

## Welcome

St. Clair Transmission Line

#### **Community Open House #3** June 2023

#### We are here today to:

- Share the preferred route for the St. Clair Transmission Line Project
- Provide an overview of the evaluation process
   & selection of the preferred route

 Continue engaging with property owners, stakeholders, rights holders

Gather your input and answer questions







## Hydro One's role in the system

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

**Ontario Power Generation and Private Generation Companies** 





**Renewable Generation** 



#### Hydro One or Local Distribution Company







## Project overview



- The St. Clair Transmission Line is a proposed new double-circuit 230 kilovolt transmission line between the Lambton Transformer Station in St. Clair Township and the Chatham Switching Station in the Municipality of Chatham-Kent
- The Independent Electricity System Operator (IESO) asked Hydro One to place this line in service by 2028 to support regional growth
- The line is located in the ancestral land of the Chippewa, Odawa and Potawatomi peoples
- We are currently conducting a Class Environmental Assessment for Minor Transmission Facilities (2022) for the Project, under the Ontario *Environmental*

#### Assessment Act





## Preferred route

#### **Benefits of Route 2**

- More than 80% of the distance of the preferred route utilizes existing transmission corridor lands to some extent:
  - Over 60% of the preferred route repurposes existing transmission corridor with a need to widen the corridor and acquire new land rights
  - Nearly 20% of the preferred route utilizes existing corridor lands that are not yet occupied by transmission infrastructure
- Wallaceburg Transformer Station will be upgraded to accommodate the increase in power, which will improve reliability for Wallaceburg and Walpole Island First Nation





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# How the project will support the region



Build a safe and reliable grid

Support economic growth in the Windsor-



Essex and Chatham area in sectors like agriculture and electric vehicle technology



Bring in enough clean energy to power a city the size of Waterloo!



Build community partnerships in the communities we work in and serve







### Class Environmental Assessment (EA)

Steps of a Class EA

 Engage with Indigenous communities, community members, elected officials, interest groups and

#### government agencies

- Collect environmental information and identify potential environmental effects and mitigation measures
- Identify and evaluate route alternatives

#### Select a preferred route

- Continue to engage with Indigenous communities, community members, elected officials, interest groups and government agencies
- Prepare a draft Environmental Study Report (ESR) that will be made available for a 30-day public review and comment period
- Submit the Final ESR to the Ministry of Environment, Conservation and Parks





# Route alternatives assessed

In February 2022, we identified five viable route alternatives to connect between Chatham Switching Station (SS) and Lambton Transformer Station (TS).

In October 2022, three route refinements were made based on new information we learned about the environment and technical constraints. We also announced station upgrades at Wallaceburg TS (for routes 2, 3, and 4). All five routes would require station expansion at Lambton TS and Chatham SS.

In June 2023, following an evaluation of the alternative routes, Route 2 was announced as the preferred route.



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## Your feedback helped the route evaluation



#### **Communication Outreach:**



Open houses, registered mail and door-knocking to potentially impacted



property owners

Ongoing calls and emails



Notices, newspaper, radio and social media ads



Meetings with Indigenous communities, local elected officials and regional leaders

#### What We've Heard:



Consider effects to agricultural lands and operations



Maximize the use of existing transmission corridors



Consider species at risk and ecological restoration areas



Minimize effects to homes





## **Evaluation of the alternative routes**

The route alternatives were evaluated based on environmental field studies, research, and feedback received regarding the advantages and disadvantages of each option based on four evaluation categories, which were applied to all routes in a fair and transparent manner:







Natural Environment	Socio- Economic Environment	Indigenous Culture, Values and Land Use	Image: Constant of the second of the secon
<ul> <li>Wildlife habitat</li> <li>Species at Risk</li> <li>Wetlands, natural hazards and floodplain</li> </ul>	<ul> <li>Agricultural resources and operations</li> <li>Residential properties</li> </ul>	<ul> <li>Areas that support hunting, trapping and/ or harvesting grounds</li> </ul>	<ul> <li>Line length and angles</li> <li>Crossings of existing infrastructure</li> </ul>
areas	<ul> <li>Commercial, industrial</li> </ul>	<ul> <li>Areas that</li> </ul>	<ul> <li>System benefits and</li> </ul>

- Habitat restoration areas
- Vegetation

institutional, recreational and other business and facilities

- Source water protection and groundwater wells
- Archeological resources

support fish bearing waters with

- identified or inferred habitat of game species
- Effects to rare, undisturbed native habitats or ecosystems

impacts

- Real estate and land rights considerations
- Construction complexity

The preferred route best balances the evaluation categories overall







Route 2 scored the best overall in the natural environment category

- Least effect to species at risk
- Least effect to wildlife habitat
- Avoids habitat restoration areas
- Minimizes vegetation removal
- Avoids Clay Creek Woodland











Route 2 scored the best overall in the socio-economic category

- Least effects to agricultural lands and operations
- Least effects to petroleum operations
- Crosses less features with archeological potential
- Aligns with a Provincial Policy Statement regarding the re-use of existing corridors











Overall, Route 2 scored the best in the Indigenous culture, values and land use category

- Least effect to native species and habitats of importance to Indigenous communities
- Avoids a separate crossing of the Thames River
- Low effect to areas that support hunting, trapping and harvesting
- Improved transmission reliability to a First Nation supplied from Wallaceburg Transformer Station

Route 1











#### Route 2 scored third overall in the Technical and Cost Category

Route 2 will result in increased reliability and efficiency of the

transmission supply to the Wallaceburg area

 Additional construction effort is required to remove the existing 115 kilovolt transmission line, towers and upgrades to stations, before the new line can be built









### **Evaluation results**

The evaluation concluded Route 2 has overall more advantages compared to the other route alternatives identified through the environmental assessment.





#### **Less Preferred**

#### **More Preferred**

![](_page_13_Picture_7.jpeg)

![](_page_14_Picture_0.jpeg)

## **Continue working** with property owners

Hydro One is committed to working closely with directly impacted property owners.

![](_page_14_Picture_3.jpeg)

![](_page_14_Picture_4.jpeg)

#### **Property Owner Choice**

Property owners have the choice between an easement or purchase

![](_page_14_Figure_7.jpeg)

#### **Independent Valuation**

Offers are based on site-specific reports from independent third-party appraisers

![](_page_14_Picture_10.jpeg)

#### Incentives

Monetary incentives will be offered in addition to market value compensation for voluntary property rights

![](_page_14_Figure_13.jpeg)

**Construction & Mitigating Physical Property Damages** Property owners will be reimbursed for project

related losses such as out of production cropland during and after construction

![](_page_14_Picture_16.jpeg)

![](_page_15_Picture_0.jpeg)

# Mitigation and restoration opportunities

Based on our experience building transmissions lines in agricultural areas, the following mitigation measures are being considered for constructing the line.

![](_page_15_Picture_3.jpeg)

Use existing access and watercourse crossings as much as possible

![](_page_15_Picture_5.jpeg)

## Apply erosion and sediment controls when needed

![](_page_15_Picture_7.jpeg)

Avoid and protect tile drainage as much as possible and repair any damage resulting from construction

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![](_page_15_Figure_10.jpeg)

Retain compatible vegetation

![](_page_15_Figure_12.jpeg)

Employ dust control measures

![](_page_15_Figure_14.jpeg)

Restore temporary access roads and work areas after construction

We want to hear your continued feedback to further enhance the planning of this project.

![](_page_15_Picture_17.jpeg)

![](_page_16_Picture_0.jpeg)

## Designing the transmission line

With the preferred route selected, detailed design for the transmission line will consider:

- Residential and business effects
- Structure heights and clearances
- Structure locations
- Environmental constraints
- Employ dust control measures
- Distance between structures
- Construction methodology

![](_page_16_Picture_10.jpeg)

- Topography and soil conditions
- Right-of-way width

Over the next several months, we will complete more detailed environmental and technical studies to inform the design of the new line. We will also gather feedback from property owners on property specific features.

![](_page_16_Picture_14.jpeg)

![](_page_17_Picture_0.jpeg)

### **Electric and magnetic fields (EMF)**

Hydro One is committed to meet safe EMF exposure levels to ensure members of the public are not exposed to elevated EMF levels. We look to scientific experts, like Health Canada, for guidance. Health Canada does not consider that any precautionary measures by the public are needed regarding daily exposures to EMFs at extremely low frequencies.

#### mG of a typical double-circuit 230 kilovolt transmission line

![](_page_17_Figure_4.jpeg)

Median magnetic field (mG) of common household appliances			
Electric Ovens	9 mG at 6 inches		
Coffee Makers	7 mG at 6 inches		
Refrigerators	2 mG at 6 inches		
Vacuum Cleaner	300 mG at 6 inches		
Microwave	200 mG at 6 inches		
Portable Heater	100 mG at 6 inches		
Washing Machines	20 mG at 6 inches		

approximate edge of corridor

mG strength

Health Canada exposure guideline

#### View our EMF handout for more info!

![](_page_17_Picture_10.jpeg)

![](_page_18_Picture_0.jpeg)

## Project timeline

#### February 2022

Notice of Commencement for the

Class Environmental Assessment (Class EA)

#### **March 2022**

Community Open House #1

#### **October 2022**

Community Open House #2

#### June 2023

Announcement of preferred route selection and Community Open House #3

#### Fall 2023

Release Draft Class Environmental Study Report for public review and submission of final report to the Ministry of the

**Environment, Conservation and Parks** 

#### 2025-2026

Completion of detailed design and other permits and approvals, including Section 92 approval from the Ontario Energy Board. Construction to follow.

2028

Proposed line in-service

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

![](_page_18_Picture_20.jpeg)

![](_page_19_Picture_0.jpeg)

## Thank you for joining us

Please provide your feedback and join our project contact list by contacting Hydro One Community Relations:

![](_page_19_Picture_3.jpeg)

Community.Relations@HydroOne.com

![](_page_19_Picture_5.jpeg)

## Please fill out a comment form before you leave, or send us your comments afterwards.

![](_page_19_Picture_7.jpeg)