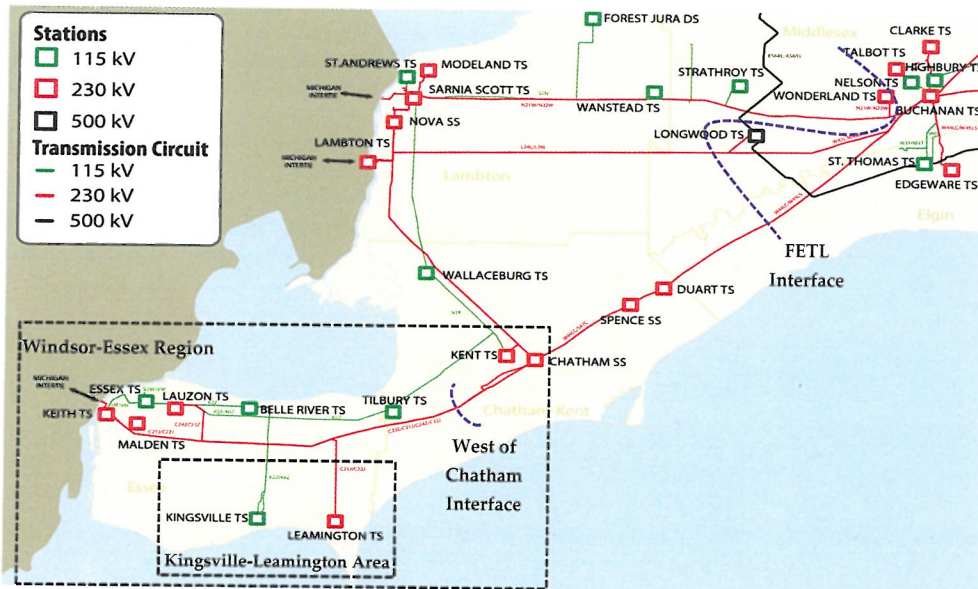


Figure 1: Geographical map of the Windsor-Essex Region

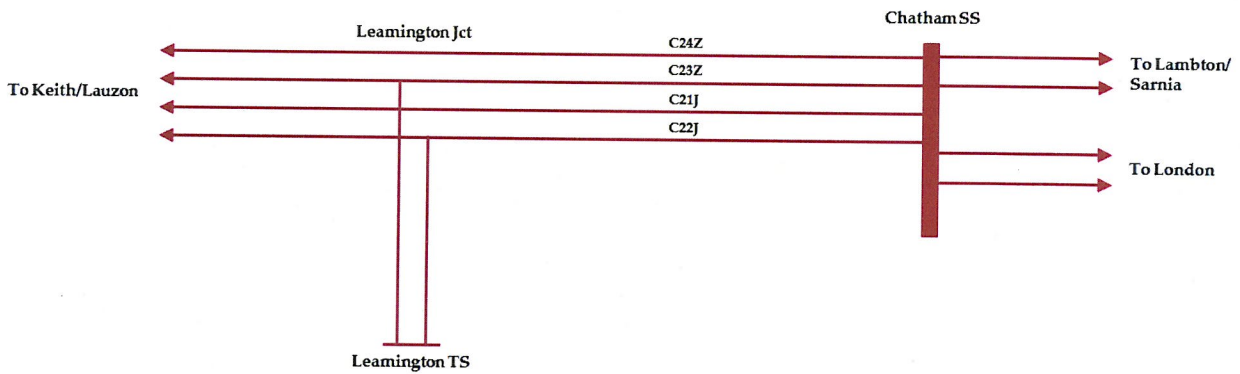


Figure 2: Single line diagram of existing facilities in the Leamington area

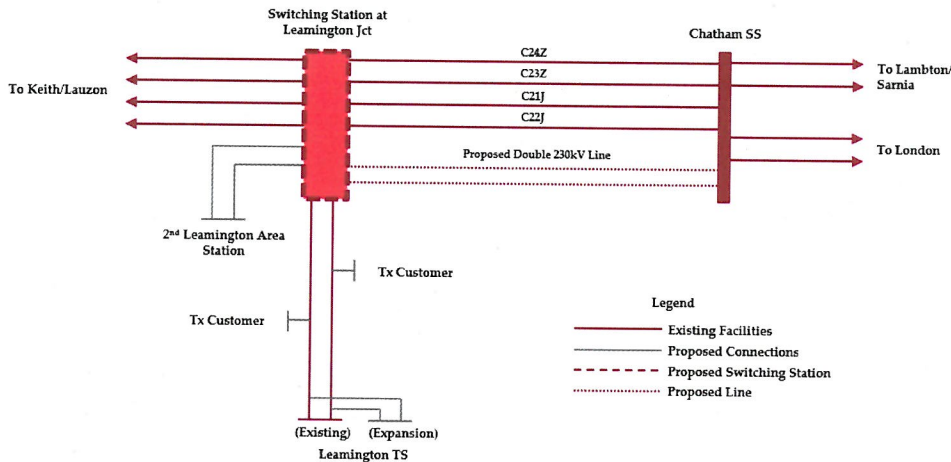


Figure 3: Single line diagram of existing and proposed facilities in the Leamington area

**Ministry of Energy,
Northern Development
and Mines**

Office of the Minister

77 Grenville Street, 10th Floor
Toronto ON M7A 2C1
Tel.: 416-327-6758

**Ministère de l'Énergie,
du Développement du Nord
et des Mines**

Bureau du ministre

77, rue Grenville, 10^e étage
Toronto ON M7A 2C1
Tél. : 416 327-6758



MC-994-2020-1148

December 17, 2020

Mr. Richard Dicerri
Chair
Ontario Energy Board
2300 Yonge Street, 27th Floor
PO Box 2319
Toronto ON M4P 1E4

Dear Mr. Dicerri:

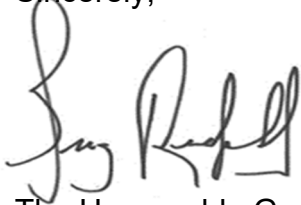
I am writing to you today to inform you that under the authority of section 28.6.1 of the *Ontario Energy Board Act, 1998*, I am, with the approval of the Lieutenant Governor in Council represented by Order in Council, issuing a directive to the OEB to amend Hydro One Networks Inc. (Hydro One)'s electricity transmission licence to include a requirement that it proceed to develop and seek all necessary approvals for a new 230 kilovolt (kV) double-circuit transmission line from the existing Chatham Switching Station to the new Lakeshore Transformer Station to be located at Leamington Junction ("Chatham to Lakeshore Line"), including associated station facilities to connect the Chatham to Lakeshore Line ("Project") at the terminal stations.

The Project was assessed by the Independent Electricity System Operator (IESO) through a planning report, entitled "Need for Bulk Transmission Reinforcement in the Windsor-Essex Region" (dated June 13, 2019). The report recommended a new transmission line west of Chatham as the appropriate solution required to meet expected demand growth and system needs of the region. The report identified an in-service date prior to the winter of 2025-2026 and the IESO had subsequently issued a letter to Hydro One (dated June 11, 2019), requesting Hydro One initiate work on the Project and the associated station facilities in order to achieve the required in service date.

.../cont'd

The licence amendments required by this directive will further support the timely development of this transmission line. I appreciate the OEB's actions in this regard.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Rickford". The signature is fluid and cursive, with a large initial "G" and "R".

The Honourable Greg Rickford
Minister of Energy, Northern Development and Mines

Enclosure

c: Susanna Zagar, Chief Executive Officer, OEB



Ontario

**Executive Council of Ontario
Order in Council**

On the recommendation of the undersigned, the Lieutenant Governor of Ontario, by and with the advice and concurrence of the Executive Council of Ontario, orders that:

**Conseil exécutif de l'Ontario
Décret**

Sur la recommandation de la personne soussignée, le lieutenant-gouverneur de l'Ontario, sur l'avis et avec le consentement du Conseil exécutif de l'Ontario, décrète ce qui suit :

WHEREAS Ontario considers it necessary to expand Ontario's transmission system in order to provide a reliable and adequate supply of electricity to the Kingsville-Leamington area in the near to mid-term to meet forecast load growth, to permit the resources and bulk facilities in the region to operate efficiently and to maintain the existing interchange capability of the Ontario-Michigan interconnection;

AND WHEREAS the Independent Electricity System Operator, the organization responsible for ensuring the reliability of Ontario's electricity grid, issued a Bulk Planning Report, entitled the "Need for Bulk Transmission Reinforcement in the Windsor-Essex Region" (dated June 13, 2019) which recommended a new transmission line west of Chatham as the appropriate solution required to meet expected demand growth and system needs, identifying an in-service date prior to the winter of 2025-2026;

AND WHEREAS the Government has determined that the development of the transmission line project should be undertaken by a transmitter that is best positioned to ensure that the project can be developed efficiently and on a timeline that supports economic growth;

AND WHEREAS the Government has determined that the preferred manner of proceeding is to require Hydro One Networks Inc. to undertake the development of the transmission line project including any and all steps that are deemed to be necessary and desirable in order to seek required approvals;

AND WHEREAS the Minister of Energy, Northern Development and Mines has, with the approval of the Lieutenant Governor in Council, the authority to issue Directives pursuant to section 28.6.1 of the *Ontario Energy Board Act, 1998*, which relate to the construction, expansion or re-enforcement of transmission systems;

NOW THEREFORE the Directive attached hereto is approved and shall be and is effective as of the date hereof.

ATTENDU QUE l'Ontario estime qu'il est nécessaire d'étendre le réseau de transport d'électricité de l'Ontario dans le but d'assurer une alimentation en électricité fiable et convenable dans la région de Kingsville-Leamington, à court et moyen terme, pour répondre à la croissance prévue de la demande, favoriser le fonctionnement efficace des ressources et des installations en vrac dans la région et maintenir la capacité existante de transit d'énergie de l'interconnexion entre l'Ontario et le Michigan;

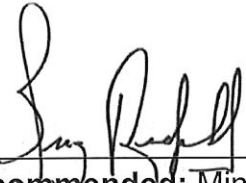
ATTENDU QUE la Société indépendante d'exploitation du réseau d'électricité (SIERE), l'organisme chargé d'assurer la fiabilité du réseau d'électricité de l'Ontario, a publié un rapport de planification de la distribution en vrac, intitulé « Need for Bulk Transmission Reinforcement in the Windsor-Essex Region » (daté du 13 juin 2019), qui recommandait une nouvelle ligne de transport à l'ouest de Chatham comme solution appropriée pour répondre à la croissance de la demande prévue et aux besoins du réseau, et précisait une date de mise en service antérieure à l'hiver 2025-2026;

ATTENDU QUE le gouvernement a décidé que le développement du projet de ligne de transport devrait être exécuté par un transporteur qui est le mieux placé pour assurer le développement efficace du projet dans un délai favorable à la croissance économique;

ATTENDU QUE le gouvernement a déterminé que la meilleure façon de procéder serait d'exiger que Hydro One Networks Inc. se charge du développement du projet de ligne de transport, y compris de toutes les étapes qui seraient jugées nécessaires et souhaitables en vue d'obtenir les approbations nécessaires;

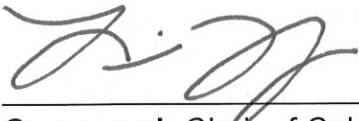
ET ATTENDU QUE le ministre de l'Énergie, du Développement du Nord et des Mines peut donner des directives, approuvées par le lieutenant-gouverneur en conseil, en application de l'article 28.6.1 de la *Loi de 1998 sur la Commission de l'énergie de l'Ontario*, à l'égard de la construction, de l'extension ou du renforcement de réseaux de transport;

EN CONSÉQUENCE, la directive ci-jointe est approuvée et entrera en vigueur en date des présentes.



Recommended: Minister of Energy, Northern Development and Mines

Recommandé par : Ministre de l'Énergie, du Développement du Nord et des Mines



Concurred: Chair of Cabinet

Appuyé par : Le président | la présidente du Conseil des ministres

Approved and Ordered:
Approuvé et décrété le : NOV 05 2020



Lieutenant Governor
La lieutenant-gouverneure

MINISTER'S DIRECTIVE / DIRECTIVE DU MINISTRE

TO: THE ONTARIO ENERGY BOARD

DESTINATAIRE : LA COMMISSION DE L'ÉNERGIE DE L'ONTARIO

I, Greg Rickford, Minister of Energy, Northern Development and Mines, hereby direct the Ontario Energy Board ("Board") pursuant to section 28.6.1 of the *Ontario Energy Board Act, 1998* as follows:

1. The Board shall amend the conditions of the electricity transmission licence of Hydro One Networks Inc. ("Hydro One") to include a requirement that Hydro One proceed to develop and seek approvals for a new 230 kilovolt (kV) double-circuit transmission line from the existing Chatham Switching Station to the new Lakeshore Transformer Station to be located at Leamington Junction (Chatham to Lakeshore Line), including associated station facilities to connect the Chatham to Lakeshore Line at the terminal stations. The purpose of the Chatham to Lakeshore Line is to provide a reliable and adequate supply of electricity to the Kingsville-Leamington area in the near to mid-term to meet forecast load growth, to permit the resources and bulk facilities in the region to operate efficiently and to maintain the existing interchange capability of the Ontario-Michigan interconnection. Development of the Chatham to Lakeshore Line shall accord with the project scope and timing recommended by the Independent Electricity System Operator.
2. The Board shall require that Hydro One provide such reporting to the Board as the Board may consider appropriate, with respect to budget, timing and risks in relation to the development of the Chatham to Lakeshore Line.
3. The Board shall make the amendments to Hydro One's electricity transmission licence without holding a hearing.

Je soussigné, Greg Rickford, ministre de l'Énergie, du Développement du Nord et des Mines (le « ministre »), ordonne ce qui suit à la Commission de l'énergie de l'Ontario (la « Commission »), en vertu du paragraphe 28.6.1 de la *Loi de 1998 sur la Commission de l'énergie de l'Ontario* :

1. La Commission modifiera les conditions du permis de transport d'électricité de Hydro One Networks Inc. (« Hydro One ») de manière à inclure l'exigence que Hydro One obtienne les approbations nécessaires à la construction d'une nouvelle ligne de transport à double circuit de 230 kilovolts (kV), du poste de sectionnement de Chatham existant au nouveau poste de transformation de Lakeshore, qui sera situé à la jonction de Leamington (ligne Chatham-Lakeshore), y compris les installations connexes pour relier la ligne Chatham-Lakeshore aux stations terminales. Le but de la ligne Chatham-Lakeshore Line est d'assurer une alimentation en électricité fiable et convenable dans la région de Kingsville-Leamington, à court et moyen terme, pour répondre à la croissance prévue de la demande, favoriser le fonctionnement efficace des ressources et des installations en vrac dans la région et maintenir la capacité existante de transit d'énergie de l'interconnexion entre l'Ontario et le Michigan. L'aménagement de la ligne Chatham-Lakeshore doit être en ligne avec l'étendue du projet et le délai recommandé par la Société indépendante d'exploitation du réseau d'électricité.

2. La Commission exigera que Hydro One lui remette les rapports qu'elle estime appropriés, en ce qui concerne le budget, les délais et les risques liés à l'aménagement de la ligne Chatham-Lakeshore.
3. La Commission apportera les modifications nécessaires au permis de transport d'électricité de Hydro One sans tenir d'audience.



Minister of Energy, Northern Development and Mines
Ministre de l'Énergie, du Développement du Nord et des Mines



March 26, 2021

Robert Reinmuller
Director, Transmission System Planning
Hydro One Networks, Inc.
483 Bay Street
Toronto, ON M5G 2P5

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

Dear Robert:

Re: Building a new 230 kV double-circuit line from Lambton TS to Chatham SS to supply forecasted load growth in the Windsor-Essex region and surrounding Chatham area

The purpose of this letter is to identify the need for a new 230 kV double-circuit line from the Lambton transformer station ("TS") to the Chatham switching station ("SS") and the associated station facility expansions or upgrades required at the terminal stations. This reinforcement is needed to ensure that the system can meet the near- to mid-term needs for the Windsor-Essex region. These facilities are required no later than 2028, but there is benefit in streamlining the implementation of this project and completing it earlier if possible.

The purpose of these new facilities is to:

- Ensure sufficient bulk transfer capability east of Chatham to supply the forecast load in the Windsor-Essex region and surrounding Chatham area in the near- to mid-term; and
- Improve the deliverability of resources in the Lambton-Sarnia area for intra-zonal and provincial supply.

Background

The west of London area, as shown in Figure 1, encompasses a 230 kV and 115 kV high voltage network stretching from the western edge of the City of London, to Lambton-Sarnia in the northwest, and the City of Windsor in the west. This system interconnects large generators in the Lambton-Sarnia and Windsor areas with existing load centres, and encompasses the growing Kingsville-Leamington and Chatham-Kent areas. It provides four interconnection points with Michigan's power system via Windsor and Lambton-Sarnia. The area also encompasses a connection to the 500 kV system at Longwood within the Municipality of Strathroy Catadoc, providing a strong path for supply to and from the region and the rest of the province.

There are two main pockets of load growth and economic development in the area west of London – in the Town of Kingsville and Municipality of Leamington, and in the community of Dresden, located within the Municipality of Chatham-Kent. This growth is driven by strong indoor agricultural growth, mainly in vegetable greenhouses, as well as in part, cannabis, specifically through the intensification of existing greenhouses switching to lit indoor facilities, expansion of greenhouse facilities, and supplemental load to support the agricultural sector.

In 2019, the IESO published a bulk transmission study for the area, [*Need for Bulk Transmission Reinforcement in the Windsor-Essex Region*](#), which recommended transmission upgrades to supply this increased electricity demand in the region. More specifically, the upgrades addressed bulk transmission system limitations west of Chatham, between Chatham SS and the Kingsville-Leamington area. These included a new switching station at Leamington Junction (Lakeshore SS) and a new 230 kV double-circuit line from Chatham SS to the new Lakeshore SS. At that time, transmission system constraints east of Chatham were also identified but additional assessments were required before further recommendations could be made.

Recent studies conducted by the IESO with input from Hydro One, local distribution companies (LDCs), stakeholders and communities concluded that bulk electricity demand west of London region will be adequately supplied by the previous recommendations for transmission reinforcements and existing resources until the beginning of 2028.

To supply the forecasted electricity demand beyond 2028 and to maintain the capability of the transmission system to deliver the output of generation resources in the Lambton-Sarnia area, the IESO recommends a new 230 kV, double-circuit transmission line be built between Lambton TS and Chatham SS. Prior to this reinforcement coming into service as new loads connect, operational actions such as arming Remedial Action Schemes (RAS) for load or generation rejection, or temporarily allowing higher operating ratings, may be required to address the potential congestion of generation resources in the Lambton-Sarnia area. This would be outlined in potential exemptions to reliability standards, as required.

Due to the rapid and constantly evolving nature of the load growth in the area, and the need to occasionally rely on operating actions to reduce congestion of generating resources, there is benefit in streamlining the implementation of this project to complete it earlier if possible.

The analysis found that this transmission solution is the most cost effective next step to supplying the increasing demand in the region.

In arriving at this recommendation alternate transmission options and local supply options were considered. The analysis of the different options will be described in the IESO's west of London bulk study report, to be published in Q2 2021. This report will also make additional recommendations around further transmission or resource solutions, as required, to continue meeting bulk system needs into the long-term.

Lambton South (Lambton to Chatham) Transmission Line Project Scope

Based on the above considerations, the IESO recommends that Hydro One initiate the work, engagement and activities, including seeking Environmental Assessment and Leave-to-Construct approvals, that are required to develop and construct a new 230 kV double-circuit line from Lambton TS southwards to Chatham SS and associated station facility expansions or upgrades

required at the terminal stations. Single-line diagrams of the existing and proposed facilities are shown in Figure 2.

The project and its related costs and timelines have been discussed with Hydro One. The IESO understands that, if approvals are received, an in-service date of 2028 is achievable and recommends the transmitter investigate options for an accelerated implementation if possible, for the reasons mentioned previously. Hydro One has indicated costs for the project may range between \$210 million to \$290 million. If there is any delay or suspension of the targeted in-service date and/or project costs are forecasted to exceed the upper end of this range, Hydro One will notify the IESO as soon as possible so that the assessment of the bulk system reinforcement plan in the west of London can be updated appropriately.

The IESO is aware that there are Indigenous communities in Southern Ontario that may have an interest in this project. The IESO encourages Hydro One to meaningfully engage with these communities in a way that recognizes the unique interest of each community in this project, and to discuss their concerns about potential impacts to their Aboriginal or treaty rights.

Future Activities

This transmission line is the next stage of a number of improvements to the bulk transmission system required to support load growth and ensure reliability in the area. Planning for the west of London bulk system is still underway and additional recommendations along with a final report are planned for spring 2021. In parallel, long-term planning also continues at the regional level through the on-going Windsor-Essex addendum study and forthcoming Chatham-Kent/Lambton/Sarnia regional planning cycle in Q2 2021. Engagement with Indigenous and municipal communities and sector stakeholders will continue to inform these activities.

IESO will continue to work with Hydro One in the implementation of this project. We look forward to an ongoing exchange of information as Hydro One proceeds with the development of the project.

Yours truly,

Ahmed Maria

Ahmed Maria

Cc: Terry Young, IESO
Leonard Kula, IESO
Candice Trickey, IESO
Chuck Farmer, IESO
Bruno Jesus, Hydro One
Mark Brodie, Hydro One
IESO Records

Figures: System Maps

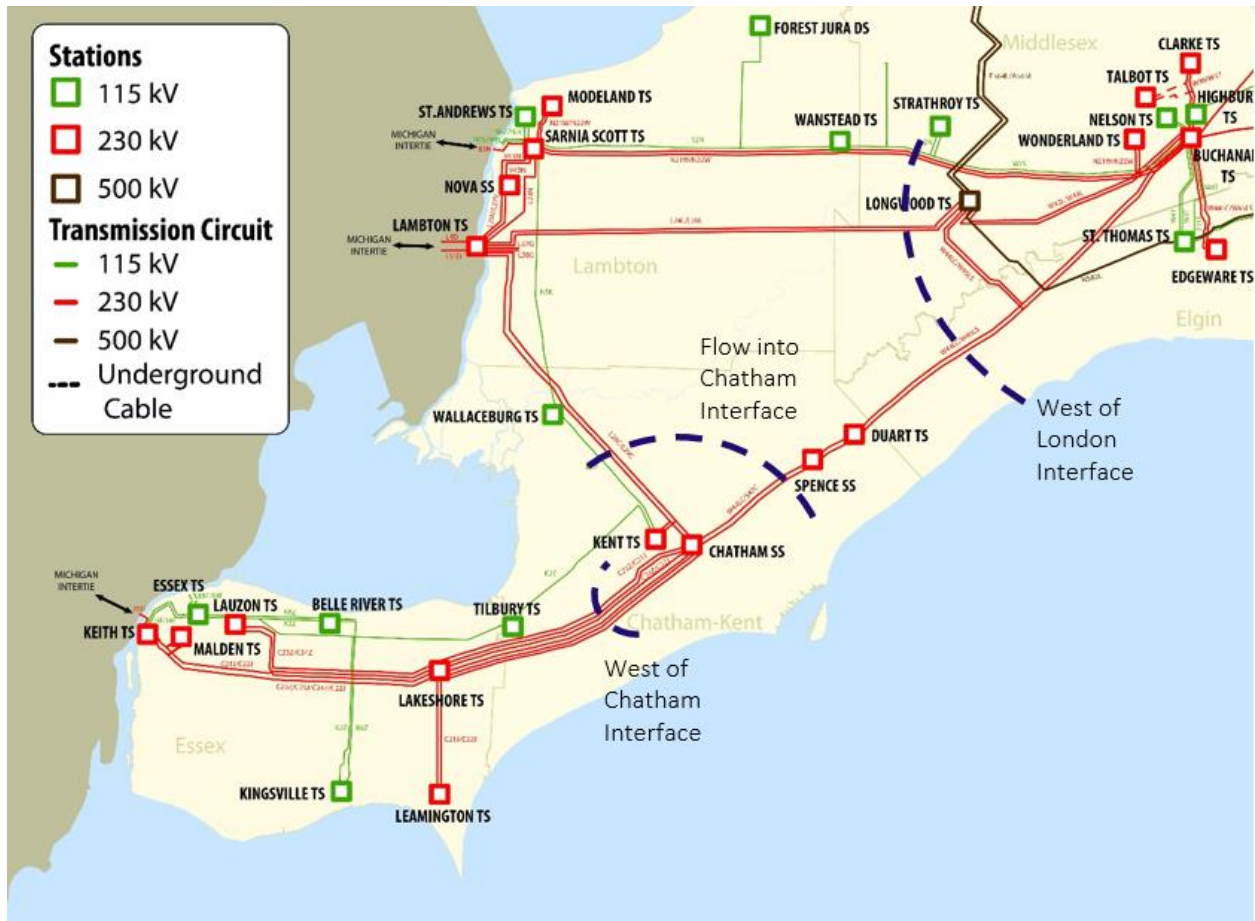


Figure 1: Geographical map of West of London

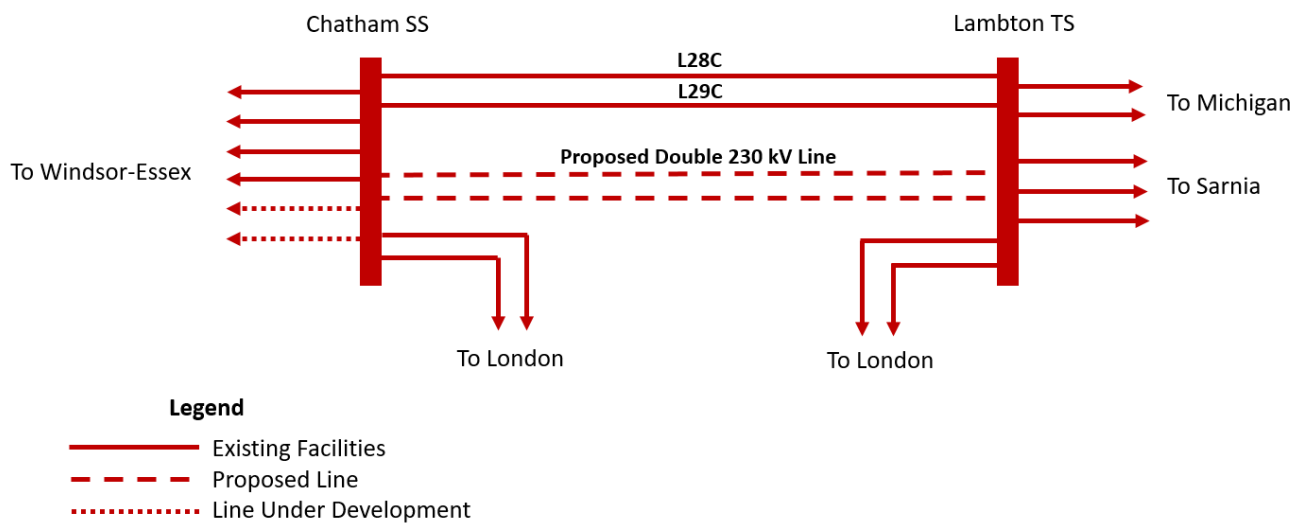


Figure 2: Single line diagram of existing and proposed facilities in West of London