ONTARIO Pumped Storage

Council Update

2022



ONTARIO Pumped Storage

TC Energy

Creating a reliable, powerful climate solution

ONTARIO Pumped Storage

TC Energy

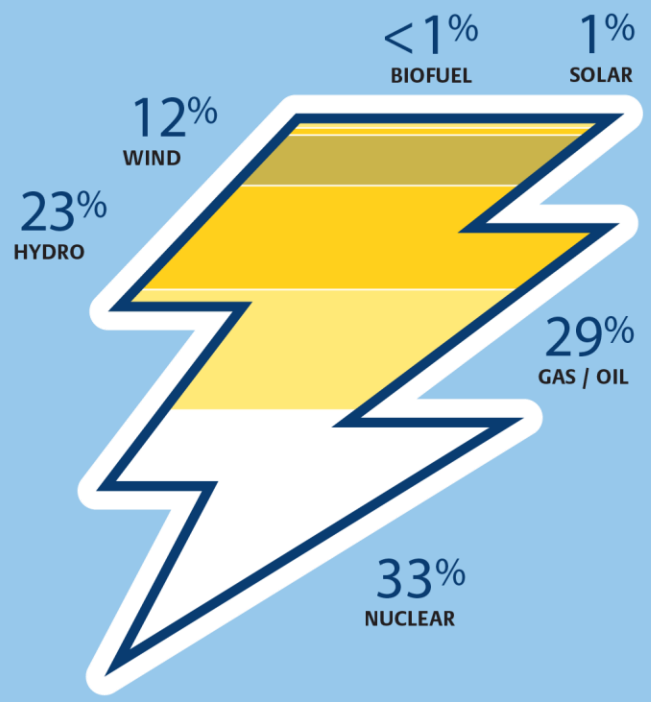
Preparing for extreme weather and climate change



CREATING A MORE ROBUST ENERGY GRID.

Supporting weakness of wind and solar.

Filling gaps in the supply grid during extreme weather



REDUCING RELIANCE ON NATURAL GAS.

Backstopping intermittency of solar and wind.

An electricity insurance policy

Developing storage solutions to counter growth in climate-related electricity shortages.

An environmentally-friendly solution

ONTARIO Pumped Storage

TC Energy

1,000 MW OF CLEAN EMISSION-FREE POWER CAPACITY

Reuse
AND RECYCLE
EXCESS ELECTRICITY

Reduce
RELIANCE ON NATURAL GAS
POWER PRODUCTION

Significantly lower GHGs

500,000 TONNES PER YEAR

EQUIVALENT TO TAKING 150,000 CARS OFF THE ROAD

Our commitment to the environment

STUDIES AND
COMMUNITY ENGAGEMENT



System needs and project objectives

ONTARIO Pumped Storage

TC Energy



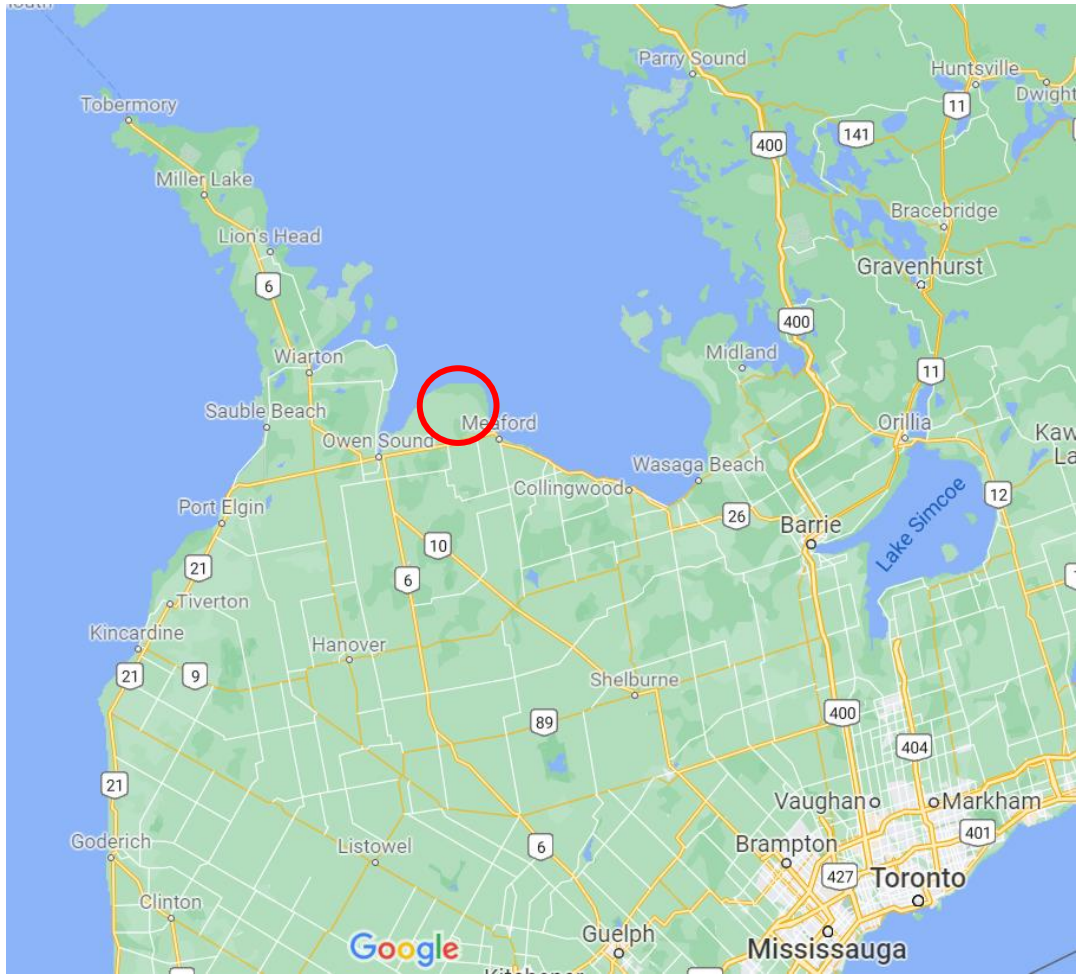
1,000 MW 8 hours capacity

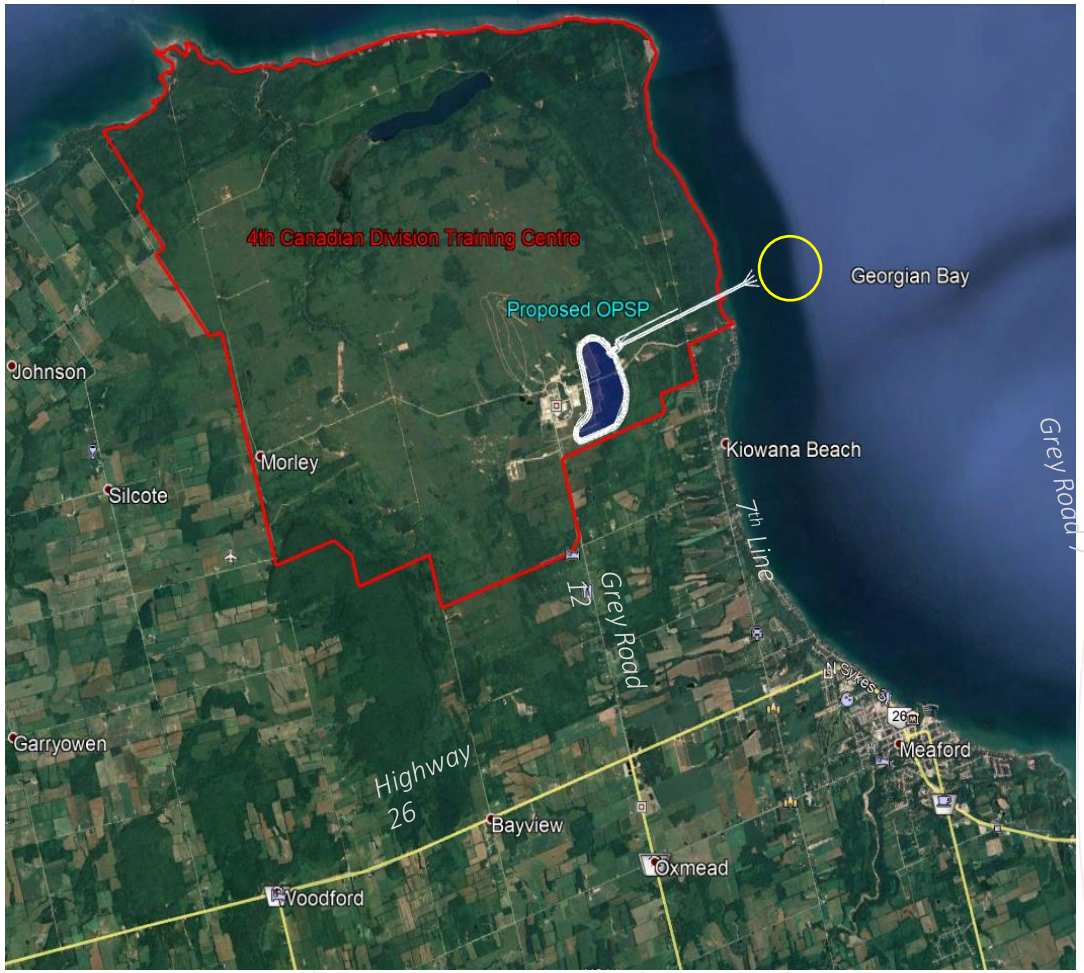
$250M savings for ratepayers annually

1000 construction jobs over 4 years

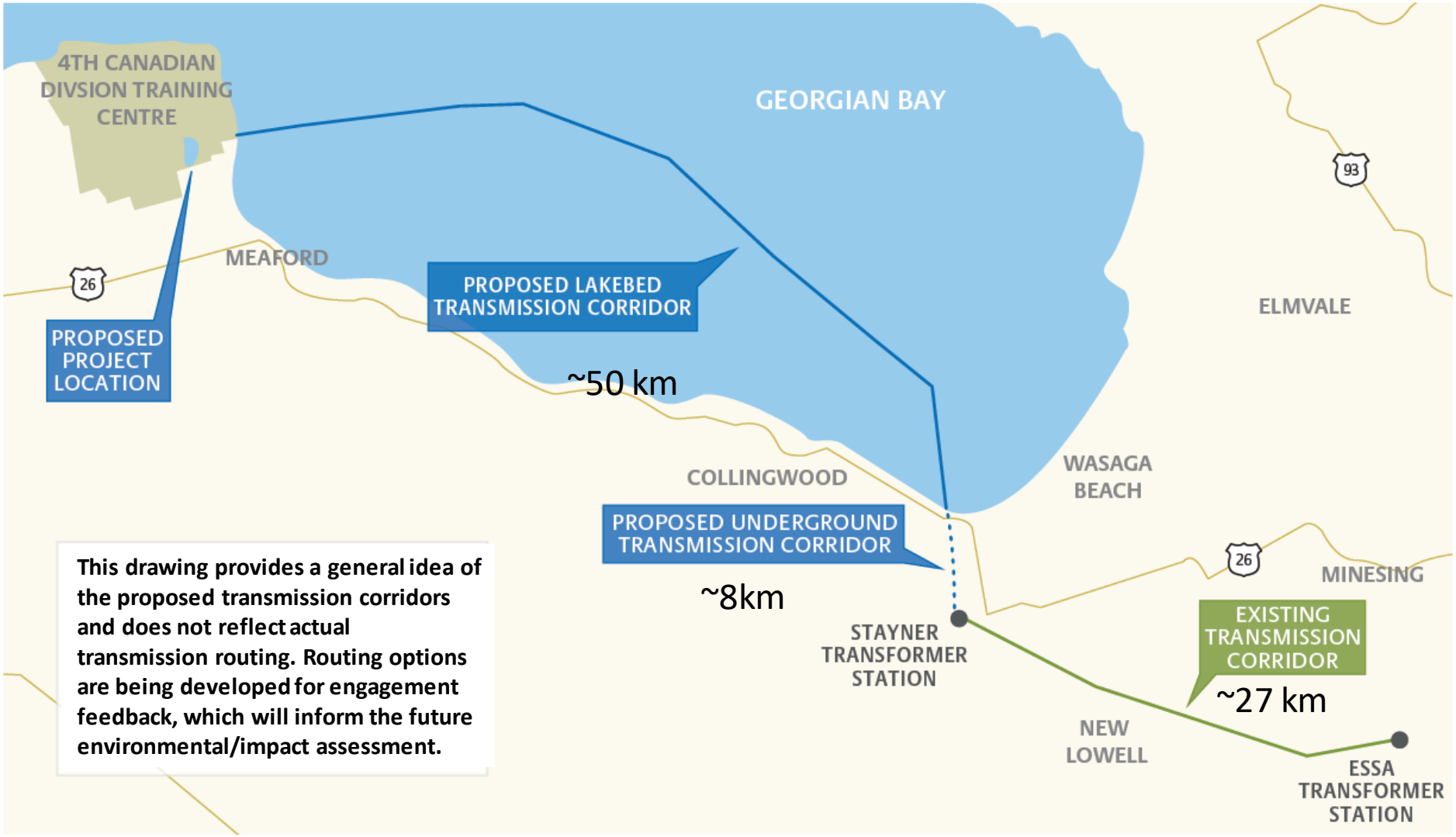
490,000 tonnes per year reduction in greenhouse gas emissions = **150,000 cars** taken off of the road

Project Location





Connecting to the grid



Design in the Public Eye

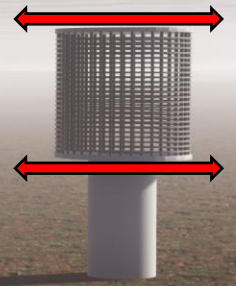
Protecting Fish and Water



Inlet/Outlet Ports Below Lake Surface



Top of Ports positioned well below lake surface



Top and bottom of Ports capped to redirect water flow horizontally, reducing turbidity

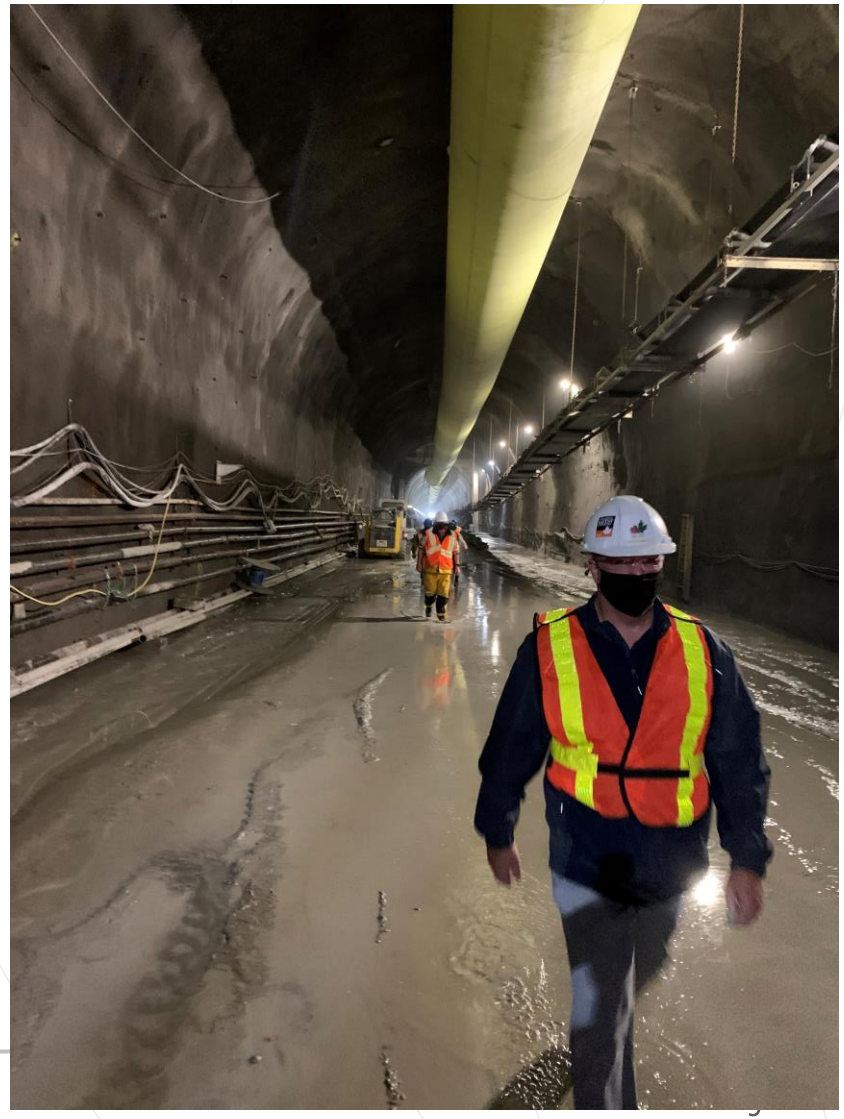
Multiple Inlet/Outlet Ports

Georgian Bay

Conceptual drawing

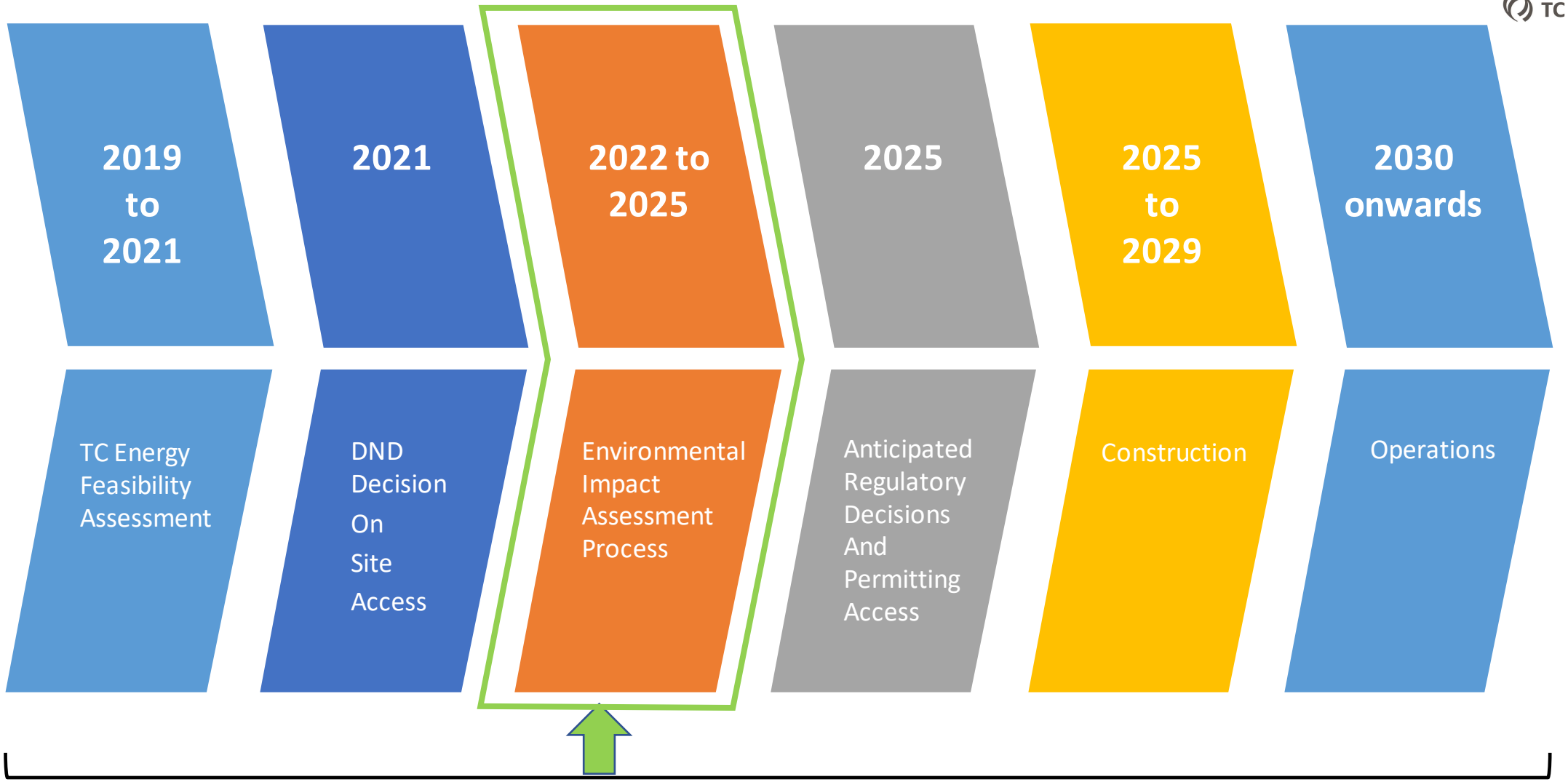
Tunnel Boring





Construction In-water

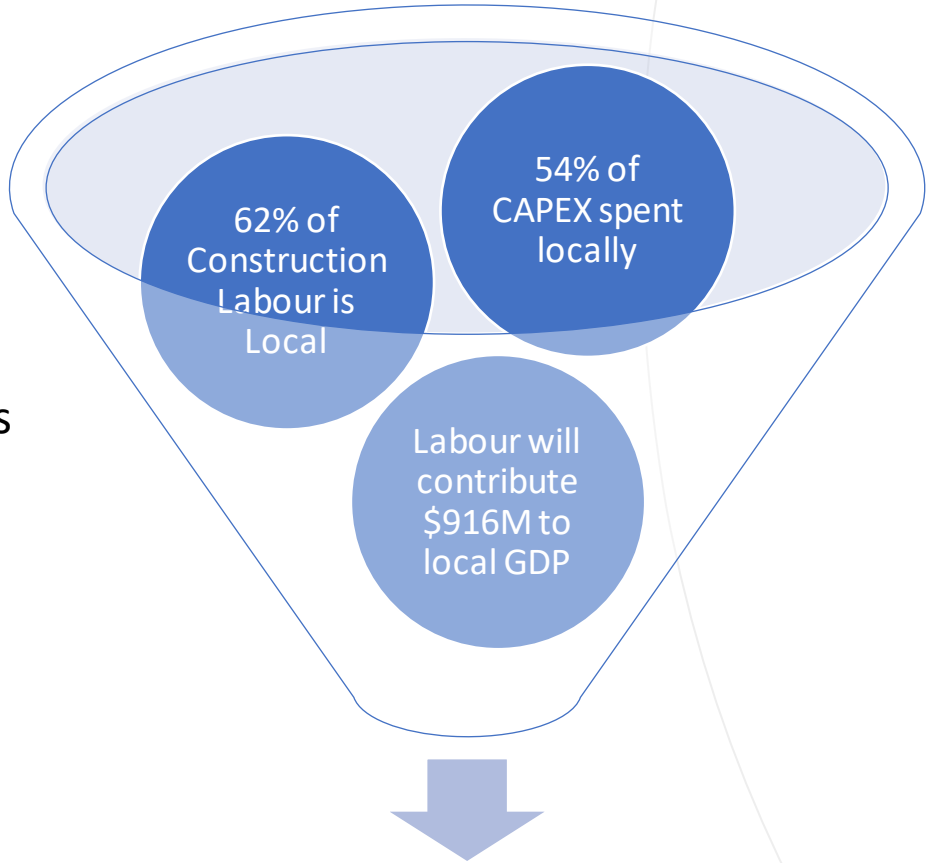



2019 to 2021
2021
2022 to 2025
2025
2025 to 2029
2030 onwards
TC Energy Feasibility Assessment
DND Decision On Site Access
Environmental Impact Assessment Process
Anticipated Regulatory Decisions And Permitting Access
Construction
Operations
Ongoing engagement and CTC collaboration

Made-In-Ontario Study Preview

TC Energy commissioned socio-economic report being published soon…stay tuned.

Some key facts and figures we want to share before the report is published…



Local is defined as:
Bruce-Grey-Simcoe counties

Largest cohort of investment is Bruce-Grey-Simcoe

TC Energy Investing Now…

Makwa-Cahill LP, a fully qualified Indigenous construction and fabrication company working within the energy sector, is pleased to announce that they have been selected by TC Energy to conduct a constructability and fabrication review of the inlet/outlet structures for TC Energy's pumped storage project in Meaford, Ontario.

Hatch to provide reservoir safety guidance and expertise, as well as advisory services, for the development of our transformative 1,000 MW Pumped Storage Project.

Georgian College researchers are launching a new multi-stage project with TC Energy to identify local trade, service, and people resource providers within Grey, Bruce and Simcoe counties.

Project Supporters

"Maintaining resilient and reliable energy infrastructure is essential for a vibrant economy in Ontario. Planning for assets like the Ontario Pumped Storage Project will help ensure that the Province stays on track to produce low carbon energy that will power our economy, when we need it.."

- ***Rocco Rossi, President and CEO, Ontario Chamber of Commerce***

"Ducks is impressed with TC Energy's commitment to listening to the community. When the community expressed concerns about how to protect Georgian Bay, TC Energy redesigned some key elements to address and mitigate these concerns …Ducks is pleased to continue to monitor this project as it starts the environmental regulatory process"

- ***Mark Gloutney, National Director of Science – Ducks Unlimited***

"We believe the Ontario Pumped Storage Project presents a unique opportunity to provide training and employment opportunities in the province, in support of well paying, middle class skilled jobs to help our economy grow, while addressing important climate concerns through the storage of clean energy"

- ***Jack Oliveira, Business Manager, LiUNA OPDC and LiUNA, Local 183***

More Project Supporters

"Pollution Probe has worked for decades to protect the health of the Great Lakes and to better understand the impacts of different energy futures. TC Energy's proposed Ontario Pumped Storage Project is a positive example of how an open engagement process and a willingness to consider the input of the community can contribute to shaping infrastructure projects with both of these objectives in mind. Pollution Probe will continue to consult with TC Energy and the Georgian Bay community as the pumped storage project moves through the environmental assessment process to ensure the protection of the local environment remains a key focus."

– Christopher Hilkene, CEO, Pollution Probe

"Addressing water pollution is always a top priority. By creating an innovative design based on public feedback, their proposed deep water, inlet-outlet diffuse water infrastructure; their buried powerhouse and tunnelling systems; and openness and transparency in their designs gives us confidence this energy storage project will help address pollution issues in Georgian Bay. We look forward to seeing how this Ontario Pumped Storage Project unfolds."

– Mark Mattson, President and CEO Swim Drink Fish



Our Ask

ONTARIO Pumped Storage

TC Energy

Impact Assessment

Direct Staff to review upcoming Impact Assessment submissions and decide on level of engagement in early 2023

Economic Opportunities

Direct Staff to share with the Project socio-economic data including local vendors, suppliers who might be interested in the Project.

Engagement

Provide the Project with feedback, advice and suggestions on how your community would like to be engaged through the regulatory process and get informed about the Project.



Questions?

Ensuring that we protect Georgian Bay and the surrounding environment as we develop this project is our priority.

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or
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