



June 4, 2020

# East Lake Superior 2019 Integrated Regional Resource Plan (IRRP)

Engagement Webinar #1

# Objectives of Today's Engagement Webinar

- To provide an update on the electricity planning underway in the East Lake Superior region
- To seek feedback on the electricity demand forecast, needs and engagement for the development of a long-term electricity plan – Integrated Regional Resource Plan (IRRP) – for East Lake Superior
- To outline next steps

# Agenda

1. East Lake Superior Regional Electricity Planning Status Update
2. Draft Electricity Demand Forecast
3. Community Engagement and Next Steps

## Seeking Input

As you listen today, consider any additional factors that should be considered in the following processes:

- Determining the electricity demand forecast for the East Lake Superior region
  - *What key developments, projects or initiatives should be considered in the electricity planning for the region? What other information should be taken into account that would influence the forecast? (e.g. growth, expansion or retirement of large customers/electricity users, industry trends or other local activities)*
- Identifying needs that need to be addressed
  - *What areas of concern or interest in relation to electricity would you would like to see considered as part of the planning process?*
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  - *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?*

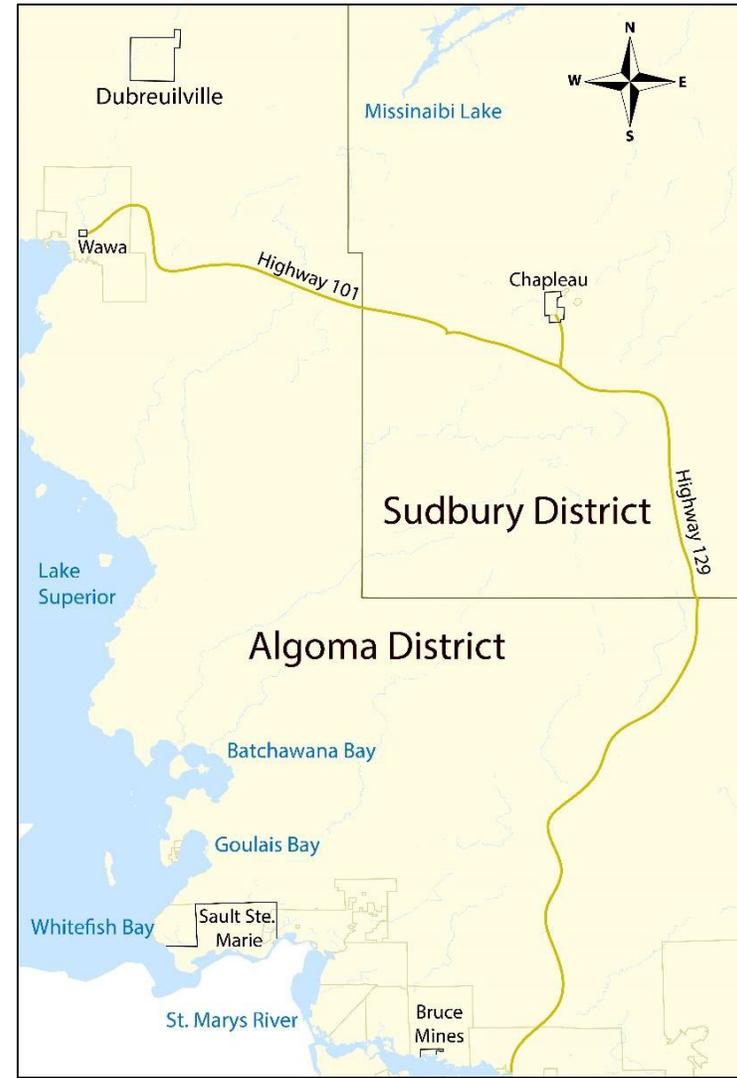
**Please submit your written comments by email to  
[engagement@ieso.ca](mailto:engagement@ieso.ca) by June 25**



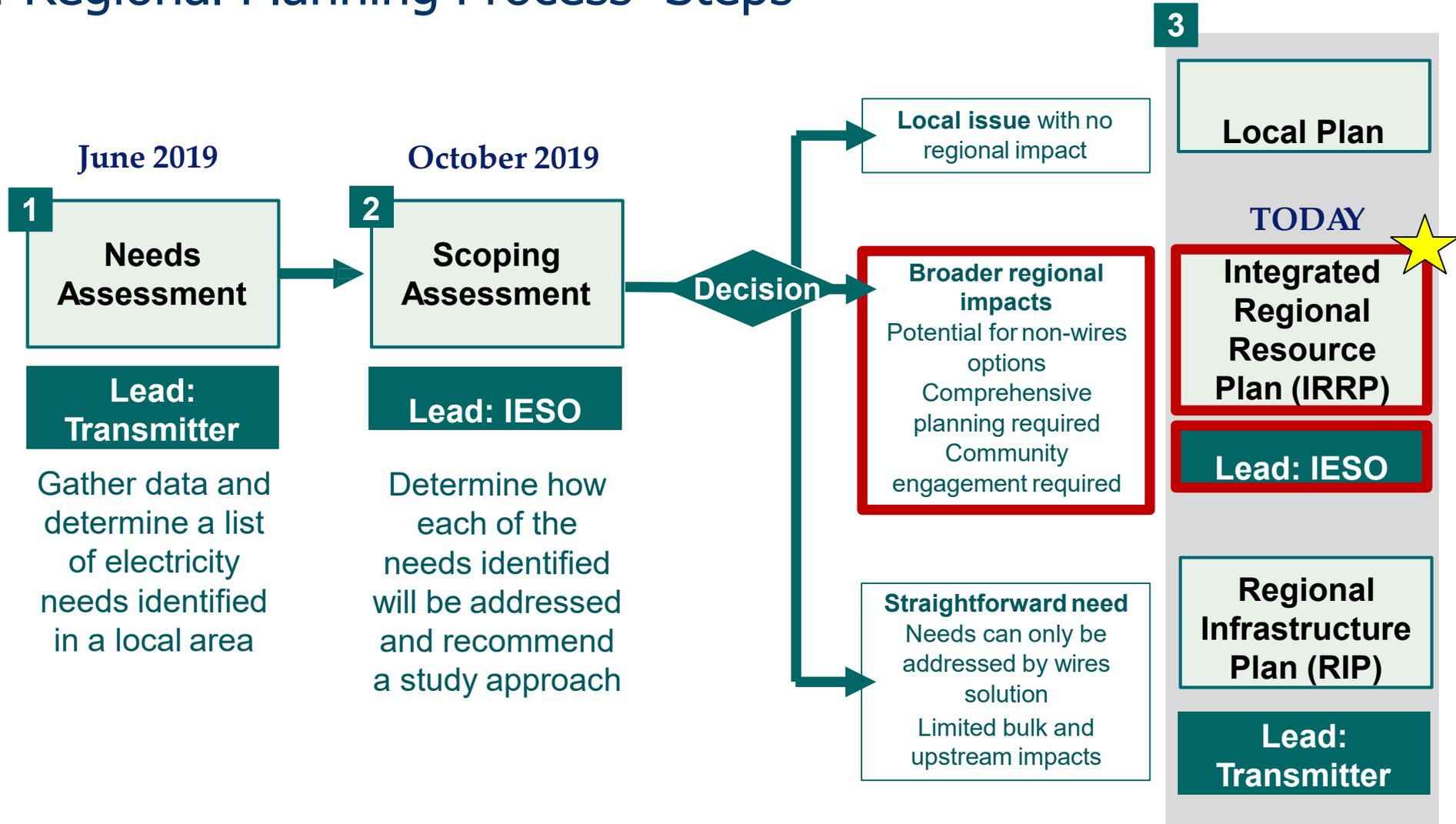
# Electricity Planning in the East Lake Superior Region

## Recap: East Lake Superior Region

- Encompasses parts of Algoma and Sudbury Districts
- Approximate geographic boundaries are Highway 129 to the east, Highway 101 to the north, Lake Superior to the west, and St. Mary's River to the south
- Includes the City of Sault Ste. Marie, the Town of Bruce Mines, and Townships of Wawa, Dubreuilville and Chapleau
- Encompasses the Indigenous communities of Chapleau Cree First Nation, Chapleau Ojibwe, Garden River, Michipicoten, Brunswick House, Batchewana



# Recap: Regional Planning Process Steps



# Technical Working Group



Team Lead  
System Operator and Planner



Local Distribution Companies

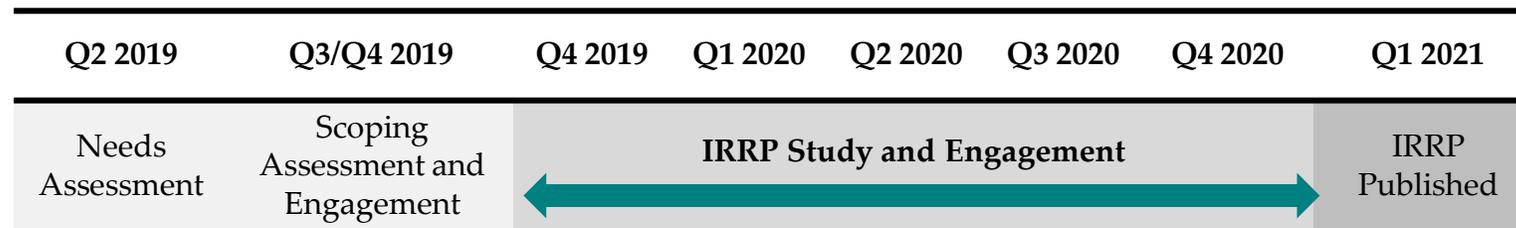


Transmitter and Local Distribution  
Company

# Current Status of East Lake Superior Regional Planning

- IRRP study work began in Q4 2019, and is on track for completion early 2021
  - Draft electricity demand forecast has been completed and Engagement Plan developed
  - Studying the underlying factors driving the forecast to determine and assess the needs to be addressed in this planning cycle and develop a detailed description of needs to better screen and evaluate options

## Study Timeline



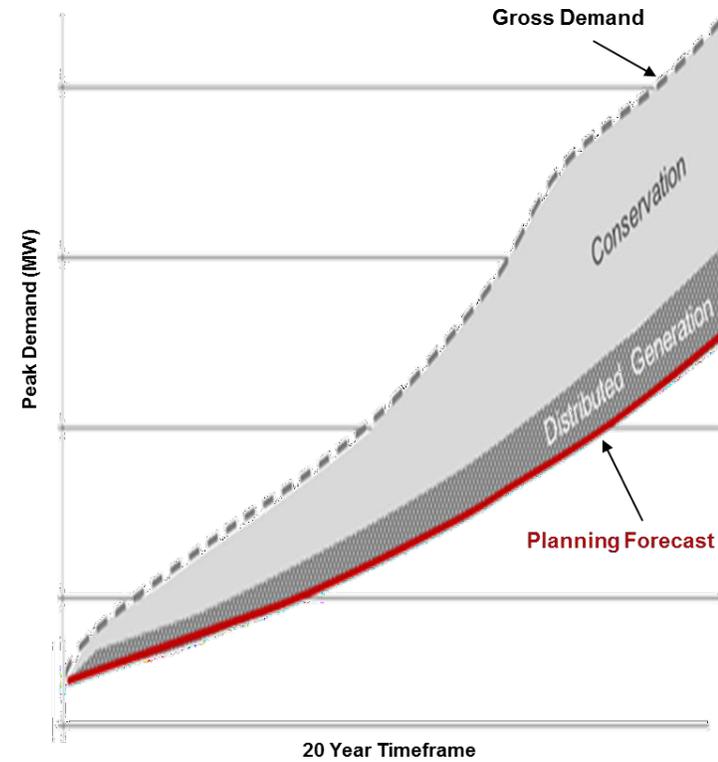


# Electricity Demand Forecast and High Level Needs

## Purpose of the Electricity Demand Forecast

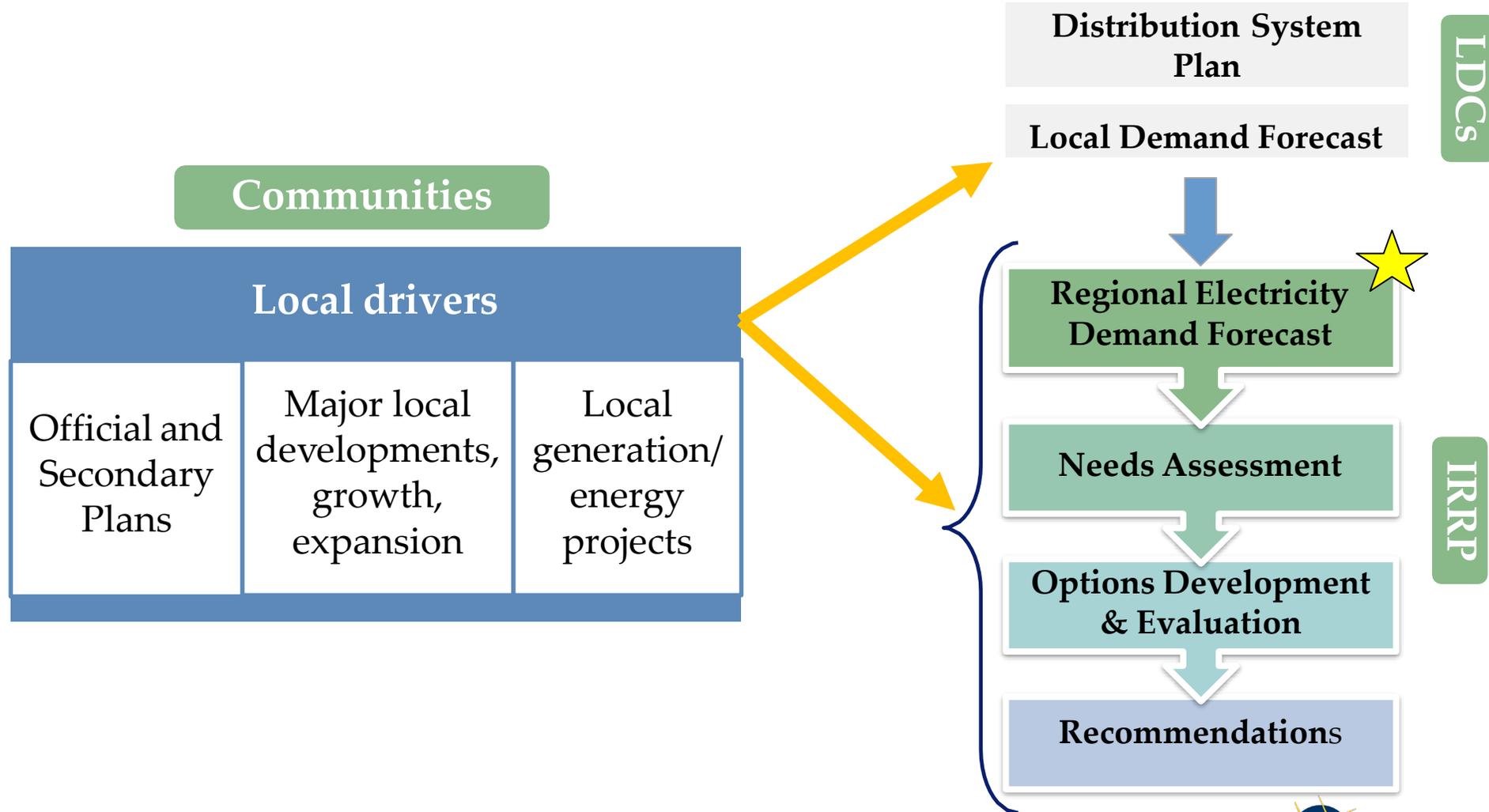
- The development of an electricity demand forecast for the region is the first major component of the IRRP
  - Emerging electricity needs in the region will be assessed based on the forecasted electricity demand over the planning horizon
- A 20-year forecast for the region is created by collecting information from the region's distributors and by taking into account:
  - Estimated impact of Conservation and Demand Management ("CDM") activities
  - Expected peak demand contribution of local contracted distributed generation ("DG")
  - Adjustments needed to consider the potential impact of extreme weather conditions (in this region, considering the weather sensitivity of winter-peaking electricity use)

# Assumptions and Approach



20-Year Demand Forecast & Scenarios

# Coordinating IRRP and Local Planning Activities



## Potential Local Planning Drivers

- Major industrial developments or expansions
- Economic investments from provincial or federal programs (e.g. Northern Ontario Heritage Fund Corporation)
- Local climate change action and GHG reduction initiatives (e.g. electrification of heating, transit, etc.)
- Local energy programs and projects (e.g. microgrids, deep energy retrofits, biogas capture facilities)
- Others?

## East Lake Superior Demand Forecast

- The electricity demand forecast for the East Lake Superior region is relatively flat over the 20 year planning horizon
  - This is based on information from the region's Local Distribution Companies
- There is potential for significant growth in industrial loads in the region (e.g., new developments or expansion of existing operations)
  - If all of these loads were to materialize, the new load could practically double the region's peak electrical demand
- A scenario-based approach can be explored in the regional plan, including a high industrial growth scenario to identify specific electricity needs that would need to be addressed
- Insight from communities and business on economic development, energy projects and major planning initiatives in the region are critical inputs to developing the most accurate forecast possible
  - We are also interested in your views on how COVID-19 may impact electricity demand

## Seeking Input

As you listen today, consider any additional factors that should be considered in the following processes:

- **Determining the electricity demand forecast for the East Lake Superior region**
  - *What key developments, projects or initiatives should be considered in the electricity planning for the region? What other information should be taken into account that would influence the forecast? (e.g. growth, expansion or retirement of large customers/electricity users, industry trends or other local activities)*
- **Identifying needs that need to be addressed**
  - *What areas of concern or interest in relation to electricity would you would like to see 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](mailto:engagement@ieso.ca) by June 25**



# Engagements and Next Steps

# Key Elements of the Engagement Plan

## Engagement Initiative

- Draft Engagement Plan posted for public comment May 14
- To inform and seek input from the broader public at various junctures during IRRP development
- Includes webinars and targeted municipal outreach

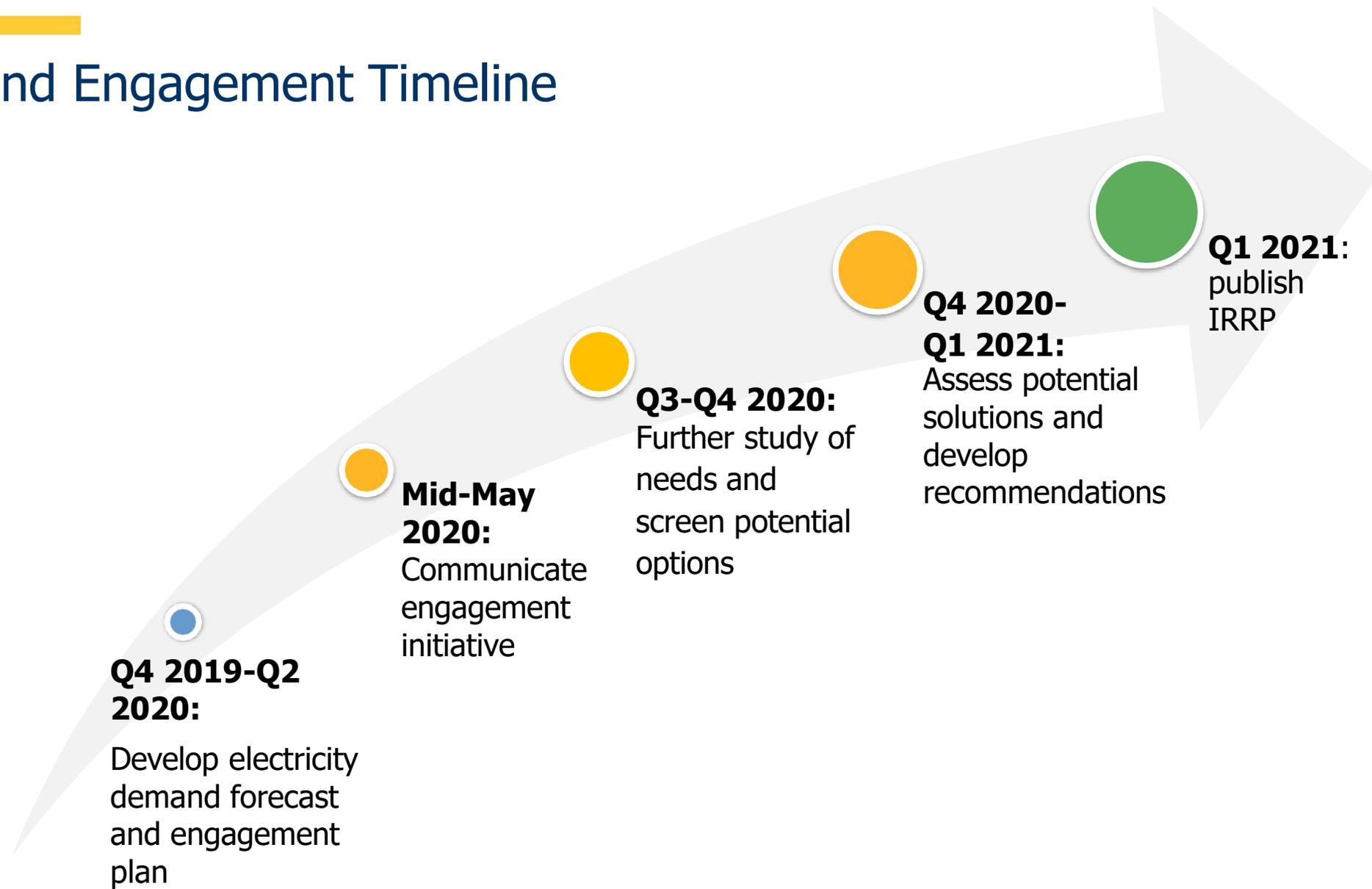
## Technical Working Group

- Comprises of IESO, LDC(s), and transmitter(s) in the region
- Members conduct the regional planning process to identify local electricity needs and options

# Key Areas for Input

Process	Outcome	Community Input
<b>Today's focus:</b> Data Gathering	Electricity demand forecast	Are there any economic development or other growth or project plans that might influence the regional load forecast?  Is there additional information that should be considered?
Technical Study	Electricity needs and timing	Is there additional information that should be considered in the study assumptions?
Options	Solutions options	Is there community feedback to the solutions proposed that should be considered in further development of the IRRP?  Are there any other options that should be considered?
Action Plan	Near-term projects and longer-term activities	What further discussions are needed to initiate near-term projects?  What should communities consider in their plans in the medium- and long-term? (e.g. Official Plan review, Secondary Plan development, etc.)

# IRRP and Engagement Timeline



## Activities to Date

- [Engagement launched](#) on East Lake Superior Scoping Assessment – August 2019
  - Draft report posted for public comment and [webinar](#) held August 27, 2019
  - [Final report](#) posted with [IESO responses](#) to comments
    - Received – August 8
- [IRRP engagement launched](#) – May 14, 2020
- Meetings with City of Sault Ste. Marie to discuss local growth, key developments and energy initiatives to consider in the electricity planning for the region – December 3 and May 20

## What we've heard so far...

Potential industrial developments and expansions and initiatives are major economic drivers

Strong local priorities and interest in alternative energy such as microgrids, biogas and renewables

Work underway to set GHG targets and identify projects such as electrification of transit and heating processes

## Seeking Input (part two)

As you listen today, consider any additional factors that should be considered in the following processes:

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## Keeping in Touch

- Subscribe to receive updates on the ELS regional initiatives on the IESO website – <http://www.ieso.ca/subscribe> > **select East Lake Superior**
- Follow the ELS regional planning activities online – [http://www.ieso.ca/en/Get-Involved/Regional-Planning/Northeast- Ontario/ East-Lake-Superior](http://www.ieso.ca/en/Get-Involved/Regional-Planning/Northeast-Ontario-East-Lake-Superior)
- [Dedicated engagement webpage – http://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/Regional- Electricity-Planning-East-Lake-Superior](http://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/Regional-Electricity-Planning-East-Lake-Superior)
- Regional Electricity Networks provide a platform for ongoing [engagement on electricity issues – http://ieso.ca/en/Get- Involved/Regional-Planning/Electricity- Networks/2019-2020-Regional- Electricity-Networks](http://ieso.ca/en/Get-Involved/Regional-Planning/Electricity-Networks/2019-2020-Regional-Electricity-Networks) > **join Northeast Network**

# 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](mailto:engagement@ieso.ca)*



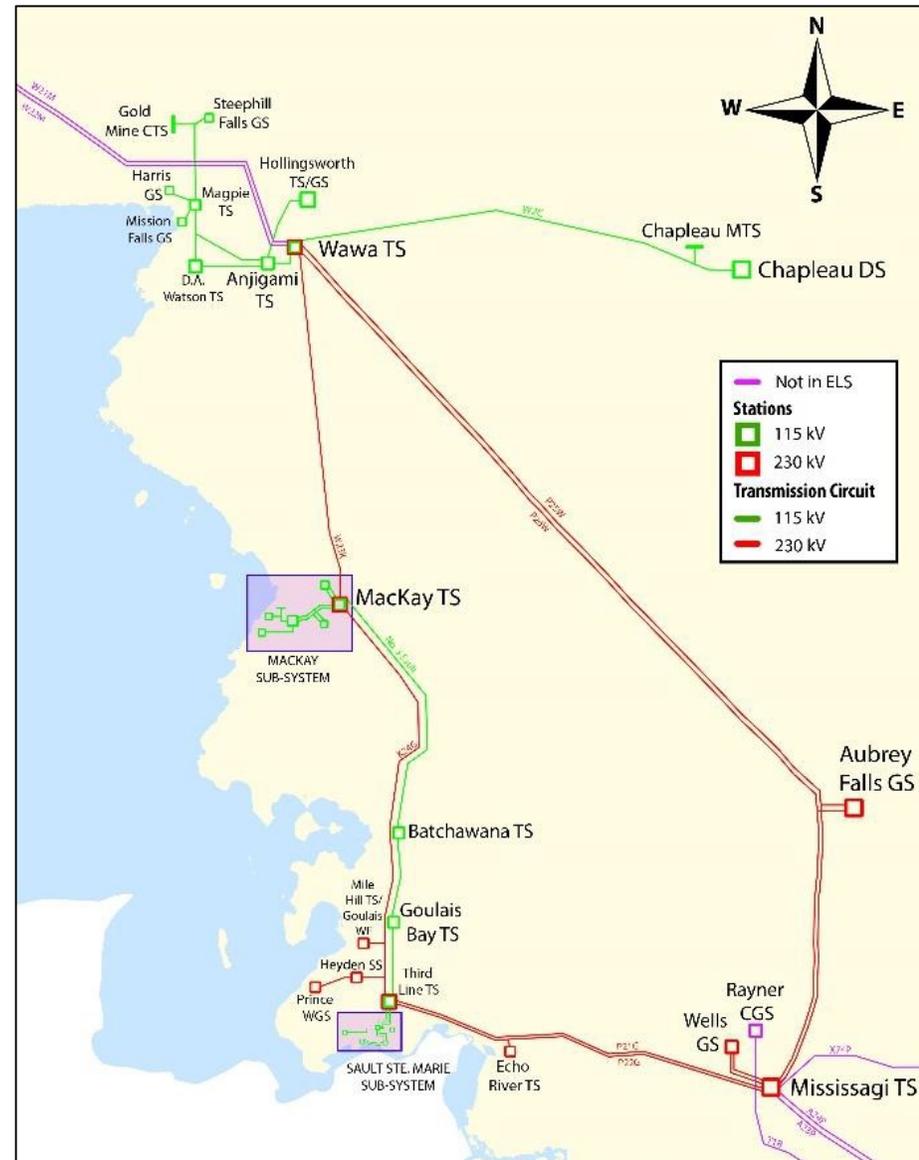
# Appendix

## Previous Regional Planning Cycle

- The previous cycle was initiated by the former Great Lakes Power Transmission in October, 2014 and a Needs Assessment report was published in December, 2014
- The 2014 Needs Assessment report identified a number of potential needs and recommended addressing them through the development of “localized” wires only solutions
- Further coordinated regional planning in the East Lake Superior region was not recommended following the publication of the 2014 report

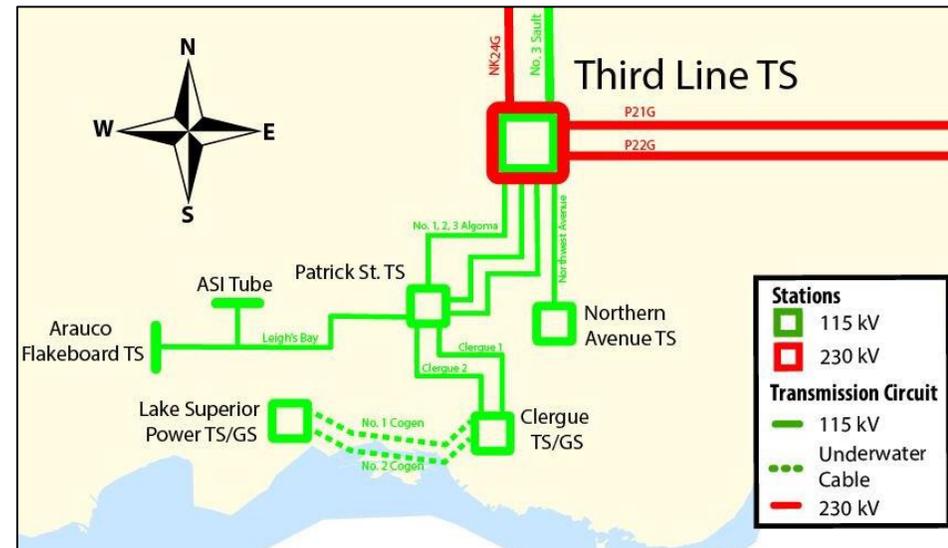
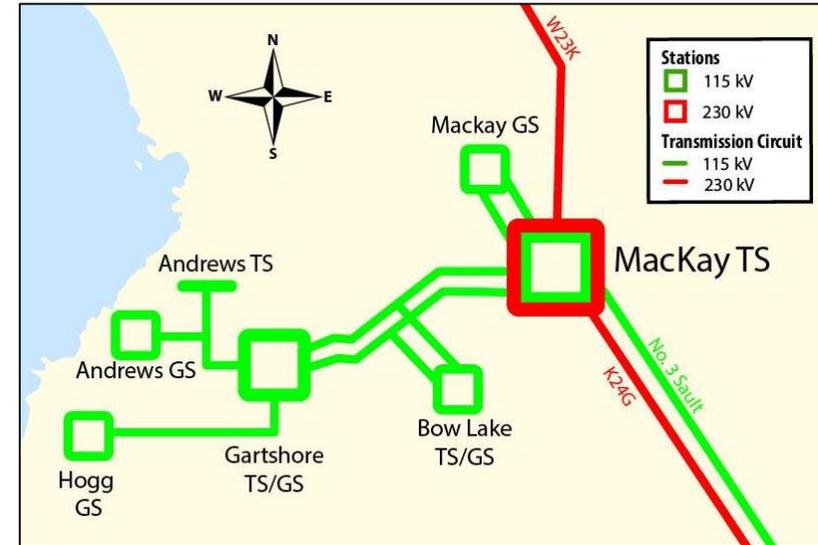
# Planning Area

- Primary supply of electricity is through 230/115 kV autotransformers at Third Line TS, Wawa TS and MacKay TS
- Region is defined by 230 kV transmission circuits bounded by Wawa TS in the north and Mississagi TS in the southeast.
- Region contains over 1,200 MW of generation



## Planning Area (cont'd)

- Region contains higher density 115 kV sub-systems connected to Third Line TS and MacKay TS



# Preliminary Needs

Type of need	Details
<b>System capacity needs</b> (ability of the local transmission network to deliver a reliable supply of electricity to customers in the area)	<ul style="list-style-type: none"> <li>• Overloading of Third Line autotransformers</li> <li>• Overloading of 115 kV circuit No. 1 Algoma</li> <li>• Need emerges in 2020</li> </ul>
<b>Load security and restoration needs</b> (ability of the electricity system to restore power to those affected by a major transmission outage within reasonable timeframes)	<ul style="list-style-type: none"> <li>• Restoration needs following the loss of step-down transformers at Andrew TS, Batchawana TS, Echo River TS or Goulais TS</li> </ul>
<b>Other considerations</b> that may affect the needs and potential solutions	<ul style="list-style-type: none"> <li>• Distributed generation impacts</li> <li>• Expiration of over 120 MW of generation facility contracts between 2029-2031</li> <li>• Establishment of a ferrochrome production facility in Sault Ste. Marie</li> <li>• Growth of new or existing industrial customers</li> </ul>

*\*Needs may be further refined, and additional needs identified, following more detailed forecasting and evaluations which take place during subsequent stages of planning*