



Powering Ontario Forward

Our Mission

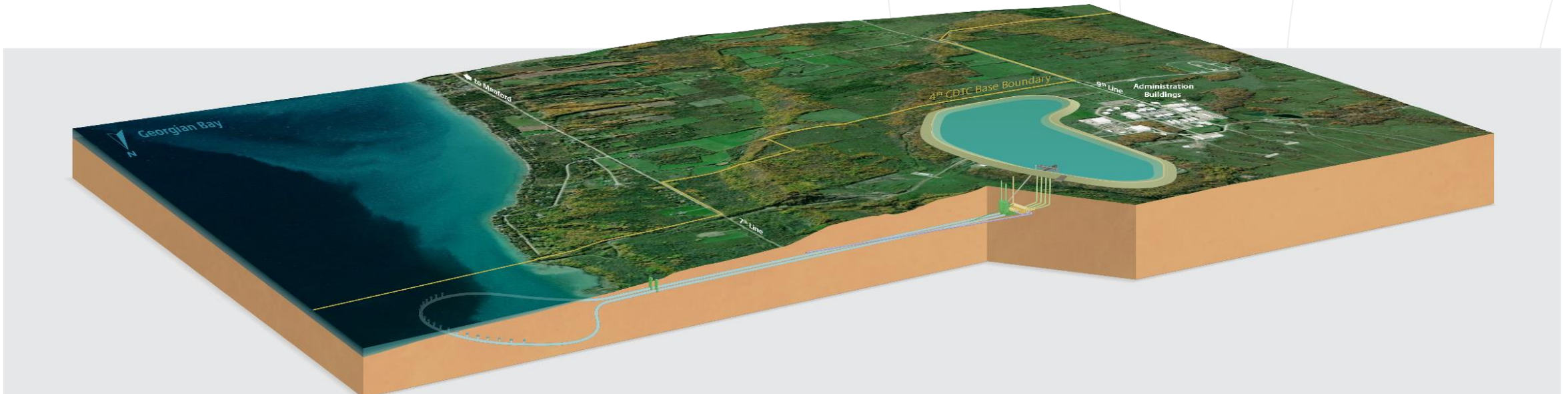
Together with Saugeen Ojibway Nation, develop, finance, construct, own and operate the Ontario Pumped Storage Project in order to address the future electricity needs of the province, while supporting made-in-Ontario economic growth and assisting with the transition to emission-free generation.





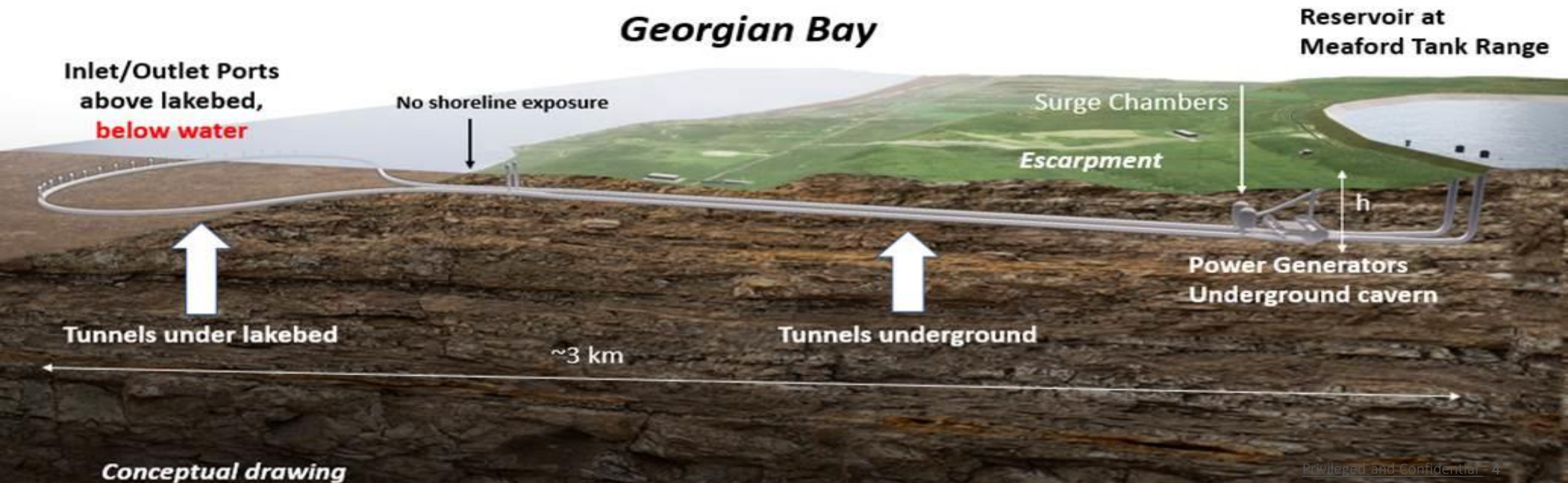
What is it?

- The Ontario Pumped Storage Project is a 1,000-megawatt clean energy storage facility, proposed for construction in Meaford on Department of National Defence lands (4th Canadian Division Training Centre).
- The Project will provide flexible, clean energy to Ontario's electricity system by pumping water from Georgian Bay to an upper reservoir, during periods of low power demand. The water stored in the upper reservoir is like a battery, ready to create energy when it is released back to Georgian Bay, flowing underground through turbines, delivering electricity back to Ontario's power grid when it is needed most.



The Project will provide enough energy to power one million homes for up to eleven hours.

Project Design: A Collaborative Process



Our priority is the protection, sustainability and long-term health of Georgian Bay

- **Independent Review + Feedback:**
Saugeen Ojibway Nation conducted their own independent aquatics studies to ensure Indigenous knowledge and priorities are incorporated into design. Included in this is detailed mapping of fish habitat and movements across the entire portion of southern Georgian Bay.
- Pollution Probe, Pembina Institute, Swim Drink Fish, Ducks Unlimited, and other ENGOs have been engaged and provided early feedback.



Saugeen Ojibway Nation will not allow irreparable harm to Georgian Bay.

Interacting with Georgian Bay: Best in class design

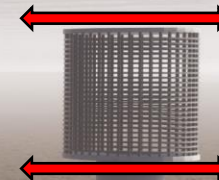


Top of Ports positioned well below lake surface



Outflow and inflow under 1 kph
Consistent with
Georgian Bay currents

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



Inlet/Outlet Ports are ~9 metres in height and ~10 metres in diameter

Conceptual drawing

Why Meaford?

- **Proximity to power needs:**
 - In southern Ontario, close to electrical load center and a robust connection point
- **Ideal topography / geography:**
 - Elevation difference of 150m within 2km
 - Use of Georgian Bay as lower reservoir
- **Coexistence with existing uses:**
 - Project footprint <500 acres, - 3% of DND Base
 - Minimal impacts on training capabilities
 - Location of the reservoir avoids and minimizes contamination and disturbed lands
 - The use of private property is avoided
 - Water cycling per day would be 0.0001% of Georgian Bay



Why is pumped storage needed?

- The Independent Electricity System Operator (IESO) anticipates that **Ontario's demand** for electricity could **more than double by 2050**.
- Ontario is also committed to fighting climate change and **decarbonizing the electricity system**.
- Zero-emissions sources of power (nuclear, hydro, solar, wind) generate excess electricity when it's not needed.
- Pumped storage facilities will serve Ontario's electricity system in multiple ways:
 - Stores and redeploys zero-emissions power
 - On-demand grid-scale power to replace natural gas fired generation
 - Proven, safe, reliable technology



Australia
Spain
United Kingdom
United States
Canada
Switzerland
China

Japan
Germany
South Korea
Italy
South Africa
Taiwan
India

A sample of countries that have pumped storage and are expanding their capacity to capture zero-emissions power to "future proof" their power grids.

A Made-in-Ontario solution

- Single largest private-sector investment in Grey County history.
- Early estimates indicate **over 75%** of total materials and supplies **will be provided by Ontario-based companies.**
- During construction, a peak direct workforce of **1,000 well paid, unionized jobs** and a sustainable **30 direct jobs during operations.**
- TC Energy is committed to **hiring and buying local** to create good jobs and increase spending at local businesses.

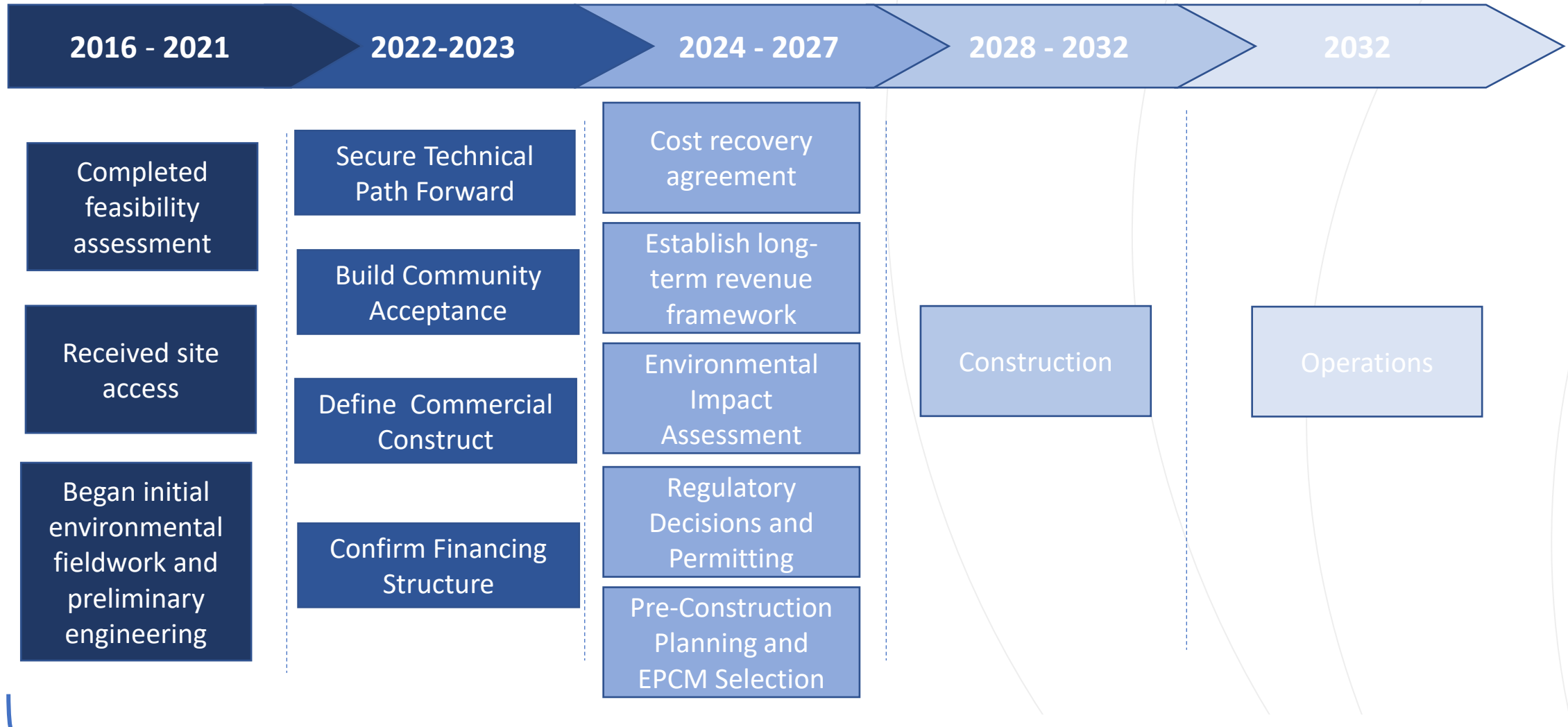


Community & Indigenous Engagement

- In February 2023, the **Municipality of Meaford Council** passed a resolution of conditional support for the Project.
- **This Project will only move forward in partnership with the Saugeen Ojibway Nation.** This is in direct response to the 92 calls for action as part of the Truth and Reconciliation Commission.
- **Coffee Chat Sessions:** Hosted 2X weekly in our Meaford office, provides opportunity for residents to learn about project, ask questions, and voice concerns in a small group setting. Since June 2022, we have offered **over 130 sessions.**
- **Site Tours:** Tours of operating pumped storage facilities and the Project site have been offered to community members and Indigenous nations. This includes meeting with municipalities who have 50+ year operating facilities in their communities and are supportive of ongoing operations.



Anticipated Project Timeline



Ongoing Community + Indigenous Engagement

Opinions from Experts



We pursue environmental gains by working productively with governments, industry and the public, with a steadfast commitment to Clean Air, Clean Water, and a Healthy Planet.

*TC Energy's proposed Ontario Pumped Storage Project is a great example of industry being responsive to the needs to reduce our greenhouse gas emissions, protect our waterways and provide clean and sustainable energy for the future. Pollution Probe is supportive of TC Energy's efforts and we look forward to seeing this energy storage project move through the environmental assessment processes. - **Chris Hilkene, CEO, Pollution Probe***



*"In my tenure as Chief of the City of Niagara Falls' Fire Department, we have never had to respond to an integrity-related incident for the Sir Adam Beck Pump Generating Station. Niagara Falls Fire Department works collaboratively with all our community partners and the responsible owner of the facility to ensure emergency management planning is well understood by all parties." - **Jo Zambito, Fire Chief, City of Niagara Falls, Ontario***

Opinions from Experts



"The Ludington Pumped Storage Project has been safely operating in our community for over 50 years. In that time, the Project has sustained long term, well paying, and diverse jobs. The Project's substantial tax revenues and spending has helped Ludington keep our schools, roads and services open and well maintained. Lastly, Ludington's robust seasonal tourism and recreational boating and fishing industries on Lake Michigan have been supported by the Project whether it is through scenic lookouts and trails, a fisheries trust that supports our fishing community or workers wanting to bring their families and friends here for vacations.

*Ludington has benefited for over 50 years by having a zero-emissions, long-duration energy facility in our backyard. I would also suggest the State of Michigan has benefited from having a stable, reliable, cost effective and safe source of electricity that continues to power our economy. The City of Ludington supports the ongoing operations of the pumped storage facility." - **Mark Barnett, Mayor of Ludington***

Pere Marquette Charter Township in Michigan supports the ongoing operations of the Ludington Pumped Storage Project. Throughout much of the 20th century, the township enjoyed relatively slow and steady growth. It remained a largely agricultural community. As Michigan's economy grew, the need for reliable, safe and cost-effective electricity was identified and Pere Marquette Charter township, looking out over Lake Michigan, was the site selected to build the world's largest pumped storage facility at the time. In the last 50 years, our apple orchards have continued to be harvested, our rural township's character and attractions have remained all while benefiting from the small but stable job opportunities of pumped storage and its tax revenues.

*Our rural township would not be able to undertake or contemplate major municipal infrastructure improvements or planning without the support of this pumped storage project. We encourage any rural municipality or agriculture-based municipality to support these kinds of clean energy projects. They are unobtrusive, quiet, safe and completely compatible with our outdoor and agricultural lifestyle. - **Kelly Smith, Supervisor, Pere Marquette Charter Township***



Our ask of you today:

- If you have further questions about the Project or have feedback to share, please reach out to us directly. Our team is available to engage with you or municipal staff and welcomes the opportunity to share in a collaborative dialogue about Project facts.
- Consider reaching out to the host community, the Municipality of Meaford's staff or Council, to ask questions and share in their learnings.
- Take the time to do your own research about the Project.
- Read the report, ***Powering Ontario's Growth***, to learn about the province's plan for a clean energy future.



390 Sykes St N, Unit 3, Meaford, ON



www.ontariopumpedstorage.com

or

www.poweredbymeaford.com



energy_storage@tcenergy.com



(519) 538-7941

Opinions from Experts



“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