



Territory Acknowledgement

The IESO acknowledges the land from where we are delivering today's webinar is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Haudenosaunee and the Wendat peoples, and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit First Nation.

As we have attendees from across Ontario, the IESO would also like to acknowledge all the traditional territories across the province, which include those of the Algonquin, Anishnabeg, Ojibwe, Cree, Oji-Cree, Huron-Wendat, Haudenosaunee, Métis, and Inuit peoples.



Agenda

- Approach to Meeting Ontario's Electricity Needs
- Bulk Transmission System Planning & Key Updates
- Plan Updates
 - Eastern Ontario Bulk Plan
 - South and Central Bulk Plan
- Next Steps
- Discussion



Shaping Bulk Studies Through Engagement

Input from the various perspectives across the electricity sector is essential to the IESO's decision-making process. Several tools are available to enable public engagement through several channels including:

- The IESO Bulletin provides dates for upcoming webinars and is emailed to subscribers at www.ieso.ca/subscribe. Bulk updates are scheduled every quarter.
- Webinar recordings and materials are available on the webpages for the <u>North of Sudbury</u>, <u>Eastern</u> <u>Ontario Bulk Plan</u> and <u>South and Central Bulk Plan</u>.
- We welcome feedback on the information we have shared. The IESO will consider all received feedback and post our responses shortly after.

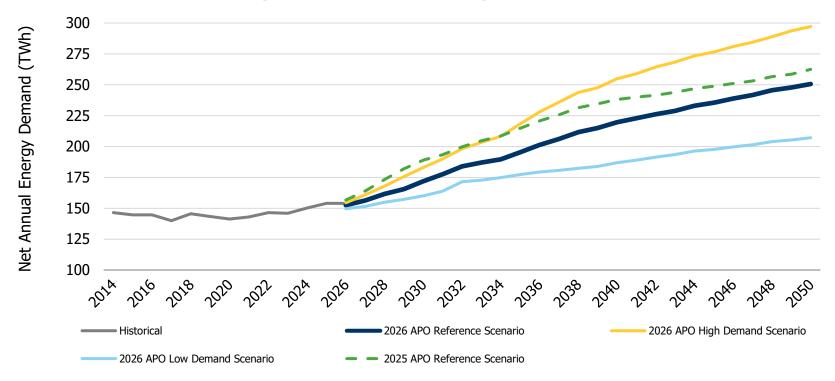
More information about how the IESO engages can be found on our <u>External Relations Engagement</u> Framework.



Meeting Ontario's Electricity Needs



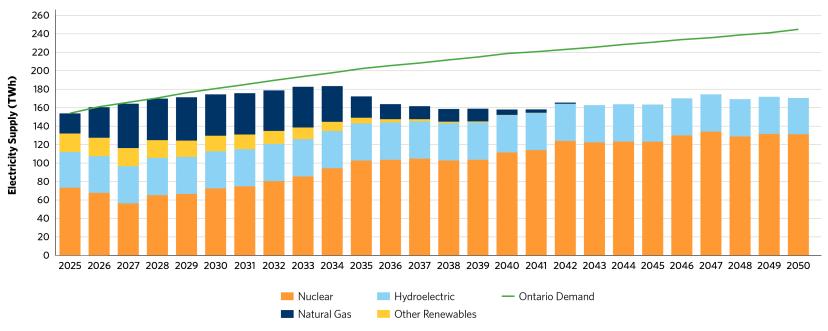
Demand Is Going Up: The Long-Term Outlook





Energy Supply

Energy Adequacy Outlook





Bulk Transmission System Planning



Bulk System Planning Overview

With capacity and energy needs forecasted to increase in the planning horizon, a robust transmission system will play an increasingly critical role in ensuring deliverability of resources to supply forecasted customer demand (including economic development and electrification) provincially and locally.

The Annual Planning Outlook (APO) contains a snapshot of bulk transmission needs.

- The IESO's Schedule of Planning Activities summarizes the plans that are underway and upcoming.
- Activities are reviewed and updated with the Annual Planning Outlook every year, considering the most recent demand and supply forecasts, and changes to reliability standards and public policy objectives.
- Based on these changes, the scope of existing plans may be adjusted, planning work may be reprioritized, or new planning studies may be initiated.

For more details and data, download the Annual Planning Outlook from the IESO's website.



Bulk Transmission Schedule of Planning Activities

The 2025 APO includes the Schedule of Planning Activities (SOPA):

Study Name	Start – End (Estimate)	
Completed Studies:		
Central-West Ontario Bulk Plan	2023 – 2024	
Northern Ontario Bulk Plan	2024 – Q3 2025	
Current Studies:		
South and Central Ontario Bulk Plan	2024 – 2026	
Ontario Manitoba Intertie End-of-Life Joint Study	2022 – 2026	
North of Sudbury Bulk Plan	2025 – 2026	
Eastern Ontario Bulk Study	2024 – 2026	
Northern Ontario Connection Study	2024 – 2026	
Upcoming Studies: Niagara Bulk Plan	2026 – 2027	



Components of a Bulk Plan

Demand Forecasts

How much power is needed over the planning timeframe? Key inputs:

- Annual Planning Outlook
- Large loads ie mining, data centres
- Regional Planning forecasts
- System Impact Assessments

Needs

Can the electricity system meet customer demand via a combination of local generation and transmission capacity and maintain reliability planning standards?

Evaluation of Options

What kinds of solutions can meet the future needs for the region?

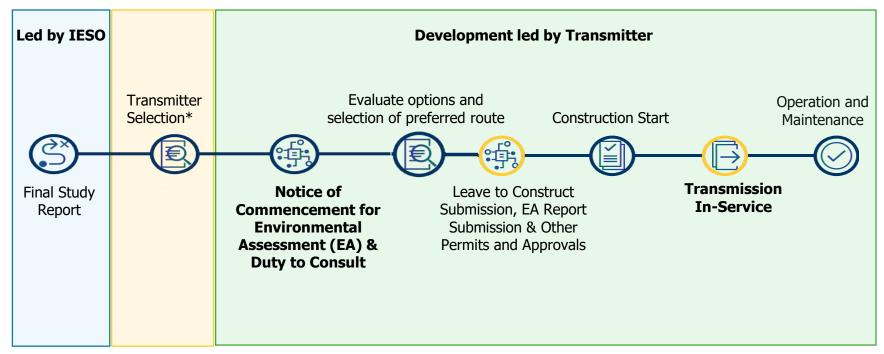
- · new transmission
- generation
- storage
- conservation
- Etc.

Recommendations

Based on an assessment of potential options, what recommended actions will ensure a reliable and adequate electricity supply over the long-term?



Typical Process for Transmission Development



^{*}Currently, there is no standardized process to select a transmitter; Transmitter Selection Framework under development

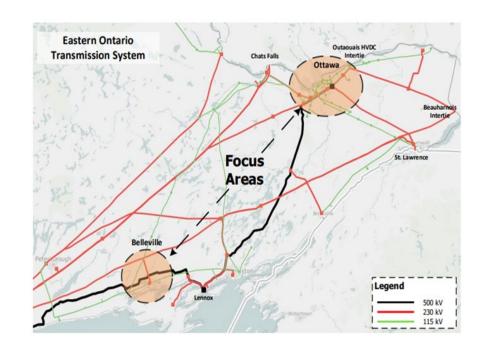


Eastern Ontario Bulk Plan



Recap: Objectives of the Eastern Ontario Bulk Plan

- Evaluating the adequacy of electricity supply to two focus areas, namely Ottawa and Belleville, over the next 20 years
- Assessing opportunities for expanding interties with neighbouring jurisdictions
- Exploring opportunities to improve transmission capability to deliver new resources





Eastern Ontario Bulk Plan – Status Update

- Needs assessment for the two focus areas of the plan, Ottawa and Belleville, has been completed with results shared at the September 30th webinar.
- Currently in the options development and evaluation stage of the process, considering both wires and non-wires options.
- Study is focused on identifying bulk-level transmission inadequacies and is coordinated with developments from relevant regional plans, namely the Ottawa and Peterborough to Kingston regional plans and upcoming St. Lawrence regional plan, to manage interdependencies and determine if additional bulk-level actions are required.



Eastern Ontario Bulk Plan

Bulk System Trigger (Plan Commences to Address Need)

Public Study Release Final Study Recommendations

Share Draft Recommendations

Release Final Study Report and Recommendations

We are here

On-going engagement



Summary of Feedback

Key Areas of Feedback	Summary of the IESO Response
Need for Additional Data and Transparency	Key planning data is available through the Annual Planning Outlook, Data Directory, and bulk study webpages. Further detail on the timing and magnitude of needs will be shared at the appropriate stage in the study.
Explore alternative solutions, such a non-wire alternatives	The study is still in the early stages, and the assessment of potential options to enable the above-mentioned study objectives will be completed over the coming months.
Enable projects identified through Long Lead-Time Resource procurement	The Eastern Ontario Bulk Study will review the capability of the bulk system to support enabling projects identified through the Long Lead-Time Resource procurement, with insights from this work helping to identify potential areas where future projects could materialize.
Expand transmission infrastructure from the Wesleyville site to support future capacity needs, including exports.	The Eastern Ontario Bulk Study will assess options to increase eastbound transmission capability from Bowmanville/Lennox area to supply eastern Ontario, in coordination with the South and Central Bulk Study, which is focused on enhancing westbound capability. The IESO expects future bulk studies to explore options to ensure sufficient transmission capacity from the Wesleyville site. More information will be made available once planning for this next study kicks off.



Recap: Supply to Belleville Study – Needs Summary

The existing bulk transmission system has insufficient Load Meeting Capability (LMC) to reliably supply forecasted demand growth in the Belleville area:

- Under the Reference Demand Forecast, a need for additional capacity emerges in the year 2030 and is sustained over the 20-year planning horizon, with a cumulative magnitude of approximately 80 MW.
- The High Growth Forecast, reflecting potential industrial development, drives a significantly higher capacity need, reaching approximately 200 MW over the planning horizon.



Recap: Supply to Ottawa Study – Needs Summary

The existing bulk transmission system is insufficient to reliably supply forecasted demand growth in the Ottawa area:

- Current limitations in Ottawa load meeting capability are being managed through operational measures as needed.
- While some improvements are expected by 2030 with new supply resources and transmission coming into service, additional capacity will still be required due to continued demand growth.
- The projected need ranges from approximately 550 MW to 2,450 MW by 2043, depending on the demand forecast scenario.



Options Development

The IESO has been developing and evaluating both non-wires and wires options to address the identified needs:

- Non-wires options such as electricity demand-side management (eDSM), energy storage, solar, wind, hydroelectric, Small Modular Reactor (SMR).
- Wires options such as new or upgraded stations/lines and reactive power facilities.



Options Analysis

Non-Wires and Wires options are evaluated based on the following key considerations:

Technical Feasibility

Can the option be executed, i.e. proximity to customers, routing and spacing considerations, operations?

Ability to Address Needs

Are the number, magnitude and diversity of needs adequately addressed?

Integration & Cost Effectiveness

What is the lowest cost solution considering the possibility that one option may be able to address multiple needs simultaneously? Would a combination of option types be most effective?

Lead Time

How does the timing to build new transmission, or resource procurement and development, compare with the timing of needs?



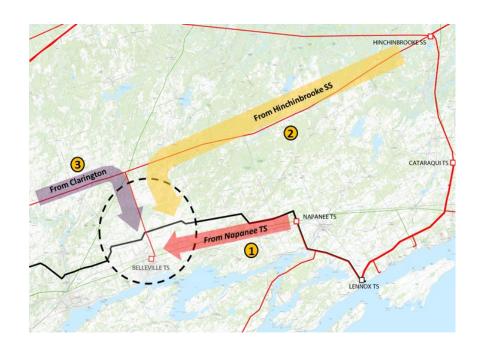
Recap: Supply to Belleville Study - Wires Options

Transmission reinforcement paths to Belleville:

- 1) Napanee to Belleville
- 2) Hinchinbrooke to Belleville
- 3) Clarington to Belleville

Common foundational elements:

- New switching station for improved reliability, flexibility, scalability.
- Reactive compensation (e.g., STATCOM at Belleville TS) to maintain voltage stability and increase LMC.





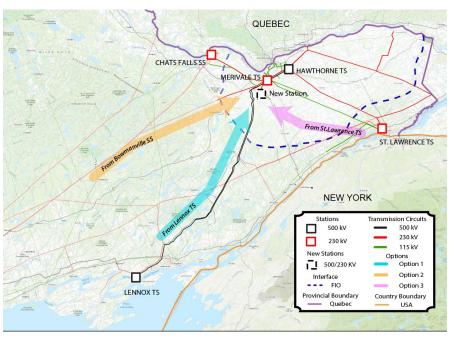
Supply to Ottawa Study – Wires Options

Transmission reinforcement paths to Ottawa:

- Bowmanville to Ottawa
- 2) Lennox to Ottawa
- 3) St. Lawrence to Ottawa

Common foundational elements:

- New station on the western side of Ottawa for supply diversity, scalability and flexibility.
- Reactive compensation (e.g., STATCOM at new station) to maintain voltage stability and increase LMC.





Feedback – Eastern Ontario

- What feedback do you have regarding the proposed 230 kV transmission reinforcement options to improve supply to Belleville?
- What feedback do you have regarding the proposed conceptual transmission reinforcement options to improve supply to Ottawa?
- What additional information should we consider as we continue developing these solutions leading up to the recommendations?

The IESO welcomes written feedback until January 23, 2026. Please submit feedback to engagement@ieso.ca using the feedback form posted on the Eastern Ontario engagement page.



Next Steps & Staying Engaged

Upcoming milestones for the Eastern Ontario Bulk Plan:

- January 23, 2026 Feedback for proposed/conceptual transmission reinforcement options due to engagement@ieso.ca
- Q1 2026 share findings from the options analysis
- Q2 2026 share draft recommendations
- Q2 2026 publish final study report

Learn more about this plan by visiting the <u>engagement webpage</u> and <u>subscribing to</u> <u>receive updates</u>.



South and Central Bulk Plan



Recap: Objectives of the South and Central Bulk Study

The study focuses on supporting economic growth and enabling new supply resources by:

- 1. Confirming transmission reinforcements required to enable the connection of:
 - Small modular reactors at the existing Darlington nuclear GS and expanded nuclear at Bruce NGS
 - Considering potential pumped storage
- 2. Determining transmission required to enable decreased reliance on emitting resources, specifically:
 - York Energy Center in York Region; Portlands Energy Center in city of Toronto; Halton Hills GS in GTA West;
 Sithe Goreway GS in GTA West
- 3. Determining transmission required to enable reliable supply under various long-term high growth/ economic development/ electrification scenarios within key growth areas:
 - Greater Toronto Area
 - Windsor to Hamilton corridor
- 4. Ensuring transmission reinforcements recommended through the Northern Ontario Bulk Study are coordinated with bulk system improvements in the GTA.



South and Central Bulk Plan

Bulk System Trigger (Plan Commences to Address Need)

Public Study Kick-off

Preliminary Alternatives

Share Draft Recommendations

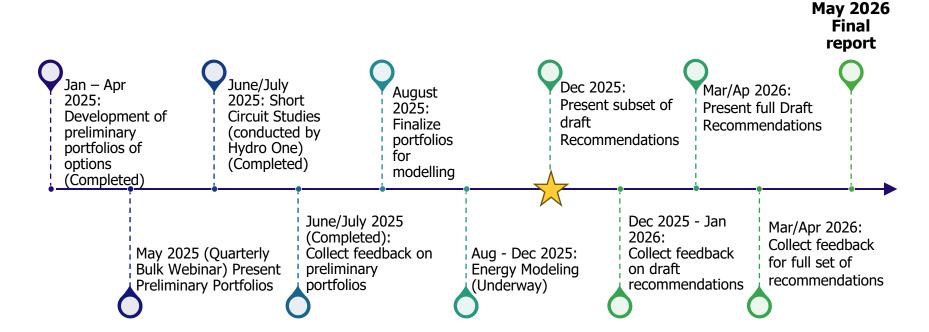
Release Final Study Report and Recommendations

We are here

On-going engagement



Study Timeline





Recap: Early Actions

In Q4 2024, the IESO recommended a set of Early Actions to accelerate the pace of future upgrades by reducing development lead times for new projects when there is sufficient confidence in their necessity and/or risk in delaying implementation. Based on the South and Central Bulk Plan, two actions were proposed and included in the Ministry's Integrated Energy Plan released in June 2025:

- 1. A new double-circuit 500 kV transmission line from Bowmanville towards Toronto
- Corridor studies within the GTA

Since the identification of these early actions, detailed study has continued for the needs and options in each of the four study modules (Bruce, GTA, East of Toronto, and Windsor to Hamilton).

This led to the development of portfolios of options, which refine the scope of the original early actions (i.e. termination for the Bowmanville line and early uses for the corridors under study) and identify additional reinforcements critical to ensuring the system is future-ready.



Recap: Development of Preliminary Portfolios

The IESO developed three distinct preliminary portfolio of options, representing different approaches to meeting the study objectives. Each portfolio addressed the identified needs emerging between 2035 and the early 2040s (later dates tied to the timing of Bruce C). Study of 2050 needs and options will be studied in Phase 2 in 2027.

Portfolios of options were used due to the volume of system changes being contemplated. Assessing the costs and benefits of a portfolio of options that meet the plan's objectives allows the evaluation of alternatives to better consider the impact of the uncertainties in how the power system will evolve (e.g., the impact of different load and generation futures on overall system costs for the different transmission build out options).

Each portfolio shares a common backbone (i.e., strategic, future-ready investments), critical for achieving key plan objectives under several futures. In each portfolio, these "future-ready" investments are paired with additional reinforcements to meet the overall objectives of the South and Central bulk plans. Variations between portfolios are focused on different options for supporting growth (e.g., economic development) in the load centres.



Feedback Received – To Date

Key Areas of Feedback	IESO Response
Reducing Development Time is Important	In November 2024, the IESO shared Early Actions to reduce development lead time for new infrastructure projects, when there is sufficient confidence in its need and/or risks associated with delaying implementation.
Evaluation of non-wire alternatives is important	This study was initiated to review the capability of the bulk system to support future generation connections and demand growth in key areas throughout southern and central Ontario, including the GTA and Hamilton to Windsor, to enable a decarbonized power system in the future. The options under evaluation will improve deliverability of new resources in key areas. Further details on the 2035 and 2050 needs, and linkages to ongoing regional plans that would inform the impact of non-wires alternatives on the timing and magnitude of the needs, will be addressed in upcoming engagements for the South and Central Bulk plan and provided in the final report.
Strong interest exists around alignment and co-ordination of the South and Central Bulk Plan with existing bulk and regional plans as well as planning for the future.	The IESO clarified the integration of bulk and regional planning and encouraged participation in these regional planning initiatives and/or maintain contact with the local distribution company to provide information about anticipated growth and development. Future studies will continue to explore transmission options to ensure future capacity to enable resource and demand changes.



Feedback Received – To Date

Key Areas of Feedback	IESO Response
Need for Additional Data and Transparency	Key planning data is available through the Annual Planning Outlook, Data Directory, and bulk study webpages, while ongoing engagement opportunities facilitate dialogue related to system expansion and planning methodologies.
Mixed support for the study options A, B, and C due to the various needs that study-area communities are experiencing	The IESO appreciates the opportunity to clarify that the options under consideration in the South and Central Bulk Study are intended to address these needs as shared through this feedback and provide several approaches as to how these needs can be addressed.
Recommendations were shared with the IESO about the type of information they would appreciate receiving and type of engagement to be undertaken	We will consider these recommendations as planning continues to progress.
Concerns around space availability for future expansions at Detweiler TS	The IESO notes the concerns raised on space limitations and will look at other suitable areas around Detweiler that allow for sufficient connection into the existing network.



Data Sharing and Portfolio Refinements

In November, the IESO shared the following data sets:

- Finalized portfolio details
- Revised zonal diagram demarking the sub-zones created for the energy model
- Sub-zonal level load forecast, aligned with the set-up of the energy model
- Generation assumptions for each scenario, aligned with the set-up of the energy model

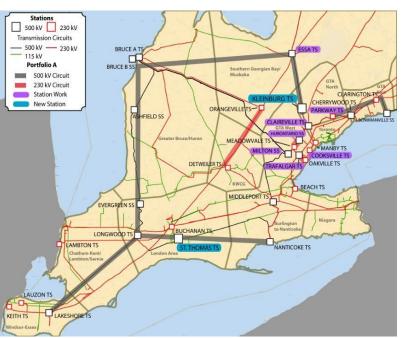
Note that as this is still an active planning process, changes to these scenarios are still possible before a final recommendation is made.

The data sets and the feedback form can be found on the <u>South and Central engagement</u> <u>page</u>. Feedback due by **December 19, 2025** to engagement@ieso.ca



Portfolio A

Previous



Refined





Portfolio B

Previous



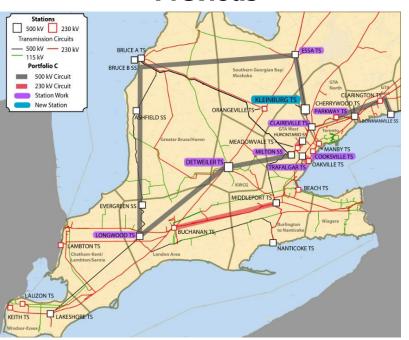
Refined





Portfolio C

Previous



Refined





Backbone Projects

Portfolio A	Energy Modelling Timing	Recommendation
Kleinburg 500/230 kV auto station (sectionalizing existing Essa to Claireville Circuits)	2028-2032	Today
Bowmanville towards Parkway TS double 500 kV (terminated into existing Cherrywood to Parkway circuits)	2028-2032	Today
Kleinburg to Kirby double 230 kV	2028-2032	York IRRP
Essa T3/Orangeville x Essa double 230 kV	2028-2032	Early Action
Cooksville station work	2028-2032	
Holland to Claireville circuit sectionalizing (+opening at Claireville)	2028-2032	
Milton 500/230 kV autos + 230 kV switchyard	2033-2037	Today
HVDC from Bowmanville to Hearn	2033-2037	Toronto IRRP
Trafalgar x Oakville double 230 kV	2033-2037	
Trafalgar station work	2033-2037	
Bruce to Essa double 500 kV	2037+	
Bruce to Longwood double 500 kV	2037+	
Essa to Kleinburg single 500 kV	2037+	
Meadowvale to Hurontario double 230 kV	TBD	

South and Central Bulk Plan

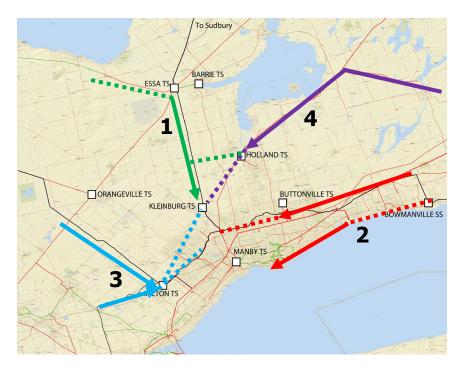
GTA Module



Recap: GTA Module - Possible New Bulk Routes

Transmission reinforcements to enable load growth involved examining possible new bulk routes into the GTA:

- From north-west: Essa Kleinburg (green)
- 2. From east: Parkway and/or underwater to Downtown (red)
- 3. From west: Milton (blue)
- From north-east: North of Holland (purple)





Needs arising in Bulk GTA Module, linkages to Integrated Regional Resource Plans

Bulk needs throughout the GTA are primarily driven by demand growth

 Population/employment growth, electrification assumptions (heat pumps/ EVs), and energy intensive customer demands (data centres)

Recommendations emerging from the South & Central Bulk study are primarily concerned with delivering new supply into GTA through one of two major bulk supply points:

- 1. New 500/230 kV Kleinburg TS, providing additional supply to GTA North/ York Region
- 2. New 500/230 kV Milton TS, providing additional supply to GTA West/ Halton and Peel Regions

In parallel with bulk planning, the <u>GTA North IRRP</u> (complete) and <u>GTA West IRRP</u> (underway), identify preferred transmission upgrades to enable supply from new bulk points to be delivered to meet growing customer demand in the area.



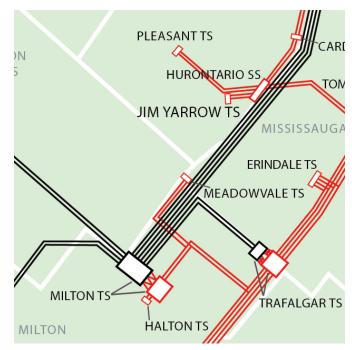
Milton Area – Bulk Draft Recommendations

To meet anticipated bulk needs in GTA West, the South and Central Bulk plan draft recommendation is for a new Milton TS reinforcement, consisting of:

- Two 500/230 kV autotransformers at Milton TS (currently Milton SS)
- New 230 kV yard at Milton TS

There are additional 230 kV transmission reinforcements linked to the Milton TS reinforcement currently under evaluation, including:

- A double 230 kV line from Halton TS to Hornby Jct. (4.4 km) (also has regional benefit)
- A double 230 kV line from Meadowvale TS to Hurontario SS (7.9 km) (also has regional benefit)
- Hurontario Switching Station upgrade



Notional representation of future 230 kV circuit location, not a final configuration

Connecting Today, Powering Tomorrow.

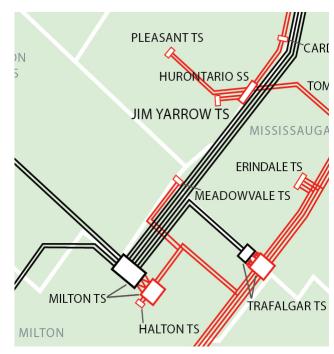
Milton Area – Bulk Draft Recommendations

The addition of Milton TS, with associated 230 kV system upgrades, will serve bulk and regional system needs by:

- Enhancing transfer limit between Southwest and Toronto zones (FETT interface)
- Increasing overall supply into GTA West

Specific benefits include:

- Facilitating new distribution stations, as required through the ongoing GTA West IRRP
- Addressing load security concerns along the T38/39B radial circuits
- Providing an alternate point of supply capacity, which could be leveraged to reduce reliance on local gas fired generation



Notional representation of future 230 kV circuit location, not a final configuration

Connecting Today, Powering Tomorrow.

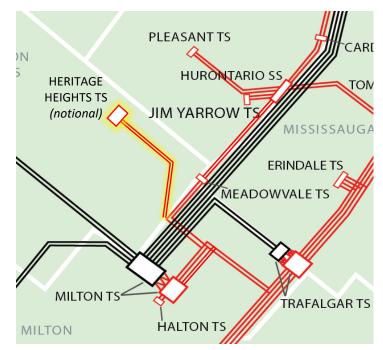
Milton Area – Regional coordination

The ongoing GTA West IRRP is investigating transmission system upgrades to enable new supply capacity at Milton TS to supply growing demand.

 Key area of focus includes supply to expanded urban boundaries in Halton Hills, the North and West Brampton, and South of Caledon areas

Additional study is underway to consider transmission expansion adjacent to the planned highway 413 (Northwest GTA transmission corridor)

 New transmission will be required to enable supply to customers in the Heritage Heights area in the near to medium term (one supply option shown)



Notional representation of future 230 kV circuit location, not a final configuration

Connecting Today, Powering Tomorrow.

Kleinburg Area – Draft Recommendations

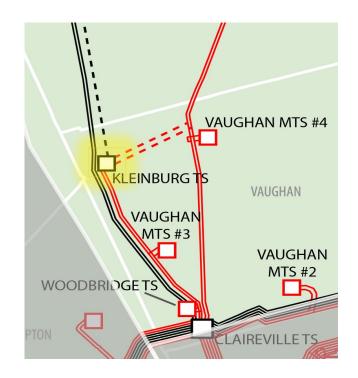
Build-out of Kleinburg 500/230 kV autotransformer station will provide additional supply capacity to serve northern York and Peel region

 This additional capacity could also be leveraged to reduce reliance on local gas fired generation in the longer term

This new station will enable the Kleinburg – Kirby 230 kV transmission link, recommended through GTA North Regional Plan. (shown)

Timeline of Kleinburg TS need is linked to demand growth in the area, target in service of 2031-2032

Longer term need for a third 500 kV link between Essa and Kleinburg (shown), linked to Bruce C in service date

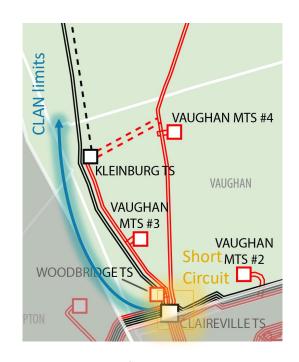




Kleinburg Area – Outstanding Bulk Needs

Following the recommended additions of the Kleinburg 500 kV/230 kV bulk station and the Kleinburg-Kirby link, two outstanding needs remain in the area:

- Flow north of Claireville (CLAN) limits constrained by loss of 500 kV Claireville to Kleinburg circuits. Flow south from Essa to Claireville (CLAS) not expected to be limiting until Bruce C in service, and will be addressed through third 500 kV between Essa and Kleinburg
- Short Circuit levels will exceed acceptable limits at Claireville TS as new generation comes online across southern Ontario





Kleinburg Area – Next Steps (CLAN needs)

Additional transmission reinforcement will be required to improve CLAN transfer limits. Two potential upgrades are currently being investigated:

- Build 230 kV link between Milton TS and Kleinburg TS (highway 413 corridor)
- 2. Build third 500 kV circuit between Claireville TS and Kleinburg TS

Recommendation will be made as part of the South and Central Bulk Study. In service date will likely align with Kleinburg TS upgrades, 2031-2032





Kleinburg Area – Next Steps (Short Circuit needs)

- Short Circuit Needs will emerge at Claireville TS as additional generation comes online. Additional stations within the GTA are also approaching short circuit limits.
- A separate planning process is recommended to be initiated to investigate potential long-term solutions to address short circuit issues throughout the GTA.
- Investigation of solutions will require detailed review of, and consideration of, layouts and operational characteristics of stations throughout the GTA, including future Kleinburg TS 500 kV
- Recommendations will be made outside of the South and Central Bulk Phase 1 Study, given lengthy nature of studies. Results would inform South and Central Bulk Phase 2.



South and Central Bulk Plan

East of Toronto Module



Recap: Bowmanville SS towards Parkway TS Upgrade

Module Objectives:

- Enabling the connection of future resources in eastern Ontario, including the full build out of the Small Modular Reactor (SMR) project at Darlington nuclear generation station.
- Expanding Bowmanville SS to accommodate the new SMRs (required for SMR 2 to connect).
- Two new 500 kV transmission lines west of Bowmanville into Toronto required to enable supply west.

Preliminary Transmission line upgrade details from Q2 Bulk Study Update:

- **Bowmanville to Parkway:** New 500kV double circuit, corridor highlighted in grey on the map.
- Parkway Expansion: New 500kV bus at Parkway and at least one new auto.

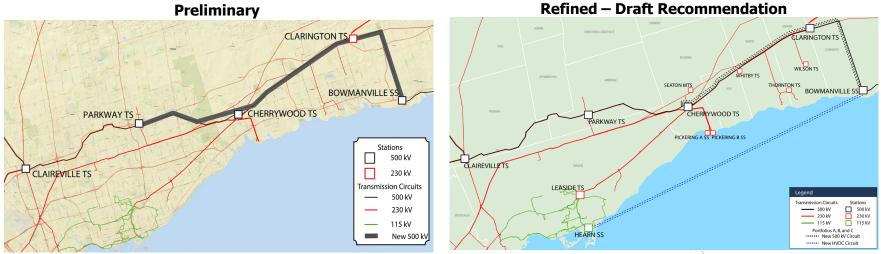




Bowmanville SS towards Parkway TS Upgrade

Updated Draft Recommendation:

- Terminate the new 500 kV lines into the two circuits currently supplying Parkway TS from Cherrywood TS, while still bypassing Cherrywood TS
- No Parkway TS expansion and build out
- Submarine HVDC transmission line from Bowmanville SS to Hearn SS, recommended through Toronto Regional Plan





Bowmanville SS towards Parkway TS Upgrade

Key Considerations	500 kV Bus + Auto at Parkway TS	Cherrywood to Parkway Circuit Reconfiguration + No Bus at Parkway TS + HVDC
Estimated In-Service Date	2033	2032 (2034-2037 for HVDC)
Incremental Supply Enabled (including SMRs)	~1400	~2800
Short Circuit Limitations	Introduces new short circuit limitation issues at Parkway TS station that would require major downstream 230kV circuit and surrounding stations such as at Cherrywood TS reconfiguration to resolve	No major changes to current Parkway TS and Cherrywood TS short circuit levels
Estimated Cost (excluding HVDC)	~ \$700-800M	~ \$400-\$500M
Surrounding Bulk System Effects	Termination of new double circuit at Parkway TS and the addition of one new autotransformer through a 500kV bus would also increase the capacity through the station and offload Claireville and Cherrywood TS.	The HVDC Third Supply to Toronto eliminates the need for a bus at Parkway TS to support the forecasted load and reduces congestion at Cherrywood TS and Claireville TS, enabling growth in the surrounding regions including Durham, York, Kawartha Lakes and Peterborough.



Bowmanville SS towards Parkway TS Upgrade

Key Considerations	500 kV Bus + Auto at Parkway TS	Cherrywood to Parkway Circuit Reconfiguration + No Bus at Parkway TS + HVDC
Operability	Potential reconfiguration of the downstream system to alleviate short circuit issues may introduce new operational difficulties.	Operability concerns arise around voltage stability around Bowmanville Switching Station in low load conditions with the circuit reconfiguration. The implementation of the voltage converter stations as part of the submarine HVDC line can provide support with voltage stability in the area
Flexibility	The double circuit to Parkway TS and Parkway TS bus buildout commits available corridor space and area to this solution regardless of growth rate and future grid requirements.	This option sufficiently supplies 2035 scenario and beyond while preserving available corridor space and station space to build 500kV Bus + Auto at Parkway if higher growth materializes and for future grid developments.
Land Use	The double circuit to Parkway TS extends from Bowmanville to Parkway TS, following the existing right of way. The 500 kV bus build out would occur within the available land within Parkway TS and any new upgrades may require the expansion of Parkway TS.	The new double circuits extends from Bowmanville to Cherrywood TS, following the existing right of way, while the HVDC will extend underwater, avoiding disruptions in built up urban areas in Durham and Toronto regions. The land within Parkway TS remains open for optionality for a future 500 kV bus or other new infrastructure to support the 230 kV system.



Feedback – South and Central

- What additional information would you need to understand the value and approach of the energy studies?
- What feedback do you have regarding the proposed transmission recommendations at Milton TS, Kleinburg TS, and the Bowmanville to Parkway upgrade, required to enable load growth in the GTA and new generation in eastern Ontario?
- What additional information should we consider as we continue developing the portfolio of options leading up to the final recommendations?

The IESO welcomes written feedback until January 23, 2026. Please submit feedback to engagement@ieso.ca using the feedback form posted on the South and Central engagement page.



Next Steps & Staying Engaged

Upcoming milestones for the South and Central Bulk Plan:

- December 19, 2025: Feedback due for <u>data tables</u> detailing the revised portfolios and energy modelling inputs
- January 23, 2026: Feedback due for sub-set of draft recommendations
- Q2 2026: Final webinar to share energy modeling results and draft portfolio recommendations
- Q2 2026 (updated): Final report that will:
 - identify actions to initiate development work, as required, to address transmission needs.
 - identify transmission corridors new or existing whose development or preservation should be prioritized to ensure viability of short-, medium-, and long-term options.
 - highlight unmet needs (where applicable), and the additional steps that may be required to identify solutions or meet needs.

Learn more about this plan by visiting the <u>engagement webpage</u> and <u>subscribing to receive updates</u>.



Next Steps and Discussion



Next Steps

- Feedback submissions for the South and Central Bulk and Eastern
 Ontario Bulk planning studies are due by January 23, 2026, to
 engagement@ieso.ca.
- Quarterly updates will continue for each study until final reports are released.
- Final reports to be released and published:
 - North of Sudbury Bulk Plan Q2 2026 (updated)
 - Eastern Ontario Bulk Plan Q2 2026 (updated)
 - South and Central Bulk Plan Q2 2026 (updated)



Discussion



Appendix



Thank You

STAY INVOLVED

- Learn more at www.ieso.ca/learn
- Subscribe to updates at IESO.ca/subscribe
- Download the IESO's Municipal Toolkit
- ✓ Join an engagement

CONTACT

- ✓ IndigenousRelations@ieso.ca
- Engagement@ieso.ca

FOLLOW

- in LinkedIn.com/company/IESO
- (O) @OntarioIESO
- in LinkedIn.com/showcase/ SaveOnEnergy-Ontario
- (O) @SaveOnEnergy

