



OCTOBER 2, 2026

London Area Regional Electricity Planning

Webinar #2 Needs and Options Screening

Territory Acknowledgement

The IESO acknowledges that the London Region is the traditional territory of many nations including the Anishinabek, Attawandaron, Haudenosaunee, and Lūnaapéewak peoples.

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, and the Demand Forecast and Scenarios
3. Electricity Needs in the London Area
4. Screening of Potential Wire and Non-wire Options
5. Additional Considerations and Linkages to Other Plans
6. 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.



Connecting Today.
Powering Tomorrow.



We work with:



Summary

Regional planning has advanced in the London electrical area to ensure a reliable supply of electricity and support local growth and economic development.

- In December 2025, the IESO shared the draft demand forecast and scenarios for your feedback. Significant growth is forecasted over the next 20 years primarily driven by new industrial demand followed by new residential demand.
- At this stage in the Integrated Regional Resource Plan (IRRP) process, the Technical Working Group has evaluated and identified the unique electricity needs of the region; and has screened a range of wire and non-wire options and resources to meet electricity demand.
- Today, the Technical Working Group will share the electricity needs for the London Area and the screening of wire and non-wire options for your feedback.
- As work progresses, the IESO will share more information, answer questions and seek feedback at key milestones.

Seeking Input

Local considerations and feedback are critical components to the development of an Integrated Regional Resource Plan. The IESO wants to understand:

- The screening assessment suggests that substantial network infrastructure investments may be required to support future growth in the London area. What key factors should be considered when evaluating and advancing new wires solutions, including timing, cost, and community impacts?
- When planning for future growth, how do you weigh the risk of investing in infrastructure capacity ahead of demand against the risk of infrastructure capacity lagging behind growth needs?
- What are your community preferences with respect to resources (e.g., solar, wind, batteries, gas)?
- Are there any updates or risks to growth trends/plans since our last engagement? Given the absence of a Canada-US trade deal, how would you rank the risk of economic stagnation or downturn?
- Are there any enhancements to our engagement approach, presentations, communications, or supporting materials that would help facilitate meaningful participation and feedback as the planning process continues?

Please submit your written comments by email to engagement@ieso.ca by October 23.



Recap: Regional Electricity Planning Process, Demand Forecast

Electricity Planning in Ontario



Provincial/Bulk System Planning

Addresses provincial electricity system needs and policy directions

Completed: [South and Central Bulk Plan](#)



Regional Planning

Addresses local electricity system needs at the transmission system level

Underway: [London Area Integrated Regional Resource Plan](#)

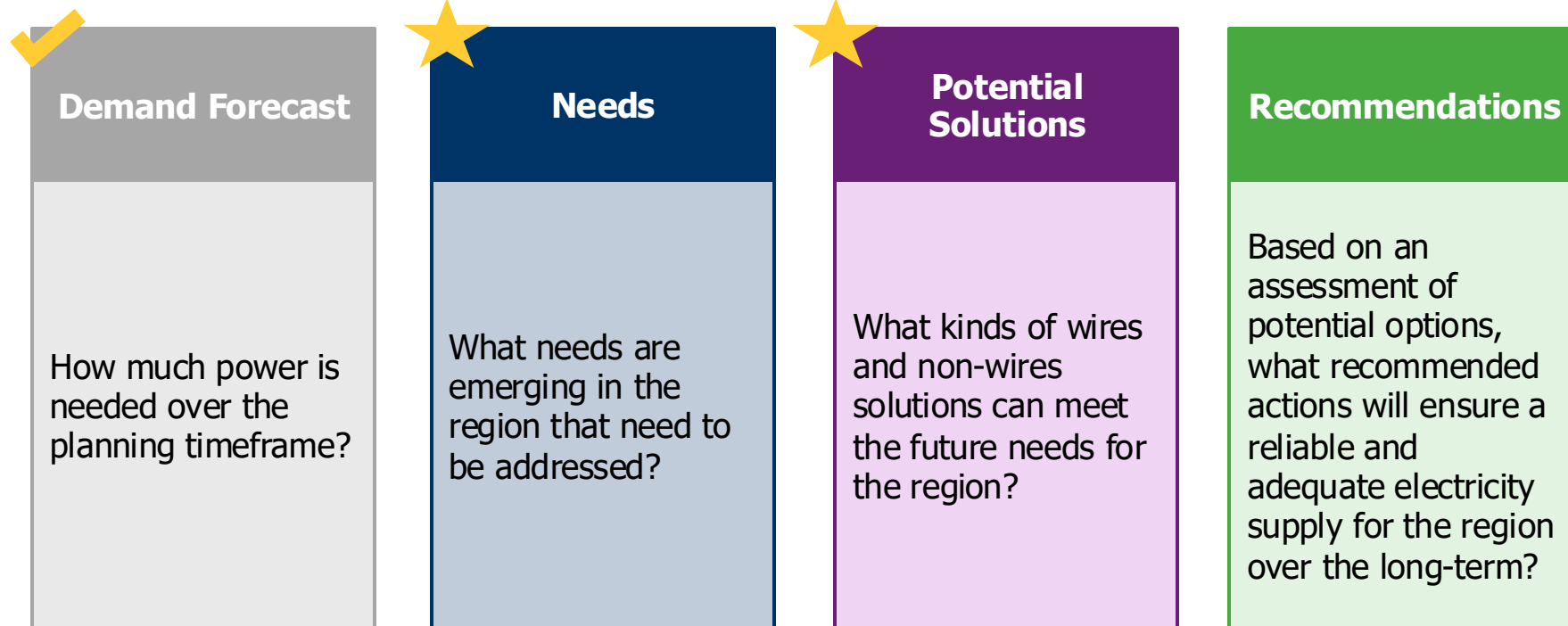


Distribution Planning

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

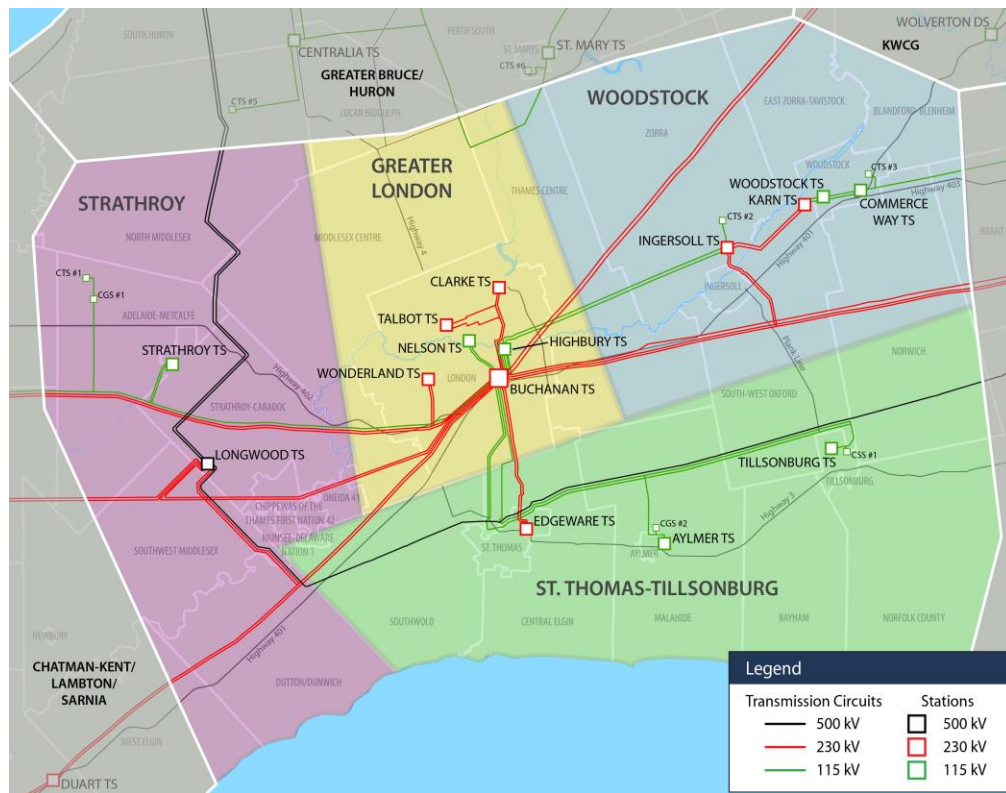
Led by local distribution companies

Components of a Regional Plan



London Electrical Region

- Most of the electricity consumed in the region is generated outside of the region and brought into the region through bulk transmission infrastructure at Longwood Transformer Station (TS) and Buchanan TS.
- The area is serviced by several TS supplied from 115 or 230 kilovolt (kV) lines.
- Regional electricity needs are subdivided into 4 sub-regions: Strathroy, Greater London, Woodstock, and St. Thomas-Tillsonburg.
- Since 2015, the IESO has undertaken electricity planning work to address capacity needs in the London electrical area. The previous Integrated Regional Resource Plan was completed in 2017 and the most recent Regional Infrastructure Plan (RIP) was published in 2022.

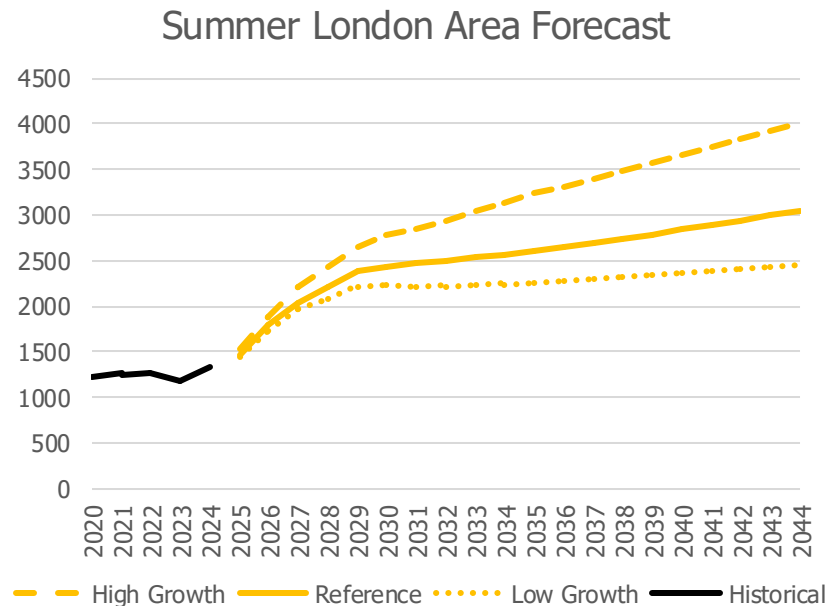


Draft Summer London Area Forecast and Scenarios

- Summer demand is growing by 130% (up to 200% in high scenario) over the next 20 years
- Growth is primarily driven by new industrial demand followed by new residential demand

Key takeaways:

- Firm connections to LDCs and firm new industrial customers are driving near-term growth
- Reference forecast growth continues in the mid- to long-term due to anticipated industrial and residential growth plans
- High scenario reflects larger load assumptions and faster growth expectations



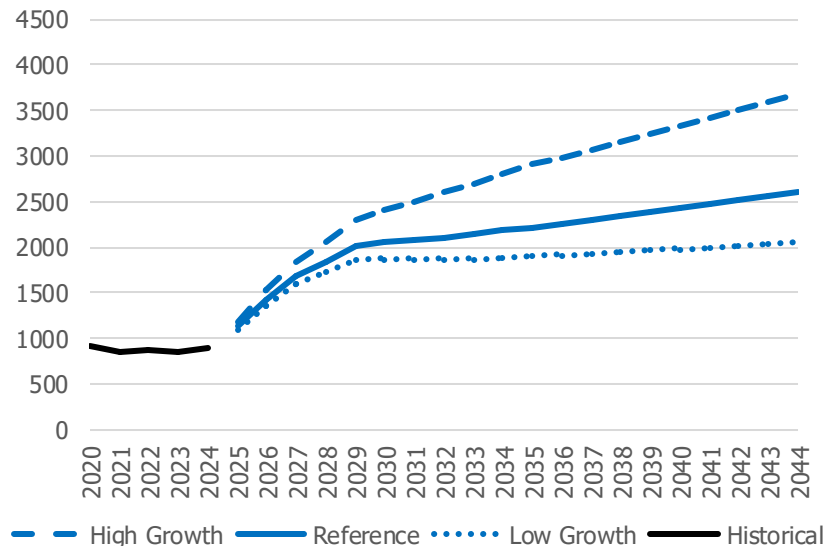
Draft Winter London Area Forecast and Scenarios

- Winter demand is growing by 190% (up to 310% in high scenario) over the next 20 years
- Growth is primarily driven by new industrial demand followed by new residential demand
- Electric heating plays a small role regionally, but is forecasted to affect some sub-regions more than others

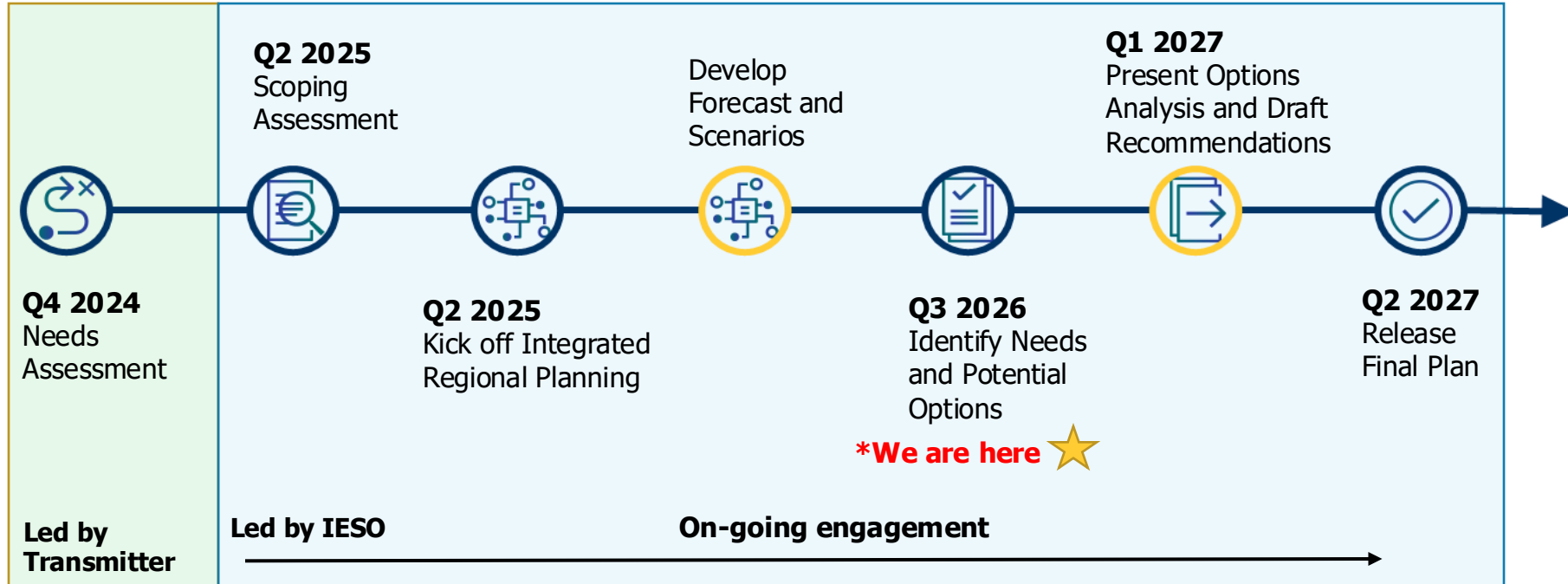
Key takeaways:

- Firm connections to LDCs and firm new industrial customers are driving near-term growth
- Reference forecast growth continues in the mid- to long-term due to anticipated industrial and residential growth plans
- High scenario reflects larger load assumptions and faster growth expectations
- Summer needs remain predominant over winter needs

Winter London Area Forecast



Regional Planning Milestones for London Area



**6-month extension expected to be required to complete the study*

Feedback Received

Areas of Feedback	Incorporating Feedback/Considering Feedback
Explore district energy as a planning solution	The IESO acknowledged the role district energy can play in reducing peak demand, supporting capacity needs, and advancing decarbonization objectives. The IESO indicated that district energy opportunities can be considered as part of the non-wires options analysis and welcomed further information to support evaluation.
Assess local generation and DERs as non-wires alternatives	The IESO confirmed that the upcoming options analysis will evaluate both wire and non-wire solutions, including DERs and electricity demand-side management measures, to determine their potential to meet or defer regional infrastructure requirements.
Enable participation of district energy and local generation in procurement models	The IESO indicated that procurement design is outside the scope of the IRRP but noted broader provincial direction to identify opportunities for district energy systems, advance DER valuation, and explore pathways that support DER participation. The IESO also expressed interest in continued engagement with Enwave and requested technical information to support future assessments.



Needs in the London Area

Electricity Need Types

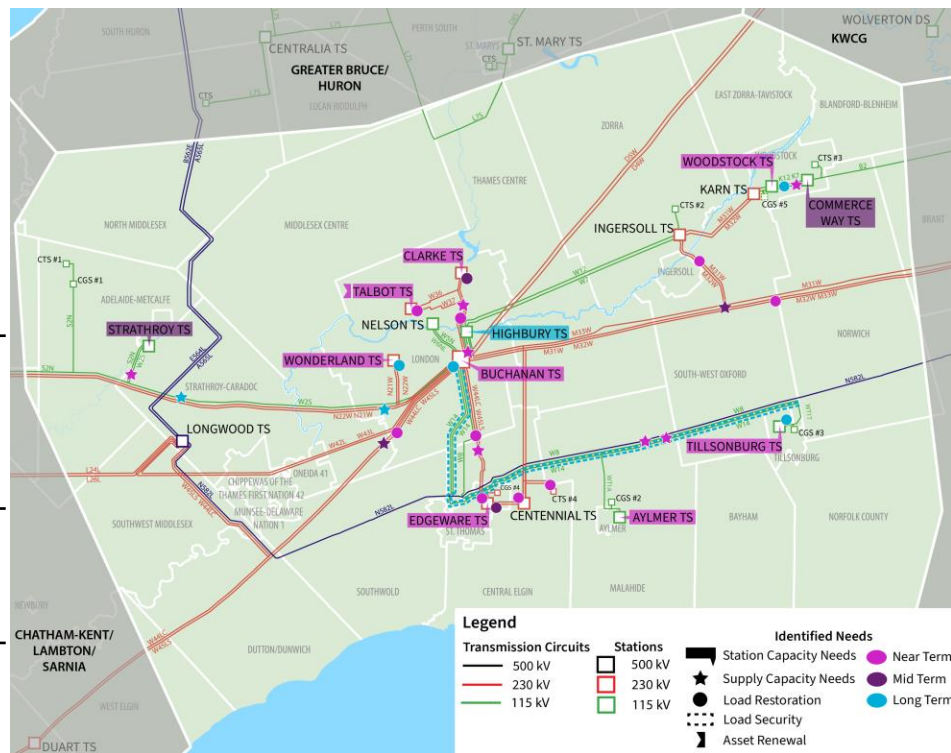
Generally, needs identified in this process fall under the following categories:

- **Station capacity:** Ability of a station to deliver power from the high-voltage grid down to the distribution system.
- **Supply capacity:** Ability of the transmission system to supply power through the transmission lines to a local area.
- **Load restoration:** Ability of the system to restore power after an interruption or loss of load.
- **Load security:** Maximum amount of power that can be interrupted following specific planning contingencies.
- **Asset renewal:** Station or transmission equipment replacement as determined by age and the assessed condition of the asset.

Needs in the London Area

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

Timing	Impacted Equipment
 Near-term (2025-2029)	9 station capacity needs 8 supply capacity needs 15 load restoration needs 1 asset renewal need
 Medium-term (2030-2034)	2 station capacity needs 1 supply capacity needs 2 load restoration needs
 Long-term (2035-2044)	1 station capacity need 2 supply capacity needs 4 load restoration needs 1 load security need



The numbers correspond to the needs detailed in slides 51 to 61.

City of London Needs

A dozen near-term needs have been identified impacting the City of London and surrounding areas relative to the Reference forecast

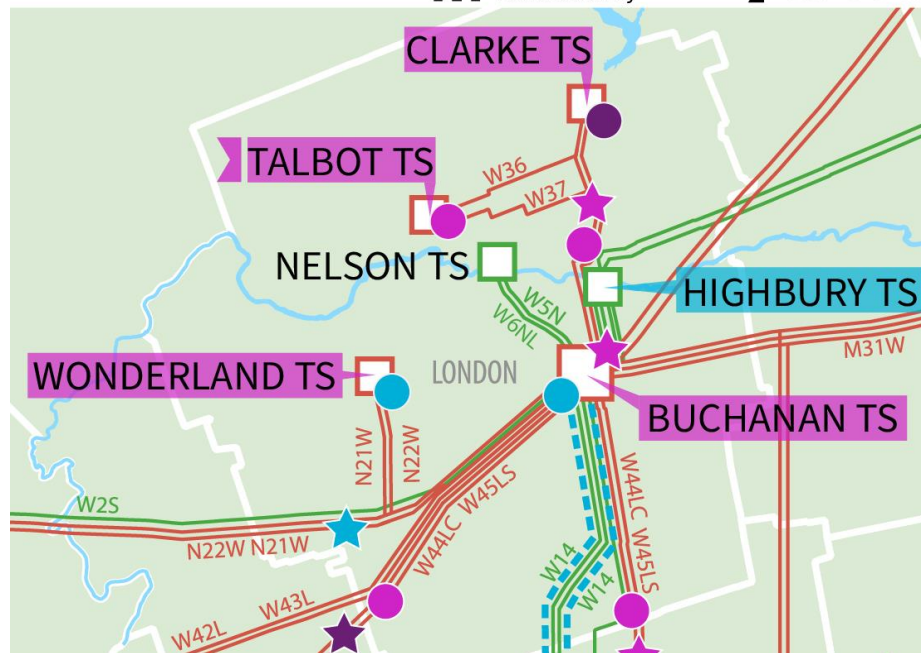
Timing	Impacted Equipment
● Near-term (2025-2029)	5 station capacity needs 2 supply capacity need 5 load restoration needs 1 asset renewal need
● Medium-term (2030-2034)	1 load restoration need
● Long-term (2035-2044)	1 station capacity need 1 supply capacity need 2 load restoration needs

Legend

Transmission Circuits
 230 kV
 115 kV

Stations
 230 kV
 115 kV

Identified Needs
 Station Capacity Needs
 Supply Capacity Needs
 Load Restoration
 Load Security
 Asset Renewal
 Long Term
 Mid Term
 Near Term

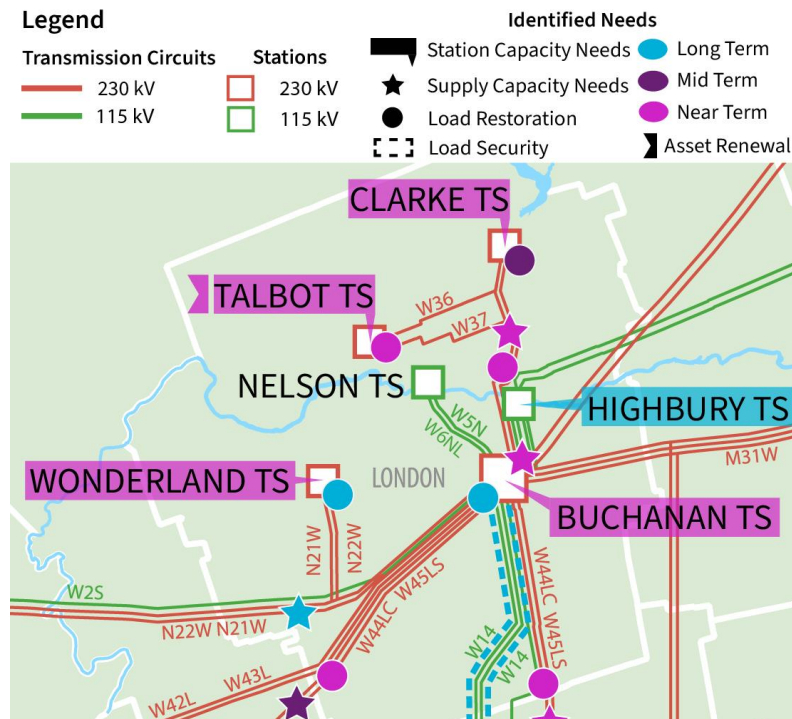


The numbers correspond to the needs detailed in slides 51 to 54.

Magnitude of Needs in the City of London

The needs in the Greater London sub-region are generally:

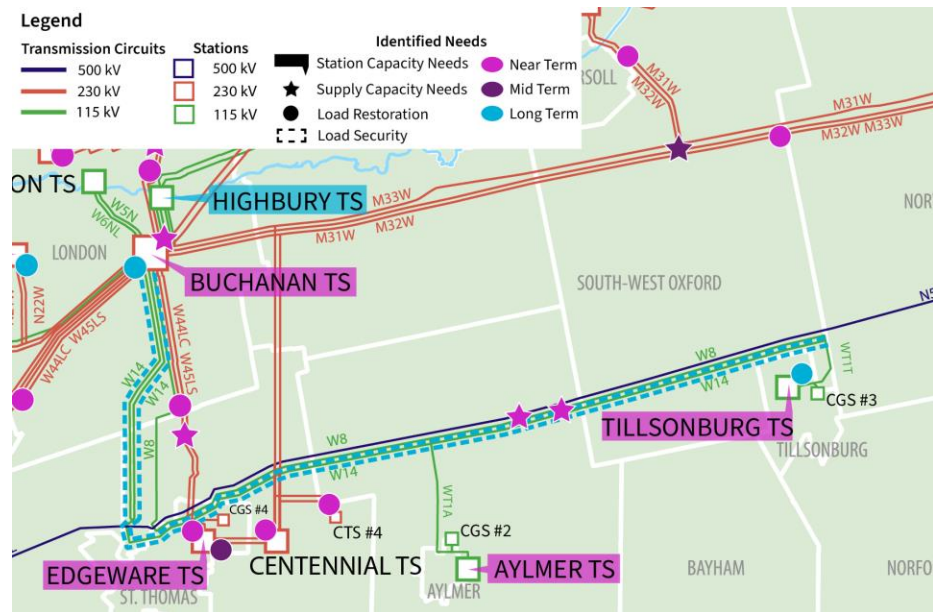
- Near/medium-term needs requiring actions between 2025-2034
- We primarily see station capacity, supply capacity and load restoration needs
- Station capacity needs have magnitudes between 11 MW and 114 MW
- Supply capacity needs have magnitudes between 3 MW and 205 MW
- Load restoration needs at 5 locations



St. Thomas, Aylmer, and Tillsonburg Needs

Fifteen near-term needs have been identified impacting the City of St. Thomas, Town of Aylmer, Town of Tillsonburg, and surrounding areas relative to the Reference forecast.

Timing	Impacted Equipment
 Near-term	3 station capacity needs 3 supply capacity needs 9 load restoration needs
 Medium-term	1 supply capacity need 1 load restoration need
 Long-term	1 load restoration need 1 load security need

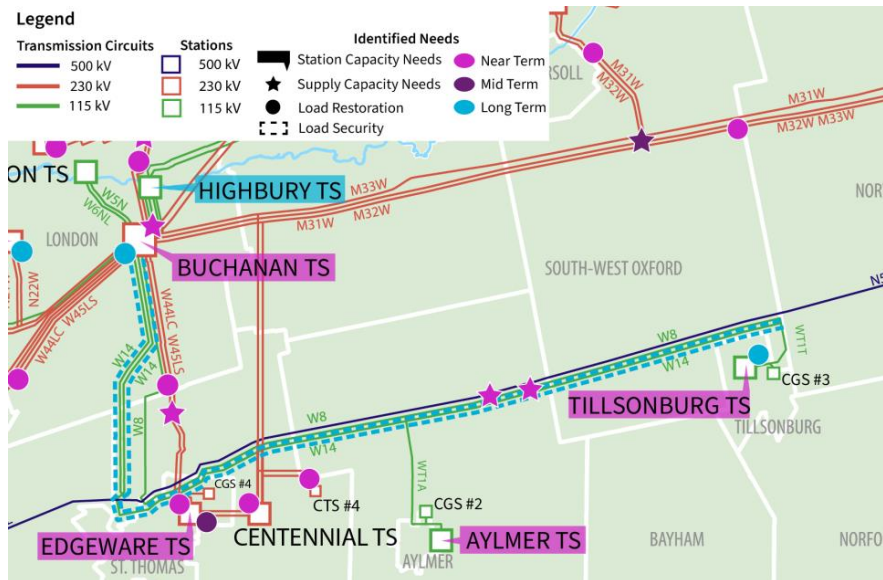


The numbers correspond to the needs detailed in slides 55 to 58.

Magnitude of Needs in St. Thomas, Aylmer, and Tillsonburg

The needs in the St. Thomas, Aylmer and Tillsonburg are generally:

- Near-term needs requiring actions between 2025-2029
- We primarily see station capacity, supply capacity and load restoration needs
- Station capacity needs have magnitudes between 30 MW and 165 MW
- Supply capacity needs have magnitudes of between 92 MW and 187 MW
- Load restoration needs at 8 locations



Strathroy-Caradoc and Adelaide-Metcalfe Needs

There are four total needs affecting the Township of Adelaide-Metcalfe and the Municipality of Strathroy-Caradoc relative to the Reference forecast.

Timing	Impacted Equipment
 Near-term (2025-2029)	1 feeder capacity need 1 supply capacity need
 Medium-term (2030-2034)	1 station capacity need
 Long-term (2035-2044)	1 supply capacity need



The numbers correspond to the needs detailed in slide 59.

Magnitude of Needs in Strathroy-Caradoc and Adelaide-Metcalfe

The needs in Strathroy-Caradoc and Adelaide-Metcalfe are generally:

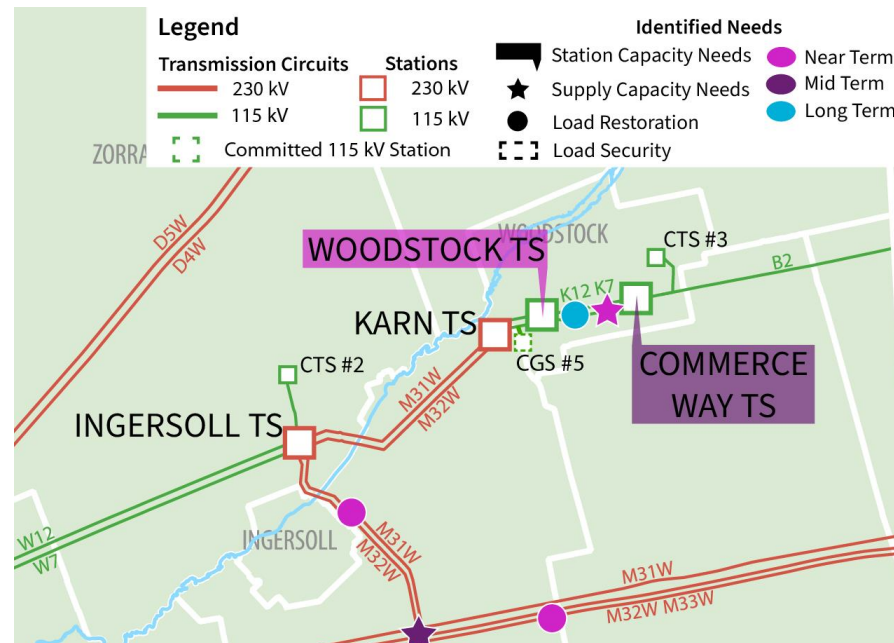
- Materializing across all three time horizons from now until 2044
- Feeder capacity, station capacity, and supply capacity needs
- The station capacity need has a magnitude of 23 MW
- The supply capacity needs have magnitudes between 9 MW and 34 MW



Ingersoll and Woodstock Needs

There are eight total needs affecting the Town of Ingersoll, the City of Woodstock, and surrounding areas relative to the Reference forecast.

Timing	Impacted Equipment
● Near-term (2025-2029)	1 station capacity need 1 supply capacity needs 1 load restoration need
● Medium-term (2030-2034)	1 station capacity need 1 supply capacity need
● Long-term (2035-2044)	1 load restoration need

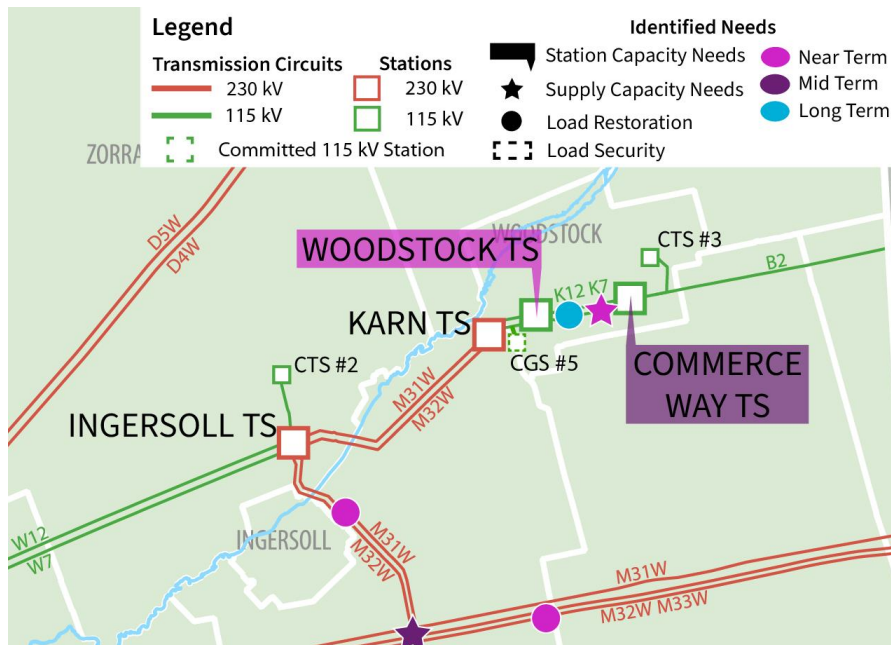


The numbers correspond to the needs detailed in slides 60 to 61.

Magnitude of Needs in Ingersoll and Woodstock

The needs in Ingersoll and Woodstock are generally:

- Materializing across all three time horizons from now until 2044
- Station capacity, supply capacity, and load restoration needs
- Station capacity needs have magnitudes between 26 MW and 52 MW
- Supply capacity needs have magnitudes between 26 MW and 205 MW
- Load restoration needs at 2 locations



Electricity Needs in the London Area

Significant and growing electricity needs across the region:

53 needs identified, including 23 related to station and supply capacity

Urgent actions may be needed: nearly three quarters of capacity needs are expected in the near term (2025-2029), but timing is heavily dependent on economic circumstances/drivers

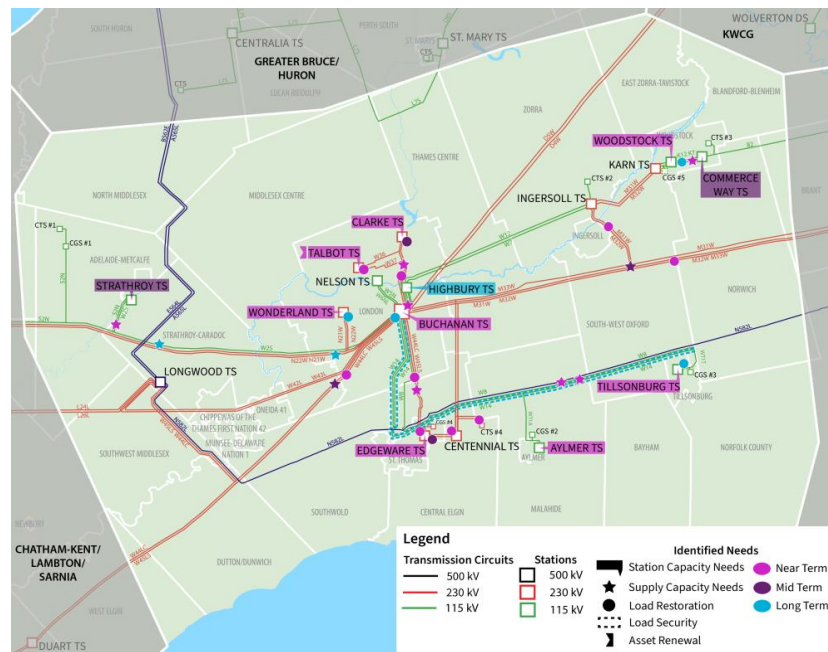
Large-scale infrastructure requirements: many of these needs are large in magnitude and will ultimately require wires-based solutions

Non-wires screened in for 3 needs: potentially defer needs into the long-term (2035-2044)

Potential for interim non-wires in the City of London: assessed to support needs at Clarke, Talbot, Nelson, and Highbury TS while medium-to-long-term wire solutions are developed (7+ years)

Largest needs are concentrated around Buchanan TS bulk station and solutions are under investigation in this area:

- Expanding Buchanan TS and reinforcing transmission supply
- Triggering the St. Thomas 500/230 kV Transformer Station
- New 230 kV circuits extending both north and south from Buchanan TS to load centres





London Bulk Supply Needs & Coordination with Other Regions

South and Central Bulk Plan

The IESO completed a South and Central Bulk Plan that examined broader system-level needs and opportunities across southern and central Ontario.

The bulk plan recommended several medium- to long-term actions that affect the London Area. This includes:

- A new 500 kV transmission line from Longwood TS (Strathroy-Caradoc) to Guelph North TS
- A new St. Thomas 500 kV Autotransformer station
- A new 500 kV transmission line from Lakeshore TS (Lakeshore) to the new St. Thomas TS (St. Thomas)
- A new 500 kV transmission line from Bruce C Nuclear facility (Kincardine) to Longwood TS (Strathroy-Caradoc)

By aligning regional and bulk planning efforts, the IESO has developed a coordinated and cost-effective approach to meet electricity demand across the province.

Draft recommendations were presented in Q4 2025. The [final report](#) was released on August 20, 2026, and focuses on early, “Future-Consideration” investments, as well as longer term direction to preserve options, if needed in the future.

Overview of Southwest Bulk Reinforcements

- The South and Central Bulk Plan identified Implementation-Ready and Future-Consideration actions to support growth across southwestern Ontario
- St. Thomas TS was identified as a key bulk reinforcement to support load growth in the London Area
- Identified as a Future-Consideration action with timing to be determined by the London Area IRRP



Bulk Supply Needs & the South and Central Bulk Plan

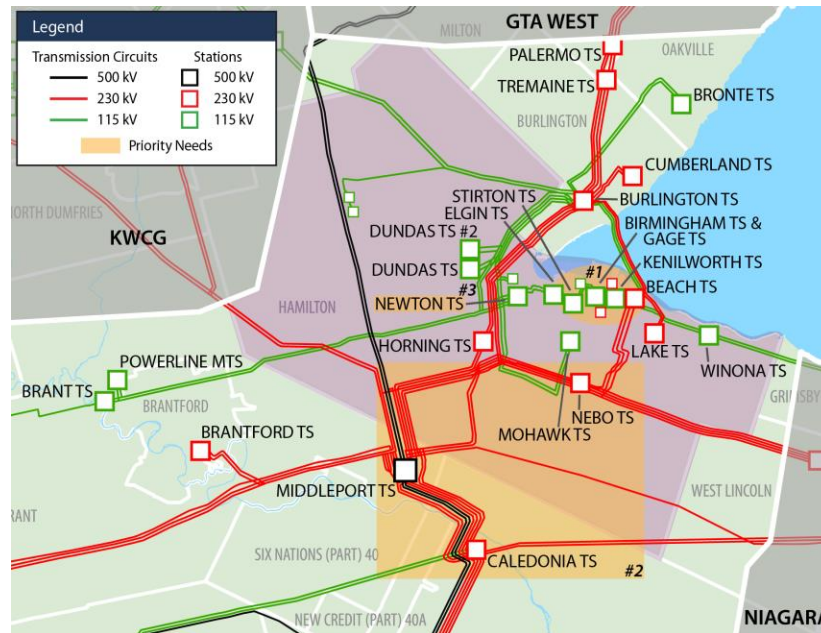
- We assessed bulk supply needs by applying the IRRP forecasts and stressing bulk interfaces
- We confirmed that additional bulk reinforcement is needed in the medium-to-long term.
- The need for a new 500 kV supply into St. Thomas will be assessed against 230 kV reinforcement options

Bulk Needs				
Forecast	2029 (Near)		2034 (Medium)	2044 (Long)
Low	Pre- and post-contingency thermal violations on the 230 kV bulk supply west of Buchanan TS	New Longwood to Guelph North & Longwood to Lakeshore 500 kV Lines 	No violations post reinforcements	No violations post reinforcements
Ref.	Pre- and post-contingency thermal violations on the 230 kV bulk supply west of Buchanan TS		No violations post reinforcements	Voltage decline & collapse in Buchanan 115 kV Subsystem
High	Pre- and post-contingency thermal violations on the 230 kV bulk supply west of Buchanan TS		Voltage decline & collapse in Buchanan 115 kV Subsystem	Voltage decline & collapse in Buchanan 115 kV Subsystem

Hamilton Area Addendum

The IESO is conducting a parallel electricity planning initiative with the [Hamilton Addendum Study](#) that overlaps with parts of the London Area.

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





Potential Wire and Non-Wire Options Analysis

Background: Determining Options

A combination of wire and non-wire options may be required to address the needs, and over the course of the planning process, the Technical Working Group will:

- **Screen various options** to address the region's near, medium and long-term electricity needs for the reference forecast, including:



Traditional wires options to supply the local area



Non-wires alternatives (NWAs), such as transmission-connected generation or energy storage, conservation and demand management, distributed generation or demand response

- **Complete a detailed analysis** of screened-in options to recommend solutions to meet needs.

The IESO will share the outcomes and seek community feedback at key milestones to enhance development and evaluation of options before making a final recommendation. The Technical Working Group will recommend options that address needs from the reference forecast and also consider options to address potential growth as part of the high electrification forecast to act quickly if/when higher growth materializes.

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?

Screening Steps

1. Type of Need

Evaluate the compatibility of the need with the various option types, based on technical requirements and permissibility under planning standards and criteria.

2. Need Traits

Further filter compatible options with high-level need traits (such as timing, size, and coincidence with system needs).

3. Additional Considerations

Take into account local factors that may require further analysis of non-wire alternatives, even if earlier steps haven't identified non-wires alternatives as suitable.

Renewable Generation vs Wire-options



Renewables are infeasible for majority of the needs due to the short circuit capacity, land requirements, and costs to support the magnitude of needs identified.

e.g. one of the identified needs at Wonderland TS (with the most land available) will need an **additional 56MW by 2044** to meet electricity demand.

Option	Short Circuit Capacity Need (MVA)	Land (ha)	Cost (\$M, NPV)
New solar gen	210	170	65
New wind gen	410	2000	110
Expand Wonderland TS	N/A – provides new capacity for new DER connections	N/A	65
Leverage new substation in area			N/A*

Screening Results (1)

Need Summary	Impacts	Screened In	Screened Out
Station Capacity	Commerce Way TS, Strathroy TS	- Non-wire alternatives (additional eDSM, demand response, distributed generation) to defer medium-term needs to long-term - Wires options for medium-to-long-term needs	- Transmission-connected resources, since they are upstream of the station - Non-wire alternatives for long-term needs due to supply and load restoration needs ultimately requiring wires
	Combined needs of Clarke, Talbot, Nelson, and Highbury TSs	- Non-wire alternatives (additional eDSM, demand response, distributed generation) as an interim solution until wire solutions are developed - Wires options for medium-to-long-term needs	- Transmission-connected resources, since they are upstream of the station - Non-wire alternatives as a permanent solution, due to the size (260 MW) and/or urgency of the needs
	All remaining stations with near-to-medium term needs	Wires options	- Transmission-connected resources, since they are upstream of the station - Non-wire alternatives, due to the size (30-165 MW) and/or urgency of the needs

Screening Results (2)

Need Summary	Impacts	Screened In	Screened Out
Supply Capacity	W2S+S2N	• Non-wire alternatives (additional eDSM, demand response, distributed generation, transmission-connected resources) to defer medium-term needs to long-term • Wires options for medium-to-long-term needs	• Wires options and non-wire alternatives for long-term needs due to long-term timing
	Remaining with near-to-medium term needs	• Wires options	• Non-wires alternatives, due to size (53-205 MW) and urgency of the needs

Screening Results (3)

Need Summary	Impacts	Screened In	Screened Out
Load Restoration	Near-to-medium term needs	Wires options	Non-wire alternatives, due to overlapping station and supply capacity needs requiring wires options
Load Security	W14	Wires options	Non-wire alternatives, due to the type of the need

All remaining long-term needs will be monitored annually by the Technical Working Group (TWG) and signposts will be identified for further study in subsequent regional plans.

Observations: Outcomes of the Option Analysis

Meeting the pace of growth in the London Area will require significant new electricity infrastructure including:

- **Multiple station capacity upgrades, and several new stations**
- **New 230 kV transmission or converting existing transmission to 230 kV in the St. Thomas-Tillsonburg sub-region**
- **New transmission into the City of London**
- **New or reinforced bulk supply into the City of London (Buchanan TS) or the City of St. Thomas (new St. Thomas TS)**

The Technical Working Group will continue to further evaluate a range of options to develop recommendations that meet the identified needs, maintain compliance with reliability and planning criteria, and enable growth.

Electricity Investment Costs

Cost allocation for transmission investment is set by the Ontario Energy Board (OEB), using two key principles:

- Approved projects have to be “just and reasonable”
 - Reference forecasts are based on firm load forecasts to guide near- to medium-term investments, while additional growth scenarios are considered conditionally to avoid unnecessary costs for customers until demand materializes.
- Benefactor pays approach
 - Costs for dedicated connection facilities are paid by the connecting customer, while costs for shared network facilities are allocated across all ratepayers.

Through regional planning, the IESO forecasts future electricity demand, identifies regional needs, and compares potential solutions to recommend timely actions that deliver reliable, sustainable, and cost-effective electricity for the long term.



Next Steps and Discussion

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:

Oct. 2, 2026 : public webinar to present the needs and options screening with an opportunity for participants to provide feedback.

Oct. 23, 2026: Deadline for feedback to the IESO on the needs and options screening.

Q1 2027: Detailed options analysis and draft recommendations are presented during a municipal meeting and a public engagement webinar with an opportunity for participants to provide feedback.

Q2 2027: IRRP report will be completed and published on the London Area [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 (RIP), 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.

Seeking Input

Local considerations and feedback are a critical component to the development of an Integrated Regional Resource Plan (IRRP). As the options phase of the IRRP continues to identify how to best meet the area's infrastructure needs, the IESO wants to hear your perspectives about:

- The screening assessment suggests that substantial network infrastructure investments may be required to support future growth in the London area. What key factors should be considered when evaluating and advancing new wires solutions, including timing, cost, and community impacts?
- When planning for future growth, how do you weigh the risk of investing in infrastructure capacity ahead of demand against the risk of infrastructure capacity lagging behind growth needs?
- What are your community preferences with respect to resources (e.g., solar, wind, batteries, gas)?
- Are there any updates or risks to growth trends/plans since our last engagement? Given the absence of a Canada-US trade deal, how would you rank the risk of economic stagnation or downturn?
- Are there any enhancements to our engagement approach, presentations, communications, or supporting materials that would help facilitate meaningful participation and feedback as the planning process continues?

IESO welcomes written feedback until October 23, 2026. Please submit feedback to engagement@ieso.ca using the feedback form on the [engagement webpage](#).

Thank You

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Appendix

Local Planning Drivers

Important considerations that influence the load forecasts:



Municipal/regional growth plans



Climate change action plans



Community energy plans



Business plans of major electricity consumers or large projects



Distributed energy resources/energy projects

Local Distribution Companies incorporate these drivers into the electricity demand forecast.

Developing the Demand Forecasts

Local distribution companies (LDCs) are the main source for the demand forecasts, and they:

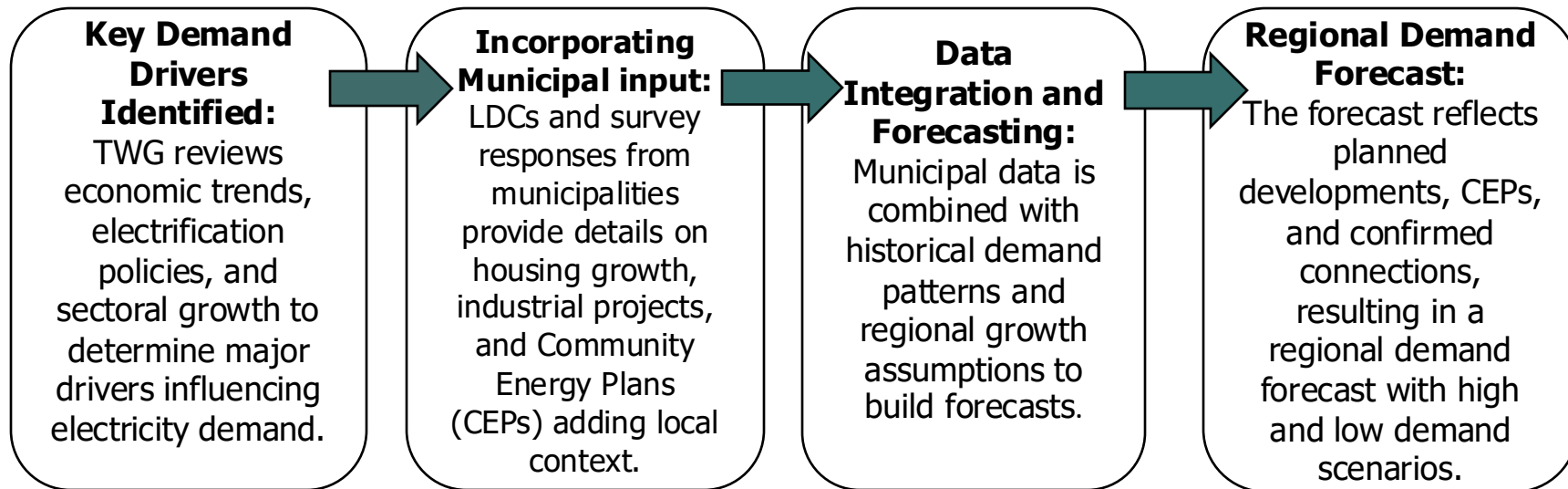
- Provided summer and winter demand forecasts for each station their areas are supplied from,
- Incorporated municipal/regional growth plans, climate change action plans, community energy plans, business plans of major electricity consumers or large projects into their forecasts, and
- Established forecasting assumptions based on customer growth plans.

In addition to LDC forecasts, the IESO:

- Accounts for impacts of existing demand-side management programs, planned distributed generation, and extreme weather conditions in the electricity demand forecasts.
- Works directly with customers and industry stakeholders to create demand forecasts for large electricity consumers that may seek connection on the transmission system.
- Works with the LDC to ensure that additional insights from municipalities, customers, and other interested parties have been incorporated in the demand forecasts for the regional planning process.

Incorporating Demand Drivers into the Forecast

LDCs provide localized demand forecasts based on committed loads and serve as conduits for municipalities to communicate growth, development, and electrification plans, ensuring regional forecasts reflect local initiatives.



Forecast Scenarios

The TWG has prepared a reference demand forecast and two additional scenarios for consideration in this IRRP.

- **Low:** A low electricity demand scenario that incorporates the risk of potential economic downturn, delayed and/or reduced growth.
- **Reference:** a demand forecast that reflects current trends and policies in electrification of transportation, space heating, industry, and other areas that impact electricity, while considering business-as-usual factors such as firm loads (current and planned), growth trends, and existing plans.
- **High:** A high electricity demand scenario that reflects a reasonable incremental increase in the foregoing trends, while incorporating potential demand growth that is less certain.

Overview of Scenario Assumptions

Consideration	Low Scenario	Reference Forecast	High Scenario
Overview	Reasonably certain, but potential doubt	Reasonably certain	Could reasonably happen
Pacing	Low scenarios used when provided to LDCs, or lower historical trends	As provided to LDCs, or existing historical trend	As provided to LDCs, or higher historical trend
Impact to demand	Lower-range values based on targets or trends	Average or mid-range values based on targets or trends	Upper-range values based on targets or trends

Reference forecast will drive firm near- and mid-term recommendations. High forecast will be used to establish plan based on load thresholds rather than need years, direct early development work, and identify sign-posts to trigger further investments.

List of City of London Needs (1 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
2	Buchanan TS	Station Capacity	2025	2025	2025	114
3	Clarke TS	Station Capacity	2025	2025	2025	62
6	Highbury TS	Station Capacity	N/A	2038	2035	11
8	Nelson TS	Station Capacity	N/A	N/A	2036	N/A
10	Talbot T1/T2	Station Capacity	2025	2025	2025	108
11	Talbot T3/T4	Station Capacity	2025	2025	2025	79

List of City of London Needs (2 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
13	Wonderland TS	Station Capacity	2028	2027	2026	56
15	W36+W37	Supply Capacity	2025	2025	2025	57
16	N21W+N22W	Supply Capacity	N/A	2044	2036	3
17	W5N+W6NL+W9L	Supply Capacity	N/A	N/A	2040	N/A
27	Buchanan 115 kV Subsystem	Supply Capacity	2025	2025	2025	205

List of City of London Needs (3 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
28	Buchanan T13/T14	Load Restoration (0.5 hr)	N/A	2038	2033	45
30	Talbot TS	Load Restoration (0.5 hr)	2025	2025	2025	174
33	W36+W37	Load Restoration (0.5 hr)	2025	2025	2025	350
41	Clarke TS	Load Restoration (4 hr)	2043	2034	2029	26
43	Talbot TS	Load Restoration (4 hr)	2025	2025	2025	274

List of City of London Needs (4 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
45	Wonderland TS	Load Restoration (4 hr)	N/A	2043	2036	4
47	Talbot TS	Load Restoration (4 hr)	2025	2025	2025	274
48	W36+W37	Load Restoration (4 hr)	2025	2025	2025	450
50	W36+W37	Load Security	N/A	N/A	2038	N/A
53	Talbot T3/T4	Asset Renewal	2025-2029			N/A

List of St. Thomas, Aylmer, Tillsonburg Needs (1 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
1	Aylmer TS	Station Capacity	2025	2025	2025	30
5	Edgeware TS	Station Capacity	2039	2027	2026	165
12	Tillsonburg TS	Station Capacity	2025	2025	2025	70
18	W44LC+W45LS (Buchanan TS to Centennial JCT)	Supply Capacity	2027	2027	2027	187
19	W44LC+W45LS	Supply Capacity	N/A	2034	2031	117
20	W8T	Supply Capacity	N/A	N/A	2044	N/A

List of St. Thomas, Aylmer, Tillsonburg Needs (2 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
21	W14	Supply Capacity	2025	2025	2025	92
22	W8T+W14	Supply Capacity	2025	2025	2025	110
29	Edgeware TS	Load Restoration (0.5 hr)	N/A	2032	2027	81
31	Tillsonburg TS	Load Restoration (0.5 hr)	N/A	N/A	2043	N/A
32	CTS4	Load Restoration (0.5 hr)	2029	2029	2029	50
34	W44LC+W45LS (Buchanan TS to Centennial JCT)	Load Restoration (0.5 hr)	2027	2027	2026	247

List of St. Thomas, Aylmer, Tillsonburg Needs (3 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
35	W44LC+W45LS	Load Restoration (0.5 hr)	2027	2026	2026	267
38	M32W+M33W	Load Restoration (0.5 hr)	2028	2028	2028	216
39	Centennial TS PH1	Load Restoration (4 hr)	2027	2027	2027	16
40	Centennial TS PH2	Load Restoration (4 hr)	2028	2028	2028	16
42	Edgeware TS	Load Restoration (4 hr)	2027	2026	2025	181

List of St. Thomas, Aylmer, Tillsonburg Needs (4 of 4)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
44	Tillsonburg TS	Load Restoration (4 hr)	N/A	2039	2028	21
46	CTS4	Load Restoration (4 hr)	2029	2029	2029	150
49	W44LC+W45LS (Buchanan TS to Centennial JCT)	Load Restoration (4 hr)	2026	2026	2025	347
51	W44LC+W45LS	Load Security	N/A	N/A	2031	N/A
52	W14	Load Security	N/A	2039	2028	21

List of Adelaide-Metcalf, Strathroy-Caradoc Needs

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
7	Longwood TS	Station Capacity	N/A	N/A	2034	N/A
9	Strathroy TS	Station Capacity	N/A	2033	2026	23
23	W2S	Supply Capacity	N/A	2041	2031	9
24	W2S+S2N	Supply Capacity	2026	2025	2025	34

List of Ingersoll, Woodstock Needs (1 of 2)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
4	Commerce Way TS	Station Capacity	N/A	2030	2028	26
14	Woodstock TS	Station Capacity	2026	2026	2026	52
25	M31W+M32W+M33W	Supply Capacity	2041	2034	2029	26
26	Brant Extended Area (115 kV from Karn TS to Burlington TS)	Supply Capacity	2028	2027	2027	151

List of Ingersoll, Woodstock Needs (2 of 2)

			Forecast			
	Location of Need	Need Type	Low Need Year	Reference Need Year	High Need Year	Reference 2044 Size (MW)
36	K7+K12	Load Restoration (0.5 hr)	N/A	2036	2030	41
37	M31W+M32W	Load Restoration (0.5 hr)	2027	2027	2027	146