DECEMBER 8, 2021

Parry Sound/Muskoka
2022 Integrated Regional Resource Plan (IRRP)

Engagement Webinar #2

ieso
Connecting Today. Powering Tomorrow.

Objectives of Today's Engagement Webinar

- To provide an update on the electricity planning underway in the Parry Sound/Muskoka sub-region
- To seek feedback on the defined electricity needs for the region and potential options
- To outline next steps

Seeking Input

As you listen today, please consider the following questions to help guide your feedback after today's webinar:

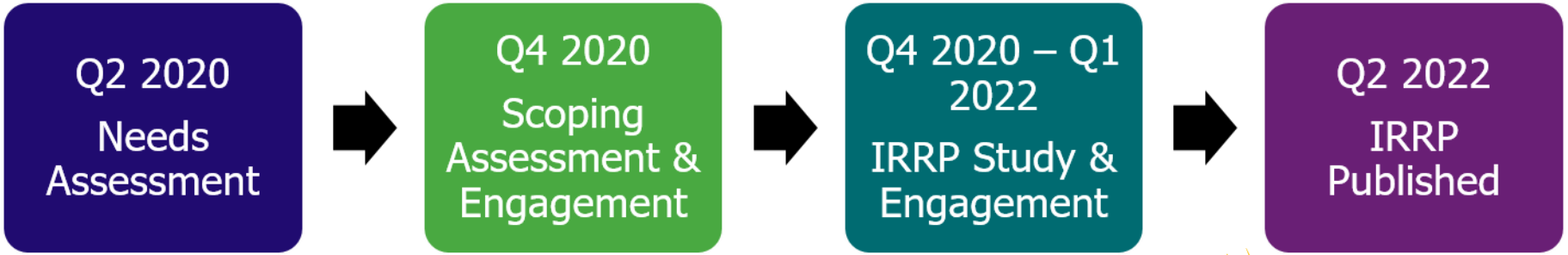
- What information needs to be considered when completing the options evaluation and making recommendations?
- How can the Parry Sound/Muskoka Technical Working Group continue to engage with communities through the remaining stages of the IRRP process, or to help prepare for the next planning cycle?

Please submit your written comments by email to engagement@ieso.ca by December 29

IRRP Status Update

Parry Sound/Muskoka IRRP Status Update

- IRRP study work began in Q4 2020, and is on track for completion in Q2 2022
  - Electricity demand forecast has been finalized and needs have been determined
  - The next steps are to focus on developing and evaluating potential options and subsequently draft final recommendations and report

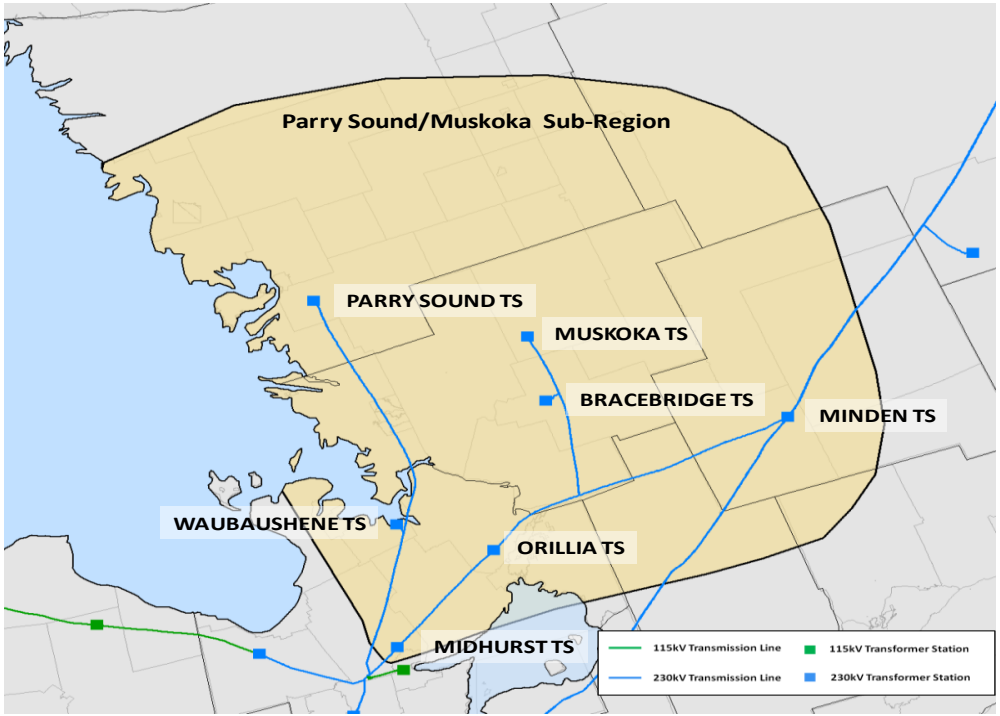


Recap: Engagement Activities to Date

- Engagement launched on South Georgian Bay/Muskoka Scoping Assessment – October 1, 2020
  - Draft Scoping Assessment posted for public comment – October 8, 2020
  - Webinar held – October 14, 2020
  - Final report posted with IESO responses to comments received – November 30, 2020
- Local outreach to help inform engagement process – Q4 2020
- Public webinar #1 on demand forecast, needs, and engagement – September 8, 2021

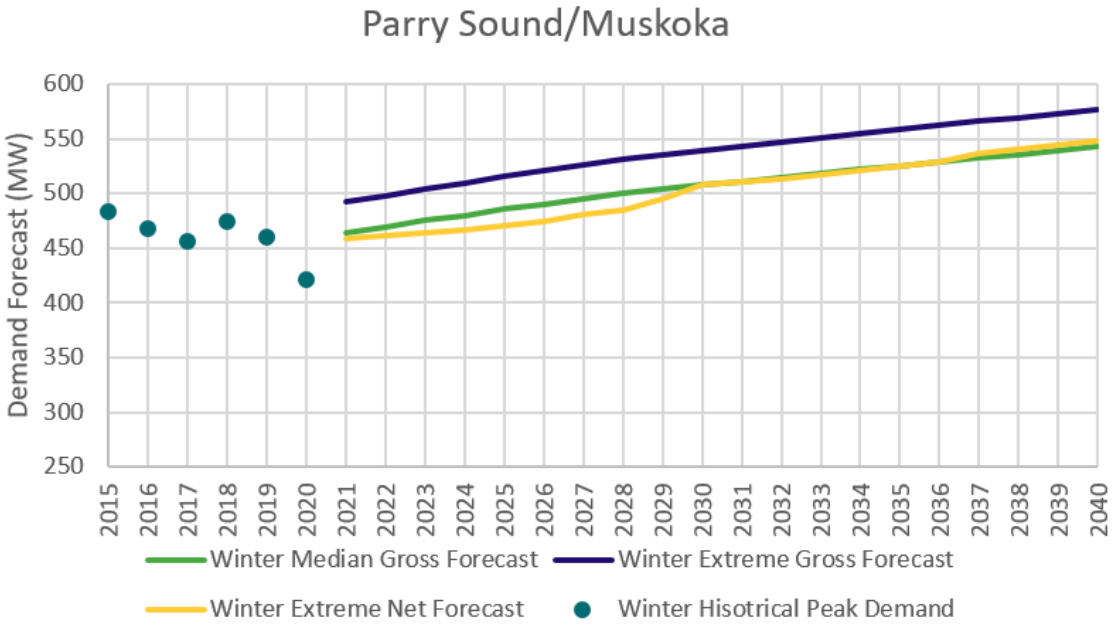
Parry Sound/Muskoka Sub-Region

- Parry Sound/Muskoka sub-region roughly encompasses the Districts of Muskoka and Parry Sound



Electricity Demand Forecast

- The reference electricity demand forecast for the Parry Sound/Muskoka sub-region has an average annual growth rate of 1.14%
- This forecast is specific to customers connected to the distribution system (e.g. residential, commercial and some industrial)



ieso
Connecting Today. Powering Tomorrow.

Transmission System Needs

Categories of Needs

Capacity Needs

- Station capacity refers to the ability to convert power from the transmission system down to distribution system voltages
- System capacity (or "load meeting capability") refers to the ability of the electricity system to supply power to customers in the area, either by generating the power locally, or bringing it in through the transmission system

Load Restoration and Supply Security Needs

- Load restoration describes the electricity system's ability to restore power to those affected by a major transmission outage within reasonable timeframes
- Supply security describes the total amount of load interrupted following major transmission outages

End-of-Life Asset Replacement Needs

- Based on the best available asset condition information at the time
- Evaluated to decide if the facility should be replaced "like-for-like", "right-sized", or retired

Summary of Parry Sound/Muskoka Electricity Needs

- Two types of needs have been identified for the region:
  - station capacity needs, and
  - system capacity needs

	Needs	Location	Time Frame
1	Station Capacity	Waubaushene TS	Today
2	System Capacity	M6E/M7E circuits sections Essa TS - Midhurst TS and Minden TS - Cooper's Falls JCT	2034

Potential Options Considered

Identifying Potential Options

- An initial needs screening is underway to further examine the duration, frequency and magnitude of the need, as well as timing and general cost framework
- After the needs have been identified, the IESO leads the development of options for consideration as part of the final Integrated Regional Resource Plan (IRRP)

Potential Options

- Regional planning seeks to recommend the most cost-effective, technically feasible, and integrated solution
- Potential options being examined may include:
  - Non-wires alternatives (e.g. distributed energy resources, energy efficiency measures etc.)
  - Wires (e.g. step-down station, transmission line, etc.)
  - Centralized local generation (e.g. utility-scale storage, gas-fired peaking plant, etc.)

Evaluating Options

Technical Feasibility	• Can the option actually be executed? i.e., proximity to customers, routing and spacing considerations, operations
Ability to Address Needs	• Are the number, magnitude, and diversity of needs adequately addressed?
Integration & Cost-Effectiveness	• What is the lowest cost solution considering the possibility that one option may be able to address multiple needs simultaneously? • Would a combination of option types be most effective?
Lead Time	• New transmission infrastructure or resource procurement/development could take 4-10 years – how does this compare to the timing of needs?

Types of Wires Options

- The wires options considered for addressing the identified needs include combinations of the following elements:
  - Additional, refurbished and/or uprated load supply stations
  - New connection lines, as required, for any new or modified stations
  - Distribution load transfers between load supply stations
- Potential non-wires options are being explored as part of the development of the IRRP

Next Steps – Options Analysis and Evaluation

- Package options including any identified feasible non-wires alternatives, to provide sets of integrated solutions which meet the overall needs
- Complete evaluation of early options
- Develop long-term electricity plan (IRRP) recommendations for feedback to help inform final plan

Next Steps

Your Feedback is Important

- What information needs to be considered when completing the options evaluation and making recommendations?
- How can the Parry Sound/Muskoka Technical Working Group continue to engage with communities through the remaining stages of the IRRP process, or to help prepare for the next planning cycle?

Please submit your written comments by email to engagement@ieso.ca by December 29

Engagement - Next Steps

Item	Meeting Date /Submission Date	Description
Feedback/ written comments	December 29	• Feedback/written comments by email to engagement@ieso.ca by December 29
Response posted	January 19	• IESO will post the response
Public Webinar #3	Q1 2022	• Draft recommendations
IRRP ends	Q2 2022	• Report published

Keeping in Touch

- **Subscribe** to receive updates on the Parry Sound/Muskoka regional electricity planning initiatives on the IESO website at Subscribe to Updates (ieso.ca) **select South Georgian Bay/Muskoka*
- **Follow** the Parry Sound/Muskoka regional planning activities on the dedicated engagement webpage
- **Join** the GTA/Central Regional Electricity Network on IESO Connects, a dedicated online engagement platform for ongoing dialogue on local developments, priorities and planning initiatives

Questions?

Do you have any questions for clarification on the material presented today?

Submit questions via the web portal on the webinar window, or by email to engagement@ieso.ca

Seeking Input on the Webinar

- Tell us about today
- Was the material clear? Did it cover what you expected?
- Was there enough opportunity to ask questions?
- Is there any way to improve these gatherings, e.g., speakers, presentations or technology?

Chat section is open for comments

Appendix

Detailed Electricity Needs

1. Station capacity need at Waubaushene TS
2. System Capacity thermal need at circuits M6E and M7E

1. Station Capacity Need - Waubaushene TS

- **Need**: There is a summer station capacity need at Waubaushene TS. Waubaushene has a summer 10-day LTR of 94 MW. The summer demand forecast exceeds the 10-day LTR by 5 MW in 2022 and 29 MW by 2040
- **Potential options:**
  - 10 MW of load can be transferred to Midhurst TS
  - Explore potential for energy efficiency in the area
  - Explore potential generation solutions

1. System Capacity Thermal Need - circuits M6E & M7E

- **Need**: There is a thermal system capacity need at circuits M6E and ME7 under certain generation assumptions. The circuits supply Muskoka TS, Midhurst TS, Orillia TS and Bracebridge TS
- **Potential options**:
  - Monitor load growth in the region to ensure load supplying capability is maintained.
  - Explore potential for energy efficiency in the area to alleviate loading
  - Explore potential generation solutions
  - Explore transmission upgrades