

Atura Power

WELCOME

Niagara Hydrogen Centre

Community Information Session



An opportunity to learn about the proposed project and share your feedback

Wednesday, Oct. 25, 2023



- Introductions and Land Acknowledgement
- Purpose of the Community Information Session
- Proponent and Project Information
- Environmental Assessment Process, Regulatory Requirements and Technical Studies
- Project Timeline and Next Steps
- Question and Answer Period
- Closing Comments



Land Acknowledgement

Atura Power respectfully acknowledges that the land on which the City of Niagara Falls sits is the ancestral land of many generations of Indigenous Nations, who have been here since time immemorial.

Today, this land continues to be home to many Indigenous Peoples, including the Hatiwendaronk, the Haudenosaunee, and the Anishinaabe, including the Mississaugas of the Credit First Nation as well as non-Indigenous settlers from a variety of backgrounds. There are many First Nations, Métis, and Inuit people from across Turtle Island that live and work in Niagara today. As a community, we have a shared responsibility for stewardship of the land on which we live and work.

Atura Power is committed to fostering positive and mutually beneficial relationships with Indigenous Peoples and communities across Ontario, and work in allyship toward respective community goals and objectives, in peace, respect, and friendship.



Comments or questions can be sent to: niagarahydrogen@aturapower.com

The purpose of this community meeting is to:

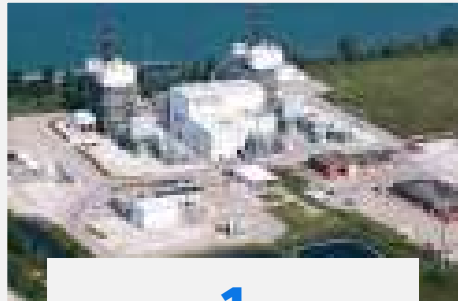
- Share information about the Niagara Hydrogen Centre
- Provide information about the environmental assessment and permitting processes being undertaken
- Answer any questions you may have
- Receive feedback to help with the planning of the project



About Atura Power

Atura Power's Fleet of Generation Assets

A subsidiary of Ontario Power Generation (OPG), Atura Power owns and operates Ontario's largest fleet of combined-cycle gas turbine power plants



1

Brighton Beach
Generating Station
Capacity 570 MW



2

Halton Hills
Generating Station
Capacity 683 MW



3

Portlands Energy Centre
Capacity 550 MW



4

Napanee Generating Station
Capacity 900 MW



5

Oakville Head Office

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About the Project

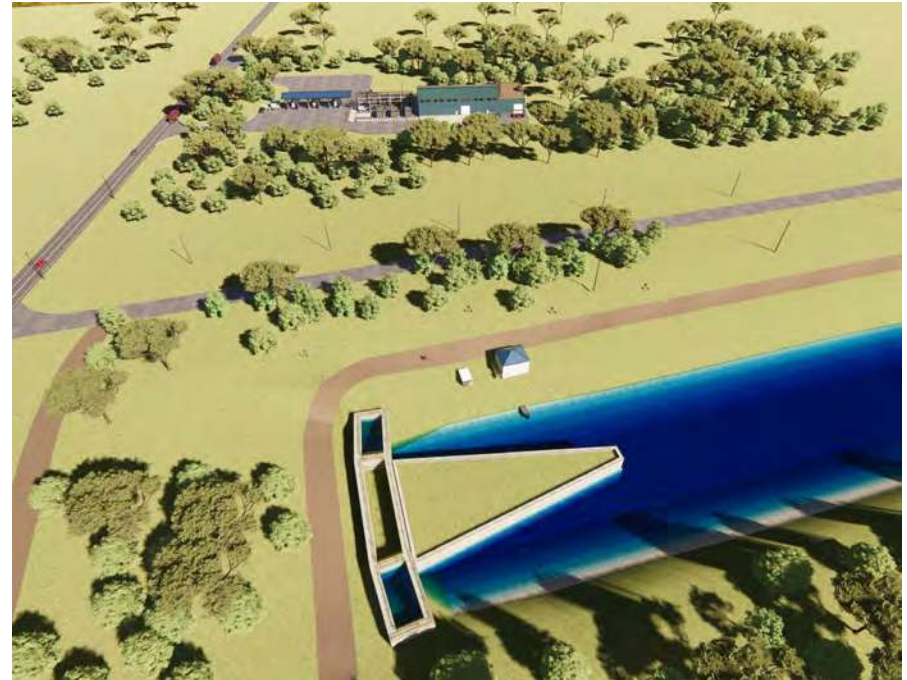
- Ontario's largest green hydrogen production facility
- The facility will use electrolysis technology to split water into hydrogen and oxygen molecules
- Powered by renewable electricity from the nearby OPG Sir Adam Beck II Generating Station
- The 20 megawatt (MW) facility will produce up to 2,000 tonnes/year of hydrogen; the equivalent of the reduced emissions from 5,500 cars annually



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Project Need and Benefits

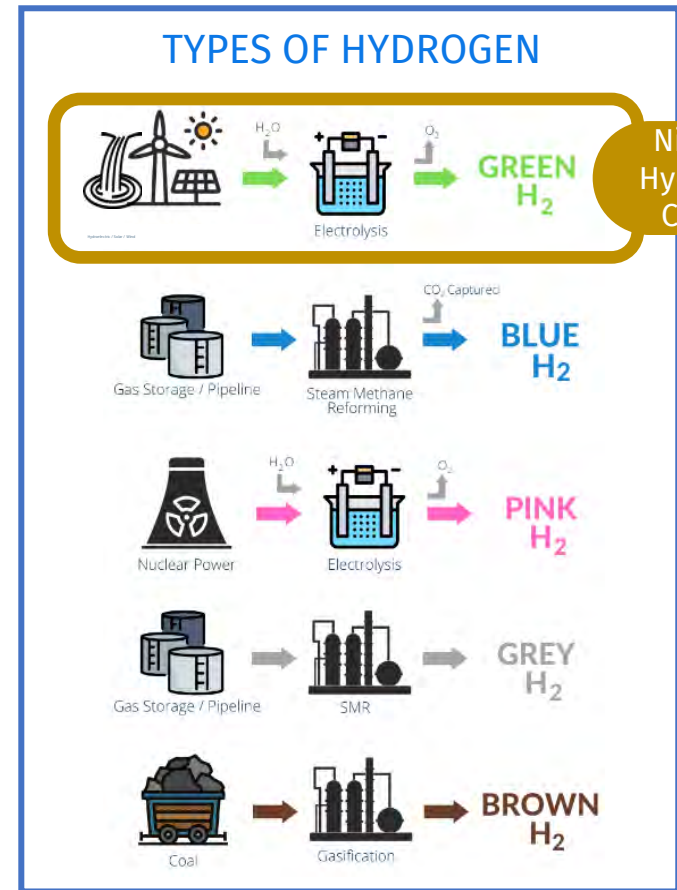
- Leverage Ontario's clean electricity to produce low-carbon hydrogen and provide grid regulation services
- Low-carbon hydrogen will assist in the reduction of greenhouse gases across the economy
- Advance and develop Canada and Ontario's strengths: manufacturing, hydrogen knowledge, skilled construction, etc.
- Economic growth: jobs, investment and technological advancement
- Cleaner air: 35% of greenhouse gas emissions in Ontario are due to transportation



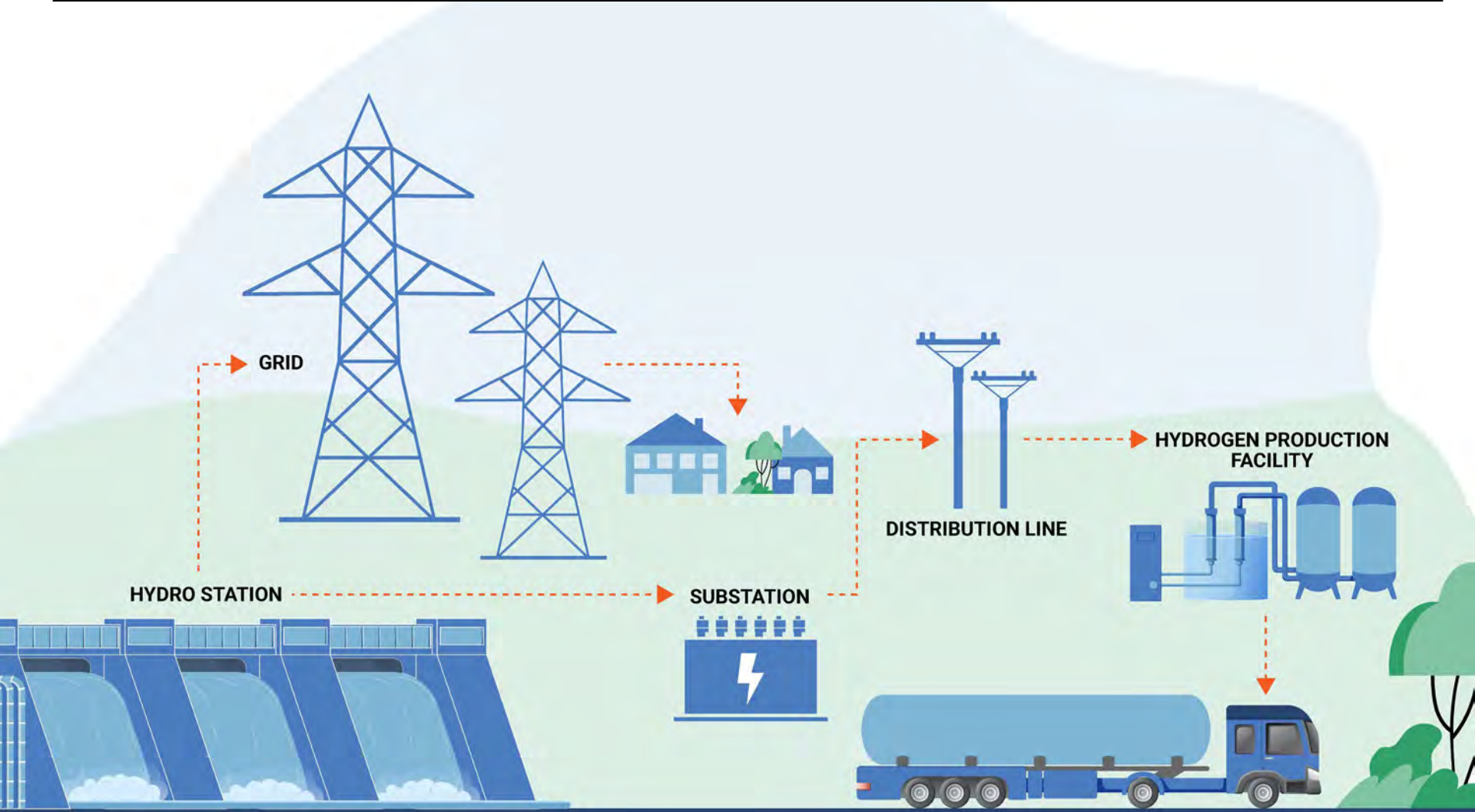
About Hydrogen

HYDROGEN:

- a low-carbon energy source
- the highest energy density per unit mass of any source
- the most abundant substance on Earth
- when combusted with oxygen it produces only water
- a clean and safe alternative to displace natural gas and reduce / offset emissions in a variety of applications:
 - industrial processes
 - transportation
 - power generation
 - heating



How Will Hydrogen Be Produced?



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Description of the Project

- An electrolyzer will use clean electricity from Sir Adam Beck II Generating Station to extract hydrogen from water molecules using an electric current
- The facility will safely produce, compress and load hydrogen into mobile tube trailers for use by regional industry and blending at Halton Hills Generating Station

Niagara Hydrogen Centre

- Four 5 MW electrolyzers
- Municipal water and sewage connections
- Compressors
- Tube trailer loading stations



Medium Voltage Distribution Line

- 3.5 km, 27.6 kilovolt (kV) electricity distribution line from the proposed substation to the Niagara Hydrogen Centre



Tunnel Outlet Canal Pumphouse

- Supply of cooling water during hydrogen production
- Draw and return water from the existing OPG tunnel outlet canal



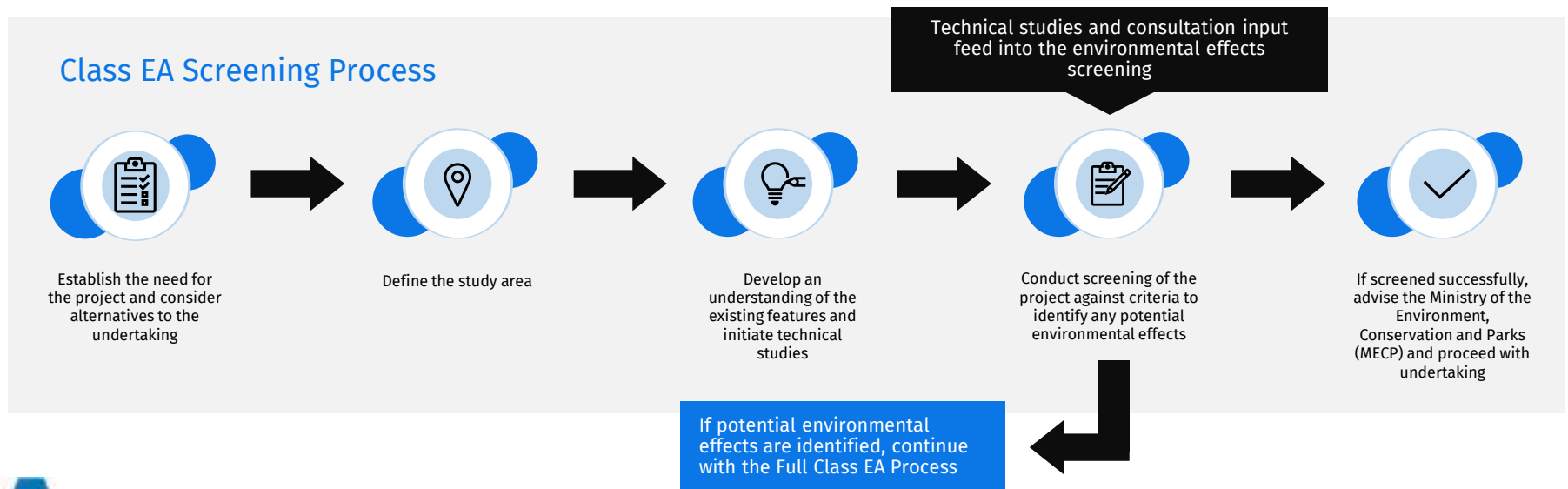
High Voltage Electrical Substation

- Connection to OPG's existing 230 kV transmission system between Sir Adam Beck II Generating Station and Hydro One's high-voltage switchyard



Environmental Assessment Process

- The hydrogen facility does not trigger environmental assessment requirements under the Ontario *Environmental Assessment Act*
- The transformer substation is subject to the Ontario Class Environmental Assessment (Class EA) for Minor Transmission Facilities as it will have a voltage level of between 115 kV and 500 kV
- Under this Class EA, projects can follow a screening assessment or undergo a full Class EA
- The Class EA screening process is being undertaken
- Technical studies, as well as public and Indigenous engagement are underway to understand existing environmental features and support a Class EA screening of potential project effects



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Existing Environment & Screening of Potential Effects

- Technical studies have been completed to inform the project design, characterize existing environmental features, undertake the Class EA screening process, and to obtain approvals from government regulatory agencies
- Indigenous communities participated in the monitoring of the ecological and archaeological field assessments for this project



Environmental Components

Land Use and
Policy

Air and
Acoustics

Stormwater,
Hydrological
and Hydraulic
Resources

Natural
Heritage and
Ecology

Agricultural
Lands and
Operations

Cultural
Heritage

Archaeological
Resources

Community
Services and
Facilities

Neighbourhoods
and Community

Landscaping
and Visual
Aesthetics



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Permits and Approvals

In addition to the Class EA screening process, the following major environmental permits and approvals are anticipated for the project:

- Environmental Compliance Approvals for industrial sewage, noise and air emissions
- Department of Fisheries and Oceans Request for Review on water changes from cooling water intake structure
- Species at Risk Habitat Review for the project site has been accepted by the Ministry of Environment, Conservation and Parks
- Building Permit and Municipal Services Permit with the City of Niagara Falls
- Archaeological Assessment with the Ministry of Citizenship and Multiculturalism
- Heritage Impact Assessment with the Ministry of Citizenship and Multiculturalism
- Permit to Take Water has been submitted to the Ministry of Environment, Conservation and Parks for cooling water intake



Engagement with the appropriate agencies is underway to support future permitting and approvals.



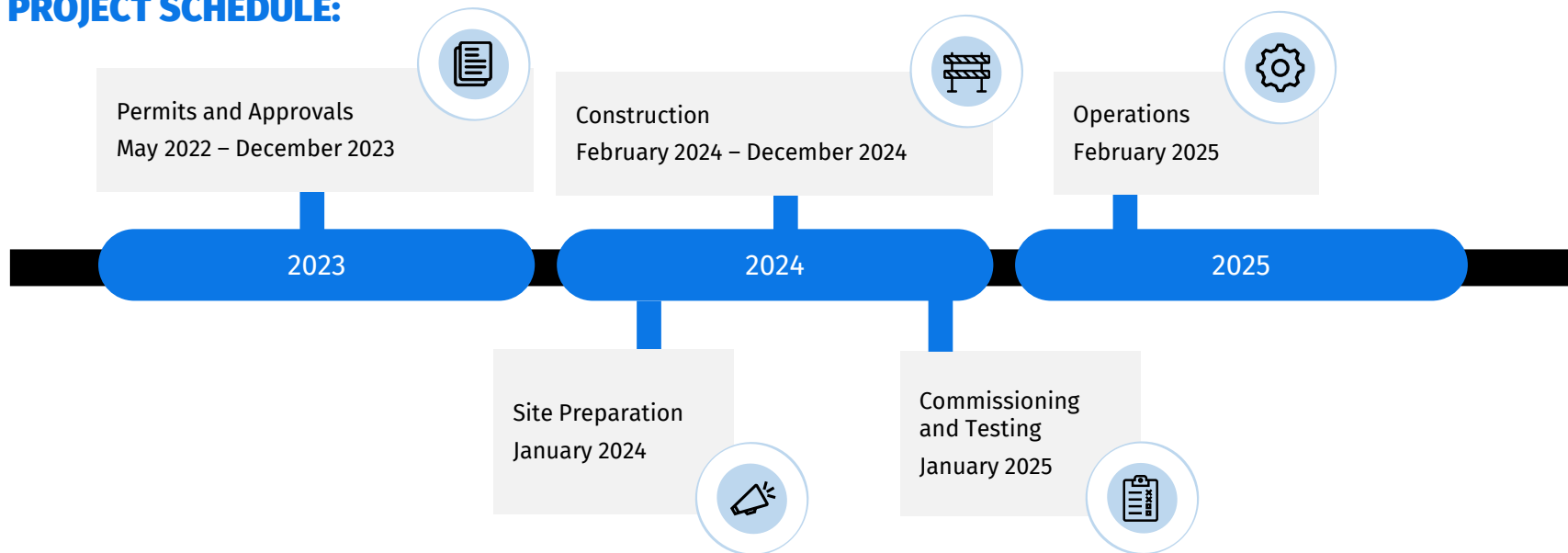
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Next Steps and Project Schedule

NEXT STEPS:

- Summarize and respond to feedback received following this public meeting
- Complete field work and technical studies as part of the Class EA screening, permitting and approvals

PROJECT SCHEDULE:



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**We'd now like to invite any
questions or comments**



Thank You for Attending!

We appreciate the opportunity to share information on the Niagara Hydrogen Centre.

We want to hear from you!

We value your feedback and want to hear what you think. Please complete a comment form before you leave or send it to us by Friday, November 17, 2023.

Email: niagarahydrogen@aturapower.com

Mail: 1415 Joshuas Creek Drive, Unit #101, Oakville ON L6H 7G4

If you'd like more information, please email the project team or visit the project webpage:



www.aturapower.com/niagarahydrogencentre



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