



TC Energy's Proposed Pumped Storage Project

Community Update
November 2020

A message from the Project Director



TC Energy has been actively engaging with the local community since late 2019 to introduce the concept of a pumped storage project on the Meaford Tank Range and to receive your feedback, questions and concerns. We thank all of you who have engaged with us so far and welcome your continued input.

Today, we are providing an update on the status of the project and letting you know what comes next. While we are limited in our social interactions during COVID-19, we seek every opportunity to share information and to hear from you.

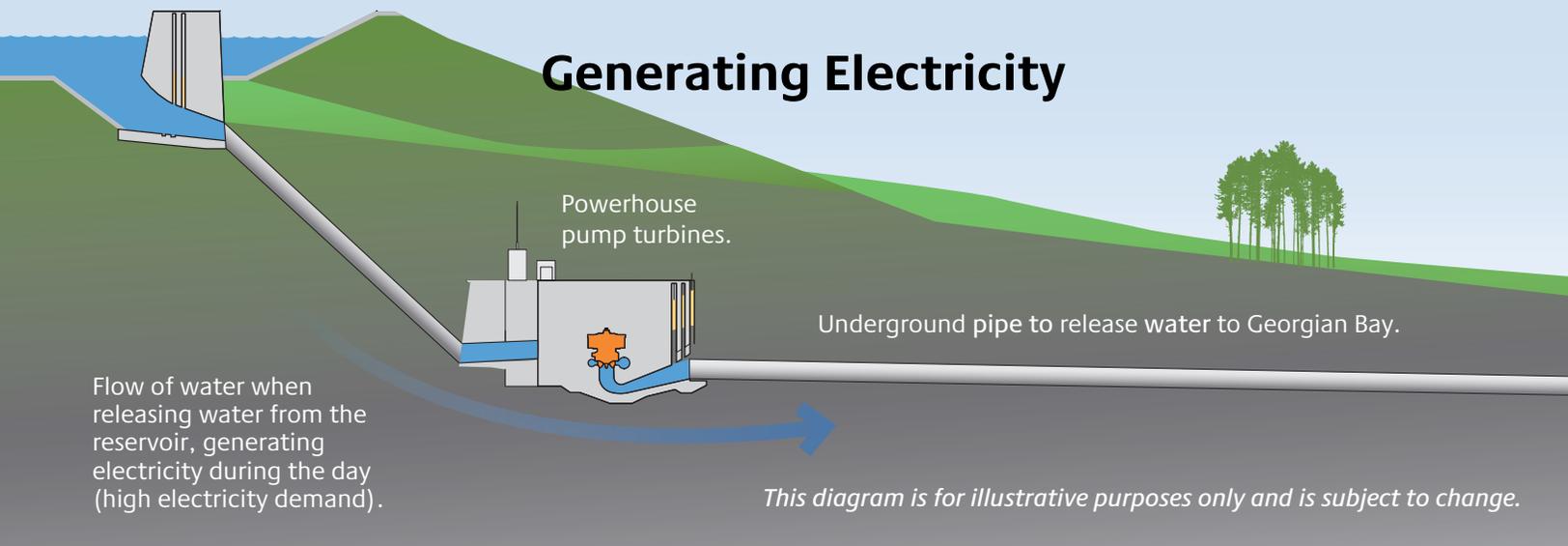
Pumped Storage

What is pumped storage?

Pumped storage uses water and gravity to store and generate electricity. It's like a battery, ready to respond to various power demands. At night, when demand for electricity is low, and clean electricity like wind and nuclear electricity is in excess, pumped storage would withdraw water from Georgian Bay and temporarily store it in a newly constructed upper reservoir.

When demand for electricity is high, the water will be released down through the same pipes where it spins turbines and generates electricity for the grid. And that electricity is emission-free, making it better for our environment.

Generating Electricity



Flow of water when releasing water from the reservoir, generating electricity during the day (high electricity demand).

This diagram is for illustrative purposes only and is subject to change.

Why do we need Pumped Storage?

1. Improve Ontario's existing electricity system

- Ontario currently produces too much clean energy through the night when we don't require all of it, but not enough during the day when we need it most. This facility would store that excess electricity and redeploy it during the day when demand is high.
- Currently this excess electricity is being exported at a loss to the United States or wasted by stopping production.

2. Close the projected power supply gap

- Following the closure of the Pickering Nuclear Generating Station in 2024 – which currently supplies over 10% of Ontario's electricity – there will be a gap between what is needed and what is being generated.
- New electrical power must be connected to the grid in Southern Ontario as there is no capacity in Northern Ontario. This site is close to where Southern Ontario consumers need electricity and can connect to the nearby existing transmission system.

Design in the Public Eye – Changes reflect community input!

We have been very fortunate that residents have shared their local knowledge, concerns and questions over the past year plus. As a result, the design concept of the project has evolved considerably, and we believe the current proposed design addresses many of the concerns raised about the early project concept.

We have incorporated **three key changes** into the new design.

1. Powerhouse moved underground

We plan to build the powerhouse deep underground. It will not be visible from the shoreline and noise from the pump turbines will be substantially eliminated.

2. Numerous changes to address water-based environmental concerns.

The results: no shoreline or nearshore structures, no structures visible in the water, protection of fish and fish habitat, as well as maintenance of water clarity.

3. No overland transmission

To respond to concerns about overhead electric transmission on land, TC Energy is proposing an underwater transmission route from the project site to a location near Wasaga Beach and continuing underground to the Stayner Transformer Station.

Benefits of Pumped Storage

This will be Ontario's biggest battery, storing enough clean carbon-free electricity to power nearly a million homes. Some of the benefits include:



produce **emission-free** electricity



reduce the need for using and building more natural-gas-fired power generation



Save Ontario ratepayers **\$250 million** per year



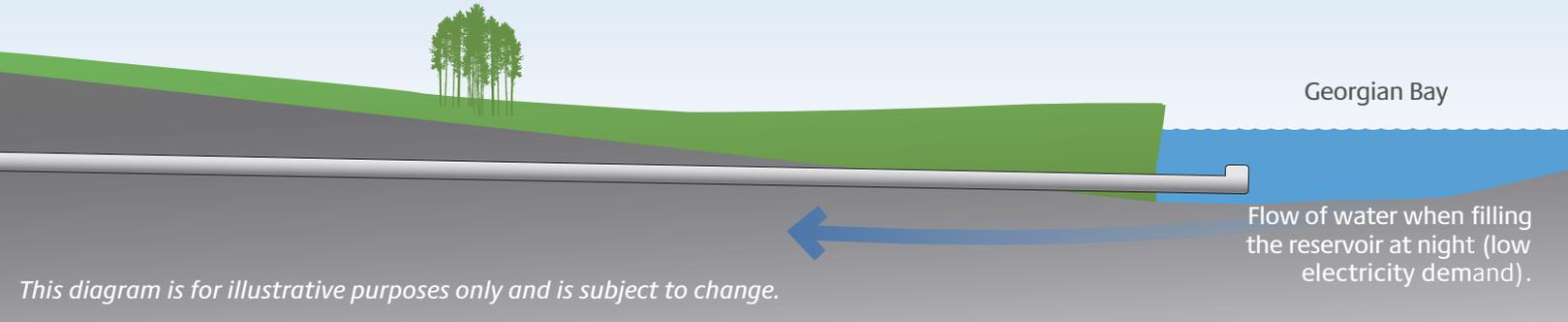
Create **1,000 jobs** during development & construction



Reduce greenhouse gas (GHG) emissions equivalent to **removing 150,000 cars** off Ontario roads

1,000 MW clean energy | **zero** emissions | powers **1 million** homes | **500,000 tonnes/year** avg GHG reduction

Storing Electricity



What's Next

In the next few months the Department of National Defence (DND) will determine if the project can co-exist with the activities of the Base. The project would utilize a very small area of the Base (3%) and it would be located with input from DND. If DND agrees, the project will move to the next phase: environmental impact assessment with continued opportunity for community and stakeholder input along the way.

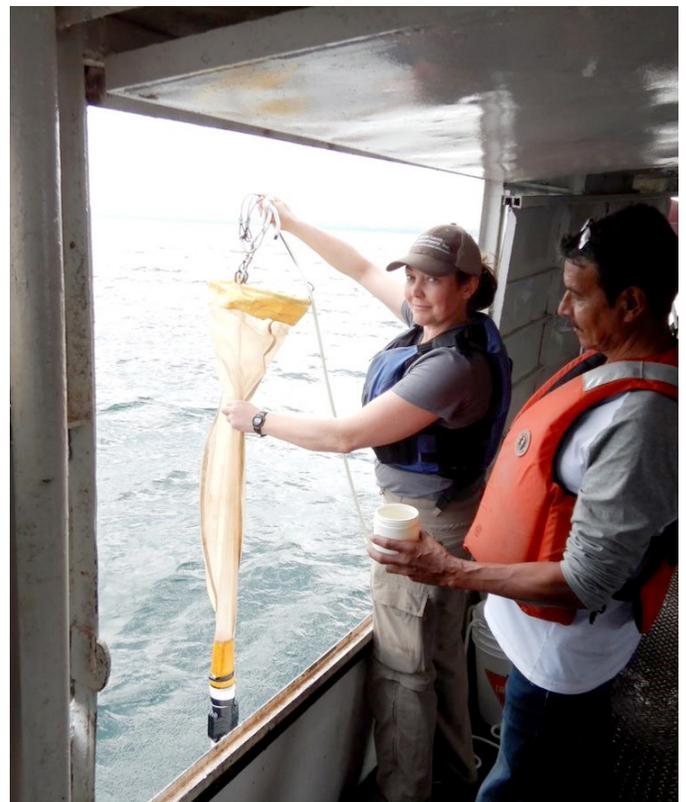
Environmental Impact Assessment

Since the project would include DND lands, it would trigger both the federal and provincial level environmental assessment processes. Both of these assessments would include various relevant government ministries and agencies.

Key components of the environment that are typically addressed in impact assessments include:

- Natural Environment
- Socio-Economic Environment
- Archaeology and Cultural Heritage
- Indigenous Knowledge and Land use

In addition to TC Energy's commitment to public engagement throughout the lifecycle of the project, public consultation is mandated at key points throughout both the provincial and federal assessment processes.



Anticipated project timeline





TC Energy in your community

Who is TC Energy?

We deliver energy to millions of people who depend on it. And we do it in a sustainable way, living by our values of **safety, responsibility, collaboration and integrity**.

We recognize the importance of community engagement in developing successful projects and strive to build long term community relationships and partnerships. We are new to the Meaford area and understand that building trust takes time. We look forward to the opportunity to earn your trust.

To learn more about our approach to community engagement please visit [TCEnergy.com/Communitites](https://www.tcenenergy.com/Communitites).

Community Benefits

TC Energy supports communities where we live and work. We commit to ensuring that the local community realizes benefits and opportunities from our presence in and around the community at large. This commitment will endure from development and construction through the planned 50-year operational horizon of the Pumped Storage facility. As a starting point, we will form a Community Liaison Committee, which will provide a forum for discussion of socio-economic and environmental opportunities emerging from the project. TC Energy also plans to enter into discussions with the Municipality about annual, long-term local benefits for the life of the project. Our plan, should we be permitted by DND to proceed, is to assist the community by ensuring the delivery of significant local benefits.

TC Energy Supports Trout Unlimited Canada

For more than 20 years, TC Energy has been working with Trout Unlimited Canada across the country. This year, they identified an opportunity for us right here, in Grey County. We're excited to be supporting the removal of the Town Pond dam in Markdale. Its removal will support the rebuilding of the Brook Trout population that resides in the Rocky Saugeen River and it's the last significant impediment to Brook Trout having free access to the river.

The initiative will commence again in the spring of 2021 with plantings taking place that will help stabilize banks and flats. TC Energy looks forward to participating in the next planting event alongside Trout Unlimited Canada!

Build Strong

Trout Unlimited Canada is supported through TC Energy's community giving program, called Build Strong. If you know of a cause in your community that could use support, encourage them to apply to Build Strong online at [TCEnergy.com/Apply-For-Funding](https://www.tcenenergy.com/Apply-For-Funding).

We'd like to hear from you

For more information on the project, visit [TCEnergy.com/PumpedStorage](https://www.tcenenergy.com/PumpedStorage).

If you have any questions or comments about the project, please reach out.



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