GTA East Region

Scoping Assessment Outcome Report

April 25, 2025

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1. Introduction

This scoping Assessment Outcome Report is part of the Ontario Energy Board's (OEB or Board) regional planning process and sets out the planning approach to address electricity needs that have been identified in the GTA East. The OEB started regional planning in 2011 and endorsed the Planning Process Working Group's Report to the Board in May 2013. The Board formalized the process and timelines through changes to the Transmission System Code and Distribution System Code in August 2013.

This is the third cycle of regional planning for the GTA East region, and it was initiated in summer 2024. The Needs Assessment (NA) is the first step in the regional planning process and was carried out by the Study Team led by Hydro One Networks Inc. (Hydro One). The Needs Assessment[1] was finalized on December 11, 2024, and flagged a number of needs requiring further regional coordination as well as a few needs to be addressed by local planning. This information was an input to this Scoping Assessment Outcome Report.

As part of the Scoping Assessment, the Study Team reviewed the nature and timing of all the known needs in the region to determine the most appropriate planning approach to address them. The planning approaches considered include:

- **An Integrated Regional Resource Plan (IRRP)** led by the Independent Electricity System Operator (IESO) – through which a greater range of options, including non-wires alternatives, are to be considered and/or closer coordination with communities and stakeholders is required;
- **A Regional Infrastructure Plan (RIP)** led by the transmitter – which considers more straight-forward wires only option with limited engagement; or
- **A local plan (LP)** undertaken by the transmitter and affected local distribution company (LDC) – for which no further regional coordination is required.

This Scoping Assessment report is structured as follows:

- Section 2 lists the study team.
- Section 3 provides an overview of the region, the previous regional planning cycle, and major transmission reinforcement since the previous cycle.
- Section 4 summarizes the new and updated needs as described in the NA.
- Section 5 describes the criteria used to select a regional planning approach and specifies the scope of the IRRP.

Appendix 1 defines the acronyms used in this document and Appendix 2 establishes the Terms of Reference for the IRRP and the composition of the IRRP Technical Working Group (TWG).

[1] 2024 GTA East Needs Assessment, Hydro One. (Link)

2. Study Team

The Scoping Assessment was carried out with the following participants:

- Independent Electricity System Operator (IESO)
- Hydro One Networks Inc. (Hydro One Transmission)
- Hydro One Networks Inc. (Hydro One Distribution)
- Elexicon Energy Inc.
- Oshawa Power and Utilities Company (Oshawa PUC)

3. Overview of Region and Background

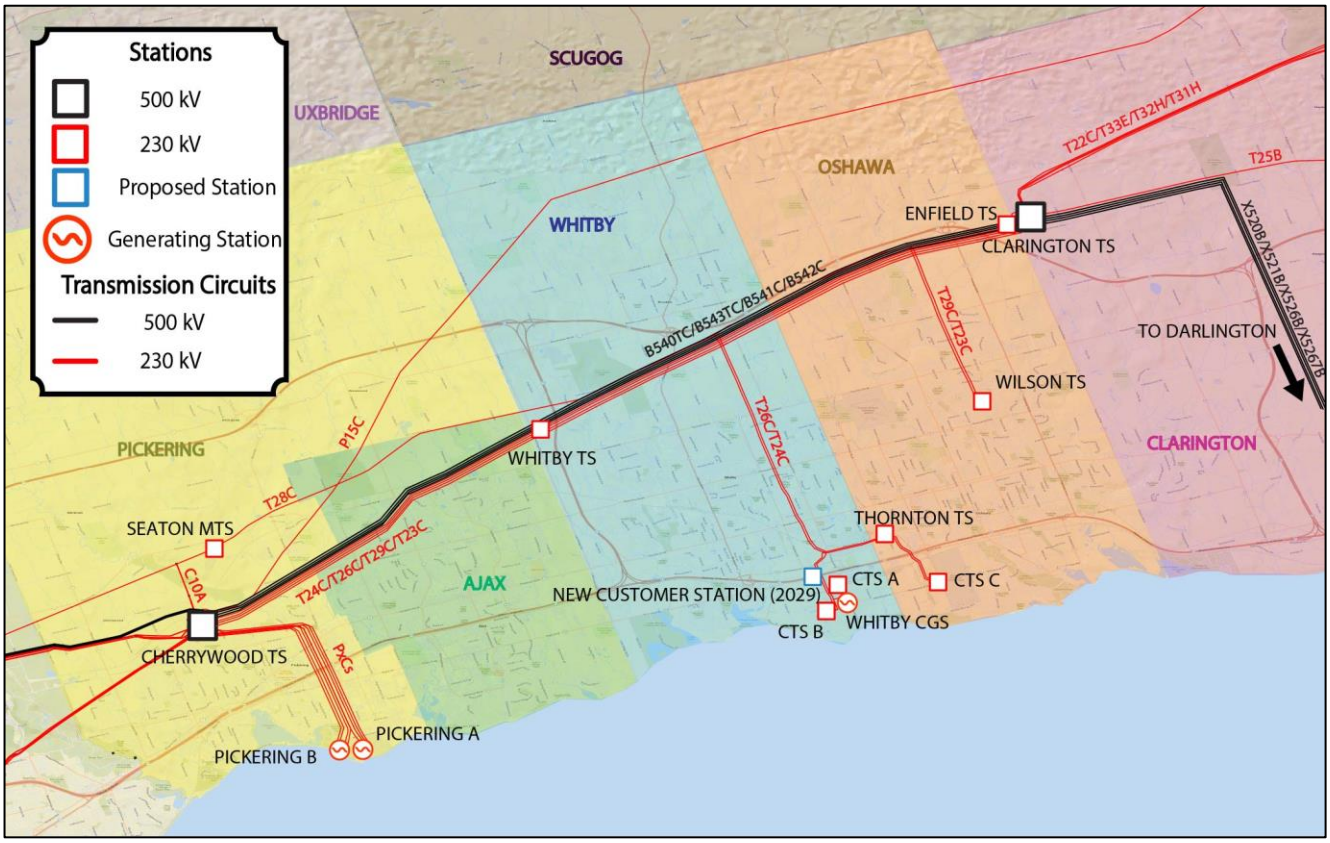
3.1 Overview of the GTA East Region

The GTA East region, shown in **Figure 1**, extends from Lake Ontario northward to the southern parts of Scugog and Uxbridge, and includes the municipalities of Pickering, Ajax, Whitby, Oshawa and parts of Clarington within Durham Region.

With respect to Indigenous communities, this region includes:

- Alderville First Nation
- Chippewas of Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Kawartha Nishnawbe
- Mississaugas of Scugog Island First Nation
- Mississaugas of the Credit First Nation
- Métis Nation of Ontario

Figure 1 | Overview of the GTA East Region

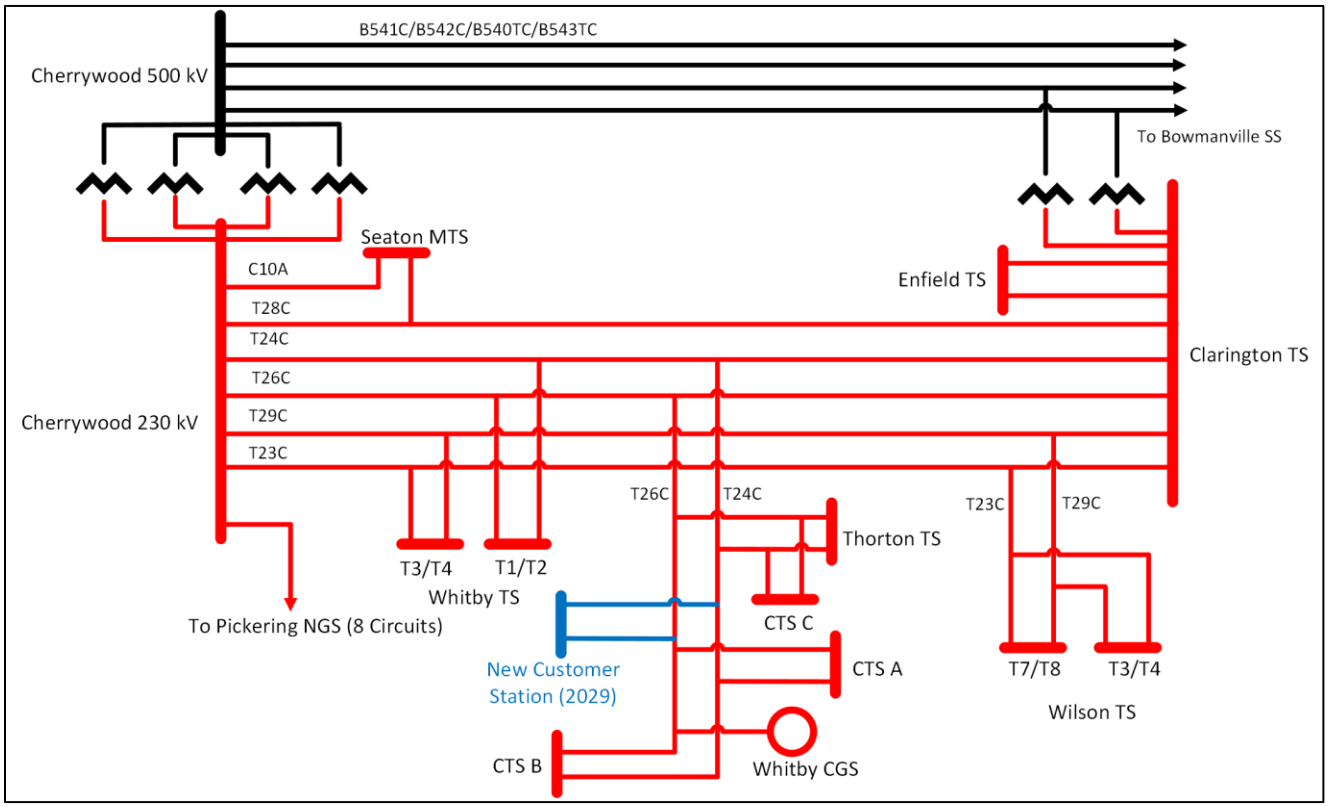


3.1.1 Electricity System Supplying GTA East Region

Note that, for regional electricity planning purposes, the region is defined by electrical infrastructure rather than geography. As shown in **Figure 2**, electrical supply to the GTA East Region is provided through 500/230 kilovolt (kV) autotransformers at Cherrywood Transformer Station (TS), Clarington TS and six 230kV transmission lines connecting Cherrywood TS to Clarington TS. There are six step-down transformer stations (five Hydro One owned and one LDC owned), one Customer Station which is proposed to be in service in 2029[2], and three direct transmission connected load customers. Whitby Customer Generating Station (CGS), a 60 MW gas-fired cogeneration station, also provides a local source of supply within the region. Pickering Nuclear Generating Station (NGS) is connected to the Cherrywood TS through eight circuits, and it produces approximately 3000 MW of supply.

[2] For more information regarding new Customer Station, refer to Hydro One's 2024 GTA East Needs Assessment (Link)

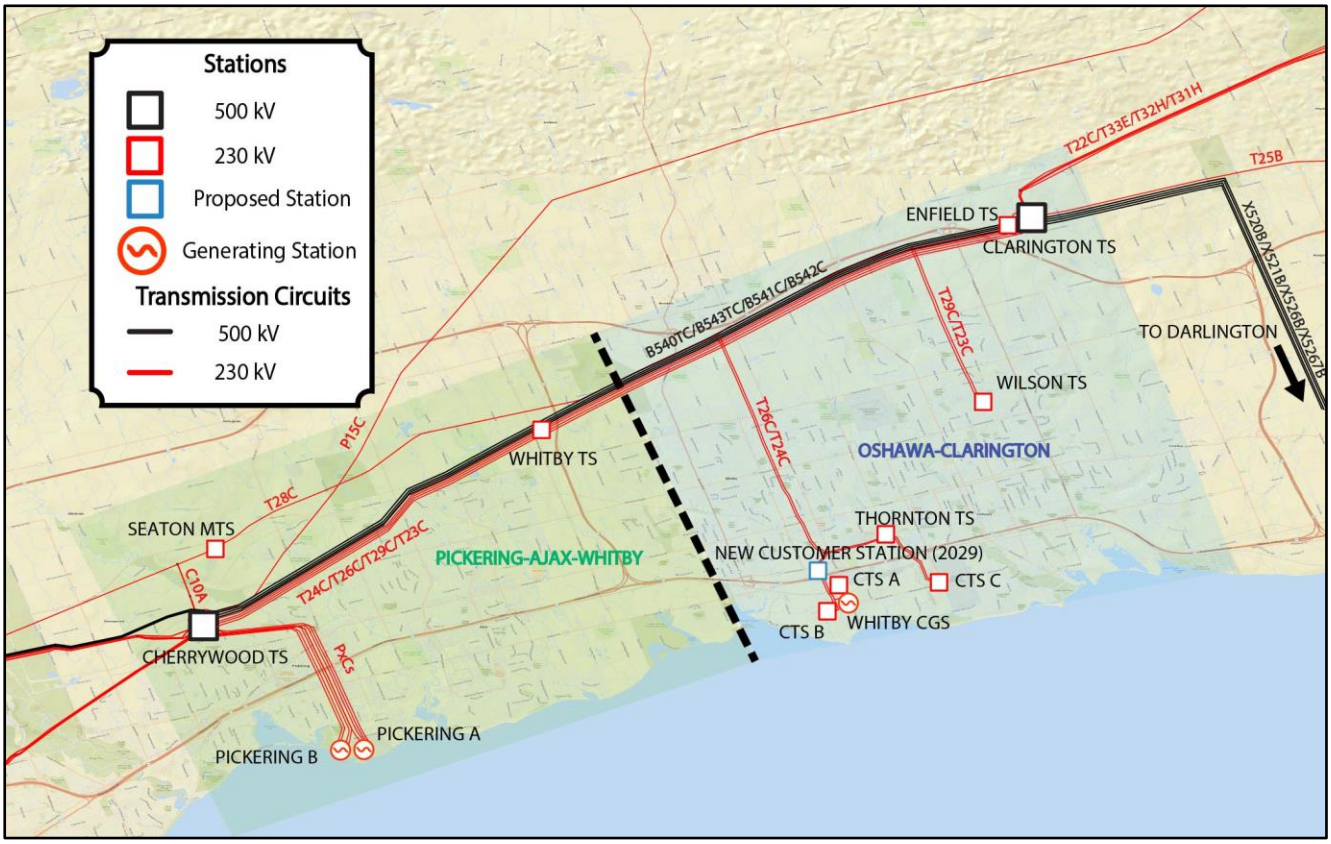
Figure 2 | Single Line Diagram of the GTA East Region



For the previous regional plans, the study team has divided GTA East Region into two sub-regions as shown in **Figure 3**:

- **Pickering-Ajax-Whitby Sub-Region** – includes the area served by Cherrywood TS, Whitby TS, and Seaton MTS and the 230kV lines connection transmission facilities in the area (includes most of the City of Pickering, Town of Ajax, and part of the Town of Whitby, and part of the Township of Uxbridge and Scugog)
- **Oshawa-Clarington Sub-Region** – includes the area served by Clarington TS, Thornton TS, Wilson TS, Enfield TS, proposed Customer Station, three customer connection station, a gas fired cogeneration station and the 230kV lines connecting the transmission facilities (includes the City of Oshawa, part of the Municipality of Clarington and part of the Township of Scugog).

Figure 3 | Sub-Regions of the GTA East Region



3.2 Previous Regional Plans

The first cycle of the regional planning process for GTA East was completed in 2016 with the publication of the Region's first IRRP[3]. This plan focused on the Pickering-Ajax-Whitby Sub-Region where it used a 20-year demand forecast and made recommendations to address near-term capacity needs. Through this regional planning cycle, Seaton Municipal Transformer Station (MTS) was recommended and implemented. Simultaneously, the first Local Plan was conducted which focused on the Oshawa-Clarington Sub-Region. This plan recommended and implemented Enfield TS to address the Wilson TS and Thornton TS station capacity needs.

The second cycle of the regional planning process was completed in 2019. During this regional planning process, a Needs Assessment[4] did not identify any needs in the area requiring regional coordination and integrated planning, resulting in the publication of the RIP[5]. Through this plan, the Technical Working Group (TWG) recommended continuing investments in existing plans, which includes refurbishing the Wilson TS and Cherrywood TS Switchyard.

[3] 2016 Pickering-Ajax-Whitby Integrated Regional Resource Plan (IRRP), IESO. (Link)
[4] 2019 GTA East Needs Assessment, Hydro One. (Link)
[5] 2019-2024 GTA East Regional Infrastructure Plan, Hydro One. (Link)

This current, third regional planning cycle started with the publication of the Needs Assessment report by Hydro One in December 2024. The needs identified in the Needs Assessment report form the basis of the analysis for this Scoping Assessment and are further discussed in the Section 4.

4. Summary of New and Updated Needs

This section briefly summarizes the new and updated needs identified in the Needs Assessment report. Please refer to the full Needs Assessment report for more details. The Needs Assessment only identified station capacity, supply capacity, load security/restoration, and asset replacement need which will be described in the following sub-sections. Note that this section documents all identified needs regardless of whether or not further regional coordination is required. Section 5 specifies the planning approach and outlines the specific needs that will be in scope for subsequent regional planning stages.

4.1 Station Capacity Needs

Station capacity refers to the ability to convert power from the transmission system down to distribution system voltages. Station capacity needs were identified at Whitby TS, Wilson TS, and Thorton TS as described in **Table 1**.

Table 1 | Station Capacity Needs

#	Station	Assessment
1	Whitby TS T1/T2	Whitby TS T1/T2 is expected to reach capacity by 2032 for winter. The Needs Assessment recommended LDC and Hydro One to proceed to local planning to address this need. The TWG will continue exploring the option of building a new TS in North Whitby area during the IRRP.
2	Thornton TS T3/T4	Thorton TS T3/T4 is expected to reach capacity by 2031 for winter and 2033 for summer. The Needs Assessment recommended further regional coordination to address this need along with the identified station capacity needs at Wilson TS T3/T4 and T7/T8 in Oshawa area.
3	Wilson TS T3/T4	Wilson TS T3/T4 is already at capacity for summer and expected to reach capacity by 2025 for winter. Hydro One has identified the replacement of Wilson TS T3/T4 with a planned in-service date of 2031. With higher ratings of new transformers, the Wilson TS T3/T4 LTR will still be exceeded. The Needs Assessment recommended further regional coordination to address this need.
4	Wilson TS T7/T8	Two transformers have been replaced in early 2024 with the largest size. Wilson TS T7/T8 is expected to reach capacity by 2032 for summer. The Needs Assessment recommended further regional coordination to address this need.

4.2 Supply Capacity Needs

Supply capacity (or "load meeting capability") refers to the ability of the electricity system to supply power to customers in the area either by generating the power locally or brining it in through the transmission system.

Supply capacity needs were identified in the Needs Assessment report for the Oshawa-Clarington area. Multiple proponents, especially large data centers, have requested to connect in the region, but it is not feasible for the existing 230kV transmission infrastructure to accommodate these loads. Due to the scale and complexity of the loads and connection, the Needs Assessment suggested further regional coordination to address this need.

4.3 Load Security and Restoration Needs

Load security describes the total amount of load interrupted following major transmission outages. Load restoration describes the electricity system's ability to restore power to those affected by a major transmission outage within reasonable timeframes.

Load security needs were identified at the T23C/T29C corridor. The T23C/T29C corridor is expected to exceed load security limit of 600 MW in 2032, which violates Ontario Resource and Transmission Assessment Criteria (ORTAC) standards. The Needs Assessment recommends further regional coordination to address this load security issue, especially when determining where to connect the new Transformer Station to accommodate new needs identified in Section 4.1.

Based on the 10-year forecast developed by the study team, all double-circuit corridor (T23C/T20C and T24C/T26C) loads will exceed 250 MW. The ORTAC requires that load interruption exceeding 250MW must be restored within 30 minutes. Based on the past performance data, the Needs Assessment did not recommend capital investment for load restoration at this point.

4.4 Asset Replacement Needs

The Needs Assessment identified asset replacement needs at Wilson TS and its associated Lower Voltage (LV) equipment, as shown in **Table 2**. It also provides an update on one of the plans from the second-cycle RIP, specifically the 230kV breaker replacement at Cherrywood TS, which is currently underway. The Needs Assessment did not recommend further regional coordination for these needs but advised proceeding with the plan.

Table 2 | Asset Renewal Needs

#	Station	Need Description	Recommended Plan/Update
5	Cherrywood TS	230kV Breaker Replacement	Two phases are currently underway with planned in-service dates of 2033 and 2037 respectively.
6	Wilson TS T3/T4	Transformer Replacement	Replacement of T3/T4 transformers with planned in-service date of 2031.

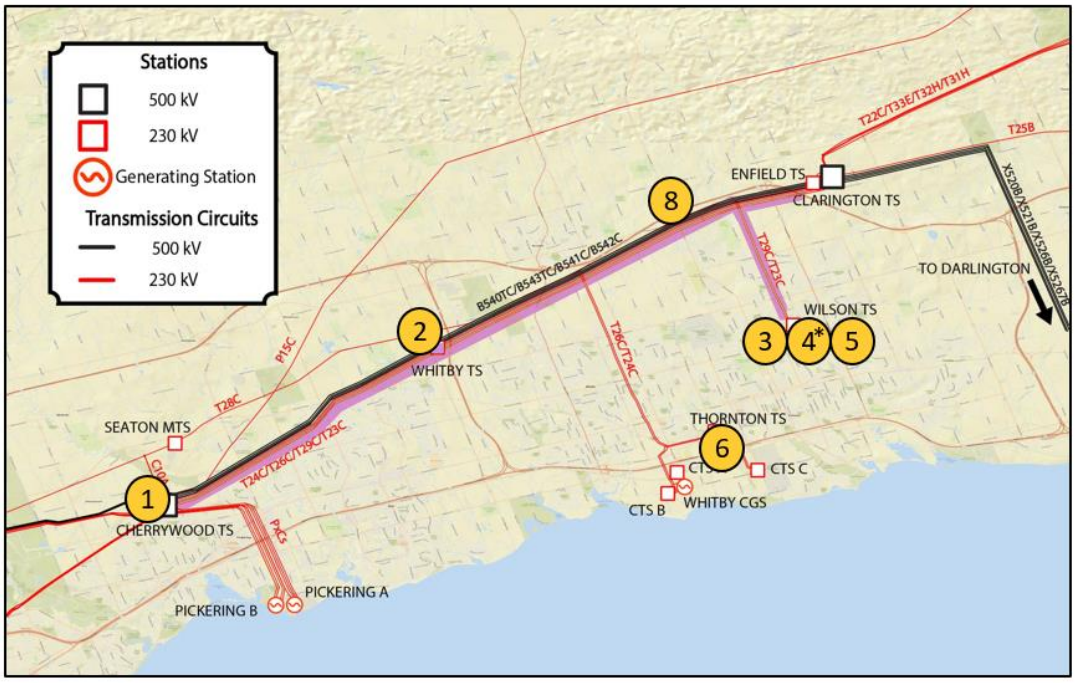
4.5 Summary of the Needs

The needs identified in the Needs Assessment are summarized in **Table 3**. Their geographical locations are shown in **Figure 4**.

Table 3 | Summary of Needs Identified from Needs Assessment

#	Need	Need Type	Timing	Need Description
1	Cherrywood TS	Asset Replacement	2033-2037	Breaker replacements, two phases currently underway with planned in-service dates of 2033 and 2037
2	Whitby TS T1/T2	Station Capacity	2032	Station overload, but there is a proposed plan for a new TS in the North Whitby area tapping to P15C and T28C
3	Wilson TS T3/T4	Asset Replacement	2031	Replacement of T3/T4 transformers with planned in-service date of 2031
4	Wilson TS T3/T4	Station Capacity	2024	Station overload, with planned transformer replacement, this need timing shifts to 2025
5	Wilson TS T7/T8	Station Capacity	2032	Station overload
6	Thorton TS T3/T4	Station Capacity	2031	Station overload
7	Oshawa-Clarington	Supply Capacity	N/A	Need for transmission reinforcement due to large load connection requests
8	T23C/T29C	Load Security	2032	This corridor exceeds the load security limit of 600 MW in 2032

Figure 4 | Geographic Location of Needs Identified in Needs Assessment



5. Regional Planning Approach

Needs identified through the Needs Assessment were reviewed during the Scoping Assessment to determine whether a Local Plan, Regional Infrastructure Plan, or Integrated Regional Resource Plan regional planning approach is most appropriate.

For the GTA East region, an IRRP is recommended. The following sections outline the selection criteria, and the scope of the recommended IRRP.

5.1 Selection Criteria

A LP process is recommended when needs:

- Are local in nature (only affecting one LDC or customer)
- Are limited investments of wires (transmission or distribution) solutions
- Do not require upstream transmission investments
- Do not require plan level community and/or stakeholder engagement and,
- Do not require other approvals such as a Leave to Construct application or Environmental Approval.

If it is determined that coordinated planning is required to address identified needs, either a RIP or an IRRP may be initiated. In general, an IRRP is initiated wherever:

- A non-wires measure has the potential to meet or significantly defer the needs identified by the transmitter during the Needs Assessment;
- Community or stakeholder engagement is required; or,
- The planning process or outcome has the potential to impact bulk system facilities

If it is determined that the only feasible measures involve new/upgraded transmission and/or distribution infrastructure, with no requirement for engagement or anticipated impact on bulk systems, a RIP will be selected instead.

Wires type transmission/distribution infrastructure solutions refer, but are not limited, to:

- Transmission lines
- Transformer/Switching station (SS)
- Sectionalizing devices including breakers and switches
- Reactors or compensators
- Distribution system assets

Additional solutions, including energy efficiency, generation, and other electricity initiatives can also play a significant role in addressing needs. Because these solutions are non-wires alternatives, they must be studied through an IRRP process.

5.2 Integrated Regional Resource Plan Scope of Work

The previous regional planning cycles divided the region into two sub-regions. However, this Scoping Assessment recommends a single IRRP that covers the entire GTA East region, but with a focus on issues highlighted in this section.

Note that the primary purpose of an IRRP is to study regional needs that require coordination between transmitters, distribution companies, and the IESO. The IRRP will not study bulk system needs but the findings from the IRRP will be coordinated with the South and Central bulk studies and vice-versa to ensure alignment between bulk and regional plannings[6]. Additionally, the IRRP will not specifically address new customer transmission connection request unless there is an opportunity to align with broader regional needs. While the IRRP welcomes information from project proponents to inform load forecasting and to ensure plans for regional infrastructure are adequate, individual customer connection requests may be better suited for a proponent driven Technical Feasibility Study.

The Scoping Assessment recommends that for each of the identified needs shown in **Table 4**, a range of alternatives including wires and non-wires solutions should be explored in a coordinated manner by the TWG. However, the following two needs from **Table 3** have been identified as not requiring further study:

- The work to replace the breakers at Cherrywood TS was discussed in a previous planning cycle and is currently underway.
- For the Wilson TS T3/T4 end-of-life need it was determined that a like-for-like replacement will be made as the transformers are already the largest size available for the 230/44kV voltage (75/100/125MVA). However, there are still station capacity needs that have been identified for Wilson TS and require further study, which are included in **Table 4**.

Additionally, planning work regarding a new transformer station to address the Whitby TS station capacity need has been ongoing. Elexicon and Hydro One Transmission have presented their findings to the TWG as part of the Needs Assessment process and the IRRP will further study potential options, their impact on the electricity system, and provide a clear recommendation.

Table 4 | Needs Identified in the Scoping Assessment as Requiring Further Study

Facilities	Type of Need	Expected Timing
Whitby TS T1/T2	Station Capacity	2032
Wilson TS T3/T4	Station Capacity	2024
Wilson TS T7/T8	Station Capacity	2032
Thorton TS T3/T4	Station Capacity	2031

[6] South and Central Bulk Planning Engagement Page, IESO. (Link)

Facilities	Type of Need	Expected Timing
Oshawa-Clarington (T23C/T29C/T24C/T26C)	Supply Capacity	N/A
T23C/T29C	Load Security	2032

Based on discussion, the TWG agreed that an IRRP is the preferred planning approach. A Terms of Reference for the IRRP is attached in Appendix 2.

6. Conclusion and Next Steps

The Scoping Assessment concludes that a single IRRP covering the entire GTA East Region will be undertaken to address the following items as discussed according to Section 5.2.

As further technical studies and community engagement are undertaken through the IRRP, new needs may appear and be included in the scope of the IRRP. All IRRPs will include opportunities for engagement with local communities and stakeholders, as well as discussion of any local initiatives focused on energy and/or reducing greenhouse gas (GHG) emissions, and how the IRRP can coordinate with these plans. The Terms of Reference for the GTA East IRRP can be found in Appendix 2.

Appendix 1 – List of Acronyms

Acronym	Definition
CDM	Conservation and Demand Management
CGS	Customer Generating Station
CTS	Customer Transformer Station
DER	Distributed Energy Resources
DG	Distributed Generation
FIT	Feed-in-Tariff
GTA	Greater Toronto Area
IESO	Independent Electricity System Operator
IRRP	Integrated Regional Resource Plan
kV	Kilovolt
LDC	Local Distribution Company
LP	Local Plan
LTR	Long-Term Rating
MTS	Municipal Transformer Station
MW	Megawatt
NA	Needs Assessment
NERC	North American Electric Reliability Corporation
NGS	Nuclear Generating Station
NPCC	Northeast Power Coordinating Council
OEB	Ontario Energy Board
ORTAC	Ontario Resource and Transmission Assessment Criteria
PPWG	Planning Process Working Group
RIP	Regional Infrastructure Plan
SS	Switching Station
TS	Transformer Station
TWG	Technical Working Group

Appendix 2 – GTA East IRRP Terms of Reference

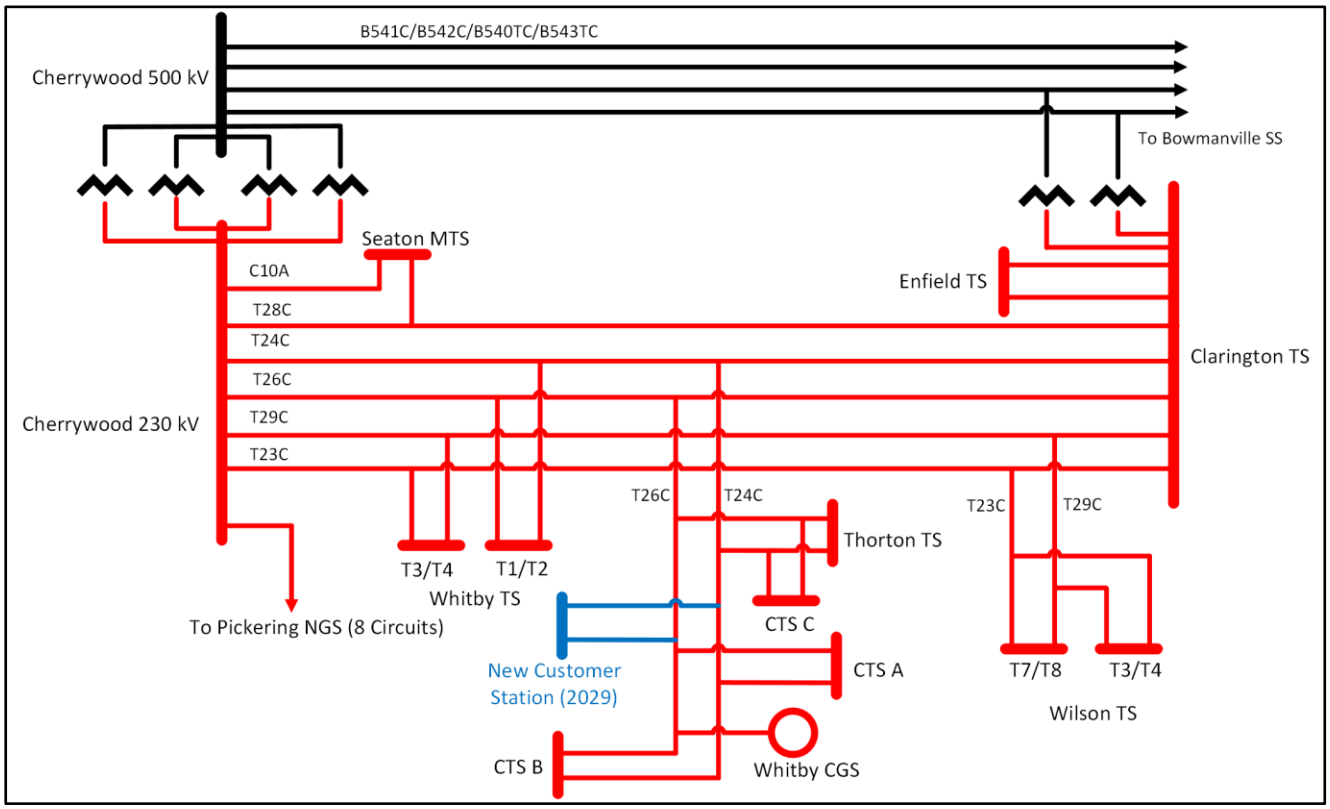
1. Introduction and Background

These Terms of Reference establish the objectives, scope, key assumptions, roles and responsibilities, activities, deliverables and timelines for an Integrated Regional Resource Plan (IRRP) of the GTA East region.

Based on the potential for demand growth within this region, limits on the capability of the transmission capacity supplying the area, and opportunities for coordinating demand and supply options, an integrated regional resource planning approach is recommended.

The single line diagram of the GTA East region is shown in **Figure A 1**.

Figure A 1 | Single Line Diagram for GTA East Region



2. Objectives

The GTA East IRRP will be developed based on the following objectives:

1. To assess the adequacy of electricity supply to customers in the GTA East Region over the next 20 years.
2. Account for major asset renewal needs, capacity needs, enhancing reliability and resilience, uncertainty in the outlook for electricity demand, and local priorities in developing a comprehensive plan.
3. Consider potential impacts of electrification targets and other policy decisions on needs identified and recommended outcomes, consistent with provincial direction.
4. Evaluate opportunities for cost effective non-wires alternatives, including conservation and demand management (CDM) and distributed energy resources (DER), as well as wires approach for addressing the needs identified.
5. Develop an implementation plan that maintains flexibility to accommodate changes in key assumptions over time. The implementation plan should identify actions for near-term needs, preparation work for medium-term needs, and planning directions for the long-term.

3. Scope

This IRRP will develop and recommend an integrated plan to address the needs of the GTA East region. The plan is a joint initiative led by the IESO and completed by the members of the TWG - Hydro One Distribution, Hydro One Transmission, Elexicon Energy, and Oshawa PUC. The plan will incorporate input from community engagement. The plan will integrate forecast electricity demand growth, conservation and demand management in the area with transmission and distribution system capability, end-of-life major facilities in the area, relevant community plans, other bulk system developments, generation uptake, and will develop an integrated plan to address needs.

The scope of the GTA East IRRP includes the needs shown in **Table A 1**, as identified in the Needs Assessment.

Table A 1 | Needs Identified in the Needs Assessment as Requiring Further Study

Facilities	Type of Need	Expected Timing
Whitby TS T1/T2	Station Capacity	2032
Wilson TS T3/T4	Station Capacity	2024
Wilson TS T7/T8	Station Capacity	2032
Thorton TS T3/T4	Station Capacity	2031
Oshawa-Clarington (T23C/T29C/T24C/T26C)	Supply Capacity	N/A
T23C/T29C	Load Security	2032

Cherrywood TS breaker replacements will continue as planned, where two phases are currently underway with planned in-service dates of 2033 and 2037.

The GTA East Region IRRP will:

- Prepare a 20-year electricity demand forecast for the appropriate stations and establish needs over this timeframe
- Examine the load meeting capability and reliability of the existing transmission system supplying the GTA East Region, taking into account facility ratings and performance of transmission elements, transformers, local generation, and other facilities such as reactive power devices
- Establish feasible integrated alternatives including a mix of EE, generation, transmission and distribution facilities, and other electricity system initiatives in order to address the needs of the GTA East region
- Evaluate options using decision-making criteria including but not limited to: technical feasibility, economics, reliability performance, environmental and social factors

3.1 South and Central Ontario Bulk Planning Study

The Bulk Planning Study will examine the capability of the bulk system to support future generation connections and demand growth in key areas throughout the province, to enable a decarbonized power system in the future.

As the South and Central Bulk Study[7] will be conducted in parallel with regional planning in GTA East, its findings (i.e., needs and recommended solutions) will be coordinated with the GTA East IRRP, and vice-versa.

4. Data and Assumptions

The plan will consider the following data and assumptions:

Demand Data

- Historical non-coincident peak demand information
- Median and extreme weather conditions
- Gross peak demand forecast scenarios
- Forecasted regional coincident peak demand data including transmission-connected customers
- Identified potential future load customers
- Customer/load segmentation information (e.g., residential, commercial, industrial) by TS

Conservation and Demand Management

- Conservation forecasts for LDC customers, based on region's share of current energy efficiency programs

[7] South and Central Bulk Planning Engagement Page, IESO. (Link)

- Potential for CDM at transmission-connected customers' facilities

Local resources

- Existing local generation, including distributed generation, district energy, customer-based generation, Non-Utility Generators and hydroelectric facilities as applicable
- Existing or committed renewable generation from Feed-in-Tariff (FIT) and non-FIT procurements
- Future district energy plans, combined heat and power, energy storage, or other generation proposals

Relevant local and provincial plans and studies, as applicable

- LDC Distribution System Plans
- Community Energy Plans and Municipal Energy Plans
- Municipal and community policies with an impact on electricity usage
- Municipal Growth Plans
- Future transit plans impacting electricity use, including personal vehicle electrification, transit expansion and electrification (e.g. GO train electrification)
- Pathways to Decarbonization Report
- Gatineau Transmission Corridor

Criteria, codes and other requirements

- Ontario Resource and Transmission Accessibility Criteria (ORTAC)
- NERC and NPCC reliability criteria, as applicable
- OEB Transmission System Code
- OEB Distribution System Code
- Reliability considerations, such as the frequency and duration of interruptions to customers
- Other applicable requirements

Existing system capability

- Transmission line ratings as per transmitter records
- System capability as per computer simulation results using the current IESO base cases
- Transformer station ratings (10-day LTR) as per asset owner
- Load transfer capability
- Technical and operating characteristics of local generation

End-of-life asset consideration/sustainment plans

- Transmission assets
- Distribution assets

Other considerations, as applicable

5. Technical Working Group

The core Technical Working Group will consist of planning representative/s from the following organizations:

- Independent Electricity System Operator (Team Lead for IRRP)
- Hydro One Networks Inc. (Hydro One Transmission)
- Hydro One Networks Inc. (Hydro One Distribution)
- Elexicon Energy Inc.
- Oshawa PUC Networks Inc.

5.1 Authority and Funding

Each entity involved in the study will be responsible for complying with regulatory requirements as applicable to the actions/tasks assigned to that entity under the implementation plan resulting from this IRRP. For the duration of the study process, each participant is responsible for their own funding.

6. Engagement

Integrating early and sustained engagement with communities and stakeholders in the planning process was recommended to and adopted by the provincial government to enhance the regional planning and siting processes in 2013.

As such, the IESO, in consultation with the TWG, is committed to conducting engagement in accordance with IESO Engagement Principles throughout the development of the IRRP. The first step in engagement will consist of the development of an engagement plan, which will be made available for comment before it is finalized. The data and assumptions as outlined in Section 4 will help to inform the scope of community and stakeholder engagement to be considered for this IRRP.

7. Activities, Timeline, and Primary Accountability

#	Activity	Lead Responsibility	Deliverable(s)	Timeframe
1	**Prepare Terms of Reference considering stakeholder input**	IESO	Finalized Terms of Reference	Q1 2025
2	**Develop the planning forecast for the region**		Long-term planning forecast scenarios	Q2 2025
2.1	Establish historical non-coincident peak demand information	IESO		
2.2	Establish historical weather correction, median and extreme conditions	IESO		

#	Activity	Lead Responsibility	Deliverable(s)	Timeframe
2.3	Establish gross peak demand forecast	LDCs		
2.4	Establish existing, committed, and potential DG	IESO, LDCs		
2.5	Establish near- and long-term conservation forecast based on planned energy efficiency activities and codes and standards	IESO		
3	**Confirm load transfer capabilities under normal and emergency conditions – for the purpose of analyzing transmission system needs and identifying options for addressing these needs**	LDCs/Hydro One	Load transfer capabilities under normal and emergency conditions	Q2 2025
4	**Provide and review relevant community plans, if applicable**	LDCs, communities, stakeholders, and IESO	Relevant community plans	Q2 2025
5	**Complete system studies to identify needs over a twenty-year period**	IESO, Hydro One Transmission	Summary of needs based on demand forecast scenarios for the 20-year planning horizon	Q3-Q4 2025
5.1	Obtain base case			
5.2	Apply reliability criteria as defined in ORTAC and other applicable criteria to demand forecast scenarios			
5.3	Confirm and refine the need(s) and timing/load levels			
6	**Develop options and alternatives**		Develop flexible planning options for forecast scenarios	Q4 2025 - Q1 2026
6.1	Conduct a screening to identify which wires and non-wires options warrant further analysis	IESO		
6.2	Verify the LMC of the system to better determine timing of needs and support options development	IESO		

#	Activity	Lead Responsibility	Deliverable(s)	Timeframe
6.3	Develop screened-in energy efficiency options	IESO and LDCs		
6.3	Develop screened-in local generation/demand management options	IESO and LDCs		
6.4	Develop the screened-in transmission and distribution alternatives (i.e., alignment with EOL sustainment plans, load transfers)	IESO, Hydro One Transmission, and LDCs		
6.5	Develop portfolios of integrated alternatives	IESO, Hydro One Transmission, and LDCs		
6.6	Technical and economic comparison and evaluation of integrated alternatives	IESO, Hydro One Transmission, and LDCs		
7	**Plan and undertake community and stakeholder engagement**		Community and Stakeholder Engagement Plan Input from local communities, First Nation communities, and Metis Nation of Ontario	Ongoing as required IRRP engagement to be launched in
7.1	Early engagement including with local municipalities and First Nation communities within study area, First Nation communities who may have an interest in the study area, and the Metis Nation of Ontario	IESO, Hydro One Transmission, and LDCs		
7.2	Develop communications materials	IESO, Hydro One Transmission, and LDCs		
7.3	Undertake community and stakeholder engagement	IESO, Hydro One		

#	Activity	Lead Responsibility	Deliverable(s)	Timeframe
		Transmission, and LDCs		
7.4	Summarize input and incorporate feedback	IESO, Hydro One Transmission, and LDCs		
8	**Develop long-term recommendations and implementation plan based on community and stakeholder input**	IESO	Implementation plan Monitoring activities and identification of decision triggers Procedure for annual review	Q1–Q2 2026
9	**Prepare the IRRP report detailing the recommended near, medium, and long-term plan for approval by all parties**	IESO	IRRP report	Q3 2026 - Sept 2026

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