



# ONTARIO Pumped Storage

## Council Update

2022



ONTARIO  
Pumped Storage



TC Energy



# Creating a reliable, powerful climate solution

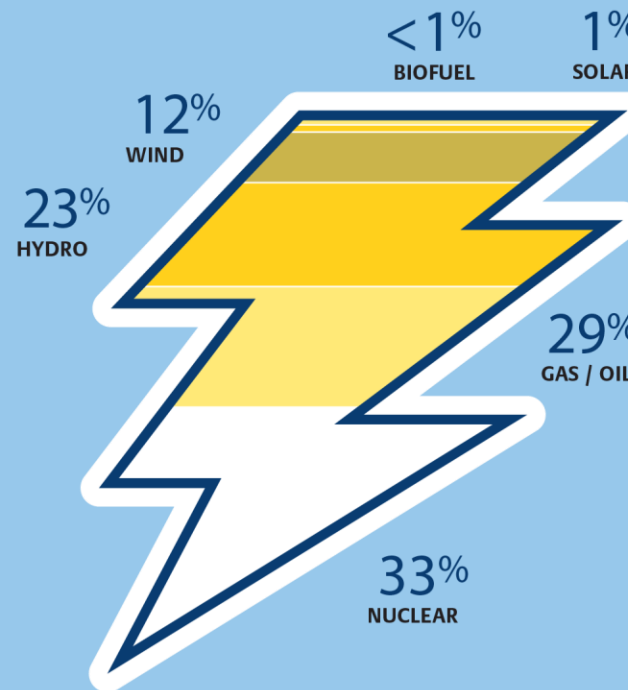
Preparing for extreme weather and climate change



**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

**1,000 MW**  
**OF CLEAN**  
**EMISSION-FREE**  
**POWER CAPACITY**



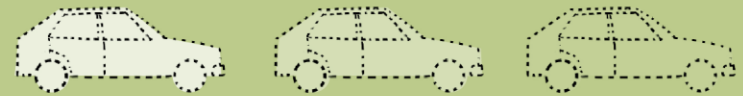
**Reuse**  
AND RECYCLE  
EXCESS ELECTRICITY



**Reduce**  
RELIANCE ON NATURAL GAS  
POWER PRODUCTION



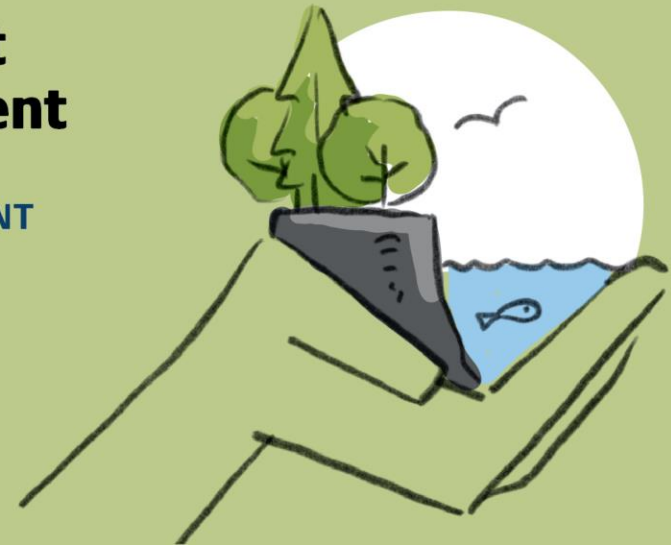
Significantly lower GHGs  
**500,000**  
TONNES PER YEAR



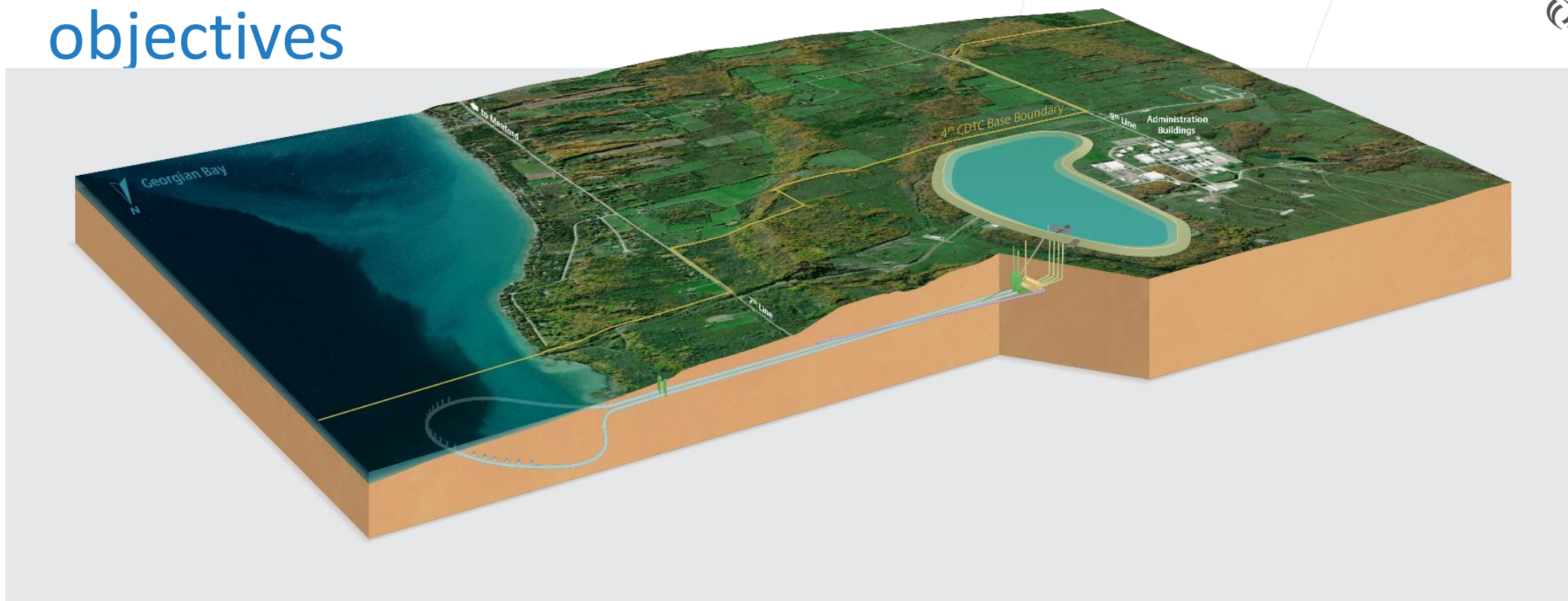
EQUIVALENT TO TAKING **150,000 CARS** OFF THE ROAD

## Our commitment to the environment

STUDIES AND  
COMMUNITY ENGAGEMENT



# System needs and project objectives



**1,000 MW  
8 hours  
capacity**



**\$250M savings  
for ratepayers  
annually**



**1000  
construction  
jobs over 4  
years**



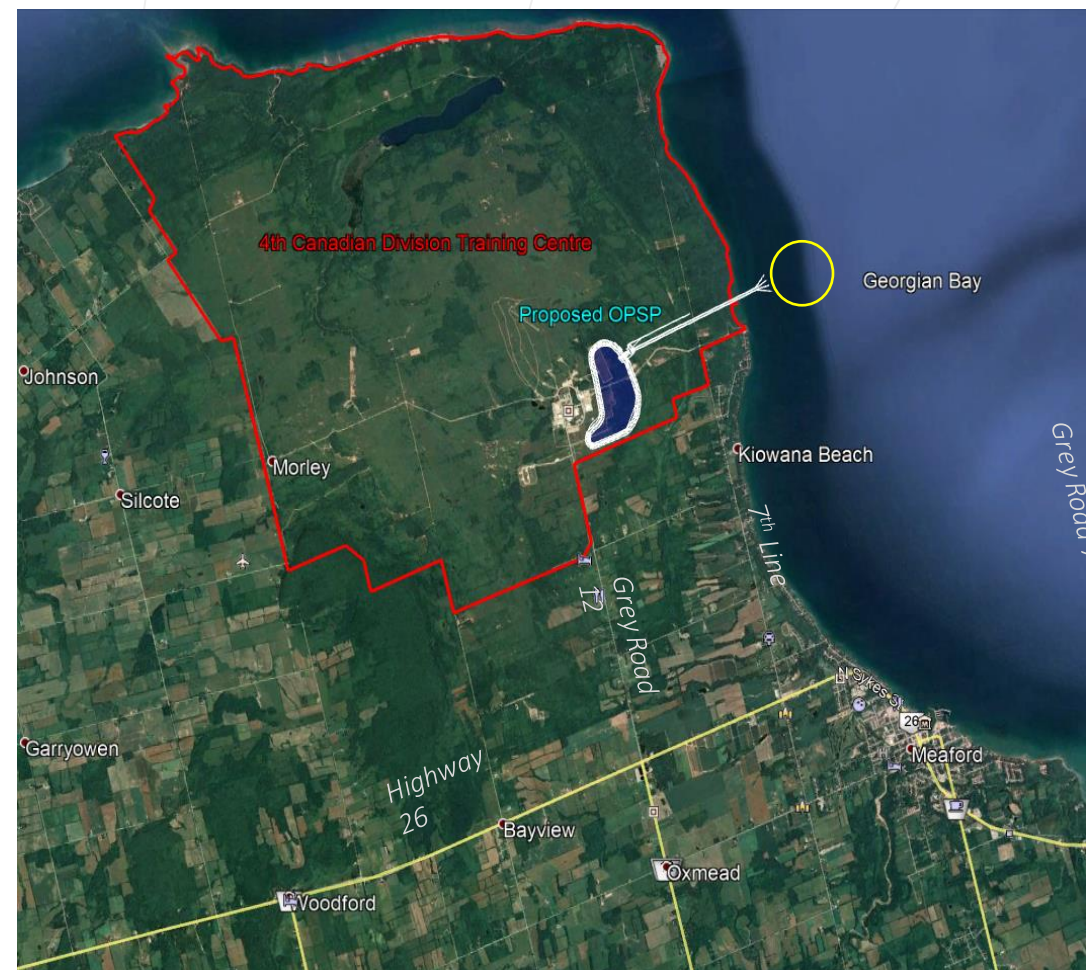
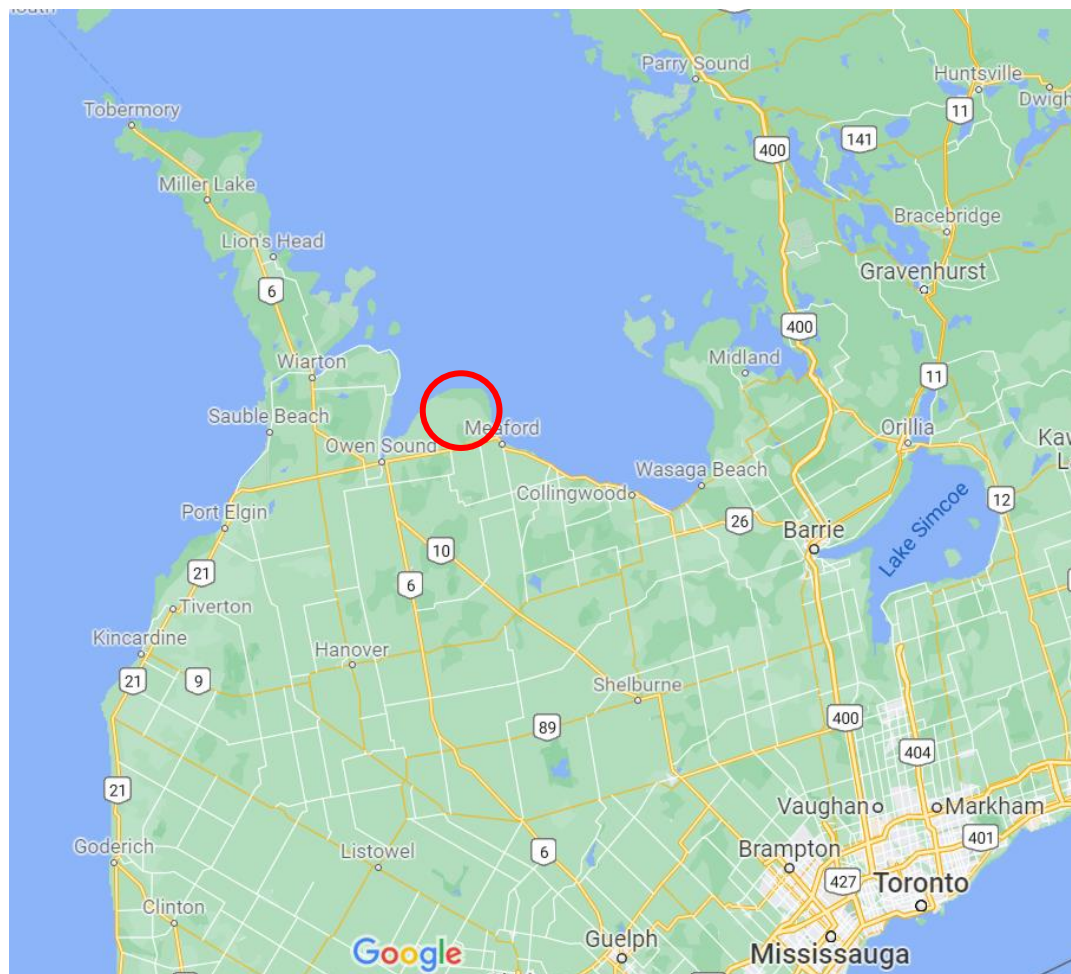
**490,000 tonnes  
per year reduction  
in greenhouse gas  
emissions**



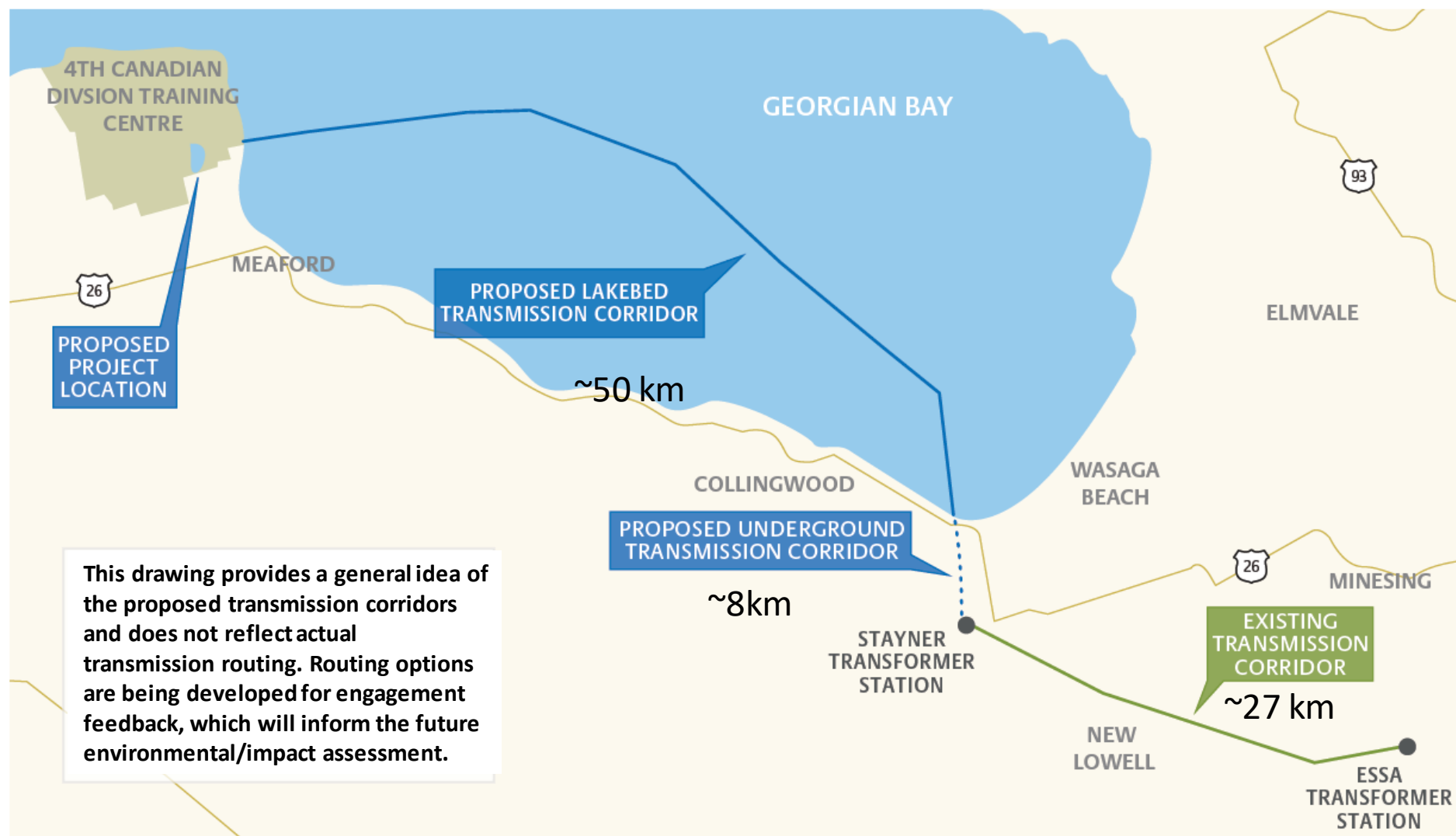
**= 150,000 cars  
taken off of  
the road**



# Project Location



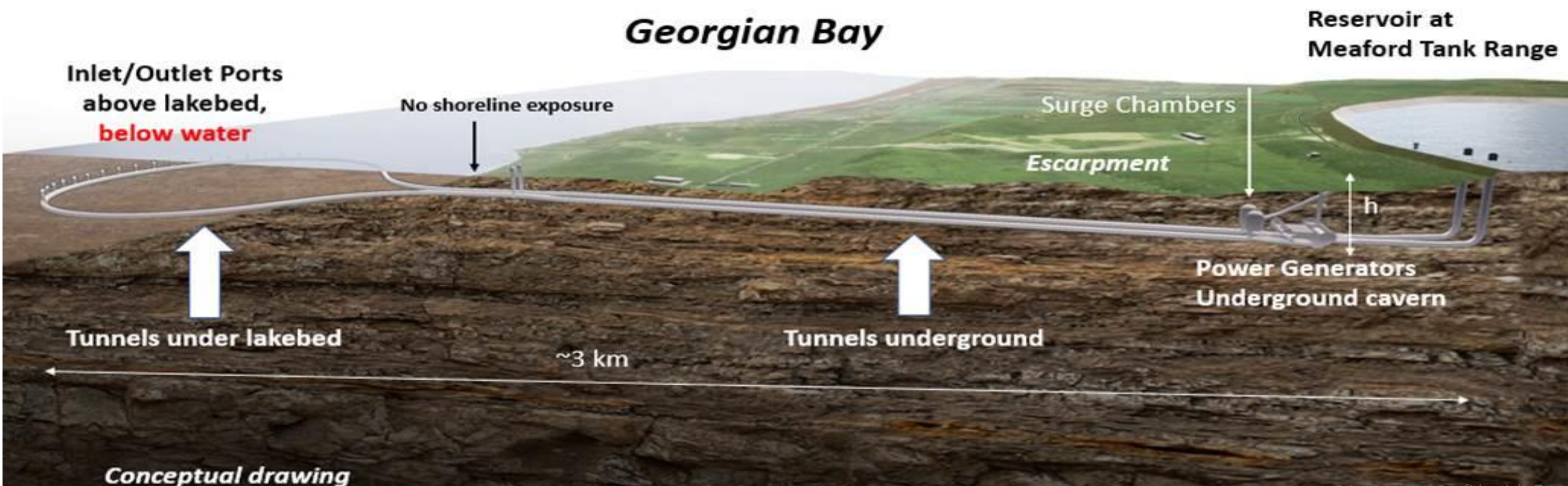
# Connecting to the grid





# Design in the Public Eye

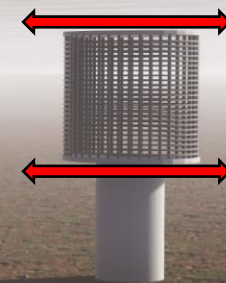
## Protecting Fish and Water





# 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

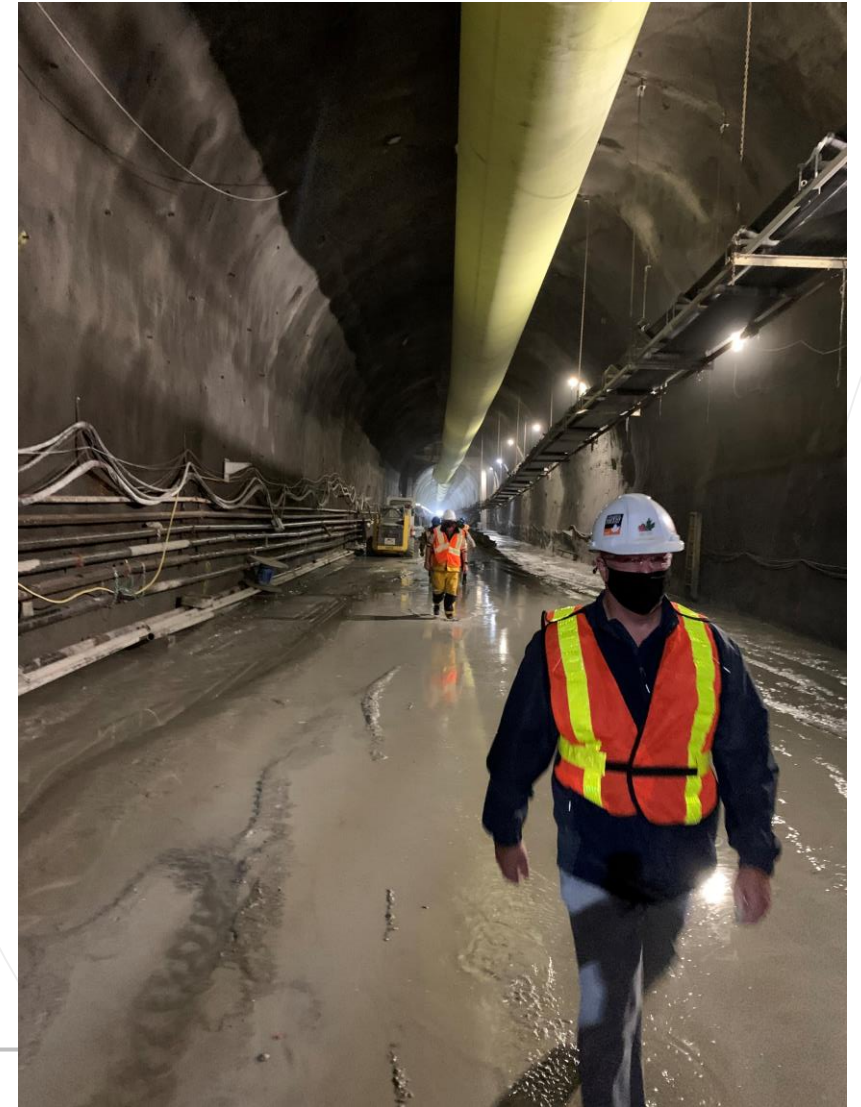
*Georgian Bay*

*Conceptual drawing*





# Tunnel Boring

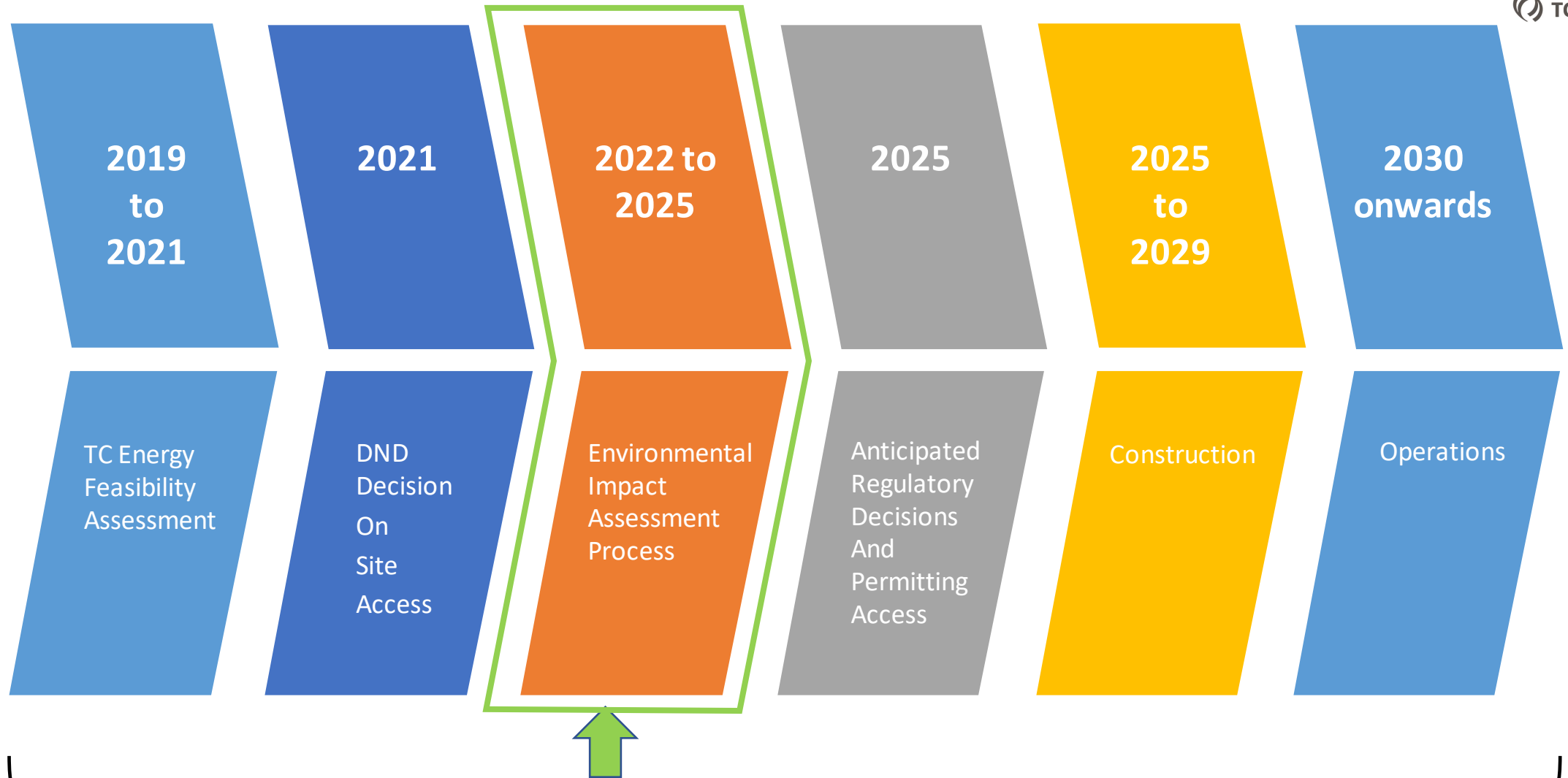




# Construction In-water





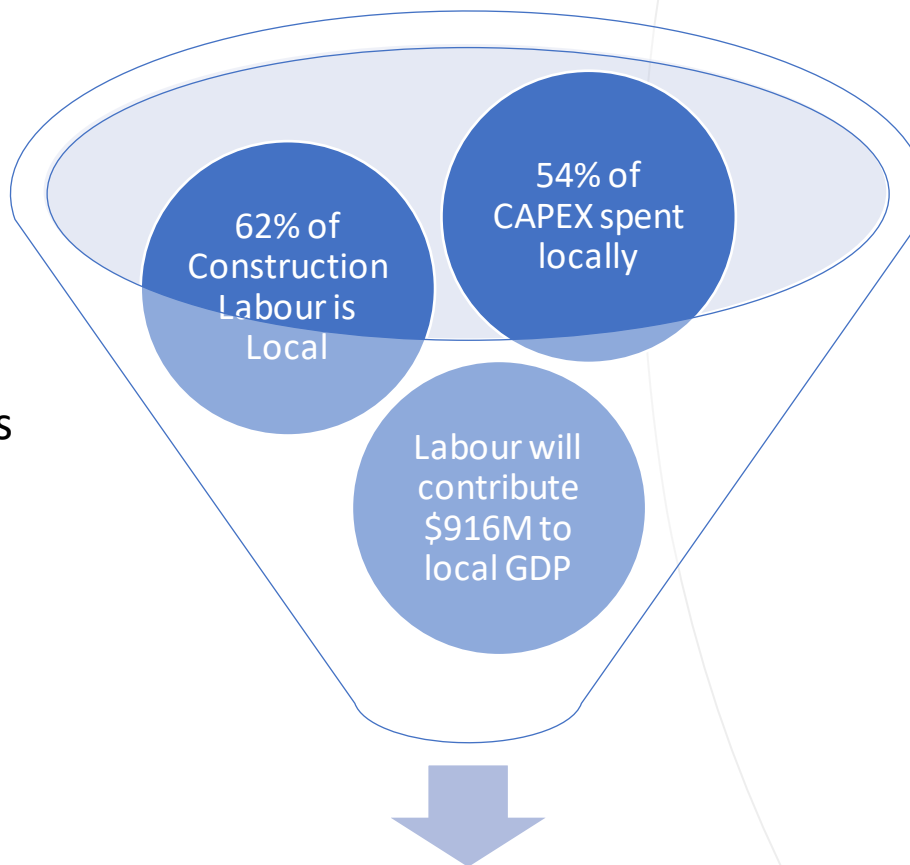


Ongoing engagement and CTC collaboration

# 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**

Laborers'  
International  
Union of  
North America

# LiUNA!

*“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 Hilken, 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

### **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.

[www.ontariopumpedstorage.com](http://www.ontariopumpedstorage.com)



or

[www.poweredbymeaford.com](http://www.poweredbymeaford.com)



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