

NOVEMBER 2, 2026

GTA West Regional Electricity Planning

Webinar #4
Draft Recommendations

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Land Acknowledgement

The IESO acknowledges that the GTA West is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee, and the Wendat peoples, including those covered by the Williams Treaties.

The IESO would also like to acknowledge all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land.

Agenda

1. Ontario's Electricity Sector and IESO's Role
2. Recap: Regional Electricity Planning Process, the Demand Forecast, Electricity Needs, Option Screening and Detailed Options Analysis
3. Draft Recommendations
4. Next Steps and Discussion

Our Commitment to Respectful Participation

- One speaker at a time; please raise your hand to enter the speaking queue.
- Keep remarks concise (approximately 60-90 seconds) and focused on the agenda topic.
- Avoid repeating points already covered; detailed feedback may be submitted in writing for follow-up.
- Maintain a respectful tone at all times.
- The IESO may redirect discussion to keep the agenda on track.
- Participants that are unable to participate respectfully by adhering to these principles may have their microphone disabled.

Seeking Input

Local considerations and feedback are a critical component to the development of an Integrated Regional Resource Plan (IRRP). The IESO wants to understand:

- What feedback is there on the draft recommendations?
- What information needs to be considered in the draft recommendations?
- How can the IESO continue to engage with communities and stakeholders as these recommendations are implemented, or to help prepare for the next planning cycle?

The IESO welcomes written feedback until **Monday, November 16, 2026.** Please submit feedback to engagement@ieso.ca.

Recap Summary

- **Significant electricity needs are emerging in the GTA West region**, due to new housing, industrial growth, and electrification. Many of these needs are immediate, as the current infrastructure cannot keep pace with projected growth in the region, especially in areas that have little to no transmission infrastructure today.
- To meet this growing demand, **large-scale long-term investments,** such as new transmission lines and stations, and interim measures are required to help maintain reliability while major developments are built. Together, these investments and interim measures form the integrated plan that will ensure communities and businesses across GTA West continue to receive reliable, cost-effective electricity as the region expands.
- **A detailed options analysis has been completed to inform draft recommendations**. The analysis considers a range of new transmission infrastructure, upgrades to existing infrastructure, non-wires alternatives, as well as findings from recent corridor studies and bulk system plans.

Feedback Received (1/2)

Key Areas of Feedback	Incorporating Feedback/Considering Feedback
Requested additional information about the characteristics and location of the new transmission infrastructure	At this stage, plan recommendations identify the nature and general location of required infrastructure. Detailed routing, siting, property requirements, and final station configurations are determined during subsequent project development that will be led by the respective transmitter.
Requested greater clarity and around the inclusion of distributed energy resources in the plan	The IESO applies its Non-Wires Alternatives Assessment process when developing an IRRP. In general, suitability depends on the magnitude, timing, duration, and growth of the need; the ability to target resources; expected persistence and availability; cost-effectiveness; and ability to implement before the need arises. The GTA West forecast was developed with local distribution companies and reflects the best available information about known developments and major load drivers at the time.
Emphasized the need for early, regular, direct, and coordinated engagement.	The IESO values Indigenous, municipal, landowner, industry, stakeholder, and community input and recognizes the importance of early, ongoing, and meaningful engagement. The GTA West IRRP engagement includes public webinars, publication of materials, written feedback, targeted municipal discussions, direct engagement with Indigenous communities, and meetings where appropriate.Feedback helps refine assumptions, options, and recommendations. Engagement will continue as the IRRP is finalized and, where recommendations proceed, as projects move into development and implementation.

Feedback Received (2/2)

Key Areas of Feedback	Incorporating Feedback/Considering Feedback
Requested information about the relationships and dependencies with overlapping planning processes	The GTA West IRRP is informed by and coordinated with provincial electricity planning, the Annual Planning Outlook, the South and Central Bulk Plan, local distribution-company planning, municipal growth and land-use plans, community energy plans, provincial policy direction, and relevant generation, conservation, and procurement initiatives. The final IRRP will describe material dependencies and distinguish decisions made through the IRRP from bulk planning, corridor identification or protection, detailed routing and siting, environmental assessment and permitting, transmitter-led development, and implementation of non-wires solutions.
Concerned about whether the impact of demand growth is considered appropriately in the plan	The GTA West IRRP assesses regional needs and recommends solutions based on the best available demand information and customer commitments. Ensuring adequate and timely supply to meet forecast growth is a core objective of regional and bulk planning. The IESO uses a staged planning approach to advance projects required for near-term reliability, preserve flexibility where longer-term conditions are uncertain, monitor conditions that could accelerate needs, and avoid both underbuilding and prematurely committing to infrastructure.

To review the feedback and IESO response, please visit the GTA West engagement webpage.

Recap: Regional Electricity Planning Process, Demand Forecast, Electricity Needs, Option Screening, and Options Analysis

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Electricity Planning in Ontario



Provincial/Bulk System Planning

Addresses provincial electricity system needs and policy directions

Underway: South and Central Bulk Plan



Regional Planning

Addresses local electricity system needs at the transmission system level

Underway: GTA West Integrated Regional Resource Plan



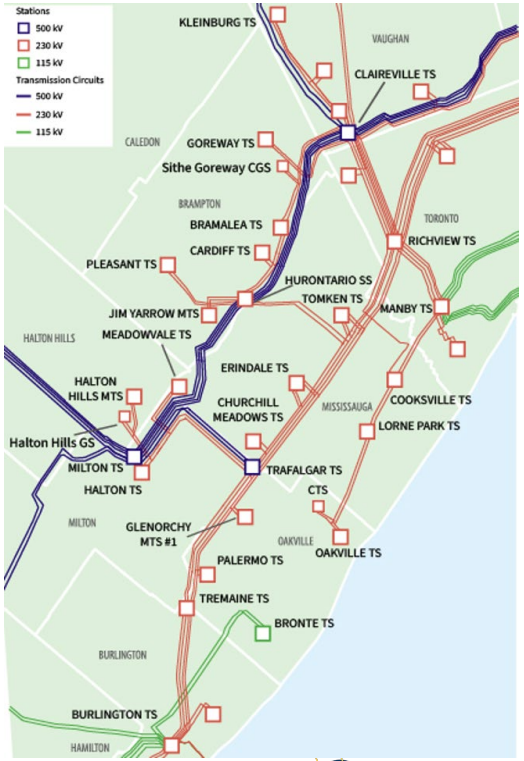
Distribution Planning

Addresses local electricity system needs and priorities at the distribution system level

Led by local distribution companies

GTA West Region Electricity System Overview

- The area is supplied by 230 kilovolt (kV) lines and transformer stations (TS).
- A significant portion of the electricity consumed in the region is generated outside of the region and brought to the region via the transmission network.
- Local generation includes two natural gas power plants: Sithe Goreway and Halton Hills.
- These facilities are crucial for meeting local and provincial reliability during periods of peak demand and transmission outages.



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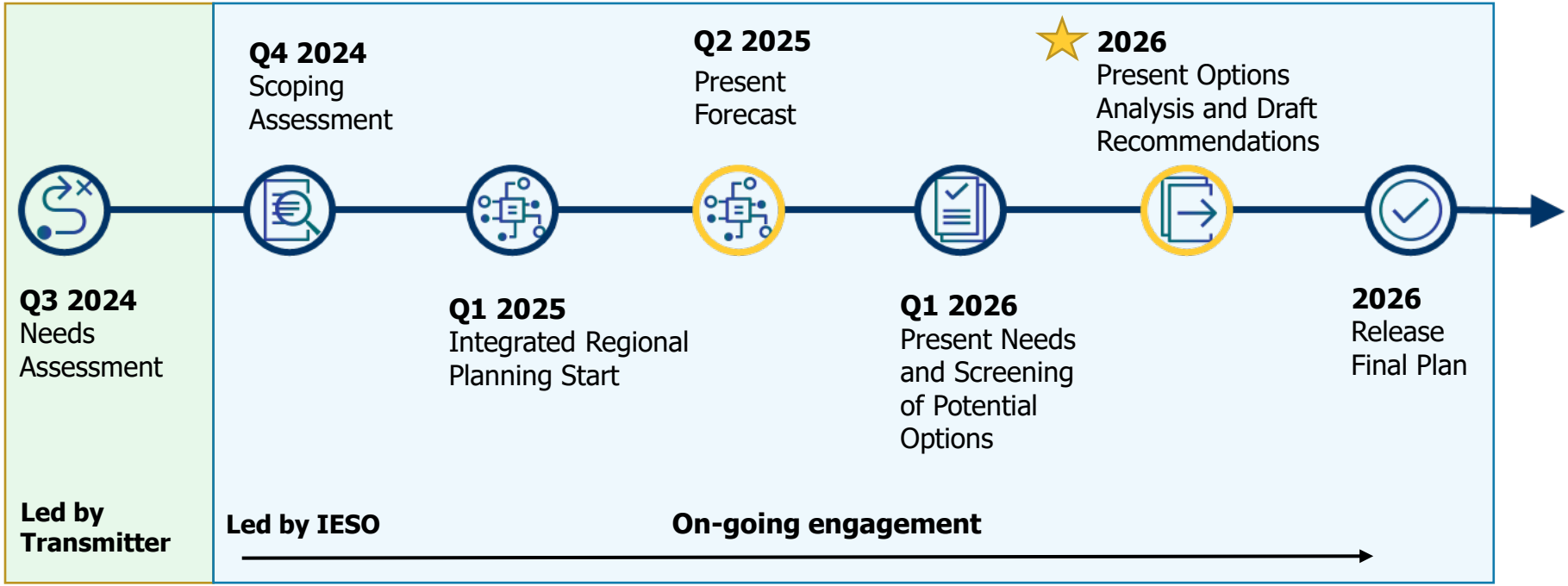
Background on Electricity Planning in GTA West

Since 2015, the IESO has undertaken electricity planning work to address capacity needs to the GTA West electrical region. The previous regional plan was completed in 2022 and recommended upsizing of circuits and building new stations to meet growing electricity demand.

These solutions have ensured a reliable supply of electricity to the area. However, continued demand growth will require more planning:

- The South and Central Bulk Plan determined the electricity infrastructure required to enable economic development in the GTA more broadly and confirmed transmission reinforcements required to enable the connection of expanded nuclear and other objectives. Learn more here.
- The IESO and the Ministry of Energy and Mines conducted a joint study to identify land to be protected for a future transmission corridor (adjacent to Highway 413) to support anticipated long-term electricity demand growth in the northwestern GTA.

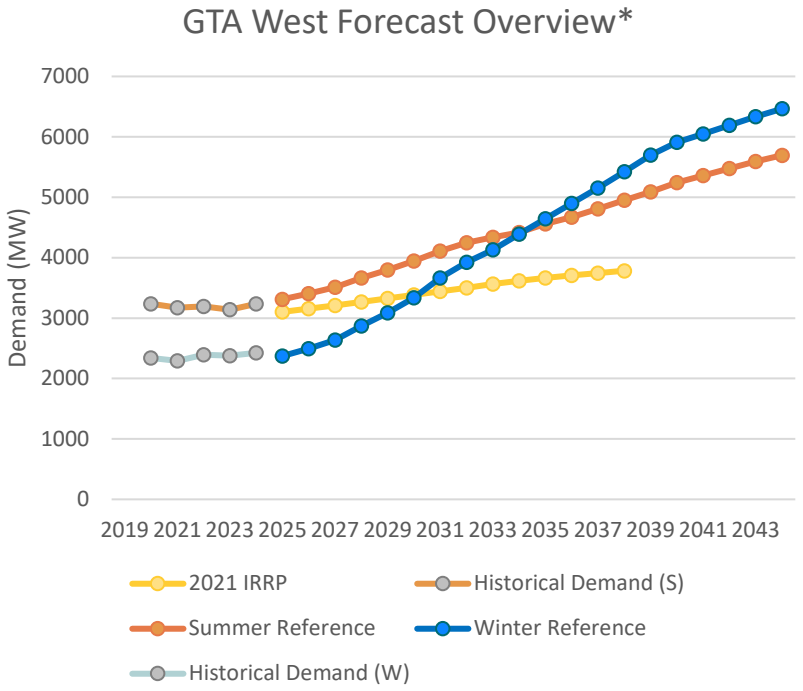
Regional Planning Milestones for GTA West



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GTA IRRP Demand Forecasts

- The electricity demand forecasts are developed in partnership between local distribution companies and the IESO.
- Forecasts are informed by municipal policies, including decarbonization plans, municipal growth plans, community energy plans, economic development, data centres, etc.
- In the GTA West region, the forecast growth rate is 3.4% (**growth of 89% by 2044**) – by comparison, the current provincial growth rate is 2% (growth of 65% by 2050).
    - Electrification of buildings, vehicles, and numerous expected projects are a significant contributor to increasing electricity demand.



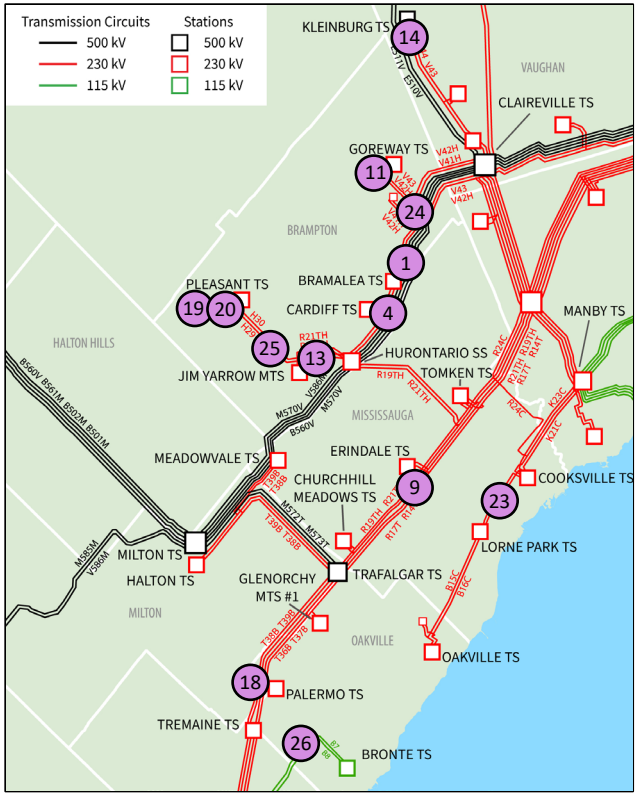
* The forecasts shown are GTA West coincident, net, extreme weather cases. This forecast does not include potential transmission-connected large-scale customers.

Near-Term Needs in GTA West

Based on forecasted growth, the following needs have been identified:

Timing	Impacted Equipment
Near-term	9 station capacity needs 4 system capacity needs
Medium-term	5 station capacity needs 1 load security need
Long-term	8 station capacity need 5 load security need

The numbers on the map correspond to the needs detailed in Appendix slides 67 to 71



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Medium-Term Needs in GTA West

Based on forecasted growth, the following needs have been identified:

Timing	Impacted Equipment
Near-term	9 station capacity needs 4 system capacity needs
Medium-term	5 station capacity needs 1 load security need
Long-term	8 station capacity need 5 load security need

The numbers on the map correspond to the needs detailed in Appendix slides 67 to 71



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Long-Term Needs in GTA West

Based on forecasted growth, the following needs have been identified:

Timing	Impacted Equipment
Near-term	9 station capacity needs 4 system capacity needs
Medium-term	5 station capacity needs 1 load security need
Long-term	8 station capacity need 5 load security need

The numbers on the map correspond to the needs detailed in Appendix slides 67 to 71



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Recap: Summary of Options Screening Results

Type of Needs	Screened in - further evaluated in the plan	Screened out – cannot be relied on to meet the need(s)
Station Capacity (Ability to step power down from the transmission system to supply the local distribution network)	• **Wires** (such as new or expanded station or line infrastructure); and • **Wires plus integrated solutions** including eDSM, and DERs* including battery storage, renewables and district energy • **Local generation (transmission connected)**	• Transmission connected large generation such as wind and solar generation, and wind and/or solar + Battery Energy Storage System
Supply Capacity (Ability to deliver sufficient power through the transmission lines to supply step-down stations)	• **Wires** (such as new or expanded station or line infrastructure); and • **Wires plus integrated solutions** including eDSM, transmission connected Battery Energy Storage System, and DERs* including battery storage and renewables • **Local generation (transmission connected)**	
Load Restoration & Security (The system's ability to restore power after an outage or the maximum load it can shed under specific planning conditions)	• **Wires** (such as breakers)	• Distributed generation and transmission-connected generation

* Typically connected to local distribution systems and that can generate or store energy, or control load

Options Evaluation

Wire and Non-Wire Options are evaluated based on the following key considerations:

Technical Feasibility	• Can the option be executed? i.e., outlook for technology, proximity to customers, routing and spacing considerations, operation
Ability to Address Needs	• Does it address the need while complying with the established reliability standards and criteria for the electric power system?
Cost-Effectiveness	• Is there the ability to solve multiple needs simultaneously? • How much can it cost and what are the benefits?
Lead Time	• New transmission infrastructure is expected to take at least 5-7 years – how does this compare to the timing of needs?
Community Considerations	• Input from community preferences and feedback regarding potential options, for example does it improve resilience for extreme weather?

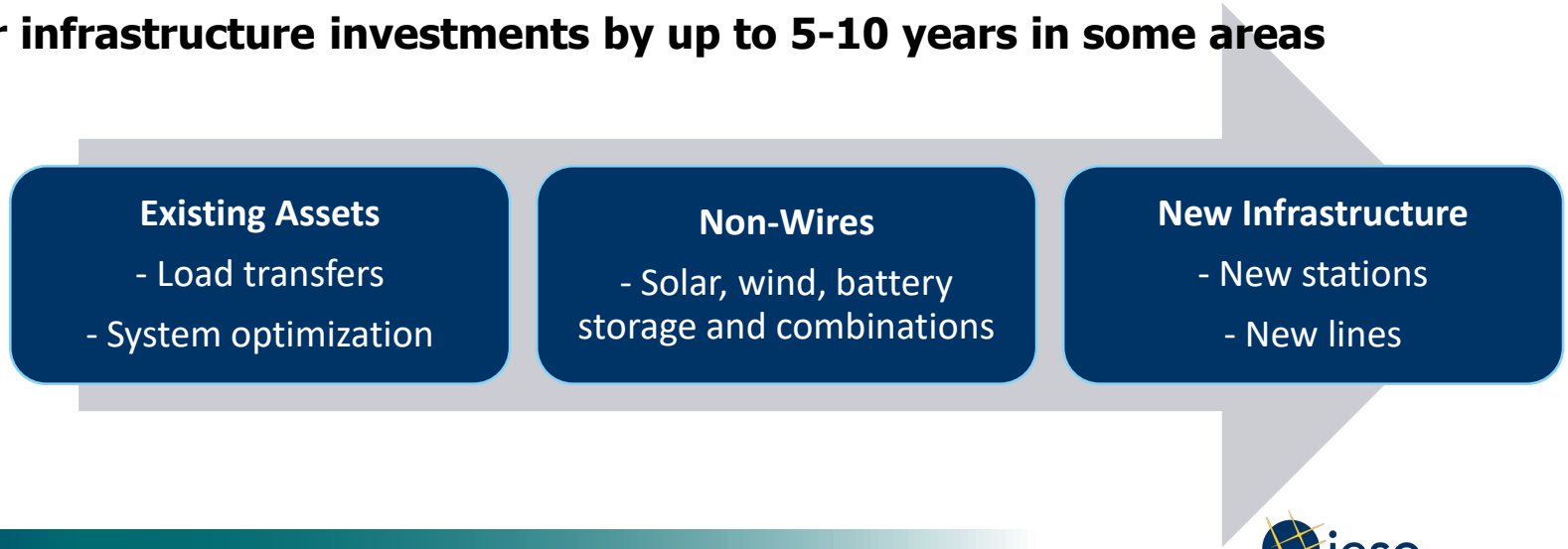
Outcomes of the Option Analysis

As part of the regional planning process, both wires and non-wires solutions were assessed to determine the most effective way to address the region's electricity needs. More information is available on the IESO's Guide to Assessing Non-Wires Alternatives.

- **Significant new electricity infrastructure is required.** The scale and pace of growth across GTA West will require a combination of new transmission lines, transformer stations, and interim measures to maintain reliability while major projects are developed.
- **New transformer stations are needed.** While a limited number of load transfers and system reconfigurations can be leveraged to defer some investments, new station capacity is required to reliably support community growth. Several proposed stations address multiple capacity needs simultaneously, maximizing the value of new infrastructure. Capacity and security constraints limit new stations from being supplied from existing lines.
- **New transmission supply paths are needed.** Growth is expanding into areas beyond the reach of the existing transmission network, particularly in the northwest GTA (Northern Brampton and Caledon), while constraints in established urban areas require additional transmission line infrastructure.
- **Non-wires solutions remain part of the strategy.** eDSM can help address station capacity needs and provide interim relief, but not likely to address supply capacity and load security requirements at the scale required. Additional eDSM savings can reduce the amount of load rejection following certain system contingencies.

Plan Approach: Optimize First, Build When Necessary

The GTA West plan prioritizes the use of existing assets and exploring non-wires opportunities before recommending new infrastructure, ensuring reliability at the lowest overall cost while supporting growth. **Several proposed load transfer initiatives can defer infrastructure investments by up to 5-10 years in some areas**



Detailed Options Analysis and Draft Recommendations

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Overview of GTA West Draft Recommendations

To meet growing demand and to ensure the electricity system in the GTA West region meets reliability requirements, an integrated set of investments are recommended:

- Load transfers throughout the GTA West region
- New stations in Brampton, Caledon, Milton, and Mississauga
- New lines along NWGTA Corridor in Halton Hills, Brampton, and Caledon
- New line in Milton, Mississauga, and Brampton
- Reconfiguration on existing infrastructure in Milton, Brampton, and Mississauga
- New line in Oakville
- Upgrades on existing transmission lines in Oakville
- Monitoring growth and new developments in the region ahead of the next planning cycle in 2029

Map of GTA West Draft Recommendations



*The exact location of the new station and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose

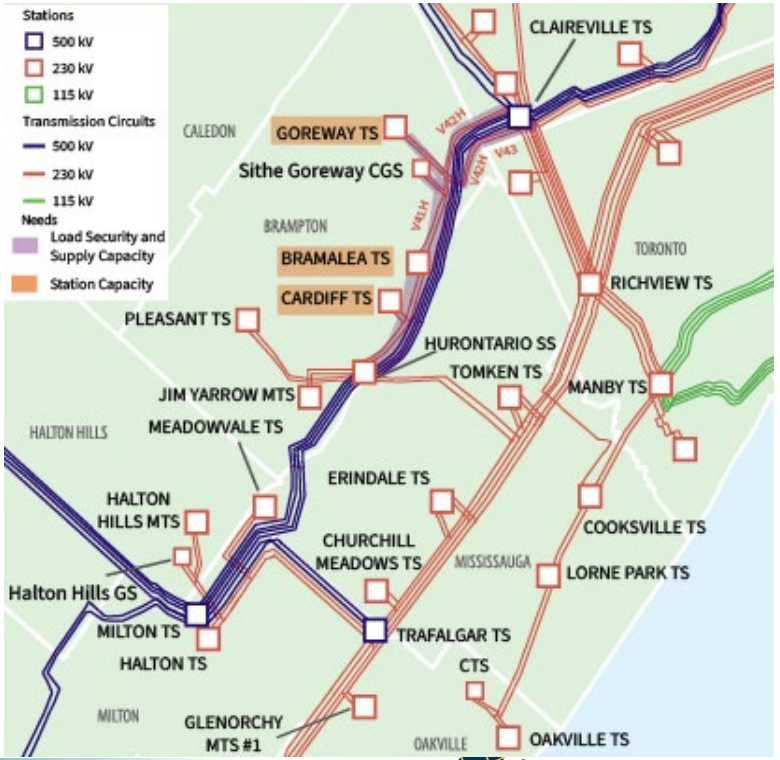
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Detailed Options Analysis and Draft Recommendations for Southern Brampton Load Pocket

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Electricity Needs in Southern Brampton Load Pocket

- Station capacity needs have been identified across five stations in the southern Brampton area, driven by new residential/commercial growth, industrial developments, large-scale projects, electrical vehicle usage, and electrification across the area.
- A supply capacity and two load security needs were identified on the double circuits supplying the area (VxH circuits). Supply capacity is also impacted by Pleasant TS loading.
- To address these requirements, the Technical Working Group evaluated options that can provide additional station and supply capacity to support future growth while respecting load security constraints.



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Options Analysis: Southern Brampton Station Capacity Needs

Need	Options Assessed	Costs and Details
Bramalea T1/T2 Goreway T5/T6	• Load transfers • Incremental eDSM* • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Bramalea T3/T4 Bramalea T5/T6	• Load transfers • Incremental eDSM* • T3/T4 Transformer upgrade • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **Transformer Upgrade**: Increases capacity while addressing EOL need but is constrained by load security requirement. • **New station** served by different circuits can be more cost-effective than addressing future load constraints
Cardiff TS	• Load transfers • Incremental eDSM* • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Options Analysis: Southern Brampton Supply Capacity Needs

Need	Options Assessed	Costs and Details
VxH Circuits	• Existing circuit upgrades • Incremental eDSM* • New 230kV Meadowvale-Hurontario lines • Hurontario station reconfiguration • New Hurontario switching station • Non-wires alternatives • Cap load and site future growth on new stations on NWGTA corridor	• **Existing circuit upgrades**: $12 million, 2-year lead time, limited incremental benefit, uncertainty on feasibility. • **New 230kV circuits**: ~$10 million/km, ~13km required, around $130 million total, 4-5 year lead time, brings new supply from Milton. • **Station reconfiguration**: $15-20 million, 1-2 year lead time, substantially addresses need, limited by outage scenarios, offers flexibility and adaptability. • **Full switching station**: $200 million, 5-6 year lead time, fully addresses need, offers greatest reliability. • **NWGTA corridor transmission buildout**: $10 million/km, 7-8 km required, ~$70-80 million total, bridges supply to new areas of growth. • **BESS, solar, and wind non-wires options:** Found to be infeasible due to BESS limitations, large land requirements, outage reliability, and short circuit constraints. • **Gas option:** Not considered feasible due to challenges of siting and short circuit constraints in the area**.**

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Options Analysis: Southern Brampton Load Security Needs

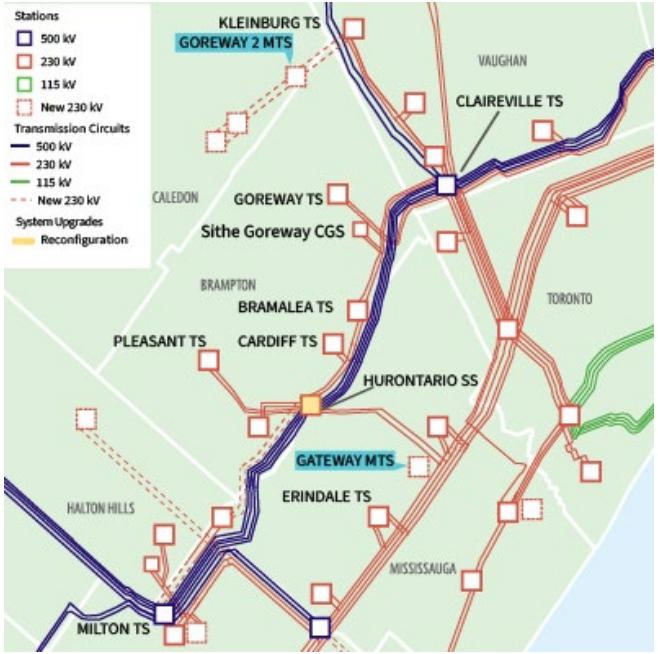
Need	Options Assessed	Costs and Details
V41H/V42H Load Security Need	• Cap load and site future growth on new stations on NWGTA corridor • In-line breakers • Switching station • Monitor growth	• **NWGTA corridor transmission buildout**: Locates future growth on new circuits. Keeps V41H/V42H loading under load security limit. • **In-line breakers, Switching Station**: splits V41H/V42H load group. Estimated cost for new switching station is $200 million, 5-6 year lead time. • **Monitor growth**: Airport expansion plans to include back up generation to supply load during lost supply from transmission system. Status of plans can be monitored.
V42H/V43 Load Security Need	• Monitor growth • Cap load and site future growth on new stations on NWGTA corridor	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle. • **NWGTA corridor transmission buildout**: Locates future growth on new circuits. Keeps V42H/V43 loading under load security limit.

Draft Recommendations for Southern Brampton Station Capacity Needs

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

To address southern Brampton station capacity needs, the Technical Working Group recommends:

- Build a new 230/27.6kV station (Goreway #2 MTS) in Northeastern Brampton by 2032. Load transfers are required between 27.6kV stations Bramalea T1/T2, Goreway T1/T2, and Goreway T5/T6 until 2032.
- Load transfers between 44kV stations Bramalea T3/T4 and Bramalea T5/T6 that can defer the need into the long-term.
- Build a new 230/27.6 kV station (Gateway MTS) in Mississauga* by 2034. Load transfers are required between Cardiff TS, Erindale T5/T6, and Tomken T3/T4 that can defer the need until 2034.



*The exact location of the new station and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose

Draft Recommendations for Southern Brampton Supply Capacity and Load Security Needs

To address southern Brampton supply capacity and load security needs, the Technical Working Group recommends:

- Build a new double-circuit 230kV transmission along NWGTA corridor from future Kleinburg TS to serve new northeastern Brampton station. New station and transmission are required to respect load security constraints.
- To enable additional supply capacity to existing stations, build new double-circuit 230kV transmission between future Milton TS and Hurontario SS. Hurontario SS needs to be reconfigured to incorporate new circuits.
- Monitor overall load growth, electrification trends and eDSM performance to inform future planning and identify timing to study long-term options which includes VxH load security and a full Hurontario switching station.



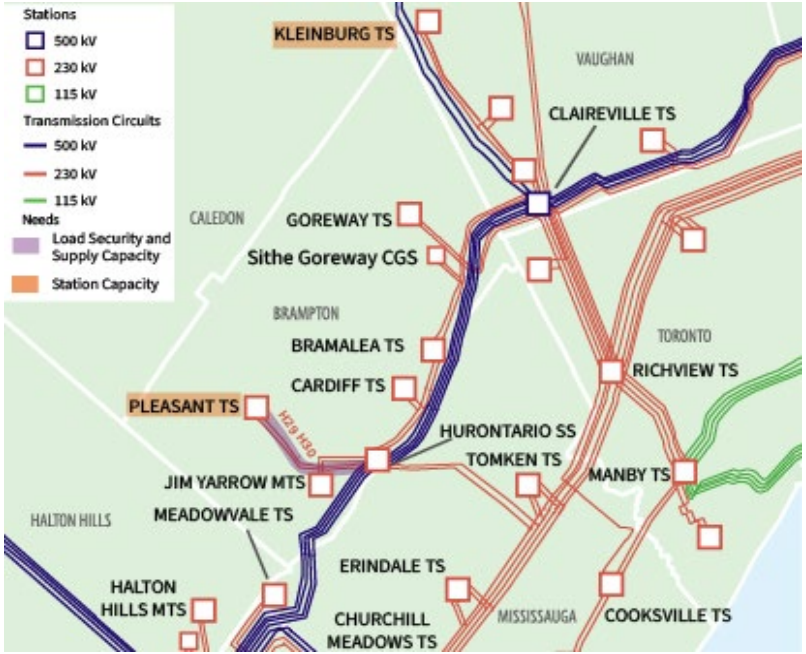
*The exact location of the new station and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose only

Detailed Options Analysis and Draft Recommendations for Northern Brampton-Caledon Load Pocket

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Electricity Needs in Northern Brampton-Caledon Load Pocket

- Station capacity needs have been identified across four stations in the Caledon-Northern Brampton area, driven by new community developments, large-scale projects, electrical vehicles, and Town of Caledon infill development and industrial growth.
- Supply capacity and load security needs were identified on the H29/H30 double circuit supplying Pleasant TS.
- To address these requirements, the Technical Working Group evaluated options that can provide additional station and supply capacity to support future growth while respecting load security constraints.



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Options Analysis: Northern Brampton-Caledon Station Capacity Needs

Need	Options Assessed	Costs and Details
Pleasant T1/T2	• New station • Incremental eDSM* • Non-wires alternatives • Interim distribution solutions	• **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located. • **BESS, solar, and wind non-wires options:** Found to be limited in cost-effectiveness in addressing interim needs. **Interim distribution solutions** were identified to be more cost-effective.
Kleinburg TS	• New station • Incremental eDSM*	• **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Pleasant T5/T6	• Load transfer • Incremental eDSM* • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Pleasant T7/T8		
Jim Yarrow MTS**		

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.
**Part of the Richview to Trafalgar Load Pocket but are being addressed with Northern Brampton stations

Options Analysis: Northern Brampton-Caledon Supply Capacity Needs

Need	Options Assessed	Costs and Details
H29/H30 Supply Capacity and Load Security Needs	• Active reconductoring project • Incremental eDSM* • Cap load and site future growth on new stations on NWGTA corridor	• **Reconductoring project:** Recommended from the previous planning cycle. Would increase supply capacity of existing circuits up to load security limits. • **NWGTA corridor transmission buildout**: ~$10 million/km, around 10km required from future Milton TS for a total of $100 million, 7-8km required from future Kleinburg TS for $70-80 million total, bridges supply to new areas of growth.

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Draft Recommendations for Northern Brampton-Caledon Station Capacity Needs

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

To address Pleasant TS station capacity needs, the Technical Working Group recommends:

- Build new 230kV stations (Caledon #1 TS and Caledon #2 TS) in Caledon and supply stations on new double-circuit 230kV transmission along NWGTA corridor from future Kleinburg TS in 2032. Monitor Pleasant T1/T2 needs before 2032 and address with interim distribution solutions.
- Build a new 230/27.6kV station (Heritage Heights MTS) in Northwestern Brampton in 2033. Load transfers are required between 27.6kV stations Pleasant T5/T6, Pleasant T7/T8, and Jim Yarrow MTS until 2033.



*The exact location of the new stations and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose only

Draft Recommendations for Northern Brampton-Caledon Supply Capacity Needs

To address Pleasant TS supply capacity and load security needs, the Technical Working Group recommends:

- Proceed with recommended reconductoring project from previous planning cycle to enable supply capacity to Pleasant TS within load security constraints.
- Build a new double-circuit 230kV transmission along NWGTA corridor from future Milton TS to serve new northwestern Brampton station. New station and transmission are required to respect load security constraints.



*The exact location of the new stations and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose only

Detailed Options Analysis and Draft Recommendations for Halton-Milton Load Pocket

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Electricity Needs in Halton-Milton Load Pocket

- Station capacity needs have been identified across four stations in the Halton and Milton area, driven by new residential/commercial growth, large-scale projects, electric vehicle usage, and transit electrification in Oakville.
- A load security need was identified on the T38B/T39B double circuits supplying parts of the Halton and Milton region.
- To address these requirements, the Technical Working Group evaluated options that can provide additional station capacity and reconfigure the system to incorporate the new recommended bulk supply point in Milton to support future growth.



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Options Analysis: Halton-Milton Load Pocket Needs

Need	Options Assessed	Costs and Details
Halton TS Station Capacity Need Palermo TS Station Capacity Need	• Load transfers • Incremental eDSM* • Non-wires alternatives • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **BESS, solar, and wind non-wires options:** least net cost identified option was installing a BESS at each station for high-level estimate of $72 million. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Meadowvale TS Station Capacity Need Trafalgar DESN Station Capacity Need	• Monitor growth • Incremental eDSM*	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle.
T38B/T39B Load Security Needs	• Milton reconfiguration	• **Reconfiguration**: Required to incorporate recommended bulk supply point from South and Central bulk study. Pursued reconfigurations to distribute new supply, adhere to short circuit constraints, and preserve flexibility and adaptability.

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Draft Recommendations for Halton-Milton Load Pocket

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

The Technical Working Group recommends:

- Build a 230/27.6 kV station (Halton #2 TS) in Milton in 2031. Load transfers are required between Palermo TS and nearby 27.6kV stations until 2031.
- Monitor overall load growth, electrification trends, and eDSM performance to inform future planning and identify timing to study long-term options for Meadowvale TS and Trafalgar DESN.
- Reconfigure T38B/T39B circuits to incorporate new Milton bulk supply point while optimizing distribution of supply, flexibility, and preservation of additional corridors in land constrained area.



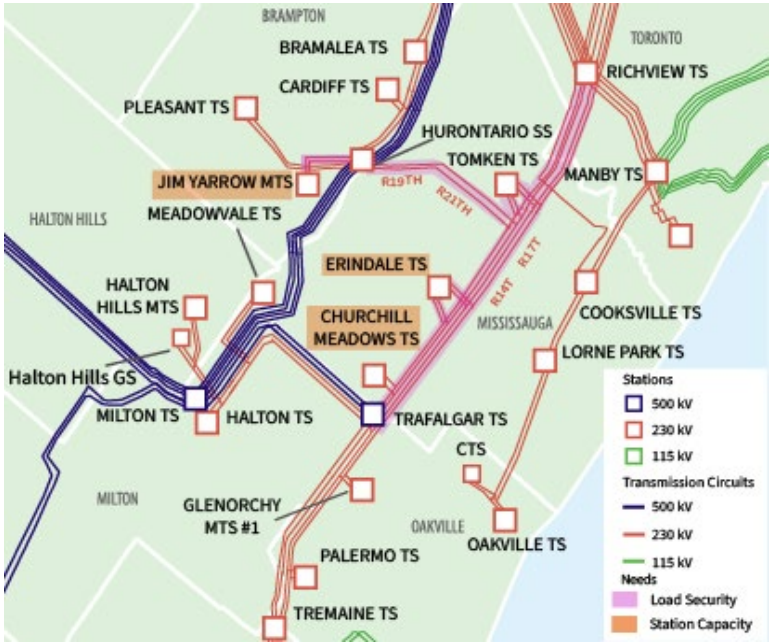
*The exact location of the new station and system reconfiguration is subject to further study and confirmation. Diagram shown for illustrative purpose only

Detailed Options Analysis and Draft Recommendations for Trafalgar-Richview Load Pocket

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Electricity Needs in Trafalgar-Richview Load Pocket

- Station capacity needs have been identified across five stations in the Mississauga area, driven by new community developments, large-scale projects, electric vehicle usage, and Hurontario LRT transit project.
- Load security needs were identified on both double circuits supplying the Trafalgar-Richview load pocket (RxT corridor).
- To address these requirements, the Technical Working Group evaluated options that can provide additional station capacity and address load security constraints to support future growth.



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Options Analysis: Trafalgar-Richview Station Capacity Needs

Need	Options Assessed	Costs and Details
Churchill Meadows TS Station Capacity Need	• Monitor growth • Incremental eDSM*	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle.
Erindale T1/T2 Station Capacity Need	• Load transfer • Incremental eDSM* • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Erindale T3/T4 Station Capacity Need	• Load transfers • Incremental eDSM*	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. Defers the need into the long-term.
Erindale T5/T6 Station Capacity need		

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.
**Part of the Richview to Trafalgar Load Pocket but is being addressed with Cardiff TS in Southern Brampton Load Pocket

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Options Analysis: Trafalgar-Richview Supply Capacity Needs

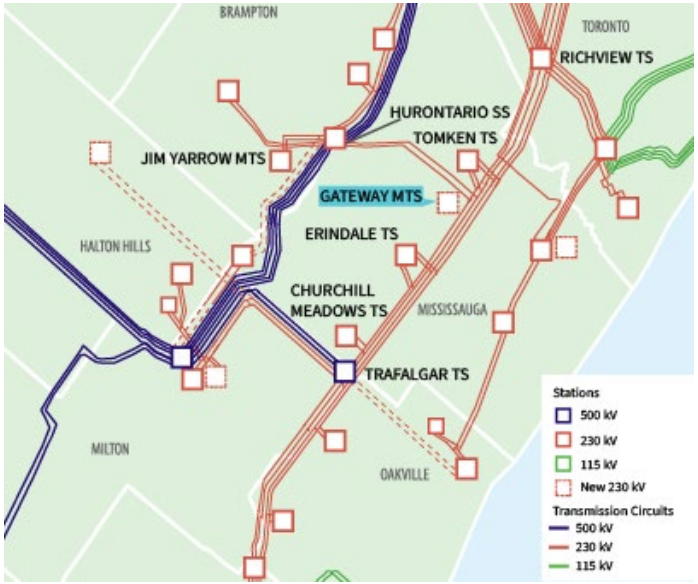
Need	Options Assessed	Costs and Details
R14T/R17T Load Security Need	• Montor growth • In-line breakers • Switching station	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle. • **In-line breakers, Switching Station**: splits R14T/R17T load group. Estimated cost for new switching station is $200 million, 5-6 year lead time.
R19TH/R21TH Load Security Need	• Monitor growth • In-line breakers • Switching station • Hurontario switching station	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle. • **In-line breakers, Switching Station**: splits R19TH/R21TH load group. Estimated cost for new switching station is $200 million, 5-6 year lead time. • **Full Hurontario switching station**: If implemented to address VxH supply capacity, it could also separate Jim Yarrow MTS from R19TH/R21TH load group.

Draft Recommendations for Trafalgar-Richview Load Pocket

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

The Technical Working Group recommends:

- Load transfers between 44kV stations Erindale T3/T4, Erindale T5/T6, and Tomken T3/T4 that can defer the need into the long-term.
- Monitor overall load growth, electrification trends and eDSM performance to inform future planning and identify timing to study long-term options for Churchill Meadows station capacity and two RxT load security needs.



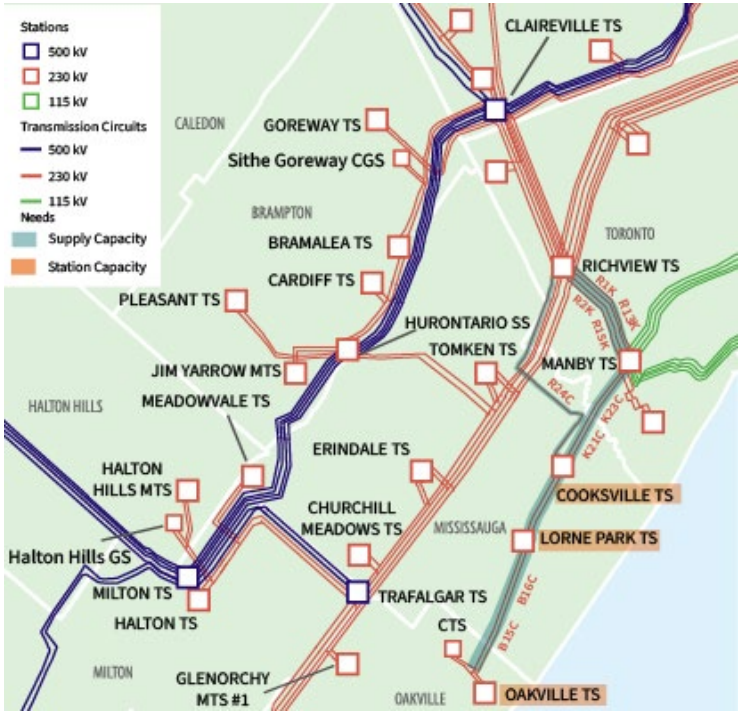
*The exact location of the new station is subject to further study and confirmation.
Diagram shown for illustrative purpose only

Detailed Options Analysis and Draft Recommendations for Cooksville Radial Load Pocket

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Electricity Needs in Cooksville Radial Load Pocket

- Station capacity needs have been identified across four stations in the Cooksville and southern Mississauga/Oakville area, driven by expected large-scale projects, new residential and commercial developments, as well as other industrial loads in the area.
- A supply capacity need was identified on the Richview-Manby circuits which radially supply this load pocket.
- To address these requirements, the Technical Working Group evaluated options that can provide additional station and supply capacity to support future growth.



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Options Analysis: Cooksville Radial Station Capacity Needs

Need	Options Assessed	Costs and Details
Cooksville T1/T2 Station Capacity Need	• Load transfer • Incremental eDSM* • New station	• **Load transfers**: Maximize the use of existing stations and transmission infrastructure. • **New station**: $60 million, 3-4 year lead time, brings in new capacity for future growth where it is located.
Cooksville T3/T4 Station Capacity Need		
Lorne Park Station Capacity Need	• Monitor growth • Incremental eDSM* • T2 Transformer Upgrade	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle. • **Transformer Upgrade**: Increases capacity while addressing EOL need.
Oakville TS Station Capacity need	• Monitor growth • Incremental eDSM*	• **Monitor growth:** Long-term need, growth could be monitored and addressed in the next planning cycle.

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Options Analysis: Cooksville Radial Supply Capacity Needs

Need	Options Assessed	Costs and Details
Cooksville Radial Supply Capacity Need	• RxK Reconfiguration • Existing circuit upgrades • Incremental eDSM* • Non-wires alternatives • New 230kV Richview-Cooksville line • New 230kV Trafalgar-Oakville lines	• **RxK Reconfiguration**: Optimizes existing infrastructure to address limiting contingencies. Was found to be infeasible due to short circuit constraints. • **Existing circuit upgrades**: maximizes existing infrastructure. ~$30 million, 4+ year lead time. No benefit when short circuit constraints at Cooksville TS are addressed. • **BESS, Solar, and wind options**: Found to be infeasible due to outage reliability and inability to defer wires upgrades. • **Gas Option**: Not considered feasible due to challenges of siting and short circuit constraints in the area. • **New 230kV Richview-Cooksville line**: Offers alternative path of supply. Found to be infeasible due to space constraints at Cooksville TS. • **New 230kV Trafalgar-Oakville line**: ~$180 million, around 8km of new line required, 5-7 year lead time, brings new supply to area which is currently radially supplied from Toronto.

*Additional eDSM programming can be considered for all needs as an option for load management, and in the interim as other solutions are being built.

Draft Recommendations for Cooksville Radial Load Pocket

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

The Technical Working Group recommends:

- Build a new 230/27.6 kV station (Lakeview MTS) in Cooksville area* in 2033.
- Monitor overall load growth, electrification trends and DSM performance to inform future planning and identify timing to study long-term options for Lorne Park TS and Oakville TS.
- Build new 230kV double circuit transmission between Trafalgar TS and Oakville TS. Alternative existing system upgrades proved to be infeasible or insufficient to address significant growth in the Cooksville area and West Toronto.



*The exact location of the new stations and transmission is subject to further study and confirmation. Diagram shown for illustrative purpose only

Detailed Options Analysis and Draft Recommendations for Bronte TS Load Pocket

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Electricity Needs in Bronte TS Load Pocket

- A supply capacity need was identified on the B7-B8 circuits which radially supply Bronte TS in Oakville. The need is driven by commercial and residential development.
- The timing of this need is immediate and continues to increase throughout the planning timeframe.
- To address these requirements, the Technical Working Group evaluated options that can provide additional capacity to enable full station capacity at Bronte TS and support future growth.



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Options Analysis: Bronte TS Load Pocket Needs

Need	Options Assessed	Costs and Details
B7/B8 Supply Capacity Need	• Existing circuit upgrades • Non-wires alternatives • Site future growth on new station on different circuits • Convert circuits to 230kV	• **Circuit upgrades**: $18-22 million, maximizes existing infrastructure before new corridor or resource buildout. Addresses bottlenecks of supply to existing station. • **BESS, Solar, and wind options**: Found to be infeasible due to BESS limitations and large land requirements in the congested area. • **New station on different circuits**: $60 million, 3-4 year lead time, brings in new capacity for future growth. Considered infeasible due to inability to locate future load growth north of Bronte TS. • **230kV conversion**: $125 million, 4-6 year lead time enables capacity for the long-term future. Most expensive option and requires development through community-sensitive area.

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Draft Recommendations for Bronte TS Load Pocket

Due to the nature of the needs and timings, wires options are recommended to maintain reliability and support future growth.

The Technical Working Group recommends:

- Upgrade existing sections of the B7-B8 circuits to provide additional supply capacity required to meet electricity and station supply design needs. Non-wires alternatives were found to be more expensive and infeasible due to significant land requirement.
- Monitor overall load growth, electrification trends and eDSM performance to inform future planning and identify timing to study long-term options.

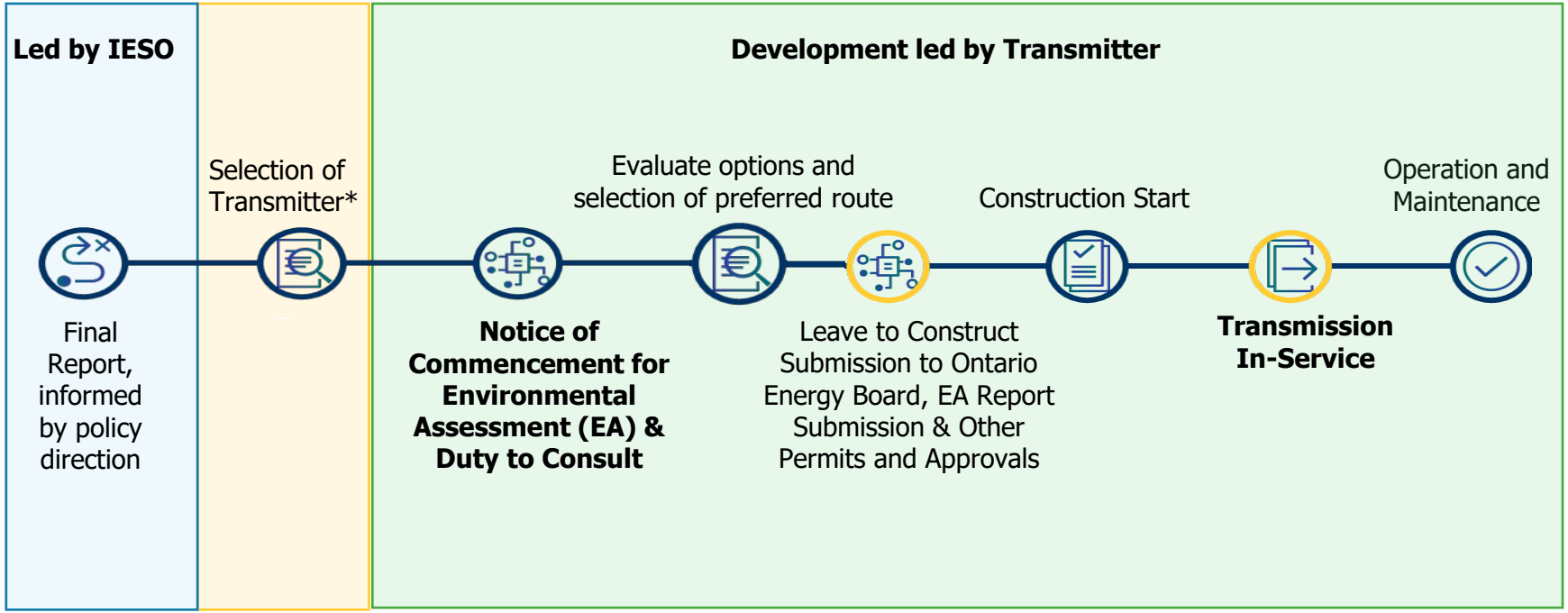


Summary of GTA West Draft Recommendations

To meet growing demand and to ensure the electricity system in the GTA West region meets reliability requirements, an optimized set of investments are recommended:

- Implementation-ready solutions:
    - **Load transfers** to support immediate needs where possible.
    - **Reconfiguration** of existing infrastructure in Milton, Brampton, and Mississauga.
    - **Transmission upgrades** on existing transmission lines in southern Oakville.
    - **Seven new transformer stations**: four located on the NWGTA corridor, with the other three to be located on existing supply paths in the Milton and Mississauga areas.
    - **Four new transmission lines:** two located on portions of the NWGTA corridor in Halton Hills, Brampton and Caledon, one along the existing parkway belt transmission corridor in Milton, Mississauga, and Brampton, and one along the 403 highway on a protected transmission corridor in Oakville.
- The IRRP also sets the foundation for future-ready recommendations to meet long-term needs in the region that may be driven by changes in generation supply, economic development and consumer behaviour, signalling flexible and scalable actions (i.e. early identification of new potential station and transmission infrastructure that will be continuously evaluated through Annual Technical Working Group meetings).
- The recommendations also considered how to get power from these bulk supply recommended in the August 2026 South and Central Bulk Plan to the region

Typical Process for Transmission Development



* Transmitter Selection Framework under development

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Next Steps and Discussion

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Energy Efficiency Opportunities

- To help meet the province's rapidly growing demand for electricity, the IESO's energy efficiency programs, through Save on Energy, has been expanded from $1 billion over four years, to $10.9 billion over 12 years.
- Key programs of interest to your municipality, residents and small businesses include:
  - Peak Perks – Residential and small business electricity customers with an eligible smart thermostat can be rewarded for reducing their energy use when demand for electricity is high in the summer.
  - Home Renovation Savings – Homeowners can get rebates up to 30% for home energy efficiency renovations and improvements.
  - Retrofit – Facility/building owners and lessees can get up to 50% of eligible project costs covered for targeted energy efficiency retrofits. Learn how Lear Corporation in Ajax used the retrofit program to save on annual costs.
  - Energy Affordability Program – Support for income-eligible electricity customers to better manage monthly electricity costs and increase their home comfort.
- Use the Funding Finder to easily identify which Save on Energy programs can best suit your needs.

Next Steps

Participants can expect to hear from the IESO at these milestones:

November 16, 2026 : Deadline for feedback to the IESO on Draft Recommendations.

Q4 2026: IRRP report will be completed and published on the GTA West engagement webpage.

Depending on the recommendations of the IRRP, the following next steps can be expected:

- For wires solutions, the local transmitter will lead the development of a Regional Infrastructure Plan, which assesses and develops a detailed plan on how wire options can be implemented.
- For non-wire solutions, implementation mechanisms for new resources and energy efficiency programs will be determined following plan publication.

Discussion

Local considerations and feedback are a critical component to the development of an Integrated Regional Resource Plan (IRRP). The IESO wants to understand:

- What feedback is there on the draft recommendations?
- What information needs to be considered in the draft recommendations?
- How can the IESO continue to engage with communities and stakeholders as these recommendations are implemented, or to help prepare for the next planning cycle?

The IESO welcomes written feedback until **Monday, November 16, 2026.** Please submit feedback to engagement@ieso.ca.

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Thank You

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Appendix

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Additional Considerations and Linkages with Other Plans

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Protecting Strategic Corridors

To ensure we can build the transmission infrastructure needed to support electrification, residential and economic intensification, early action is being taken to identify and protect strategic corridors.

Three key studies are identified in high-growth areas where land is limited and electricity systems are nearing capacity:

- **Parkway Belt West Corridor**: Exploring future high-voltage transmission lines and transformer stations to support GTA growth and to enable new generation resources.
- **Barrie to Markham Corridor**: Preserving land for a future transmission line to further link Northern and Southern Ontario, to enable growth in Northern Ontario and to supply Southern Ontario with diversified resources.
- **Northwest GTA Corridor**: Refining plans near Highway 413 to support future infrastructure in York, Peel, and Halton.

These important studies will play a role in understanding options and preserving land for future, long term needs in York Region. More opportunities for engagement will be shared in the future.



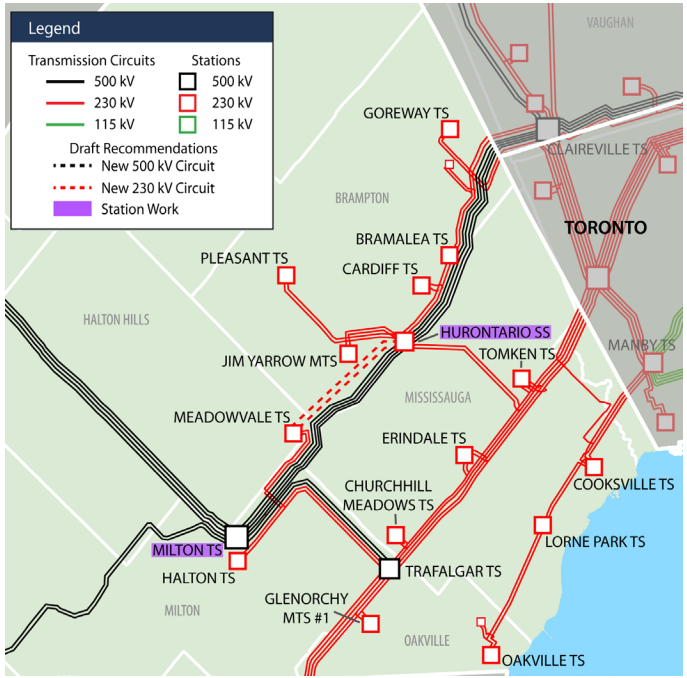
GTA West Implications: South & Central Bulk Plan Recommendations

Need for autotransformers in Milton:

- A new regional supply point from the provincial/bulk system located at Milton TS is required to supply a new 230 kV line along the NWGTA corridor (supply to northern Peel)

Need for a new 230 kV line between Milton TS and Hurontario SS as well as station work and Hurontario SS in Mississauga

- The transmission infrastructure upgrades utilize Milton's new regional supply point to reinforce the existing transmission system, which will address the supply capacity needed as load intensifies in Brampton and Mississauga



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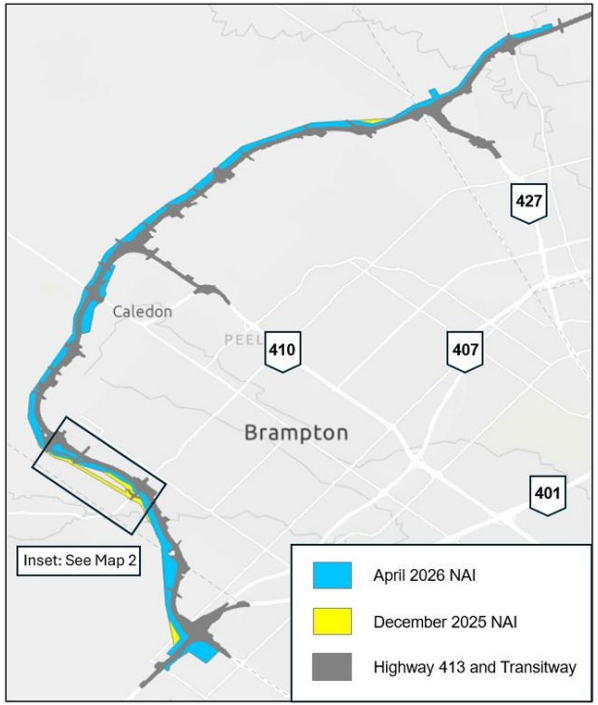
Northwest GTA Transmission Corridor

To ensure we can build transmission infrastructure when needed, early action is being taken to identify and protect strategic corridors, including the Northwest GTA corridor.

In April 2026, the IESO, Ministry of Energy and Mines (MEM), and Ministry of Transportation (MTO) refined the Narrowed Area of Interest (NAI) which included a reduced area to protect only the land that is necessary to support updated electricity system and transportation needs in the region.

The NAI has been designed to accommodate both 500 kV and 230 kV transmission infrastructure, allowing enhancements to the bulk power system, and local supply to the GTA West region.

Sign up for continued updates from MEM here.



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South and Central Bulk Plan

In addition to the GTA West IRRP, the IESO is also conducting a South and Central Bulk Plan, which is examining broader system-level needs and opportunities across southern and central Ontario.

Given the scale and complexity of electricity needs in GTA West, the bulk study plays a key role in connecting the near-term recommendations from the IRRP to the bulk transmission system. This includes:

- Creating a new bulk supply point at Milton TS to support load growth and enable new transmission expansion throughout the GTA West region
- Creating a new bulk supply point at Kleinburg TS to support provincial and local needs in both GTA West and GTA North regions
- Determining transmission required to enable decreased bulk system reliance on local Gas generation

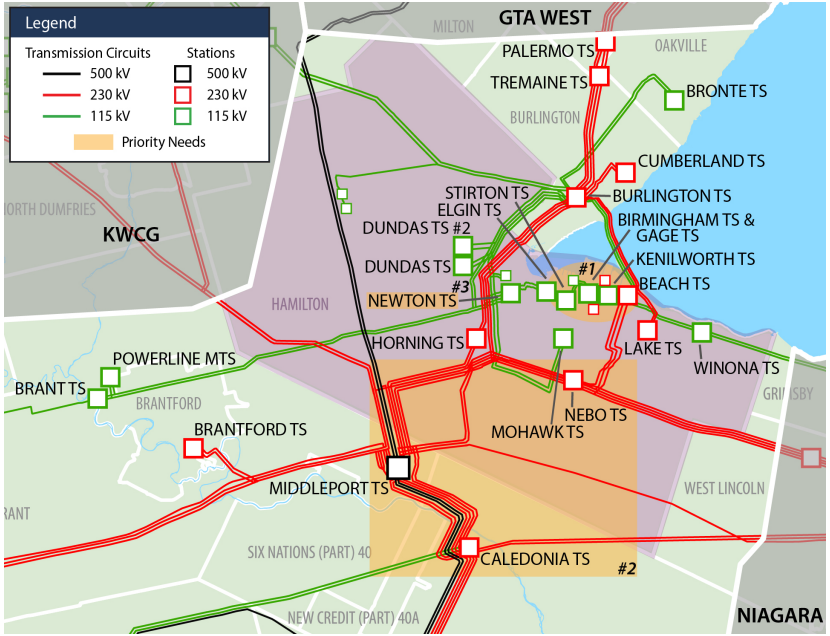
By aligning regional and bulk planning efforts, the IESO aims to develop a coordinated and cost-effective approach to meeting electricity demand across the province.

Draft recommendations were presented in Q4 2025. Final report was released in mid-2026 and will focus on early, "future-ready" investments, as well as longer term direction to preserve options, if needed in the future.

Hamilton Area Addendum and Niagara Bulk

The IESO is conducting two parallel electricity planning initiatives the Hamilton Addendum Study and the Niagara Bulk Plan, that overlap with parts of the GTA West region.

The IESO will align regional and bulk planning efforts to develop a coordinated and cost-effective approach to meeting electricity demand across the province.



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Niagara Bulk Plan

- Through bulk electricity planning studies, the IESO develops bulk system-level infrastructure plans to meet Ontario's future electricity needs.
- The IESO will align regional and bulk planning efforts to develop a coordinated and cost-effective approach to meeting electricity demand across the province.
- The IESO has launched a new bulk planning initiative for the Niagara Region and surrounding areas to address electricity demand growth and examine emerging needs.



Note: Map for illustrative purposes only

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Approach to enabling reduced reliance on gas generation

- Brampton's Sithe Goreway Generating Station (GS) in Brampton and Halton Hills GS are two gas generation stations whose contracts are set to expire in 2035.
- Decisions regarding potential extension of contracts and/or continued use of gas resources have not been made and are outside the scope of regional planning.
- Scenarios where both gas generation stations have been taken out of service in 2035 have been explored and continue to be studied.
- The priority of the 2026 IRRP recommendations will be to address near/medium term needs.
- The approach pursued a set of options that preserves flexibility to trigger incremental development that can accommodate expiring gas contracts in the longer term.
- Depending on the outcome, recommendations required to reduce reliance on gas will be further studied and made in the next planning cycle.

Needs

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Station Capacity Needs 1/3

Electricity Need		Impacted Asset	Drivers of Growth	Magnitude* 2026	Magnitude* 2044
Station Capacity: the ability of a station to deliver power from grid to distribution system	1	Bramalea T1/T2	• Station peaks driven by residential/commercial growth • Industrial developments • Large scale projects • Airport expansion • EV usage	0 MW	74 MW 302 MW
	2	Bramalea T3/T4		13 MW	34 MW 53 MW
	3	Bramalea T5/T6		0 MW	4 MW 6 MW
	4	Cardiff TS	• Residential/commercial growth, transit project, EV usage	22 MW	63 MW 30 MW
	5	Churchill Meadows TS	• Residential/commercial growth, large scale project, EV usage	0 MW	11 MW
	6	Cooksville T1/T2	• Residential/commercial growth • New community development • District energy project • Large scale projects	0 MW	52 MW 118 MW
	7	Cooksville T3/T4		0 MW	47 MW 122 MW

*Green MW refers to the summer forecast, and the blue MW refers to winter forecast.

Station Capacity Needs 2/3

Electricity Need		Impacted Asset	Drivers of Growth	Magnitude* 2026	Magnitude* 2044
Station Capacity: the ability of a station to deliver power from grid to distribution system	8	Erindale T1/T2	• Residential/commercial growth • LRT transit project • Large scale projects • New community development • EV usage	0 MW	41 MW 77 MW
	9	Erindale T3/T4		0 MW	78 MW 37 MW
	10	Erindale T5/T6		0 MW	37 MW
	11	Goreway T5/T6	• Residential/commercial growth, large scale commercial development, EV usage	19 MW	135 MW 243 MW
	12	Halton TS	• Residential/commercial growth • Large scale projects	0 MW	88 MW 19 MW
	13	Jim Yarrow MTS	• Residential/commercial growth, large scale project, EV usage	0 MW	81 MW 125 MW
	14	Kleinburg TS	• Town of Caledon infill development and industrial growth	0 MW	166 MW 67 MW
	15	Lorne Park TS	• Residential/commercial growth, new community development, EV usage	0 MW	10 MW 12 MW

*Green MW refers to the summer forecast, and the blue MW refers to winter forecast.

Station Capacity Needs 3/3

Electricity Need		Impacted Asset	Drivers of Growth	Magnitude* 2026	Magnitude* 2044
Station Capacity: the ability of a station to deliver power from grid to distribution system	16	Meadowvale TS	• Residential/commercial growth, large scale project, EV usage	0 MW	23 MW
	17	Oakville TS	• Residential growth, transit electrification, and EV usage	0 MW	11 MW 2 MW
	18	Palermo TS	• Residential growth, large scale projects, electrification, and EV usage	0 MW	41 MW 4 MW
	19	Pleasant T1/T2	• Residential/commercial growth • Large scale projects • New community development • EV usage • Town of Caledon infill development and industrial growth	0 MW	276 MW 243 MW
	20	Pleasant T5/T6		11 MW	130 MW 226 MW
	21	Pleasant T7/T8		0 MW	24 MW 81 MW
	22	Trafalgar DESN	• Residential growth, transit electrification, and EV usage	0 MW	15 MW 6 MW

*Green MW refers to the summer forecast, and the blue MW refers to winter forecast.

Supply Capacity Needs

Electricity Need		Impacted Asset	Circumstance of Need	Magnitude* 2026	Magnitude* 2044
Supply Capacity: the ability of the system to supply power through the transmission lines to a local area	23	Cooksville Tap	• Supplies Cooksville TS, Lorne Park TS, Oakville TS, and a Customer station	0 MW	238 MW 183 MW
	24	VxH Circuits	• Supplies Bramalea TS, Cardiff TS, and Goreway TS • Receives supply from Sithe Goreway GS	0 MW	275 MW 359 MW
	25	H29/H30 Circuits	• Supplies Pleasant TS	13 MW	489 MW 787 MW
	26	B7/B8 Circuits	• Supplies Bronte TS	0 MW	51 MW 37 MW

*Green MW refers to the summer forecast, and the blue MW refers to winter forecast.

Load Security Needs

Electricity Need		Impacted Asset	Circumstance of Need	Magnitude* 2026	Magnitude* 2044
Load Security: Maximum amount of power that can be lost during select contingencies	27	V41H/V42H	• Supplies Bramalea TS, Cardiff TS, and Goreway TS	0 MW	152 MW 334 MW
	28	Goreway TS (V42H + V43)	• Supplies Goreway TS	0 MW	21 MW
	29	H29/H30	• Supplies Pleasant TS	0 MW	303 MW 508 MW
	30	T38B/T39B	• Supplies Halton TS, Halton Hills MTS, Meadowvale TS, and Trafalgar DESN	0 MW	142 MW 87 MW
	31	R14T/R17T	• Supplies Churchill Meadows TS, Erindale TS, and Tomken TS	0 MW	127 MW 169 MW
	32	R19TH/R21TH	• Supplies Churchill Meadows TS, Erindale TS, Jim Yarrow MTS, and Tomken TS	0 MW	21 MW 81 MW

*Green MW refers to the summer forecast, and the blue MW refers to winter forecast.

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