Regional Electricity Planning – GTA West

Engagement Plan

Background

This Engagement Plan outlines the background, objectives and proposed timelines to engage with communities and other interested parties in the development of an electricity plan – Integrated Regional Resource Plan (IRRP) – for the GTA West.

Examples of the input the IESO is seeking to inform the IRRP include:

- Information to inform the electricity demand forecast and needs of the area including details about projected growth, economic development, and planned energy projects and initiatives.
- Local options that might address needs identified within the planning period – up to the next 20 years.
- Opportunities to align future goals within community energy plans, community-based energy solutions, and other economic development plans for consideration in the medium to long term (up to 20 years).

All interested parties are invited and encouraged to participate in this engagement initiative. Interested parties may include, but are not limited to, local municipalities, Indigenous communities, businesses, residents, stakeholders and members of the general public.

This engagement plan may be subject to review and update as the process evolves.

ABOUT REGIONAL ELECTRICITY PLANNING

Regional electricity system planning identifies and addresses local electricity needs to ensure the reliability of electricity supply in each of the 21 electricity regions across the province. Planning for each region involves the creation of a 20-year demand forecast, considering the region's unique needs and characteristics, demand management initiatives and opportunities, local generation, transmission and distribution, and innovative approaches. Regional planning is just one component of the broader system planning process, which also includes bulk and distribution system planning. All these elements share the common objective of maintaining a reliable and cost-effective electricity supply.

Each of the 21 regions undergoes a formal planning process at least once every five years, though at different times. The process unfolds differently each time depending on the region's unique needs and concerns.

More information about the regional electricity planning process can be found in the Appendix.

REGIONAL ELECTRICITY PLANNING IN THE GTA WEST REGION

The GTA West region, shown in Figure 1, roughly comprises of the Regional Municipalities of Peel and Halton, which include the City of Brampton, City of Mississauga, Town of Caledon, Town of Halton Hills, Town of Milton, City of Burlington, and Town of Oakville.

The region also comprises of several Indigenous communities including 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, Mississaugas of Scugog Island First Nation, Mississaugas of the Credit First Nation, Six Nations of the Grand River as represented by Six Nations Elected Council as well as the Haudenosaunee Confederacy Chiefs Council, and Métis Nation of Ontario.

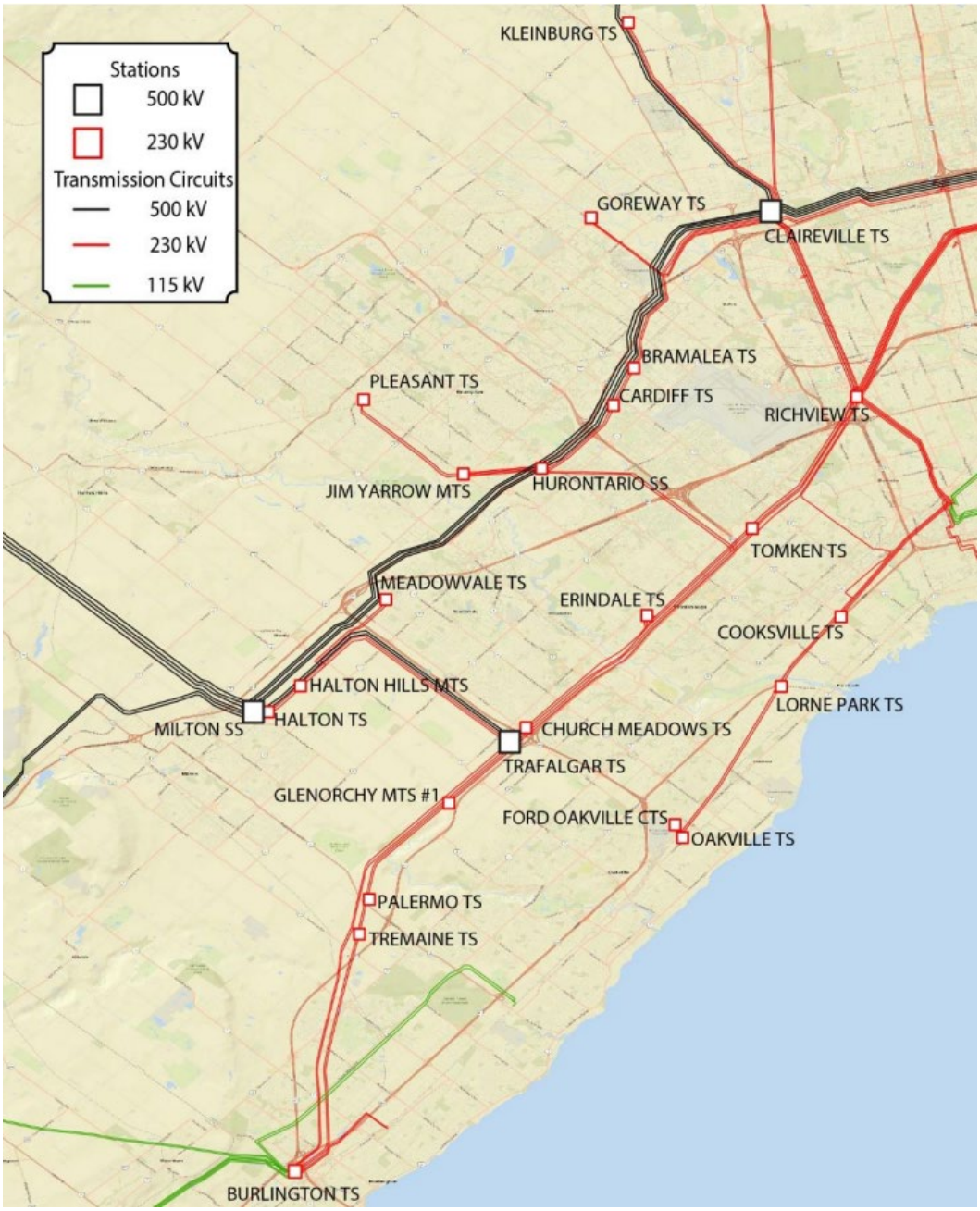
Electrically, the GTA West region is defined by the high-voltage transmission within an area between the Claireville Transformer Station (TS) and Richview TS and Manby TS to the east, and Burlington TS to the west. Transmission infrastructure in the northern reach of the GTA West region is sparse. Many of the 230 kV transmission circuits in this area provide services for the bulk network and provide regional supply. In addition to supplying the local area, the transmission also forms part of the integrated network facilitating large transfers of power through the region to other regions of the province. The 500 kV transmission facilities in are generally considered bulk network assets. Although the bulk transmission system is not the focus of regional planning, it impacts how the system is modelled and contingencies evaluated.

The local distribution systems in this region operate at two voltage levels - 44 kV and 27.6 kV. Local generation in the area includes two gas fired plants: the 880 MW Goreway Generating Station (GS) in Brampton and the 673 MW Halton Hills GS in Halton Hills.

In GTA West region, the distribution systems that deliver power to homes and local businesses are managed and operated by several local distribution companies (LDCs): Local Distribution Companies (LDCs) including Burlington Hydro Inc., Alectra Utilities Co., Halton Hills Hydro Inc., Hydro One Networks Inc., Milton Hydro Distribution Inc., and Oakville Hydro Electricity Distribution Inc.

The IESO, the LDCs, and Hydro One Transmission form the Technical Working Group (TWG) tasked with developing the IRRP.

Figure 1 | GTA West Region Electricity Infrastructure



The current regional planning cycle began with the **Needs Assessment** report published by Hydro One in August 2024, which identified areas that require further review and assessment and may need to be coordinated with broader regional planning.

Following the Needs Assessment, the IESO engaged on and led the development of the Scoping Assessment Outcome Report that was published in November 2024. This report determined that a comprehensive and integrated approach is needed to address the identified needs. The TWG led by the IESO will develop this IRRP by taking into consideration input from communities and interested stakeholders.

The IRRP will include recommendations to maintain reliability of supply to the region over the next 20 years (2026-2045). To develop the IRRP, the TWG will work to gather data, identify needs and

issues, examine integrated options, and recommend actions and implementation plans.

The goal of the IRRP is to illustrate the integration of the forecasted electricity demand growth, electricity Demand Side Management (eDSM) with transmission and distribution system capability, relevant community plans, other bulk system developments, and the potential of distributed energy resources (DERs). Both non-wires and wires solutions will be examined, and communities and stakeholders will be engaged on the options.

The previous cycle of regional planning for the GTA West region was completed in 2021 and recommended upsizing of circuits and building of new stations to meet growing electricity demand. Further details about previous cycle recommendations are summarized in the 2024 GTA West Scoping Assessment Outcome Report and GTA West engagement **webpage**.

GTA West Integrated Regional Resource Plan

The TWG is responsible for gathering data and assessing the adequacy and security of the electricity supply to the region, and, through this engagement, recommending an integrated set of actions to meet the needs of the region.

Their work is intended to focus on, but is not limited to the following areas, as outlined in the 2024 GTA West Scoping Assessment Outcome Report (Section 3.3):

- Station capacity needs
- Transmission line/system capacity needs
- Load security & restoration

Through the IRRP process, additional needs may be identified or the ones identified may be revised.

ENGAGEMENT OBJECTIVES AND SCOPE

The objective of this engagement plan is to ensure that interested communities and stakeholders understand the scope of the IRRP and are able to provide input into the development of the document.

The IESO is seeking input to ensure the IRRP:

- Aligns with community perspectives on local needs.
- Incorporates options to meet the growing electricity demand in GTA West region taking into consideration local energy priorities.
- Ensures a reliable source of electricity in the region over the next 20 years.

As a general principle in engagement, the IESO strives to make relevant information available throughout the development of an IRRP to enable meaningful feedback to the process and decisions to be made. Through the planned initiatives to engage communities and stakeholders, the IESO will seek input on:

- Local and regional growth and economic development.
- Plans and projects that may have an impact on local growth rates and electricity demand (e.g., community development, regional transit expansion, electrification, large incremental loads connecting to the system, significant DER projects, etc.).

- Options for addressing local electricity needs, including non-wires alternatives (e.g., eDSM and DERs) and local support and interest for developing those options in the near- (five year), medium- (10 year) and long-term (20 year).
- Information from municipal plans including the implementation of those projects that could impact electricity use, specifically from community energy plans, energy reporting/CDM plans, official plans, and secondary plans.

Topics out of scope for discussion include:

- Projects and plans already underway as part of the previous planning cycle
- Policy-level decisions or direction
- Provincial procurements
- Local connection requirements of any individual projects unless there is an opportunity to align with broader regional needs

INTERESTED PARTIES

Input into the development of the IRRP is encouraged and welcomed from any community members or interested stakeholders, however, those that may be particularly interested include:

- Municipalities (e.g., elected officials and staff in planning, sustainability, climate change and economic development)
- Indigenous communities
- Consumer groups and associations (e.g., community/resident associations, business improvement areas, home builders' associations, etc.)
- Economic development agencies, local boards of trade and/or chambers of commerce
- Academia and research organizations (e.g., colleges and universities)
- Environmental groups and associations
- Other public sector organizations (e.g., hospitals and school boards)
- Energy service providers
- Generators
- Businesses and other private entities
- Residents

The IESO will also conduct targeted outreach to specific stakeholders and communities where unique local needs and issues need further investigation. The content and outcome of these discussions will be shared through the other activities that will be undertaken as part of this engagement initiative.

APPROACH AND METHODS FOR DEVELOPING THE IRRP

Any engagement with communities and interested stakeholders will be conducted in accordance with the IESO's **Engagement Principles**.

This is a public engagement process. A dedicated engagement webpage will house all the information for the IRRP while the plan is in development. Engagement sessions will be held throughout the IRRP process to keep all interested parties informed and provide opportunities to provide input into IRRP development. Typically, engagement sessions are carried out at three major junctures during IRRP development:

- First engagement on the draft engagement plan and the regional load forecast

- Second engagement on the defined needs and potential options; and
- Third engagement on the options evaluation and draft recommendations.

Based on the results and progress of planning and engagement efforts, additional engagement sessions may be incorporated into the engagement process.

A feedback form will be provided for interested parties to provide their input for consideration in the planning process. Comments will be accepted typically over a three-week period following each engagement session. Written feedback will be posted (with consent) along with IESO responses on the engagement webpage. In addition to public engagement sessions, one-on-one discussions with key communities and stakeholders, as identified, may take place to help progress through each stage of the IRRP.

Following completion of an IRRP, the full report, including all accompanying appendices and associated datasets, will be archived on the IESO's GTA West regional planning webpage. A high-level schedule of these items is provided below, and it should be noted that these activities and timing may evolve has the IRRP work progresses:

PROPOSED ENGAGEMENT SCHEDULE

Date	Event/Objective	Expected Actions/Notes
October 2024	**One-on-one discussions** with key communities and stakeholders, as identified	• Seek input on needs and development to inform demand forecasts • Consider input to inform next engagement phase
May 2025	**IRRP engagement launches**	• Register to attend public webinar #1
June 2 2025	**Public Webinar #1:** • Summary of input from targeted discussions • Provide update on planning activities underway • Summarize preliminary regional demand forecasts, draft engagement plan	• Seek input to inform electricity demand forecast • Seek input on draft engagement plan • Post feedback and IESO response to feedback, including rationale
June 23 2025	**Feedback due for Public Webinar #1**	• Feedback posted
2025	**One-on-one discussions** with key communities and stakeholders, as identified	• Seek input on local priorities, preferences and development to inform potential needs and solutions • Consider input to inform next engagement phase

Date	Event/Objective	Expected Actions/Notes
2025	**Public Webinar #2:** • Overview of defined needs • Overview of range of potential options/solutions to be examined • Discuss considerations for communities and interested parties to consider in the medium- to long-term planning	• Seek input on needs identified • Post feedback and IESO response to feedback, including rationale
2026	**One-on-one discussions** with key communities and stakeholders, as identified	• Seek input on local priorities, preferences and development to inform recommendations • Consider input to inform next engagement phase
2026	**Public Webinar #3:** • Overview of options analysis and draft IRRP recommendations Discuss considerations for communities and interested parties to consider in the medium- to long-term planning	• Seek input on proposed plan recommendations • Post feedback and IESO response to feedback, including rationale
May 2026	**Finalize IRRP**	• Post final report online • Engagement will close but the webpage will remain live for one year • Conduct survey on engagement process

GTA West IRRP Engagement Appendices

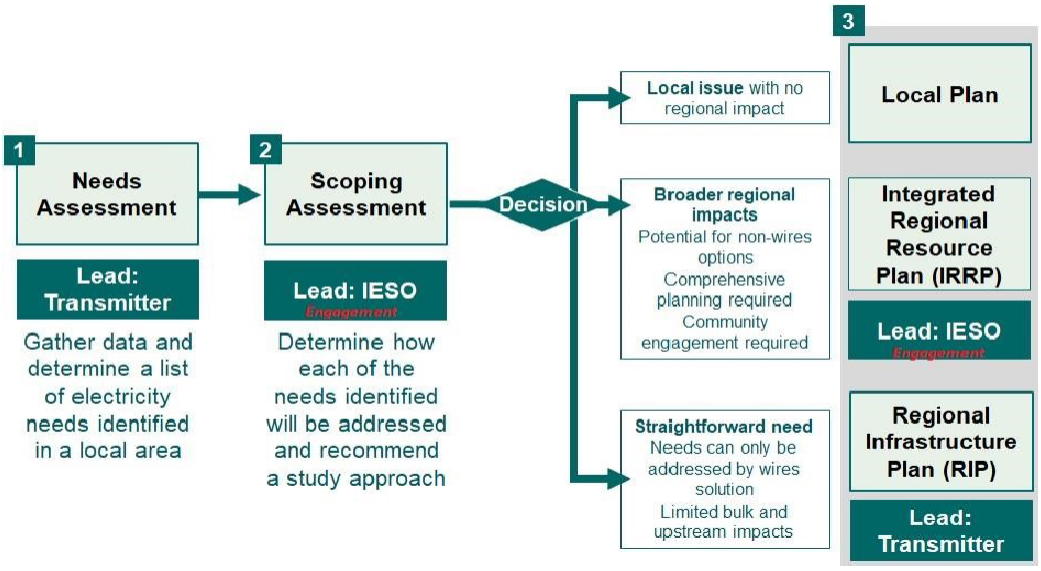
Appendix

Regional Planning Process

Regional planning is ongoing, with electricity reliability evaluated at least once every five years in each region. Community engagement is a critical part of the planning process and the IESO encourages all interested parties to join this discussion to:

- Learn more about the regional planning process and local electricity needs
- Provide input into shaping a community's electricity future by discussing options for meeting local needs, including applicable non-wires alternatives, and discussing the local community's support for development of these options
- Share perspectives for future growth in the area, and how to work together to shape the area's future electricity supply
- Determine opportunities for coordinating and aligning local planning activities and initiatives with the regional planning process

The following diagram illustrates the steps, parties and outcomes of the regional planning process.



For more information, visit the Regional Planning Process webpage at:

https://www.ieso.ca/en/Get-Involved/Regional-Planning/About-Regional
https://www.ieso.ca/en/Get-Involved/Regional-Planning/About-Regional-Planning/How-the-Process-Works**Planning/How-the-Process-Works**

Regional Planning Information and Data Availability

Table 1 describes the categories of regional planning information and data and the opportunity for input and timing in which it is typically made available during an IRRP.

Table 1 | Summary of Regional Planning Information

Data	Description of Data	Opportunity for Input	Details Regarding Input/Availability
Regional Planning Dashboard	Provides comprehensive overview and status update of the various regional planning activities across Ontario, including the planned engagements for the next two quarters	No	Updated biannually and available for download on the IESO website: Regional Planning (ieso.ca)
Engagement Plan	Describes number of engagements and topics to be discussed at each engagement	Yes	Draft engagement plan posted prior to first IRRP engagement; the final engagement plan is published following a comment period
Planning Assessment Criteria	Technical requirements and performance criteria used to determine needs, including load supply, load security, load restoration etc.	No	Referenced in the IRRP report; and available in the IESO's Market Rules & Manuals Library: Market Rules & Manuals Library (ieso.ca)
Load Forecast (PDF)	LDC's methodologies for forecast development; and methodologies for considering the contribution of energy efficiency savings and embedded generation resources	Yes	High-level summary provided at first IRRP engagement to solicit input on load forecast; detailed methodologies are published with the IRRP report
Load Forecast (Spreadsheet)	Forecast annual station peak electricity demand (in megawatts), power factor	Yes	Overview of preliminary forecast is delivered with first IRRP engagement;

Data	Description of Data	Opportunity for Input	Details Regarding Input/Availability
	assumptions; information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage		draft data published following engagement comment period; final dataset published with IRRP report
Load Forecast – Energy Efficiency (Spreadsheet)	Forecast of annual peak demand reductions from energy efficiency (in megawatts), at a level of granularity consistent with the forecast annual station peak electricity demand	Yes	Provided with the forecast annual station peak electricity demand (draft data after the first engagement, and final data with IRRP report)
Load Forecast – Embedded Generation (Spreadsheet)	Forecast of annual peak demand reductions from embedded generation resources (contracted embedded generation, in megawatts), at a level of granularity consistent with the forecast annual station peak electricity demand	Yes	Provided with the forecast annual station peak electricity demand (draft data after the first engagement and final data with IRRP report)
Historical Demand	Historic electricity demand data (in megawatts), may be summer, winter, or both depending on peak load characteristics of the region, and may include select years and/or focus on select stations/areas; information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage	No	Data posted prior to first IRRP webinar to solicit input on load forecast; published with the IRRP report
Transmission end-of-life (EOL) Information	Asset age data for major transmission facilities owned by Hydro One; a ten-year outlook of other transmission asset owner EOL information	No	Hydro One data is updated every five years and is available to interested stakeholders via the IESO website; a consolidated list

Data	Description of Data	Opportunity for Input	Details Regarding Input/Availability
	to be provided as part of the Needs Assessment at the outset of each regional planning cycle		of EOL information for all transmission asset owners will be updated annually
Transmission System Assumptions	Includes transmission facilities assumed in the IRRP analysis such as new facilities and expected in- service dates, transmission infrastructure ratings (e.g., line conductor, transformer ratings, etc.), seasonality, etc.; some information may be redacted to mitigate potential system security risks	No	Facilities in scope of the IRRP and expected in-service dates are published in the Scoping Assessment Outcomes Report that precedes the IRRP, with additional detail published in the IRRP report
Resource Assumptions	May include operational assumptions such as hydroelectric output, capacity factor assumptions, power factor assumed in the analysis, etc. Operational performance of individual facilities may be deemed commercial sensitive	No	General and/or aggregate assumptions by resource type are published with the IRRP report
Planning Scenarios	Planning contingencies studied in the analysis; some contingencies and extreme events are subject to redaction to mitigate potential system security risks	Yes	Summary published with the IRRP report
System Needs	Summary of needs identified, timing and location of needs, including any applicable capacity requirements, EOL considerations, load	No	Presented in materials provided in advance of the second IRRP engagement about the needs identified in the region; and

Data	Description of Data	Opportunity for Input	Details Regarding Input/Availability
	restoration and supply security needs, etc.		published with the IRRP report
Non-Wires Options Evaluation (PDF)	Energy efficiency potential for areas with system needs, if applicable as a feasible option (annual and/or cumulative potential, in kilowatts and/or megawatts); sources of energy efficiency information and data	Yes	Preliminary information discussed at the third engagement with opportunity for stakeholders to provide feedback; and published with the IRRP report
Non-Wires Options Evaluation (Spreadsheet and/or PDF)	Detailed characterization of system needs, i.e., load and energy not served, for areas with system needs where non-wires options are feasible (for select years within the study period, in megawatts); information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage	No	Summary provided with engagement materials prior to the third engagement, where options are presented and discussed; draft data provided following comment period; and final data published with the IRRP report
Economic Assessment Assumptions	Cost of each alternative considered, expressed in terms of Net Present Value; and including assumptions such as the following: Year which cash flows are expressed Discount and inflation rates (in percent) Life expectancy of the options considered (in years) Exchange rates Identification of the least cost resource for a region	Yes	Preliminary information provided and discussed at the third IRRP engagement on solution options, with an opportunity to provide feedback; and final assumptions are published with the IRRP report