



ONTARIO Pumped Storage

Council Update

2022



ONTARIO
Pumped Storage



TC Energy



Creating a reliable, powerful climate solution

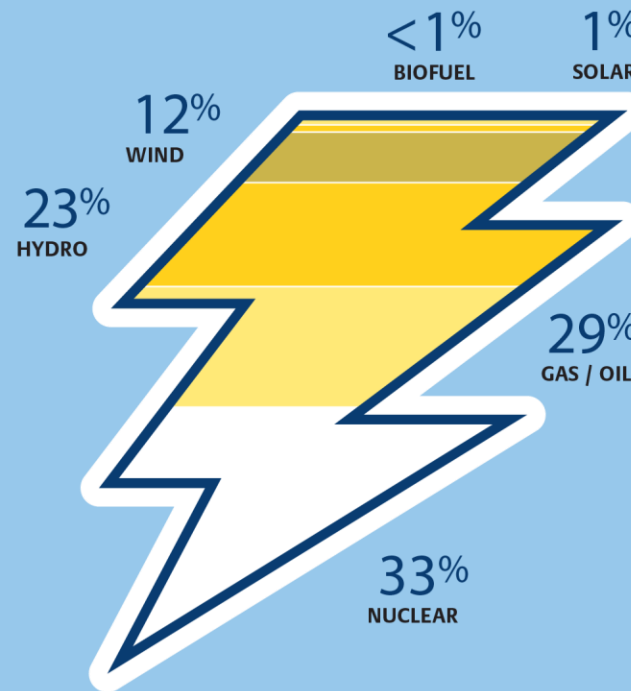
Preparing for extreme weather and climate change



**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



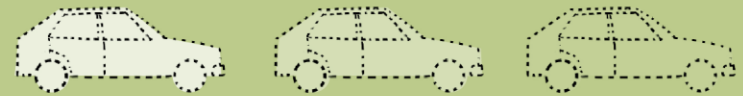
Reuse
AND RECYCLE
EXCESS ELECTRICITY



Reduce
RELIANCE ON NATURAL GAS
POWER PRODUCTION



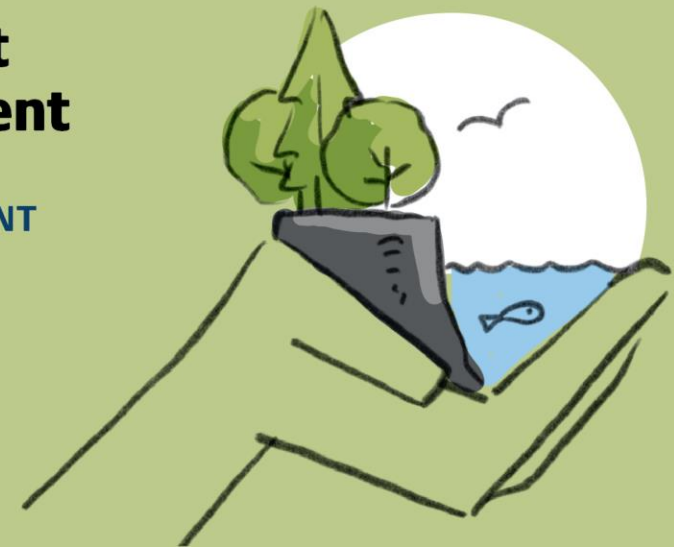
Significantly lower GHGs
500,000
TONNES PER YEAR



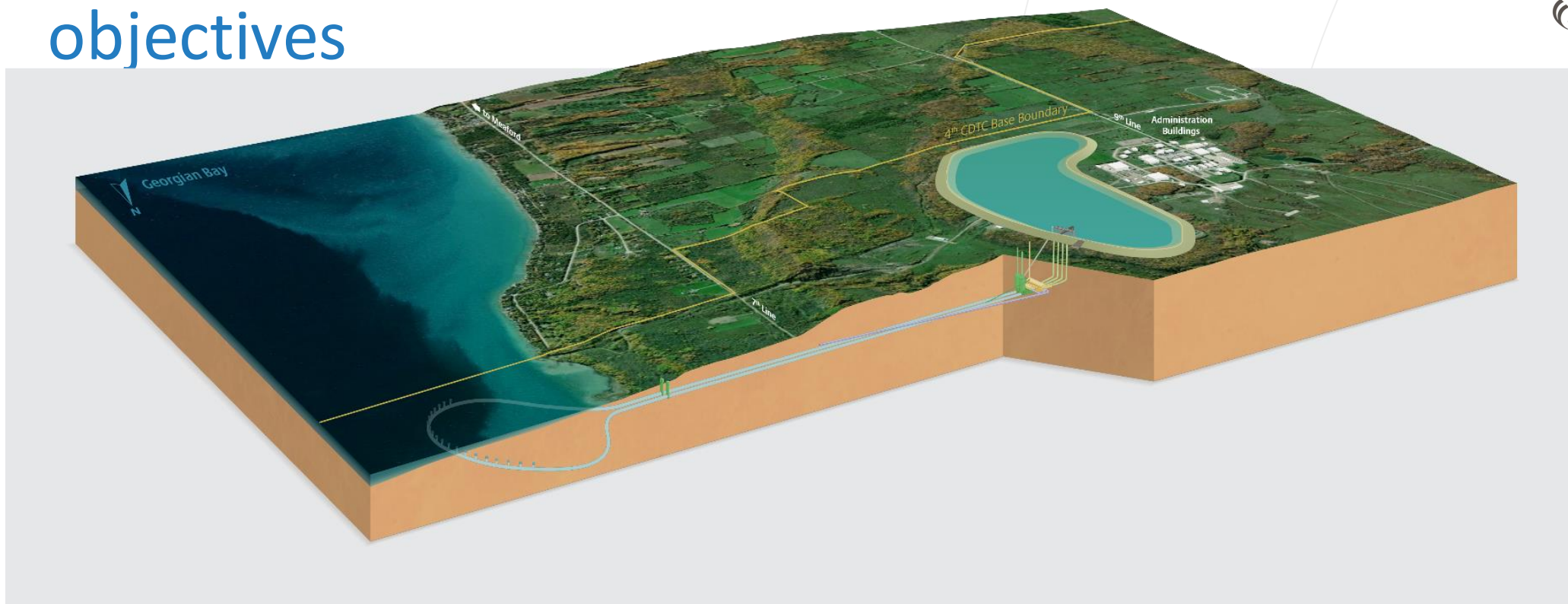
EQUIVALENT TO TAKING **150,000 CARS** OFF THE ROAD

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**

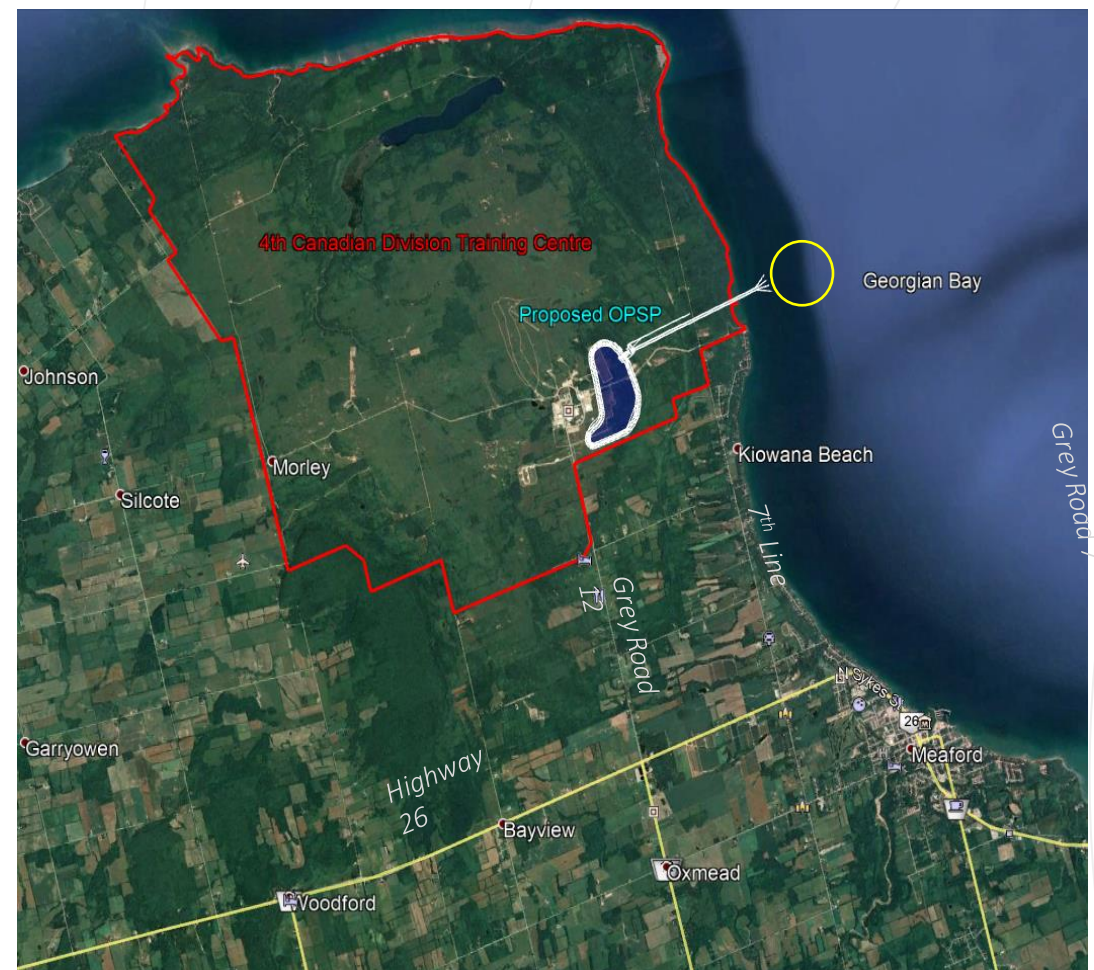
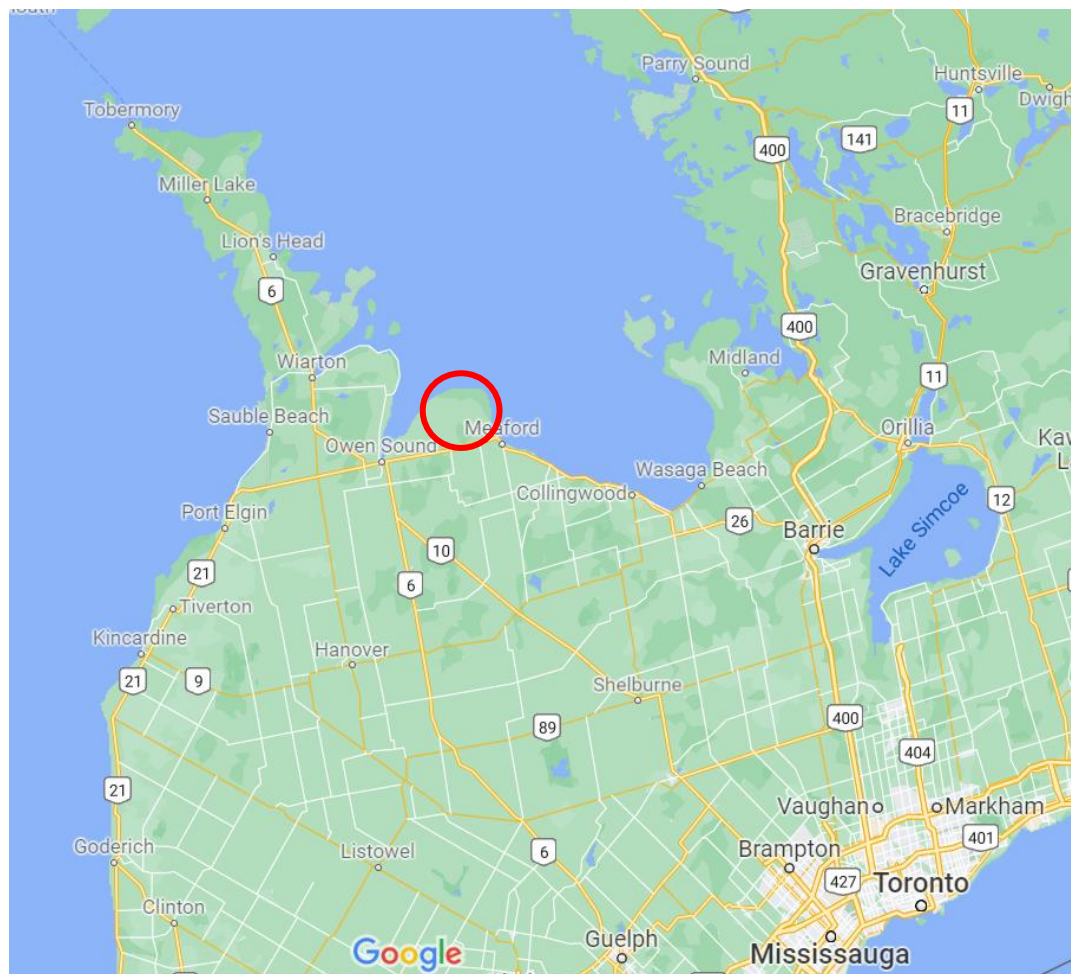


**490,000 tonnes
per year reduction
in greenhouse gas
emissions**

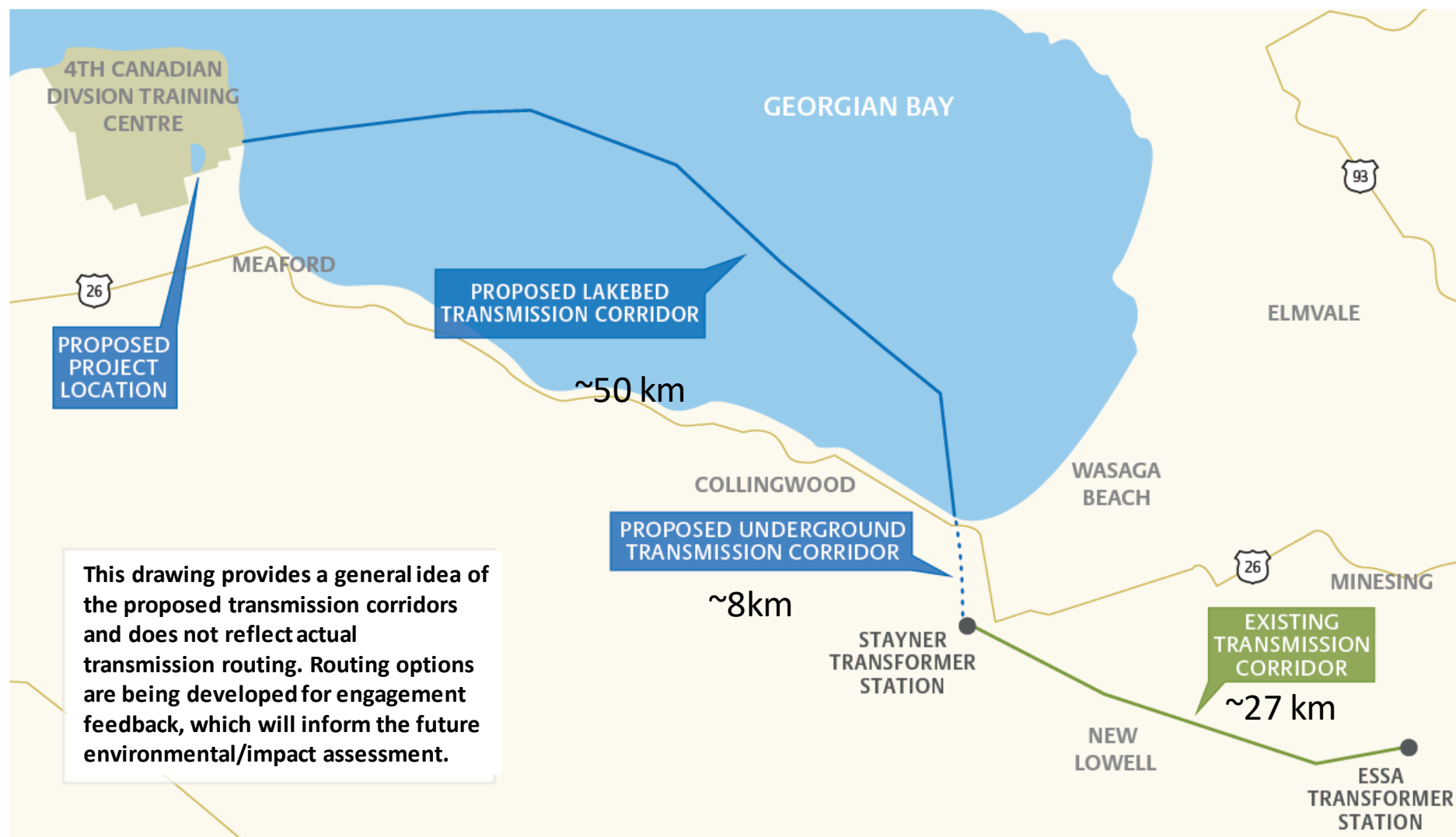


**= 150,000 cars
taken off of
the road**

Project Location

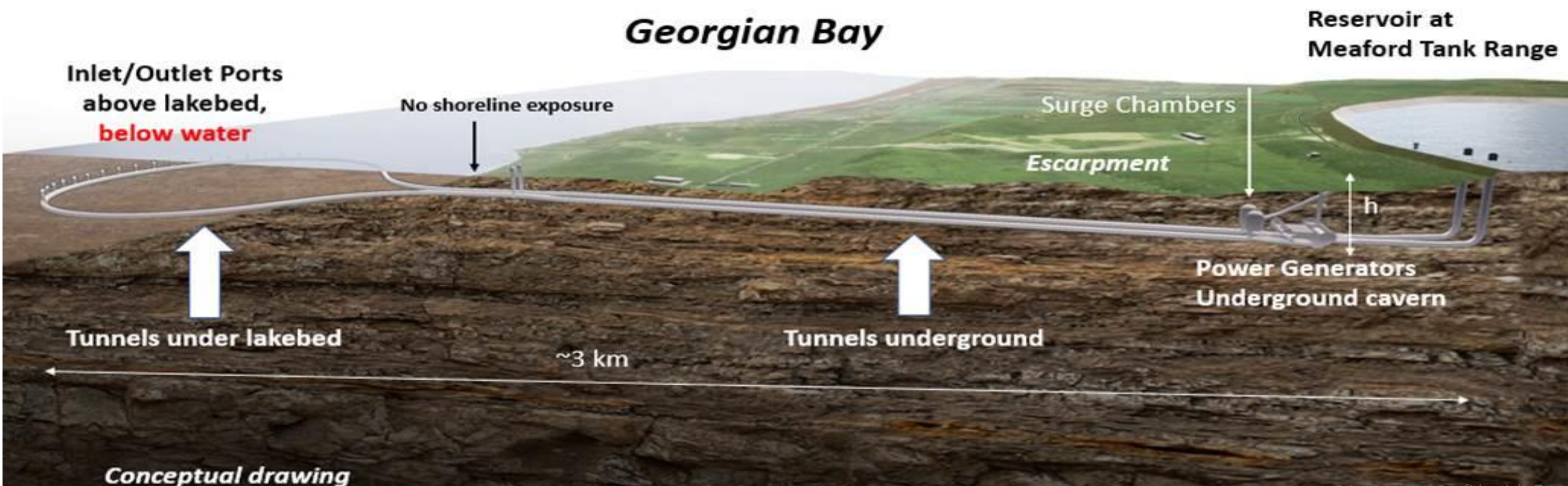


Connecting to the grid



Design in the Public Eye

Protecting Fish and Water



Inlet/Outlet Ports Below Lake Surface

Top of Ports positioned well below lake surface



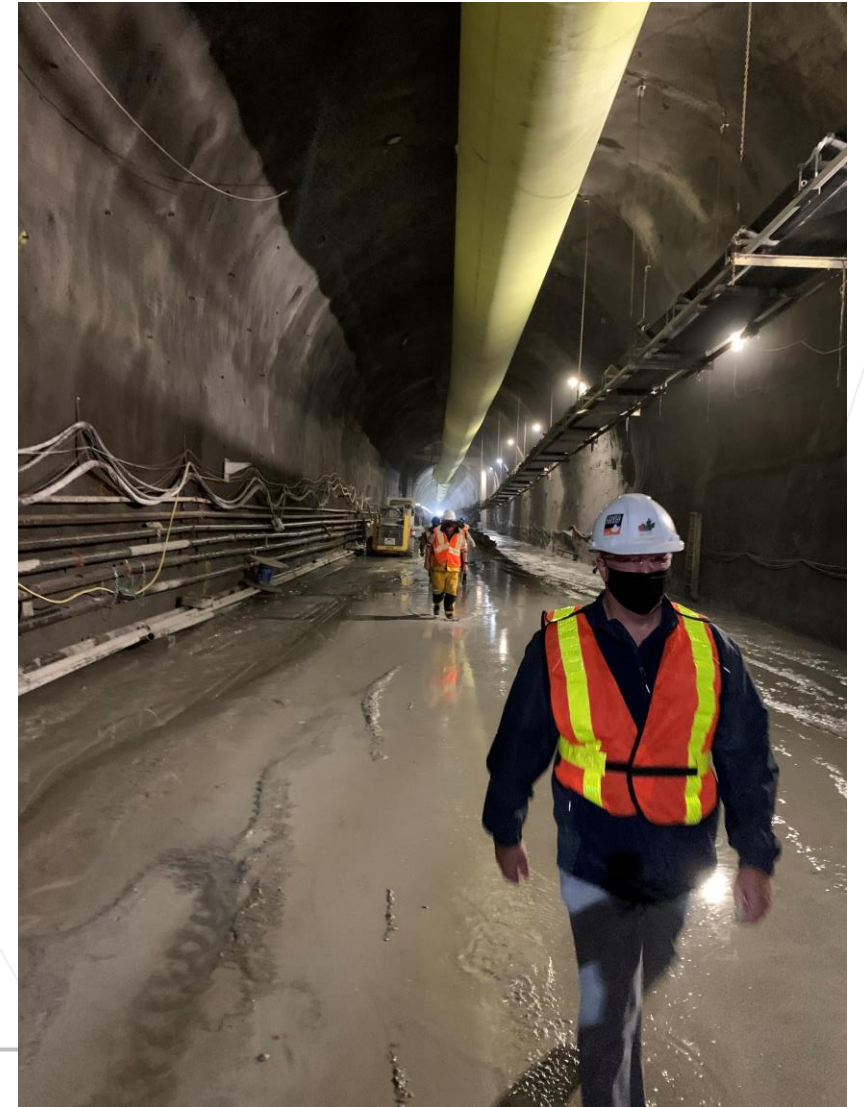
Top and bottom of Ports capped to redirect water flow horizontally, reducing turbidity

Multiple Inlet/Outlet Ports

Georgian Bay

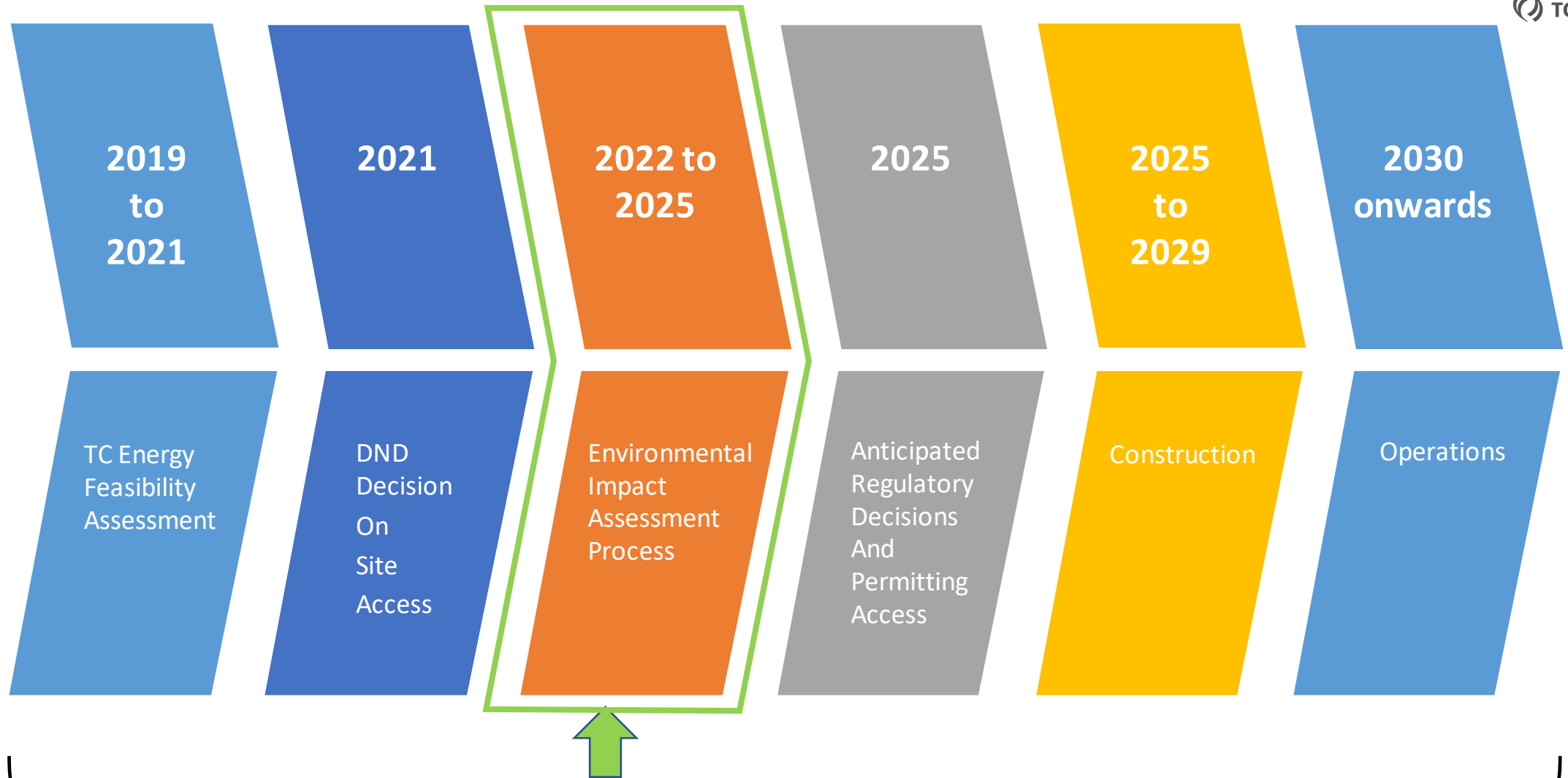
Conceptual drawing

Tunnel Boring



Construction In-water

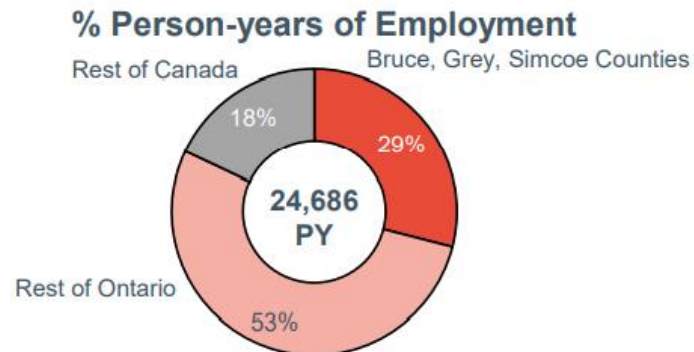
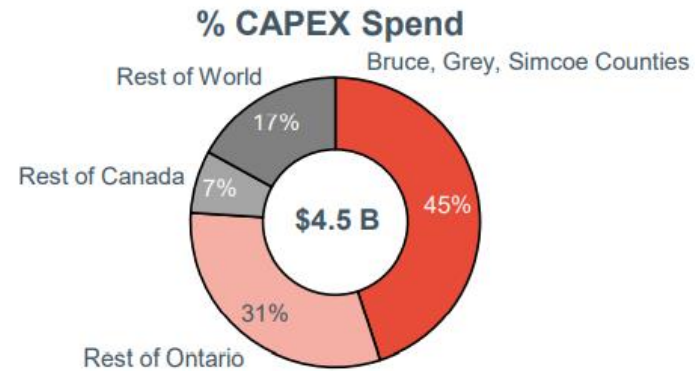




Ongoing engagement and CTC collaboration

Made-In-Ontario Economic Development

Estimated resource deployment



Sources: TC Energy (CAPEX and PY estimates), Hatch analysis.

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Potential suppliers in Ontario



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



or

www.poweredbymeaford.com



energy_storage@tcenergy.com



(519) 538-7941