

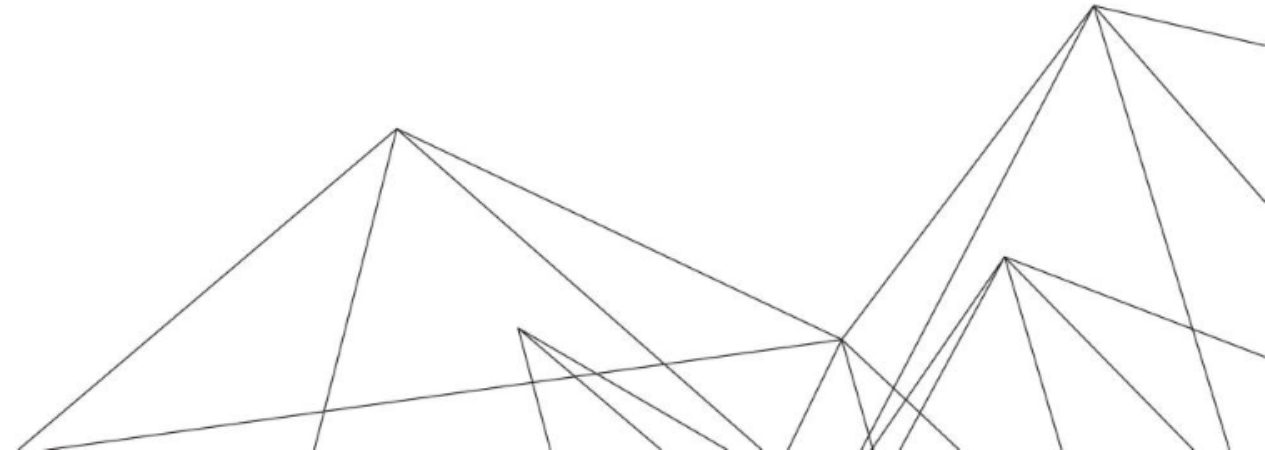
# WELCOME TO OUR VIRTUAL OPEN HOUSE



## **PURPOSE OF EVENT:**

While we can't meet with you in-person due to COVID-19 health restrictions, we are pleased to provide an opportunity to share information about:

- The route evaluation process
- The selected preferred route alternative
- Ongoing engagement
- Next steps





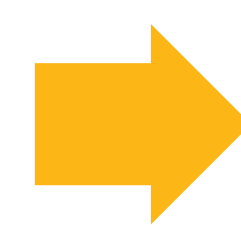
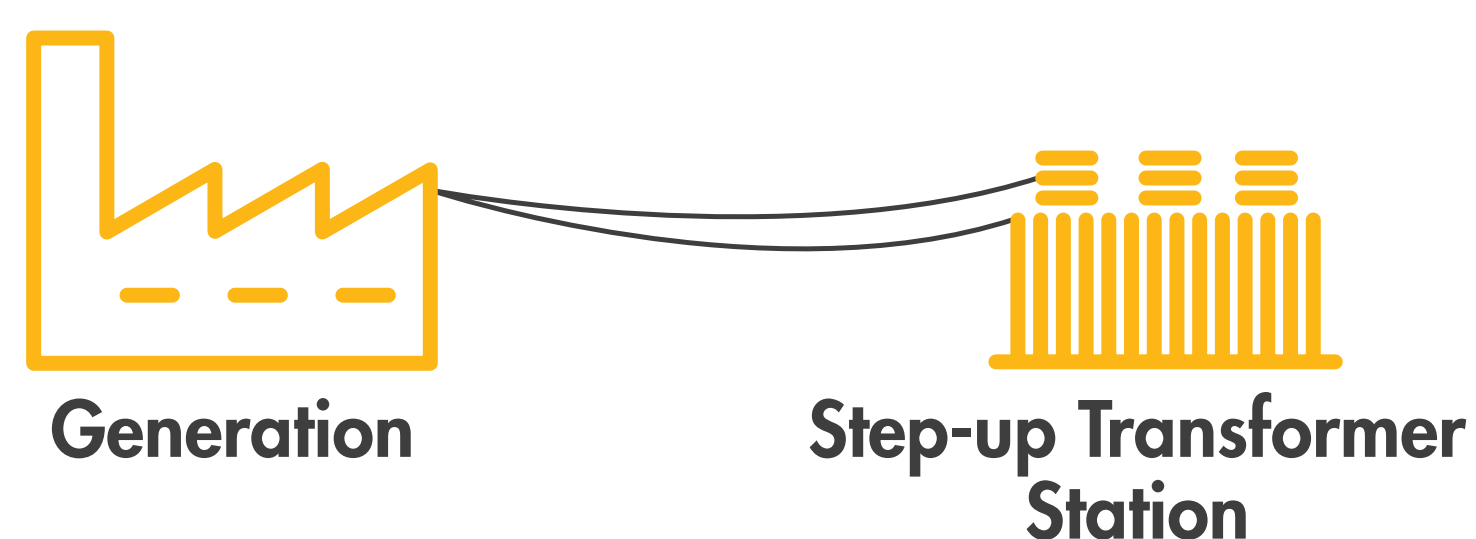
# HYDRO ONE'S ROLE IN YOUR COMMUNITY

Across the province, Hydro One builds, owns, operates and maintains the electricity transmission and distribution facilities that bring power to your homes and businesses.

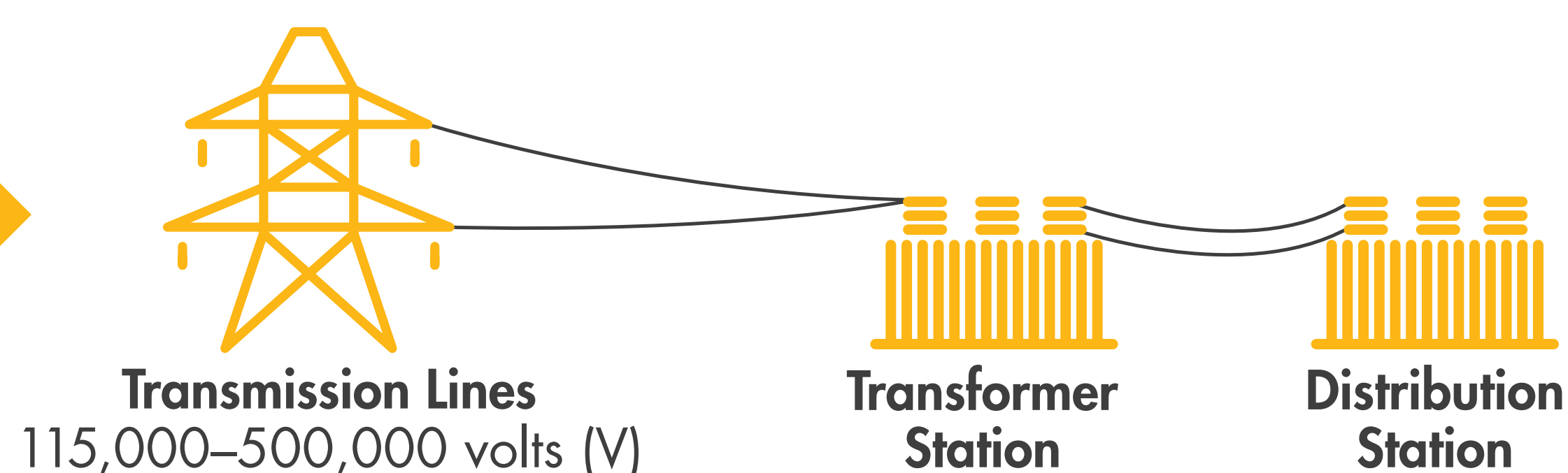
We work with the Independent Electricity System Operator (IESO), who oversees electricity planning, to ensure that electricity needs are being met both now and into the future.

## OUR ROLE IN THE SYSTEM

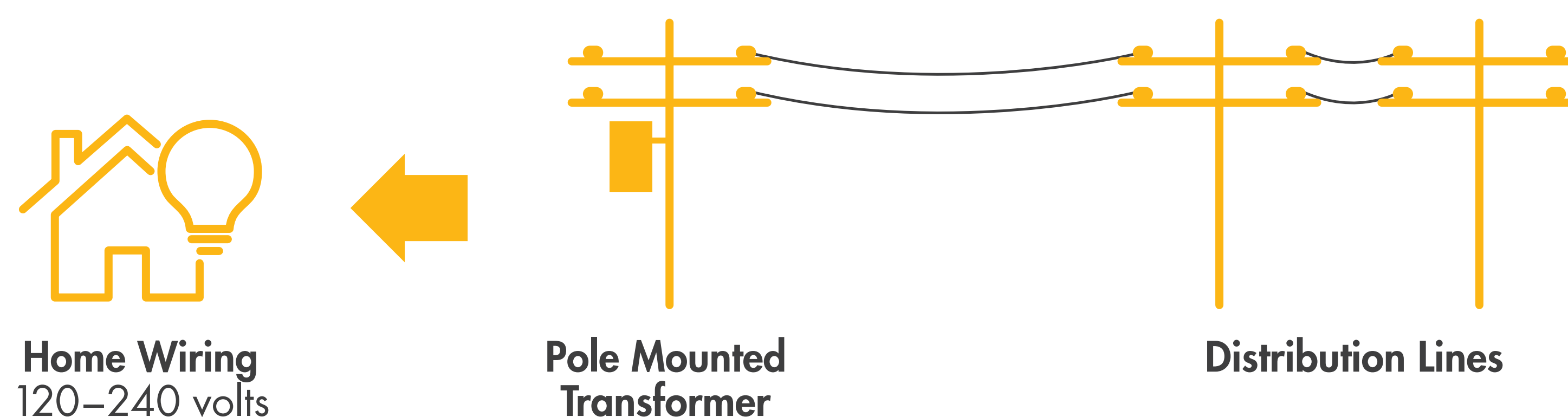
### ONTARIO POWER GENERATION AND PRIVATE GENERATION COMPANIES



### HYDRO ONE OR LICENSED TRANSMITTER



### HYDRO ONE OR LOCAL DISTRIBUTION COMPANY





# PROJECT OVERVIEW



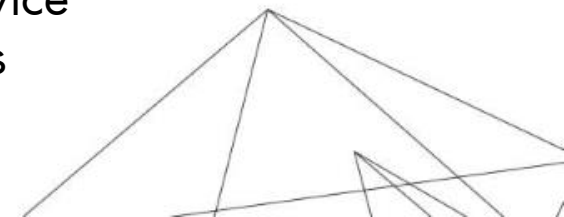
A safe and reliable power supply is essential to ensure southwestern Ontario can continue to grow now and into the future.

In June 2019, the Independent Electricity System Operator requested Hydro One build a new double-circuit 230 kilovolt transmission line from the Chatham Switching Station to the future Lakeshore Switching Station.

This project requires undertaking a Class Environmental Assessment (Class EA) which began in January 2020.

Through the Class EA process, our team assessed several route alternatives, and based on information gathered and feedback received, Route 2A has been selected as the preferred route.

It is anticipated this line will be in-service between 2024 to 2025, as we look for opportunities to advance the in-service date to meet the energy needs of the region as quickly as possible.



# HOW THE NEW LINE WILL SUPPORT THE REGION

As businesses and industry continue to expand in the region, so does the need for more electricity.

## The new high voltage transmission line will support the region by:



Ensuring critical infrastructure is in place to keep southwestern Ontario one of North America's agricultural hubs.



Improving reliability for homes and businesses, including both Hydro One and local distribution customers.



Connecting more people and industry to the grid by bringing enough energy to power a city the size of Windsor to the area.



Supporting the local economy and communities by creating new direct and spin off jobs, as well as training opportunities as one of the largest electricity infrastructure projects in the region.

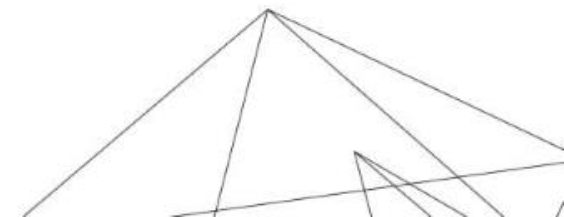
# CLASS ENVIRONMENTAL ASSESSMENT



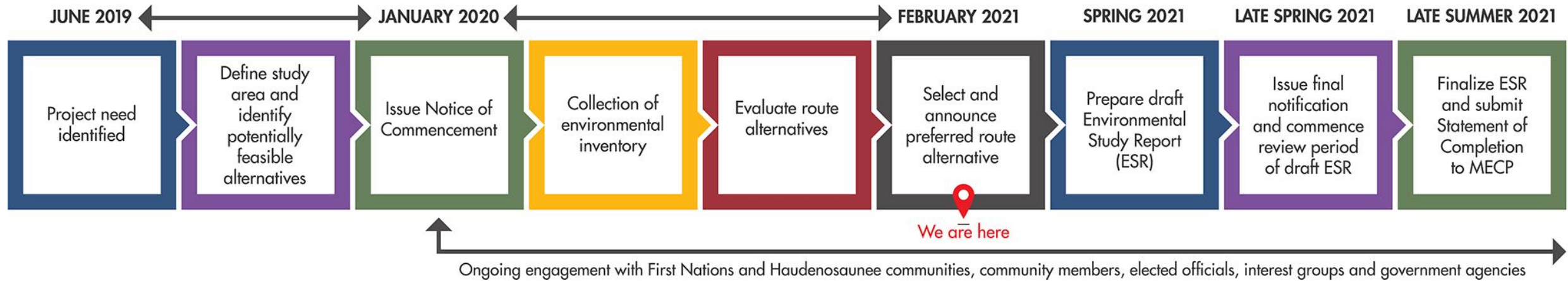
The Class Environmental Assessment (Class EA) for Minor Transmission Facilities sets out a planning and decision-making process for projects with predictable environmental effects that can be mitigated.

## KEY COMPONENTS

- Consultation with Indigenous communities, community members, elected officials, interest groups and government agencies
- Collection of environmental inventory
- Identification and evaluation of alternative methods
- Identification of potential effects and mitigation measures
- Selection of a preferred alternative
- A draft Environmental Study Report (ESR) made available for public review and comment period
- Submission of Final ESR and Statement of Completion



# CLASS ENVIRONMENTAL ASSESSMENT PROCESS UPDATE

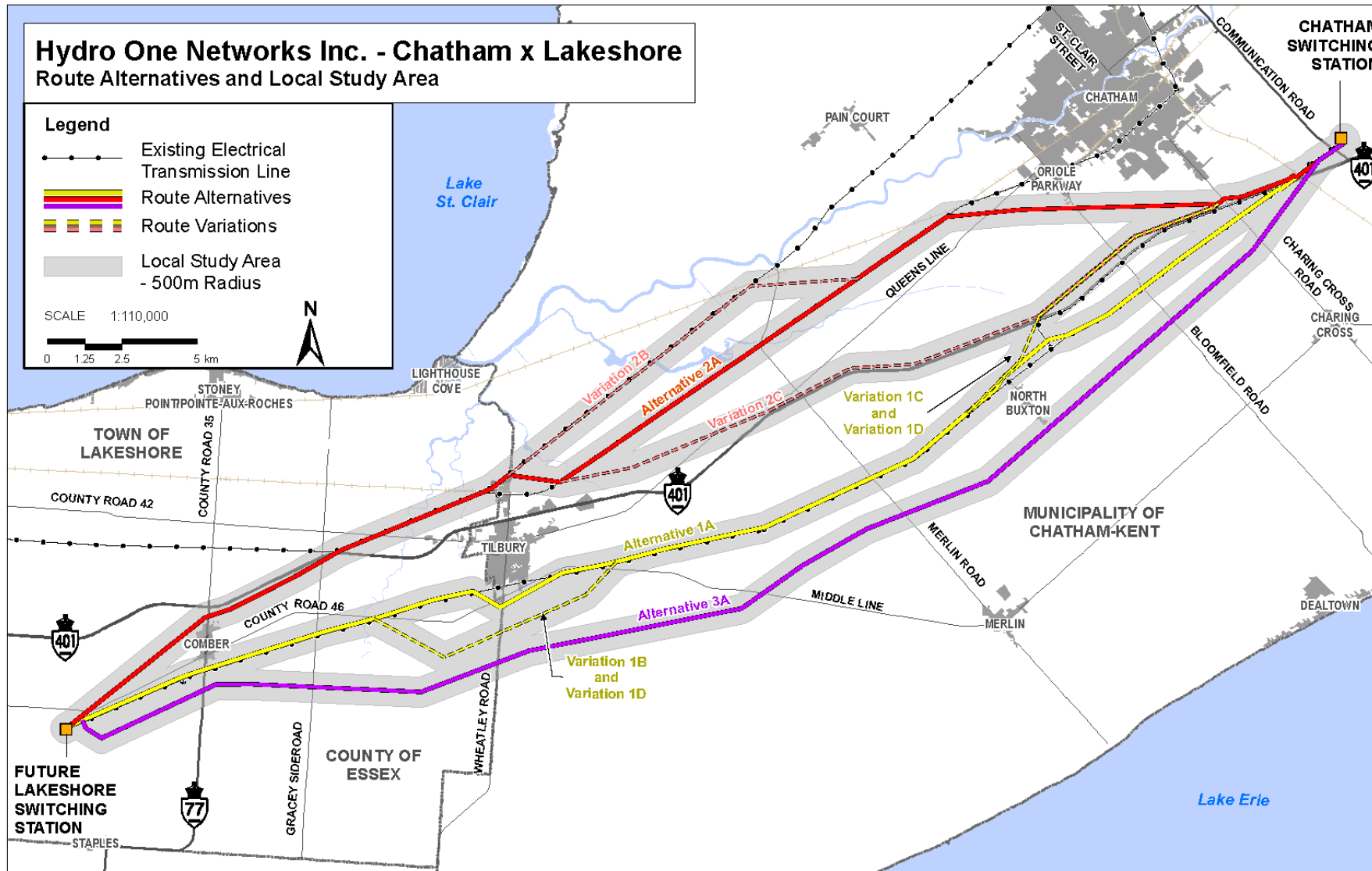


## WHERE WE ARE:

A preferred route alternative has now been selected.

As a next step, a draft Environmental Study Report (ESR) will be prepared for public review. The ESR will outline the need for the project, and summarize environmental information collected, consultation undertaken, the route evaluation and selection process and environmental effects and mitigation measures.

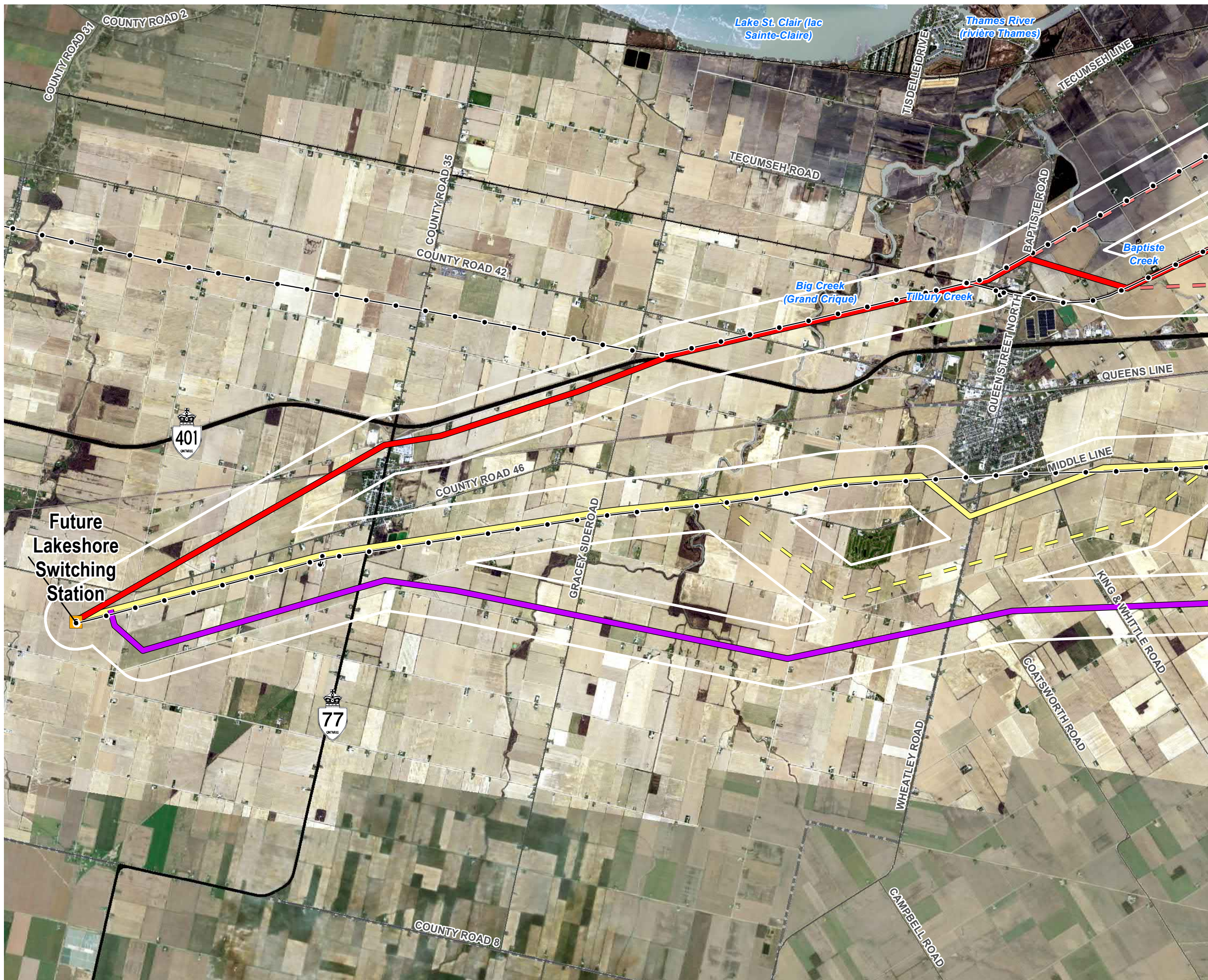
# ROUTE ALTERNATIVES ASSESSED



At the outset of the project, we identified viable route alternatives, each with their own distinct advantages and disadvantages.

In October 2020, we made four refinements to the routes based on technical and environmental information learned.

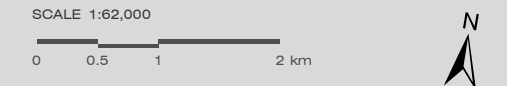
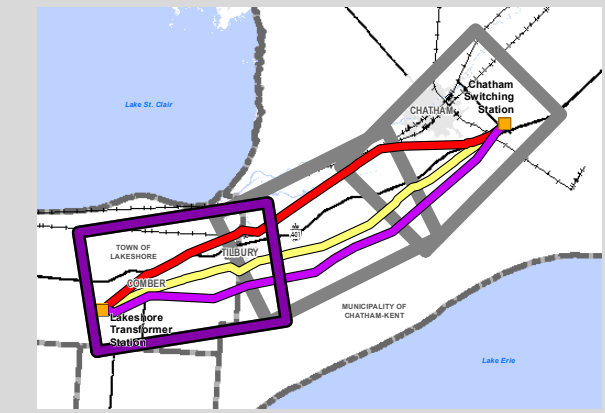
For a detailed look, view the maps under the dropdown below.



**HYDRO ONE INC.  
CHATHAM x LAKESHORE**  
CLASS ENVIRONMENTAL ASSESSMENT

**ROUTE ALTERNATIVES**  
SECTION - WEST

- Switching Station
- Alternative 1
- Variation
- Alternative 2
- Variation
- Alternative 3
- Local Study Area
- Base Data**
- Existing Electrical Transmission Line
- Highway
- Road
- + Railway



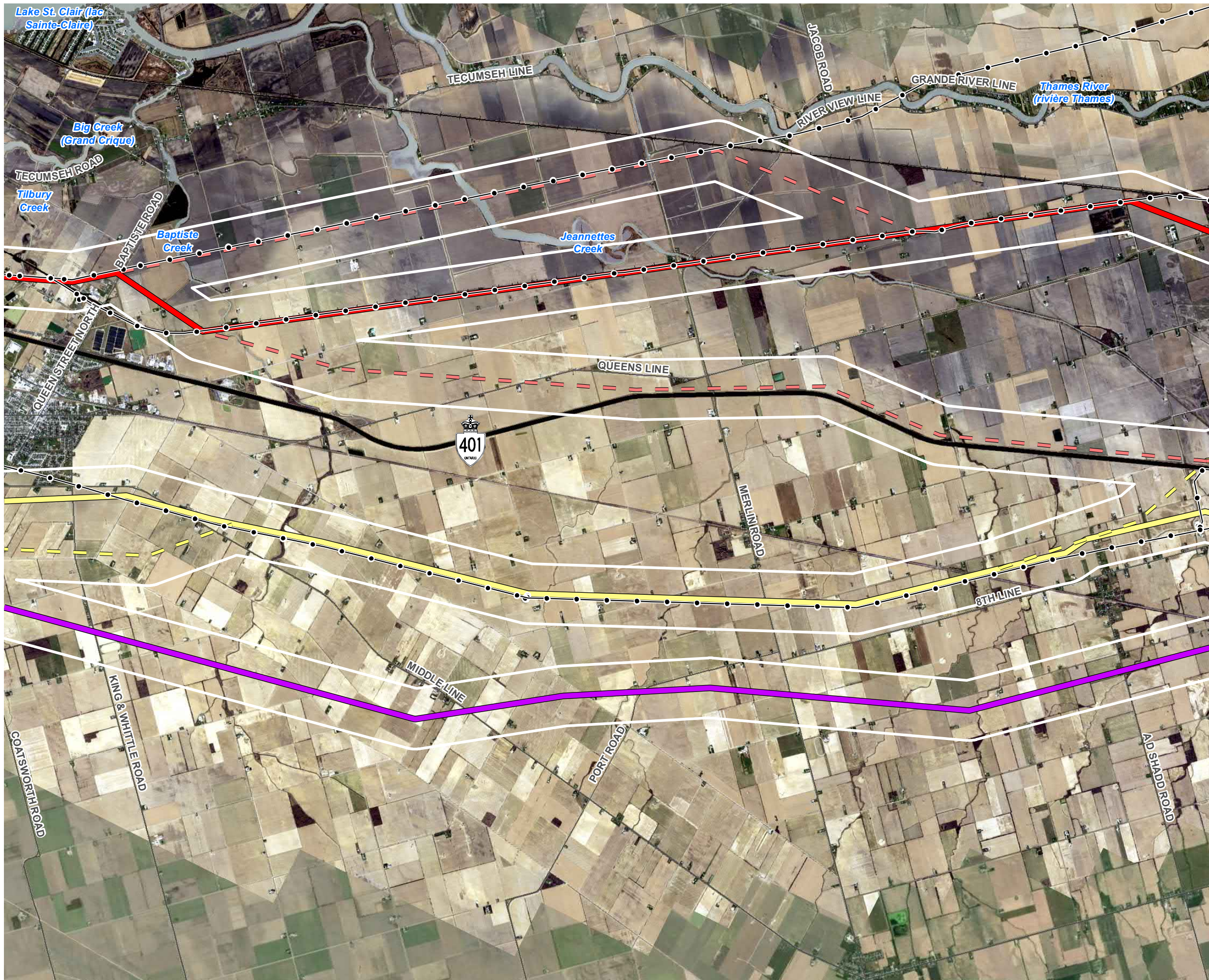
MAP DRAWING INFORMATION:  
Data provided by MNR, Imagery provided by HONI: SWOOP 2015  
and supplemented by ESRI Base map.

MAP CREATED BY: SFG/LMM  
MAP CHECKED BY: -  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 19-1917  
STATUS: INTERNAL DRAFT  
DATE: 2020-10-16

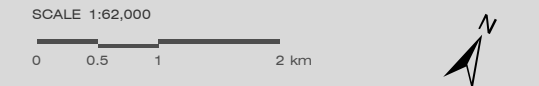
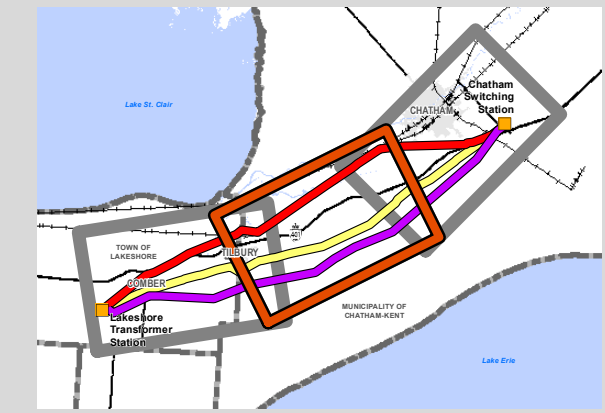




**HYDRO ONE INC.  
CHATHAM x LAKESHORE**  
CLASS ENVIRONMENTAL ASSESSMENT

**ROUTE ALTERNATIVES**  
SECTION - CENTRE

- Switching Station
  - Alternative 1
  - Variation
  - Alternative 2
  - Variation
  - Alternative 3
  - Local Study Area
- Base Data**
- Existing Electrical Transmission Line
  - Highway
  - Road
  - Railway

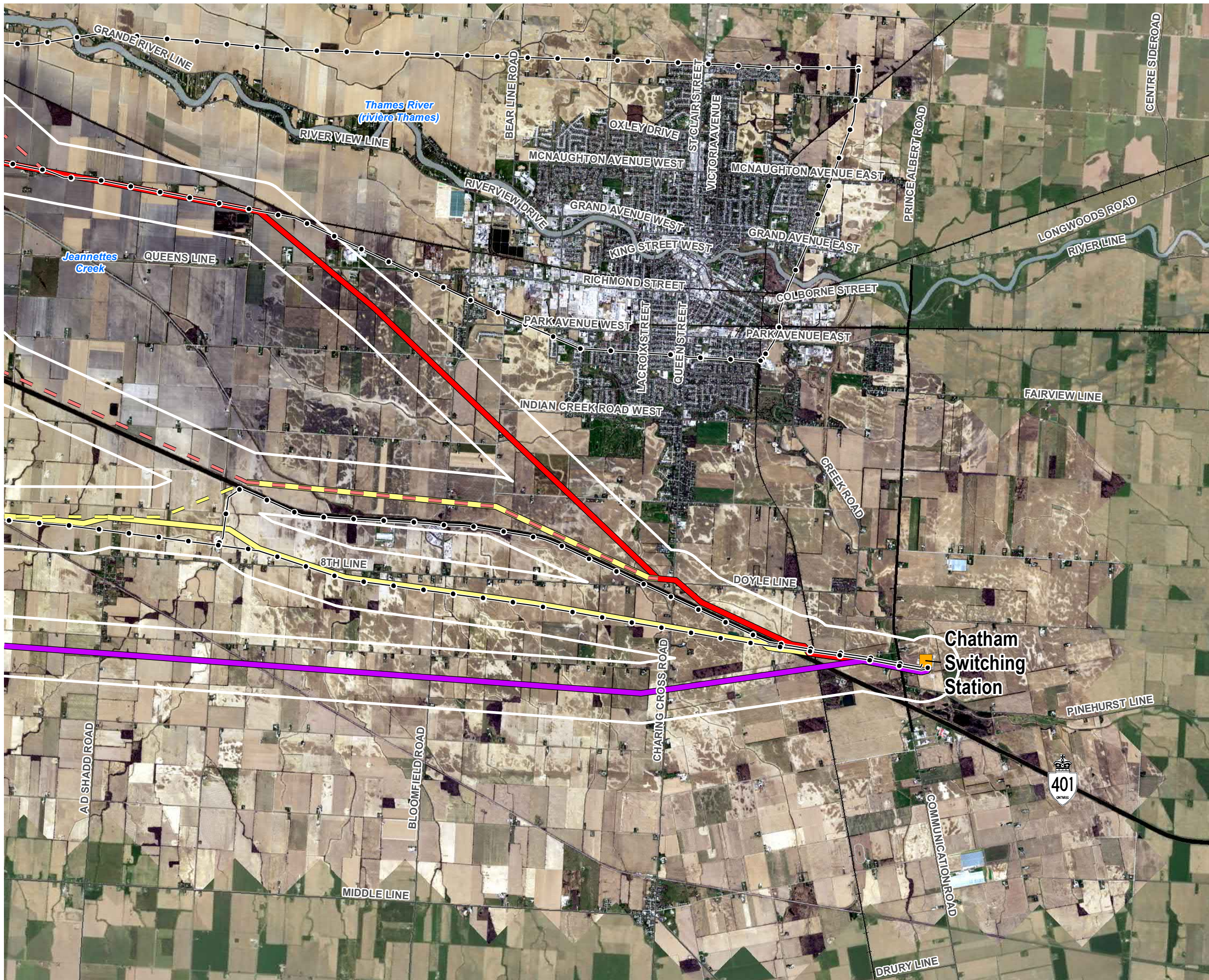


MAP DRAWING INFORMATION:  
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PROJECT: 19-1917  
STATUS: INTERNAL DRAFT  
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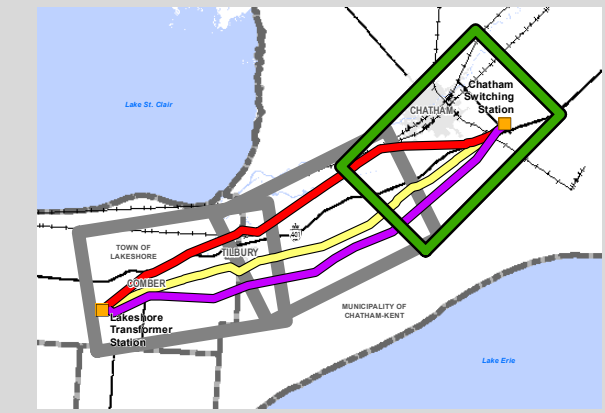


**HYDRO ONE INC.  
CHATHAM x LAKESHORE**  
CLASS ENVIRONMENTAL ASSESSMENT

**ROUTE ALTERNATIVES**  
SECTION - EAST

- Switching Station
- Alternative 1
- Variation
- Alternative 2
- Variation
- Alternative 3
- Local Study Area

- Base Data**
- Existing Electrical Transmission Line
  - Highway
  - Road
  - + Railway



SCALE 1:62,000  
0 0.5 1 2 km



MAP DRAWING INFORMATION:  
Data provided by MNR, Imagery provided by HONI: SWOOP 2015 and supplemented by ESRI Base map.  
MAP CREATED BY: SFGLMM  
MAP CHECKED BY: -  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 19-1917  
STATUS: INTERNAL DRAFT  
DATE: 2020-10-16

# EVALUATION OF ROUTE ALTERNATIVES



A key component of the route evaluation process is to assess and compare the advantages and disadvantages of each route alternative in a fair and holistic manner.

For this project, a weighted multi-criteria decision making analysis was used, which consisted of:

- Collecting feedback from First Nations and Haudenosaunee communities, community members and stakeholders, as well as available information across the four adjacent categories.
- Using the feedback and information collected to build the evaluation framework, which included:
  - Identifying a wide variety of evaluation criteria under each category
  - Assigning a relative weight (level of importance) to each criterion
- Assessing each route alternative based on the framework to select the preferred route.

## EVALUATION CATEGORIES



**Socio-Economic Environment**



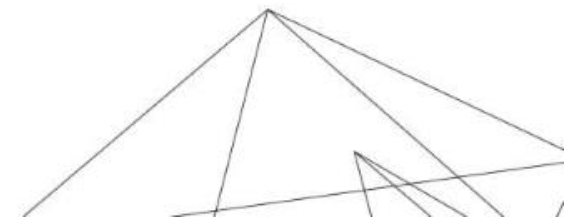
**Technical and Cost**



**Natural Environment**



**First Nations and Haudenosaunee Culture, Values and Land Use**



# ROUTE EVALUATION CRITERIA

Using feedback and information collected, the following criteria was used to evaluate each route alternative.



## Socio-Economic Environment

- Existing land use designations
- Future land use designations
- Agricultural operations
- Petroleum operations
- Source water protection
- Effects to commercial/industrial buildings, properties, site plans or business operations/supply chains
- Archaeological resources
- Cultural resources
- Effects to residential buildings, properties or site plans
- Aggregate resources extraction areas/operations (pits/quarries)



## Natural Environment

- Effects to fish and aquatic habitat
- Effects to vegetation
- Terrestrial and wildlife habitat
- Species at risk and species of conservation concern
- Natural hazards, wetlands and floodplain areas
- Designated natural areas



## Technical and Cost

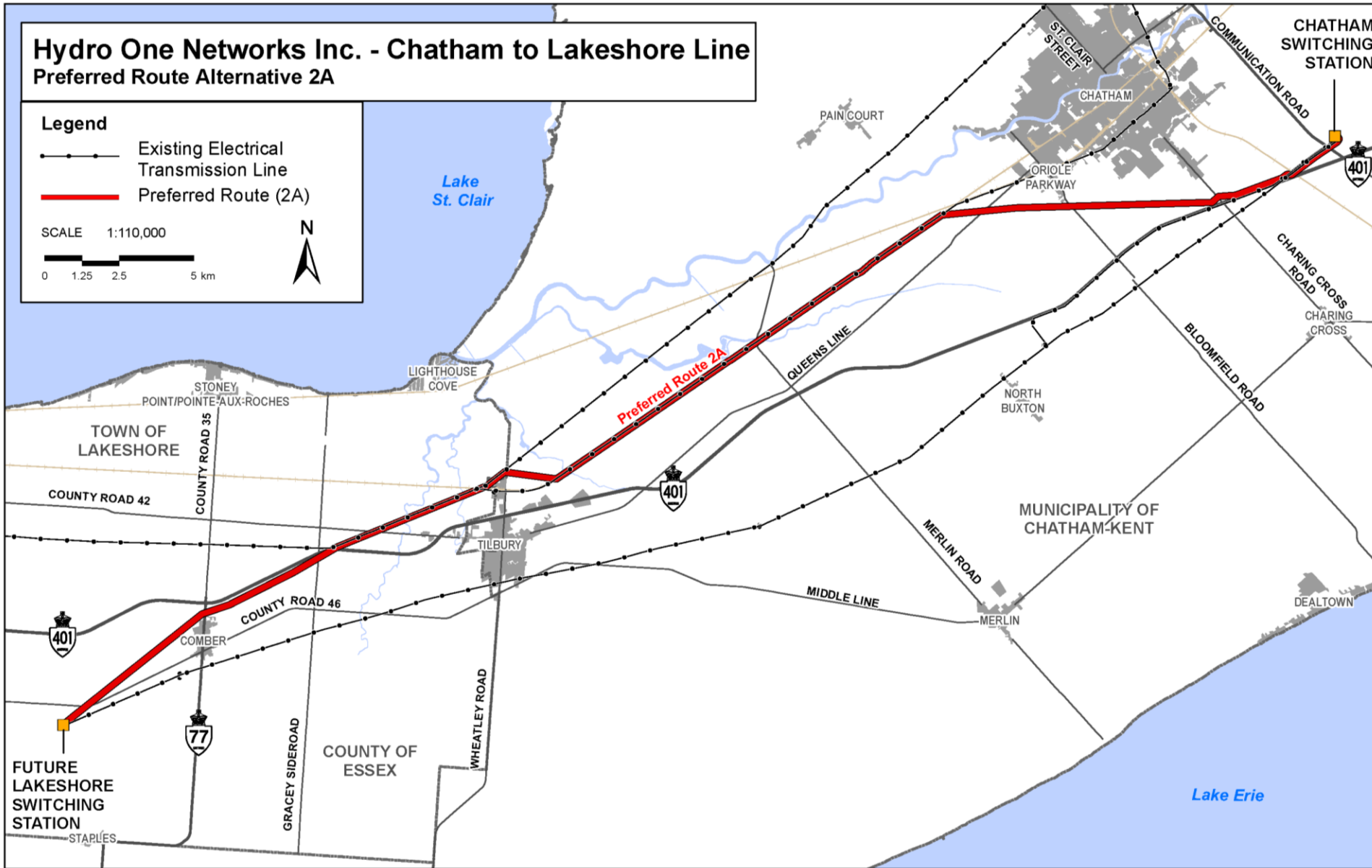
- Line length
- Line angles
- Crossings
- Proximity to wind turbines
- Parallel and adjacent to existing infrastructure
- Impacted property parcels and property acquisition
- Overall constructability



## First Nations and Haudenosaunee Culture, Values and Land Use

- Proximity to areas of historical significance
- Effects to identified First Nations and Haudenosaunee revenue generating projects
- Co-location of existing infrastructure
- Areas that support hunting/trapping/harvesting grounds
- Areas that support fish bearing waters
- Effects to rare/undisturbed native habitats/ecosystems
- Rare/sensitive species regeneration potential

# PREFERRED ROUTE ALTERNATIVE



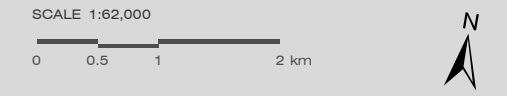
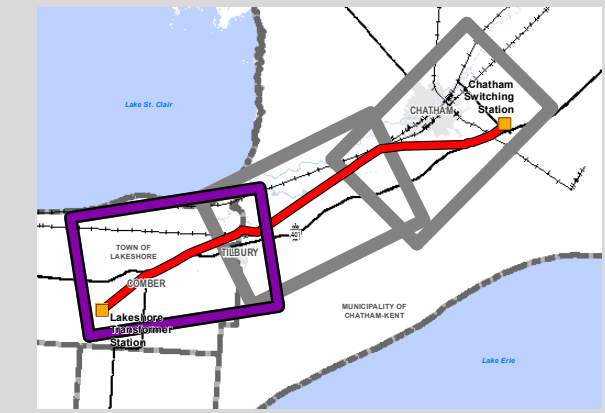
For a detailed look, view the maps under the dropdown below.



**HYDRO ONE INC.**  
**CHATHAM TO LAKESHORE LINE**  
 CLASS ENVIRONMENTAL ASSESSMENT

**PREFERRED ROUTE**  
 SECTION - WEST

- Switching Station
- Preferred Route (2A)
- Local Study Area
- Base Data**
- Existing Electrical Transmission Line
- Highway
- Road
- Railway



MAP DRAWING INFORMATION:  
 Data provided by MNR, Imagery provided by HONI: SWOOP 2015  
 and supplemented by ESRI Base map.  
 MAP CREATED BY: SFG/LMM  
 MAP CHECKED BY: -  
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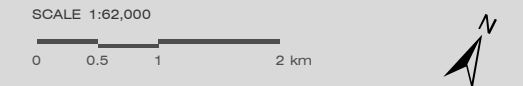
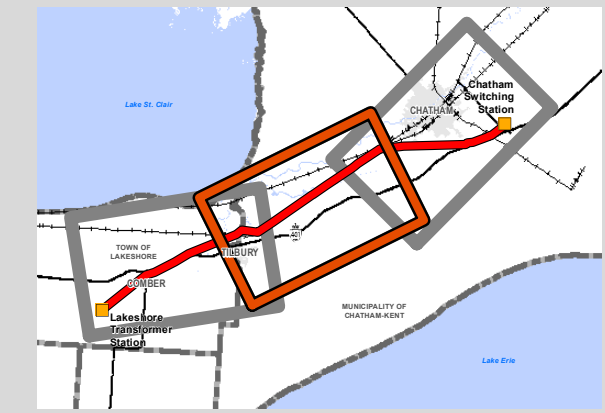
PROJECT: 19-1917  
 STATUS: DISCUSSION  
 DATE: 2021-01-28



**HYDRO ONE INC.**  
**CHATHAM TO LAKESHORE LINE**  
 CLASS ENVIRONMENTAL ASSESSMENT

**PREFERRED ROUTE**  
 SECTION - CENTRE

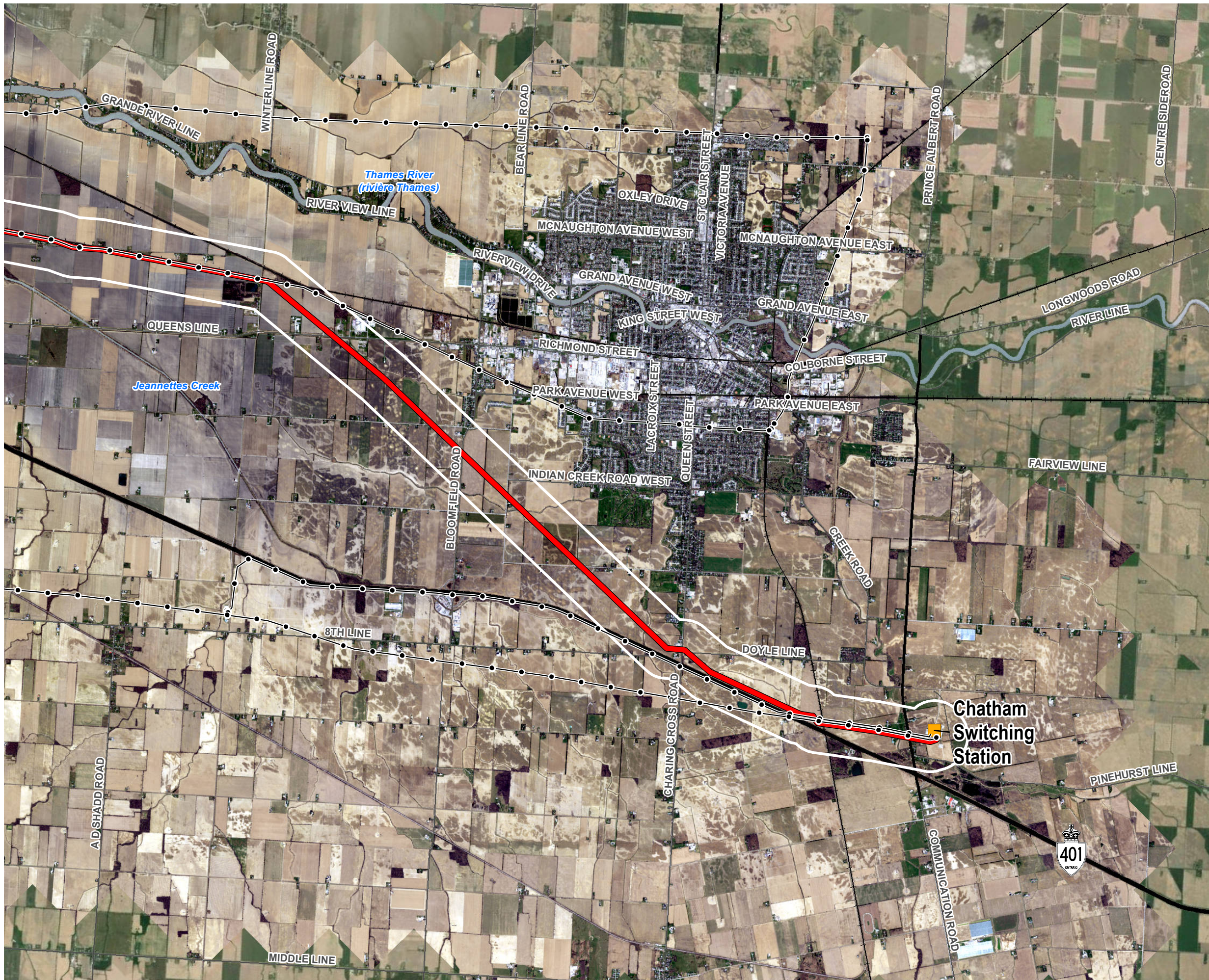
- Switching Station
- Preferred Route (2A)
- Local Study Area
- Base Data**
- Existing Electrical Transmission Line
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MAP DRAWING INFORMATION:  
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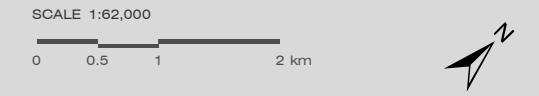
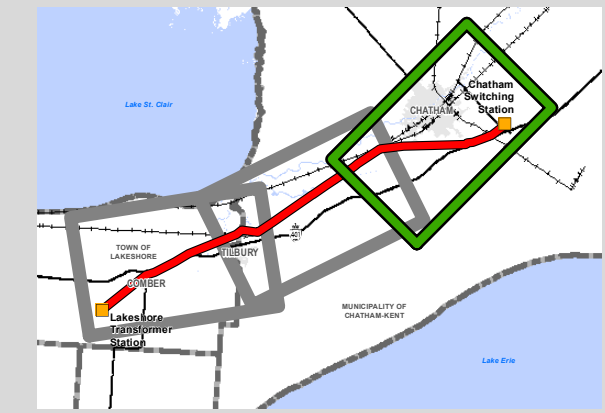
PROJECT: 19-1917  
 STATUS: DISCUSSION  
 DATE: 2021-01-28



**HYDRO ONE INC.**  
**CHATHAM TO LAKESHORE LINE**  
 CLASS ENVIRONMENTAL ASSESSMENT

**PREFERRED ROUTE**  
 SECTION - EAST

- Switching Station
- Preferred Route (2A)
- Local Study Area
- Base Data**
- Existing Electrical Transmission Line
- Highway
- Road
- Railway



MAP DRAWING INFORMATION:  
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 MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 19-1917  
 STATUS: DISCUSSION  
 DATE: 2021-01-28



# COMMUNITY ENGAGEMENT TO DATE



Throughout our Class Environmental Assessment, we have been committed to ongoing engagement and consultation with community members and technical stakeholders.

To gather the necessary feedback to inform the evaluation of the route alternatives, we completed the following:



- Held 2 virtual live discussion sessions reaching more than 1000 households per event



- Launched a virtual open house



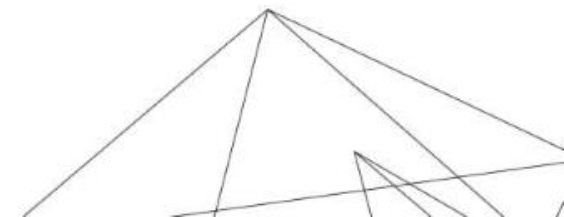
- Organized regular and frequent engagement with local elected officials



- Corresponded directly through phone or email with more than 100 community members



- Distributed more than 60,00 notices requesting comments
- Organized virtual or in-person meetings with community members



# WORKING WITH FIRST NATIONS AND HAUDENOSAUNEE

Receiving input from First Nations and Haudenosaunee communities has been an essential part of the Class Environmental Assessment (Class EA).

Since we began the project, we have been engaging with First Nations and Haudenosaunee communities to inform the evaluation of the proposed route alternatives and learn more about potential environmental effects. To date, we've:



- Hosted virtual live discussions and route evaluation workshops
- Hosted Technical Advisory Committee virtual workshops that included First Nations and Haudenosaunee representatives



- Offered Capacity Funding, including providing support for Community Engagement Coordinators, to participate in the Class EA process



- Organized opportunities to review natural environment information, the Stage 1 archaeological assessment and the cultural heritage existing conditions study

# TECHNICAL WORK

Conducting technical studies and research is another important component of the Class Environmental Assessment.

To gather the necessary background data that was used to assess each of the routes, we've completed the following:



- Held 2 Technical Advisory Committee virtual workshops
- Collected natural heritage information from existing sources



- Reviewed municipal official plans
- Completed a Stage 1 archaeological assessment



- Completed a cultural heritage existing conditions study



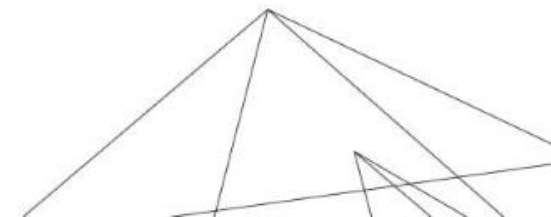
- Conducted environmental field surveys for ecological land classification and vegetation inventory; aquatic habitat; breeding birds; and species at risk habitat

# SUMMARY OF EVALUATION

	<b>Natural Environment</b>	<b>Socio-Economic Environment</b>	<b>Technical and Cost</b>	<b>First Nations and Haudenosaunee Culture, Values and Land Use</b>
Alternative 1A	★★	★★	★★★★★	★
Alternative 1B	★	★★★★★	★★	★
Alternative 1C	★★★★	★	★★	★★★★
Alternative 1D	★★★	★	★	★★
Alternative 2A	★★★★★	★★★★★	★★★★	★★★★★
Alternative 2B	★★★★★	★★★	★★★★	★★★★★
Alternative 2C	★★★	★★★	★★	★★★★
Alternative 3	★★★	★★★	★★★★	★

LEGEND	
LEAST PREFERRED	★
LESS PREFERRED	★★
NEUTRAL	★★★
PREFERRED	★★★★
MOST PREFERRED	★★★★★

\*Chart revised to reflect final study data



# PREFERRED ALTERNATIVE 2A

Based on the evaluation process, **Alternative 2A** has been selected as the preferred route. This route allows us to maximize the potential to repurpose approximately 16 kilometers – roughly 1/3<sup>rd</sup> of the route length – of an existing idle transmission corridor, minimizing effects to the natural and socio-economic environment, as it reduces the need for a new transmission right-of-way.

Compared to other route alternatives, Alternative 2A:



- Effects the fewest aquatic resource areas
- Traverses a low amount of incompatible vegetation
- Has low overall impacts to species at risk habitat



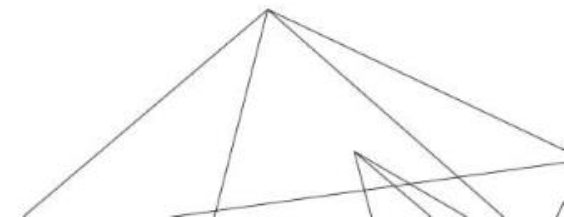
- Minimizes effects to agricultural operations
- Traverses few features associated with Archaeological potential
- Avoids a National Historic Site of Canada (NHSC)



- Maximizes infrastructure renewal by reusing an existing transmission line corridor
- Traverses the fewest property parcels
- Co-locates with 26 km of linear infrastructure



- Balances the proximity to identified areas of historical significance with the co-location of existing infrastructure and minimal effects to natural environment features



# PROJECT NEXT STEPS

Now that we've selected the preferred route alternative, over the next several months we will complete next steps in the Class Environmental Assessment process, and plan for the design and construction of the new line. We will continue to work with property owners and community members to:



Seek local knowledge and expertise to identify additional measures to avoid, mitigate, or restore potential environmental effects of the preferred route.



Directly engage with property owners along Route Alternative 2A as we seek voluntary property rights.



Collect and gather information to advance the design and construction solution.



Prepare a draft Environmental Study Report (ESR) which will be shared for a review and comment period.

# ENVIRONMENTAL EFFECTS AND MITIGATION

Based on our past experience of building transmission lines in agricultural areas, we have identified a number of mitigation measures that are being considered for the construction of the project.

Examples of measures being considered include:



- Utilizing existing access and watercourse crossings, where available and appropriate



- Constructing temporary access roads and work areas
- Applying erosion and sediment controls, where required

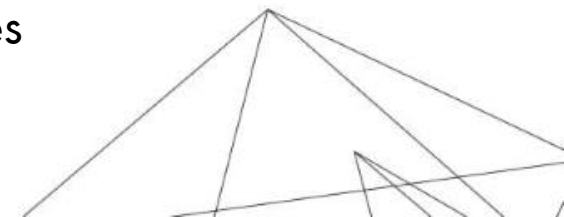


- Retaining compatible vegetation, to the extent practical
- Employing dust control measures during construction



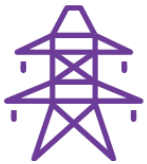
- Applying measures to avoid and protect identified tile drainage, to the extent practical, or enact repairs of any damage resulting from construction activities

Over the next few months, we will continue to seek feedback to identify additional measures to avoid, mitigate, or restore potential environmental effects of the preferred alternative.

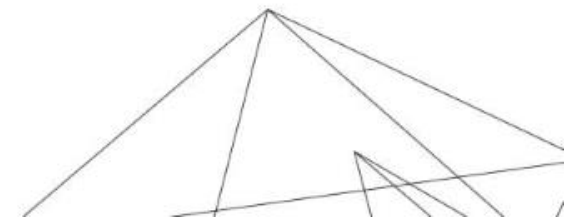


# TYPICAL CONSTRUCTION ACTIVITIES

While we are in the early stages of construction planning, environmental mitigation measures are being developed based on typical construction activities. These typical activities include the following:



- Mobilizing and setting up construction yards
- Removing existing idle transmission lines and structures, where necessary
- Constructing access roads and working pads
- Installing tower foundations and pouring concrete
- Assembling transmission towers
- Installing temporary poles at road and rail crossings
- Installing wires on the transmission line
- Connecting the line at both ends
- Energizing the new line
- Removing temporary access roads and completing right-of-way restoration





# WORKING WITH PROPERTY OWNERS ALONG ROUTE 2A



As part of our next stage in the development of the new line, we will work closely with property owners whose properties will be traversed by the preferred route.

As a first step, a dedicated real estate representative will be in contact with property owners to schedule a meeting following the March 11th live discussion.

During these meetings, representatives will review Hydro One's process to attain the necessary property rights and introduce our project-specific Land Acquisition Compensation Principles. Some of these principles will include the adjacent.



Property  
Owner  
Choice

Property Owners will be offered the choice of Hydro One acquiring either an easement or the fee simple interest (ownership) in the lands required for the project corridor.



Construction

Construction impacts will be mitigated to the extent feasible, and reimbursement for cropland out of production during and after construction and any physical damages that are unable to be mitigated will be provided.



Independent  
Valuation

Offers will be based upon site-specific appraisal reports prepared by independent third party AACI appraisers.



Incentives

Monetary incentives, in addition to market value compensation, will be offered for the conveyance of voluntary property rights.

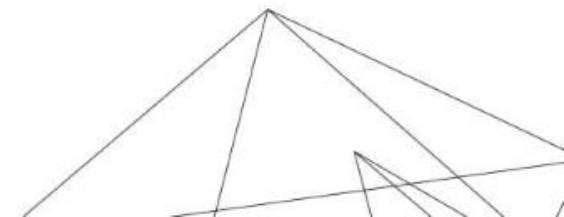
# TRANSMISSION LINE DESIGN

With the preferred route selected, planning for the transmission line design will commence.

The design of the transmission line and towers will take into account a number of considerations, including:

- Existing structure locations
- New structure heights
- Span between structures
- Topography and soil conditions
- Road crossing clearances and traffic impacts
- Business and residential impacts
- Environmental constraints

Over the next several months, we will seek to complete more property specific environmental and technical studies to inform these considerations. Information obtained through these studies will be used in the design and conversations with property owners will be considered in the construction solution.





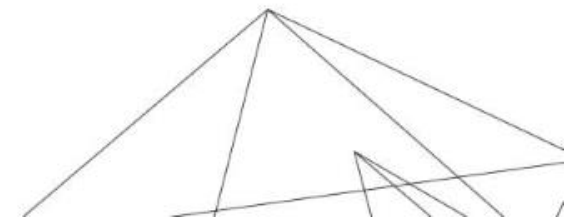
# ONTARIO ENERGY BOARD APPROVAL REQUIREMENTS



In addition to the Class Environmental Assessment process, the Ontario Energy Board (OEB) must also approve the project under the Section 92 Leave to Construct Approval of the *Ontario Energy Board Act, 1998 (Act)*.

Section 92 of the Act requires transmitters and distributors to obtain approval from the OEB for the construction, expansion, or reinforcement of electricity transmission and distribution lines or interconnections.

We plan to apply for this approval in late 2021. Further information from the OEB on this project will be made available in local papers and at [www.oeb.ca](http://www.oeb.ca).



# PROJECT MILESTONES



Environmental studies and preferred route selection

Continued First Nations and stakeholder engagement opportunities (i.e. meetings with property owners, local businesses, associations etc.)

\*In order to meet the energy needs of the region as quickly as possible, we are looking for opportunities to advance the construction start time to bring the new line into service at an earlier date.