JUNE 11, 2026

Northwestern Ontario Regional Electricity Planning

Webinar #1: Draft Demand Forecast and Scenarios

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Territory Acknowledgement

The IESO acknowledges that Northwest Ontario is the traditional territory of many nations including the Anishinaabeg and Métis peoples, encompassing areas covered by Treaty 3, Treaty 5, and Treaty 9, and the Robinson-Superior Treaty.

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. Regional Electricity Planning Process
3. Draft Electricity Demand Forecast and Scenarios
4. Engagement and Next Steps
5. 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.

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Connecting Today.
Powering Tomorrow.

We work with:

Generators >>> **Transmitters** >>> **Local Distribution Companies** >>> **Energy Consumers**

<<< **Communities** >>>

Seeking Input

As you listen today, consider any additional factors for:

Determining the electricity demand forecast and scenarios for your region
What additional information, if any, should be incorporated in the proposed scenarios? How can the proposed scenarios best capture the range and uncertainty of growth potential while informing near-term infrastructure investments?

Identifying needs to be addressed
What areas of concern or interest about electricity should be considered as part of the planning process?

Engaging with communities and interested parties
What information is important to provide throughout the engagement? Does the proposed Engagement Plan provide sufficient scope and opportunities for input? What other engagement activities or methods should be considered?

Please submit your written comments by email to engagement@ieso.ca by July 2, 2026.

Regional Electricity Planning Process

Electricity Planning in Ontario

Provincial/ Bulk System Planning

Addresses provincial electricity system needs and policy directions.

Completed: Northern Ontario Bulk Plan

Regional Planning

Addresses local electricity system needs at the transmission system level.

Completed: 2023 Northwest IRRP and 2025 North of Dryden Addendum Study

Current:
Northwest IRRP

Distribution Planning

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

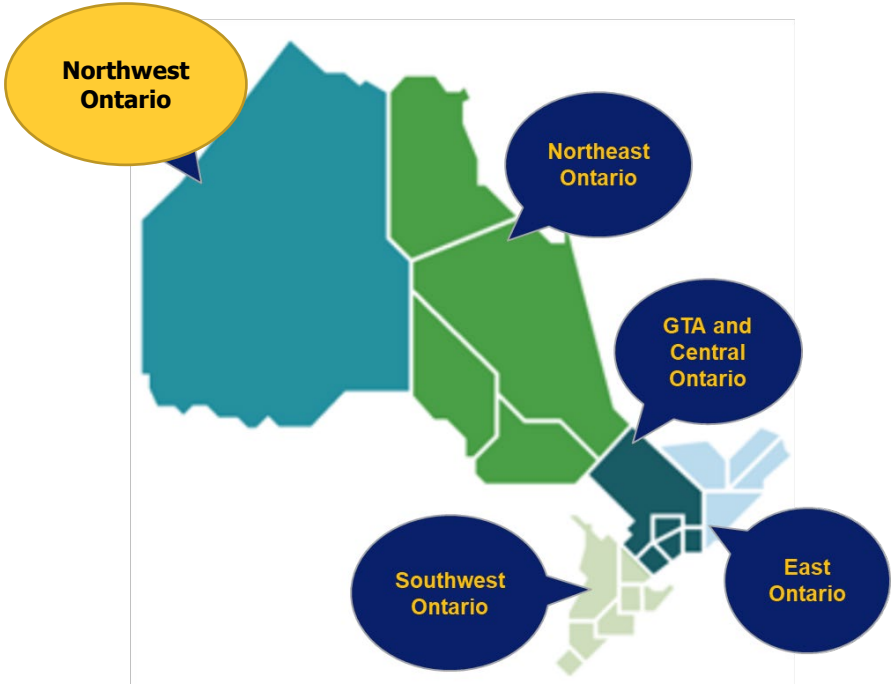
Led by local distribution companies.

Regional Electricity Planning Process

The regional system planning process ensures an affordable and reliable supply of electricity across Ontario. The process looks at the unique needs of each region and considers a range of options and resources to keep the lights on.

To keep up with continued growth in Northwestern Ontario, the IESO completed the North of Dryden Addendum Study in 2025 and implemented a streamlined approach for regional planning.

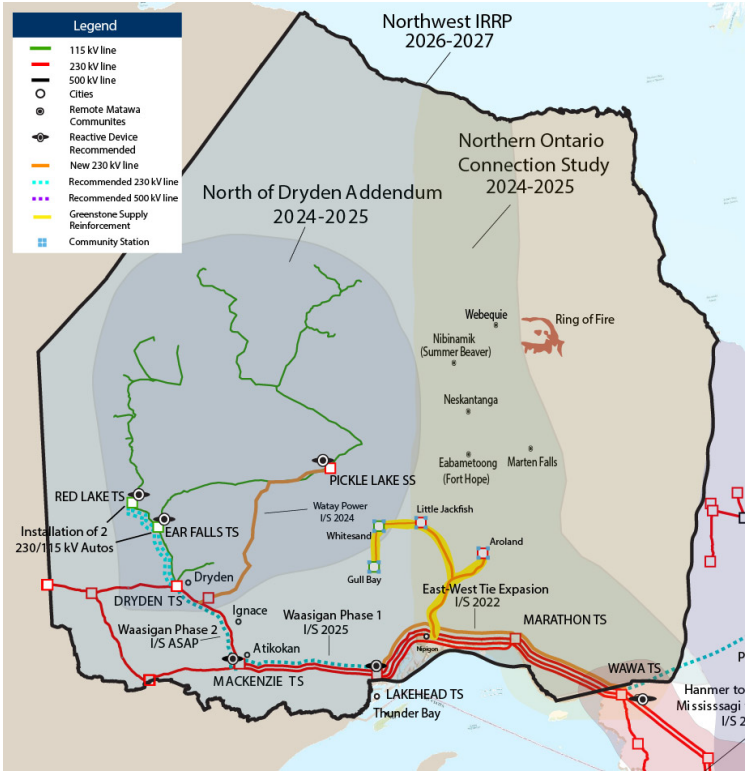
The streamlined approach recommended a new Northwest Integrated Regional Resource Plan (IRRP) to meet rapid growth and economic development in Northwest Ontario.



Electricity Planning in Northwest Ontario

To keep up with continued demand growth, the IESO has undertaken significant planning work to address capacity needs to the electrical areas in Northwest Ontario:

- East West Tie: Wawa TS to Lakehead TS (completed 2023)
- Waasigan Phase 1: Lakehead TS to Mackenzie TS (in-service 2026)
- Waasigan Phase 2: Mackenzie TS to Dryden TS (in-service 2027)
- Red Lake Transmission Line: Dryden TS to Red Lake TS (in-service TBC)
- Reactive support in the Pickle Lake and Ear Falls pocket
- New energy-saving retrofit incentives



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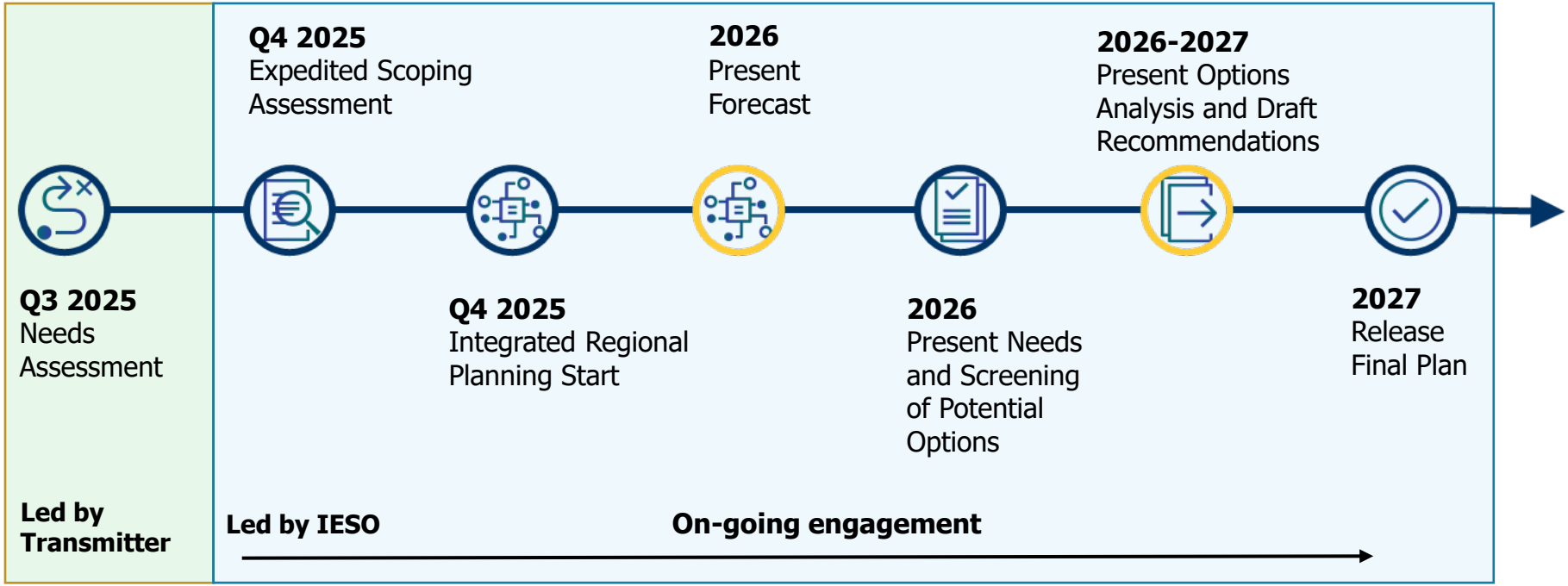
Technical Working Group for the IRRP

Team Lead, System Operator	• Independent Electricity System Operator
Transmitter	• Hydro One Networks Inc. (Transmission) • Wataynikaneyap Power
Local Distribution Companies	• Synergy North • Atikokan Hydro • Sioux Lookout Hydro • Fort Frances Power Corporation • Hydro One Networks Inc. (Distribution) • Hydro One Remote Communities Inc.

Regional Planning Milestones for Northwest IRRP



Components of a Regional Plan

Demand Forecast	Needs	Potential Solutions	Recommendations
How much power is needed over the planning timeframe?	What needs are emerging in the region that need to be addressed?	What kinds of solutions can meet the future needs for the region?	Based on an assessment of potential options, what recommended actions will ensure a reliable and adequate electricity supply for the region over the long term?

Draft Electricity Demand Forecast and Scenarios

Developing the Demand Forecasts

Local distribution companies (LDCs) are the main source for the demand forecast, 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 forecast, the IESO:

- Accounts for the 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, including NOMA Energy Task Force, Thunder Bay CEDC, and mines, 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.

Forecast Inputs

The forecast consists of three components:

- **Distribution-connected**: The distribution-connected forecast reflects demand served on the distribution systems and is based on information submitted by local distribution companies (LDC). The IESO also surveyed the LDCs to gather feedback on any local supply related issues that could be a result of transmission system deficiencies and can be addressed in this cycle of regional planning. This informing is also informed by direct engagement with customers, municipalities, and stakeholders.
- **Transmission-connected**: The transmission-connected forecast reflects demand served directly from the transmission system. This typically consists of large industrial customers such as mines, refineries, and data centres that have their own transformation station. The transmission-connected forecast is informed by direct engagement with customers, municipalities and stakeholders such as NOMA and Thunder Bay CEDC.
- **Mining Sector**: The mining sector forecast captures electricity demand from known future mining projects that are not yet grid-connected. The mining sector forecast is informed by data from government, industry publications, and engagement with individual project proponents, municipal energy committees, and groups (i.e., NOMA and Thunder Bay CEDC).

Forecast Scenarios

Three scenarios have been developed for the Northwest IRRP:

- **Low Scenario:** incorporates the risk of potential economic downturn, delayed and/or reduced growth.
- **Reference Scenario:** firm loads (current and planned), projects with highest likelihood to proceed, etc.
- **High Scenario:** incorporate potential demand growth that is less certain or likely to proceed, in terms of timelines, magnitude and location

While plan recommendations will primarily be driven by the reference demand forecast, the high forecast scenario will be considered to test the robustness of the plan, identify signposts to monitor forecast changes, and contemplate additional actions required if higher demand growth materializes. The low scenario will be used to assess downside risk, including opportunities to defer or stage investments, evaluate asset utilization, and confirm that near-term decisions remain justified under slower growth conditions.

Industrial Forecast In Detail

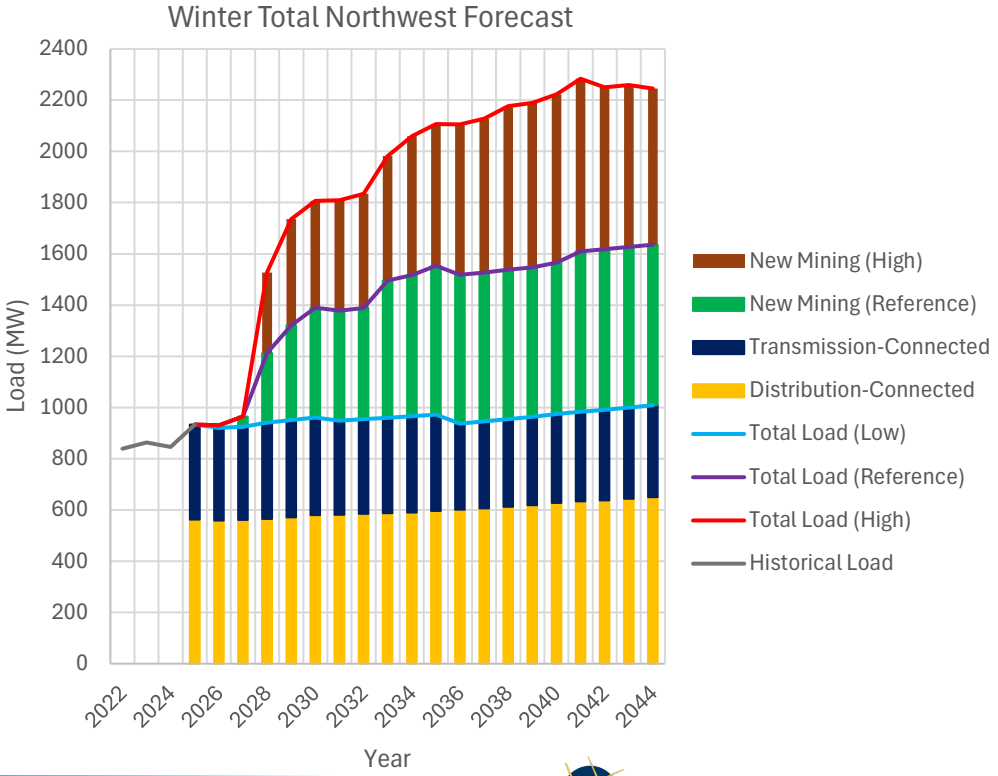
Scenario	Description
Low	• Existing and active mining projects
Reference	• Includes all projects in the low forecast • Projects classified as committed and are most likely to connect • Established from mining forecasts and other commitment indicators/factors, such as prospective in-service dates of projects, government funding and permits, reported from System Impact Assessments (SIA) and Technical Feasibility Studies (TFS) • Aligned with 2026 Annual Planning Outlook Reference scenario
High	• Includes all projects in the reference forecast • Mining projects that have more uncertainty in timing • Mineral refineries associated with the mines in the high scenario • Data centres that have more uncertainty in timing

Draft Winter Northwest Area Forecast and Scenarios

Winter demand is growing by 73% (up to 137% in high scenario) over the next 20 years. Growth is primarily driven by industrial and mining sector projects.

Key takeaways:

- Mining loads with high probability constitute the reference scenario, which is driving the significant near-term growth.
- Reference forecast growth continues in the mid to long-term due to anticipated industrial and residential growth plans.
- High scenario reflects industrial growth, primarily in the mining sector, with more schedule uncertainty.
- Low scenario reflects economic downturn and limited industrial growth and serves as a baseline scenario which will be used to determine the timing of needs.
- Winter forecast in the Northwest is higher than the Summer forecast.



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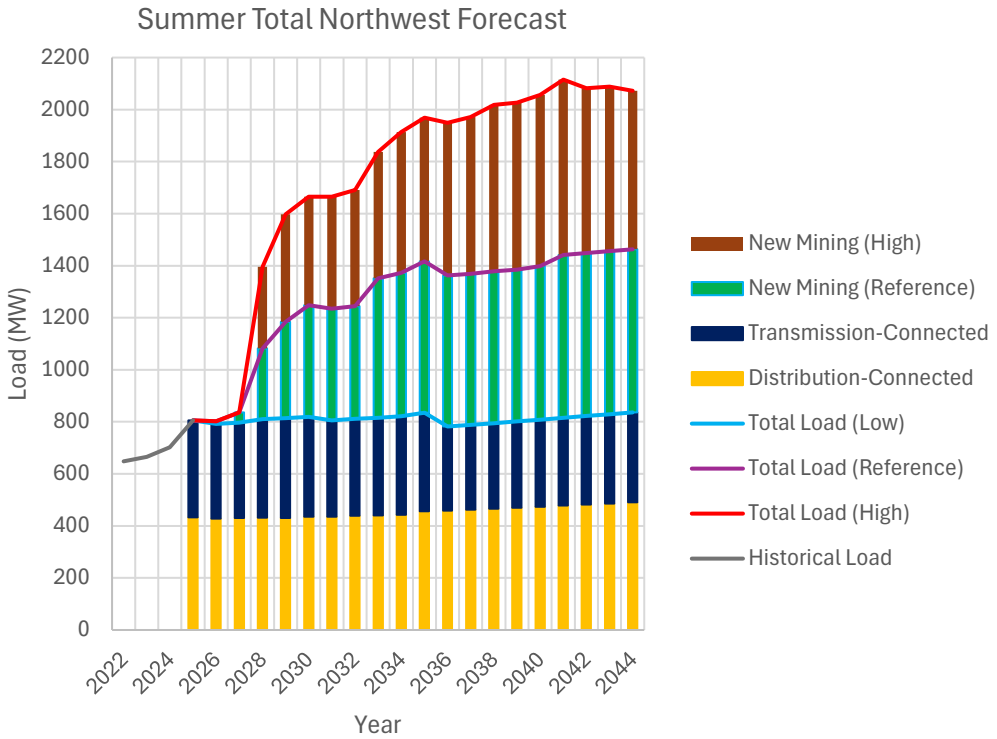
Draft Summer Northwest Area Forecast and Scenarios

Winter forecast in the Northwest is predominantly higher than the Summer forecast.

Key takeaways:

- Bulk of the new load is industrial and in the mining sector, which stays relatively constant throughout the year.
- Residential load in the NW has been winter peaking due to high heating load, which results in the summer peaks to be lower than winter peaks.



Engagement and Next Steps

Next Steps

The IESO will continue to engage throughout the IRRP's development. Participants can expect to hear from the IESO at these milestones:

July 2, 2026: Deadline for feedback to the IESO on the draft demand forecast webinar.

2026: Needs and options screening analysis are presented in a public engagement webinar with an opportunity to provide feedback.

2026 - 2027: Options analysis and draft recommendations are presented in a public engagement webinar with an opportunity to provide feedback.

Q1 2027: IRRP report will be completed and published on the engagement webpage.

Any questions, please send to engagement@ieso.ca.

Ongoing Engagement

Your input plays an important role in developing the electricity plan.

Participate in upcoming public webinars

Subscribe to receive updates on the IESO website –> select Northwest Ontario

Follow the Northwest Ontario regional planning activities online

Visit the Powering Northwest Ontario website

Seeking Input

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

- What additional information, if any, should be incorporated in the proposed scenarios? How can the proposed scenarios best capture the range and uncertainty of growth potential while informing near-term infrastructure investments?
- What areas of concern or interest about electricity should be considered as part of the planning process?
- What information is important to provide throughout the engagement? Does the proposed Engagement Plan provide sufficient scope and opportunities for input? What other engagement activities or methods should be considered?

IESO welcomes written feedback until July 2, 2026.
Please submit feedback to engagement@ieso.ca using the feedback form.

Thank You

STAY INVOLVED

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

CONTACT

- IndigenousRelations@ieso.ca
- CommunityEngagement@ieso.ca

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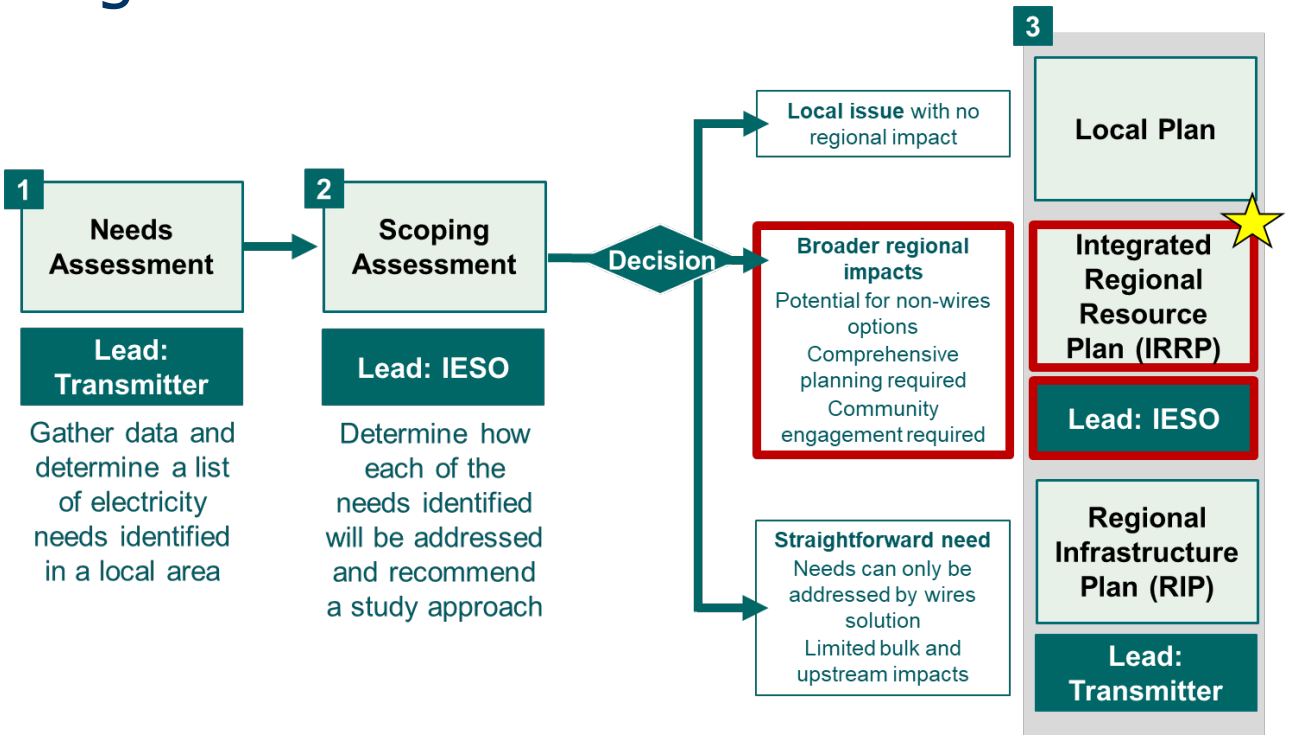
Appendix

Determining the Need for an IRRP



Customer Reliability

Customer reliability refers to how often and how long customers experience power interruptions. It is measured by **frequency** and **duration** of interruptions.

Interruptions can occur at any stage: **generation**, **transmission**, or **distribution**.

Key roles:

Local Distribution Companies (LDCs) are responsible for delivering electricity directly to homes and businesses. If you're experiencing issues like frequent outages, flickering lights, low voltage, or damage to electrical equipment, these are typically caused by problems in the local distribution system, such as power lines, transformers, or substations, and should be reported to your LDC, since they own and maintain this infrastructure.

The Independent Electricity System Operator (IESO) manages the reliability of Ontario's broader electricity grid and leads long-term regional planning through the Integrated Regional Resource Plan (IRRP). While the IESO can document reliability concerns and explore system-wide solutions, issues related to local infrastructure and day-to-day service disruptions fall outside its scope and should be directed to your LDC.

Electricity Investment Costs

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

1. Approved projects have to be "just and reasonable"
   - Firm loads will drive near-term expenditures
   - Other scenarios will be used to develop plans for additional growth, but conditional on the load materializing, so as to not overburden the customers ahead of commitments
2. Benefactor pays approach
   - Costs associated to connection facilities are allocated to the connecting customer since they are dedicated to one or a small group of customers
   - Costs associated with network facilities are typically allocated to all ratepayers since they form part of a transmission system that is shared by all users

Engagement Areas for Input

Milestone	Community Input
Electricity Demand Forecast and Engagement Plan	What economic development or other growth or project plans might influence the regional load forecast? What additional information should be considered?
Identify Needs and Screened-In Options	What additional information should be considered? What community feedback can be shared regarding screened in options? What other options should be considered?
Option Analysis and Draft Recommendations	What community feedback is there on the draft recommendations? What information should be considered in the recommendations?