

**NEOEN**



# **Woodville Power Reserve Project**

**Committee of the Whole**

4 November 2025

# Agenda:

- 1) Introductions – about Neoen
- 2) Woodville Power Reserve Overview
- 3) Provincial Power Demand
- 4) Function & Proposed Layout
- 5) Safety & Operations
- 6) Local Project Benefits
- 7) Project Timeline
- 8) Further Consultations

## Land Acknowledgement

*We respectfully acknowledge that the proposed project site is located on lands that the Michi Saagiig Anishinaabeg have inhabited and cared for since time immemorial.*

*These lands are the traditional and treaty territories of the Nations covered under the Williams Treaties, including the Mississaugas of Scugog Island First Nation, Alderville First Nation, Hiawatha First Nation, Curve Lake First Nation, and the Chippewa Nations of Georgina Island, Beausoleil, and Rama.*

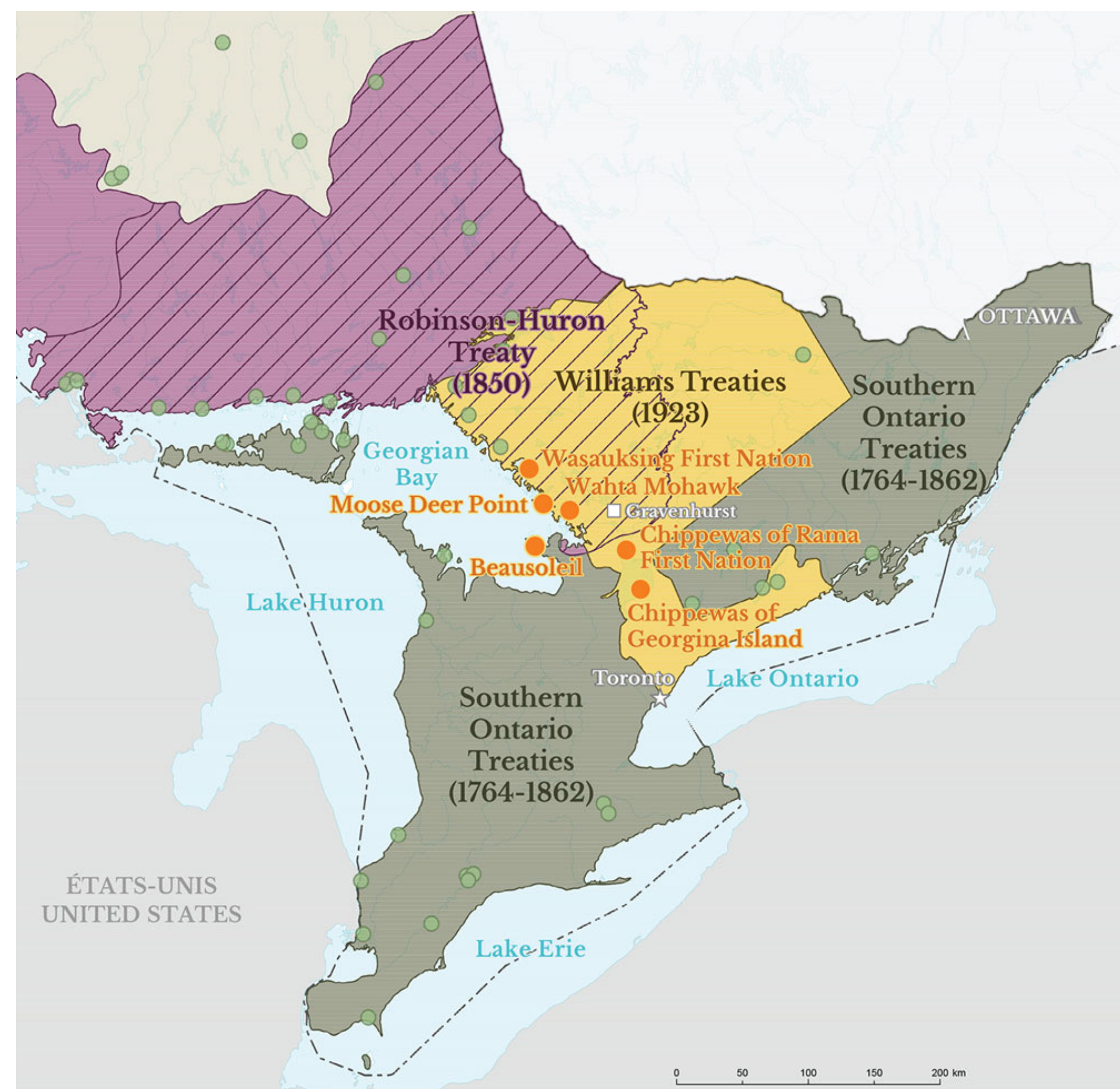
*We recognize the enduring relationship that Indigenous Peoples have with these lands and waters, and honour their continued presence, stewardship, and rights.*

*We are committed to engaging in this work with respect, reciprocity, and responsibility, and acknowledge the importance of meaningful Indigenous participation in projects on their traditional territories.*



## Hiawatha First Nation & Mississaugas of Scugog Island First Nation

Neoen has engaged the **Williams Treaty First Nations (WTFN)**, leading to partnership discussions with Hiawatha First Nation and Mississaugas of Scugog Island First Nation (MSIFN). At their direction, Neoen is working with Zhaabaskatoon and Minogi Corporation to establish a partnership and submit the Woodville Energy Storage Project as an Indigenous project owned jointly by Hiawatha, MSIFN, other participating WTFN, and Neoen.



**Pre-Confederation Treaties (1725-1867)**  
Map by: Muskoka Discovery Centre



**Mississaugas of Scugog Island First Nation**  
Photo by: Shay Conroy

## About Neoen



Neoen is a leading independent power producer of exclusively renewable energy, with a global portfolio capacity of 8.9-gigawatts (GW) in operation or under construction across 14 countries.

Neoen delivered the world's first utility-scale battery energy storage system (BESS).

Our develop-to-own strategy means that we prioritize creating and fostering long term relationships within the community.

Our Americas Division is headquartered in Toronto, leading a development pipeline of over 1,000 MW across Canada.



## Where we operate



## Woodville Power Reserve Project

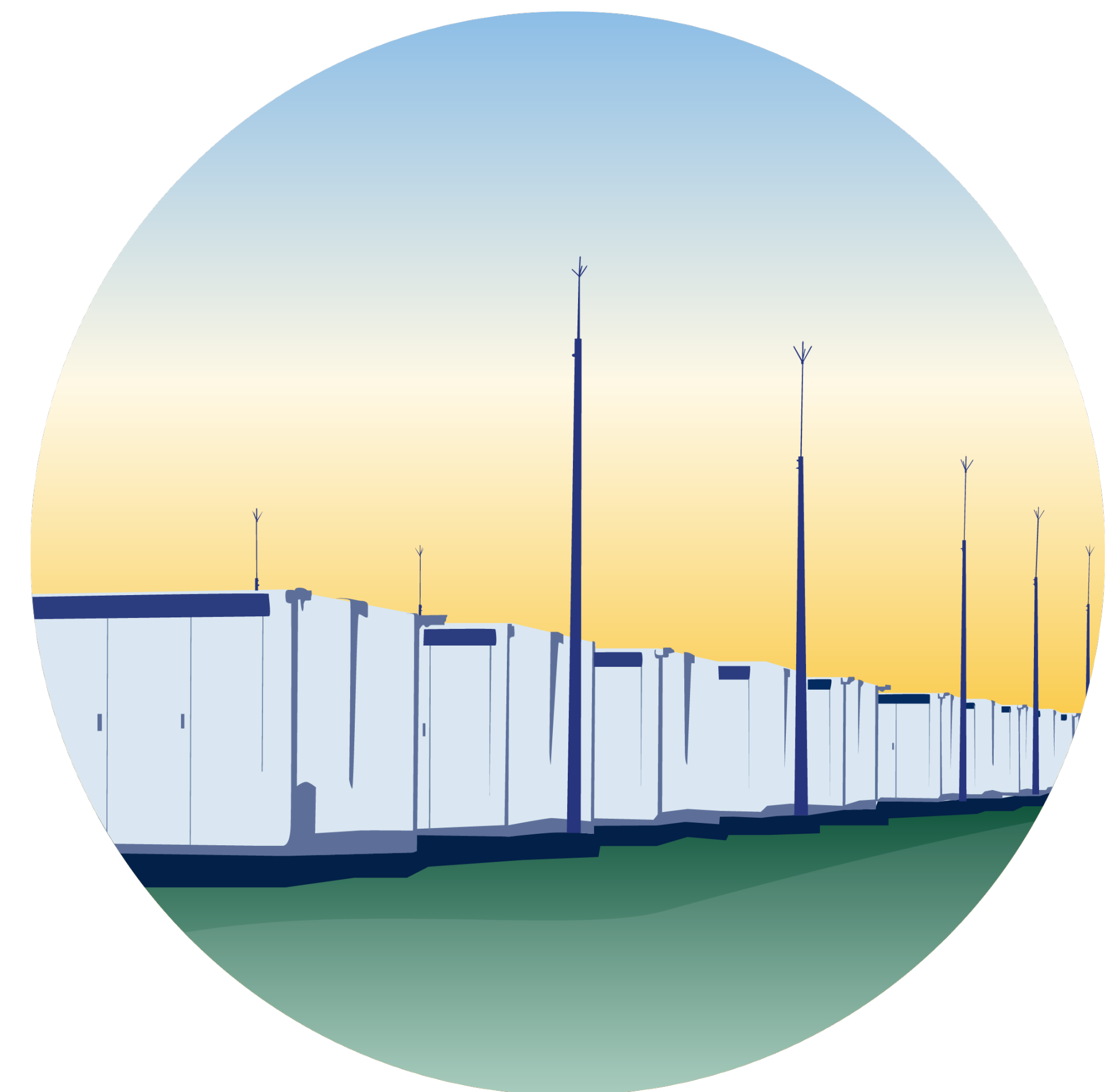
In November 2024, Ontario's Minister of Energy directed the Independent Electricity System Operator (IESO) to procure new resources to support the province's growing power system. IESO launched the Long-Term 2 RFP (LT2), Canada's largest ever energy procurement, offering 20-year contracts. Capacity proposals are due December 2025. **Ontario currently has 27 battery energy storage system (BESS) projects operational or under development.**

Woodville Power Reserve Project will help meet Ontario's and the Kawartha region's growing energy needs **by providing new capacity and reliability services** – as well as providing **voltage control** (minimizing stray voltage) and **resiliency improvements to reinforce the aging local grid.**

If approved, the proposed project would be operational by 2030, subject to the IESO determining the project to be best for Ontario ratepayers. For renewable projects of this nature and size, we will see:

- ✓ Minimal noise impact
- ✓ Minimal traffic when facility is operational
- ✓ Increased electricity supply and reliability
- ✓ Reduced chance for outages in the network

Projects must obtain all relevant permitting licenses and conduct mandatory environmental assessments to ensure compliance with current regulatory framework.



# NEOEN Project Overview

Neoen is working with Williams Treaties First Nations, through Zhaabaskatoon and the Minogi Corporation, to develop the **Woodville Power Reserve Project as an Indigenous-owned venture**. Neoen is also currently engaging with the City of Kawartha Lakes staff to plan Community Engagement events and obtain a **Municipal Support Resolution (MSR)**

The project is in the feasibility stage and would consist of installing battery modules, additional power equipment, light civil, safety, and security infrastructure.

- ✓ Located on 6 acres of a 202-acre site on private land in Woodville, Ontario
- ✓ Annual local community contribution of approx. \$1,000 per MW per annum through a Community Benefit Agreement (CBA)
- ✓ BESS requires small fraction of footprint of wind & solar projects (6 acres vs. +100 acres)
- ✓ Adds up to 70 MW of capacity and 560 MWh of energy storage; deployed as required



# NEOEN Meeting Ontario's Energy and Capacity Needs

- The proposed Energy Storage project would play a critical role in meeting Ontario's projected capacity needs
- According to the IESO's 2025 Annual Planning Outlook, electricity demand in Ontario is forecast to grow by 75% between 2025 and 2050
- This marks a substantial increase from previous forecasts, driven by Ontario's expanding industrial base, including:
  - EV supply chains
  - Data centers
  - Broader electrification trends across sectors
- Without BESS capacity installations, the province would have to rely on increased natural gas-fired generation

## IESO'S ANNUAL PLANNING OUTLOOK (APRIL 2025)

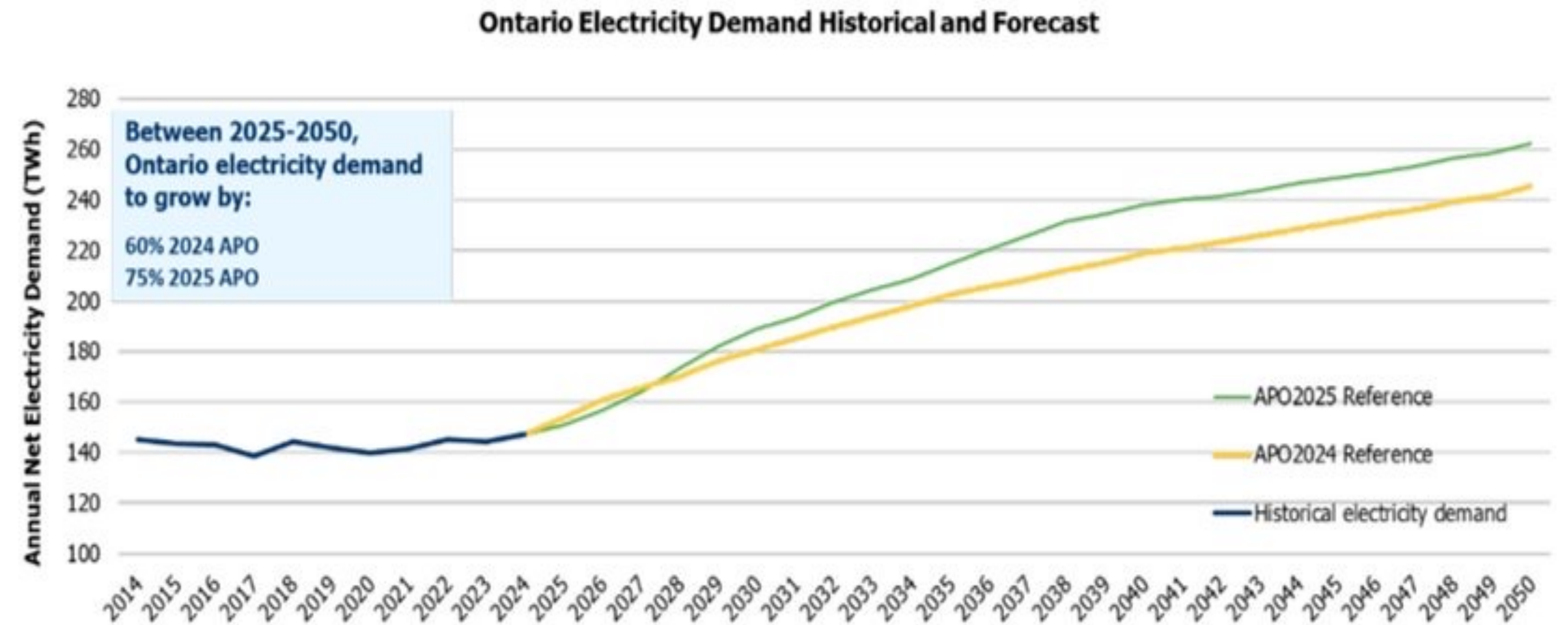
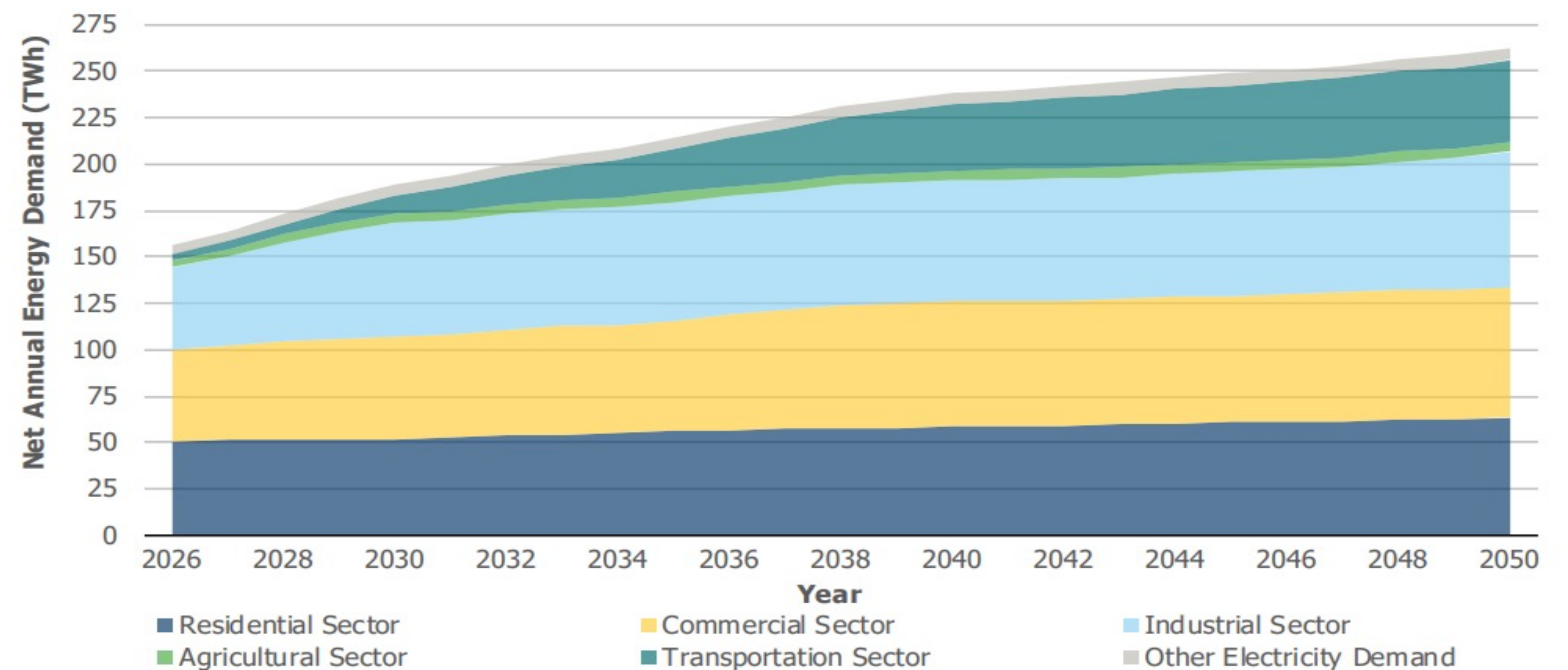


Figure 2 | Annual Energy Demand



# NEOEN How a Battery Energy Storage System Works

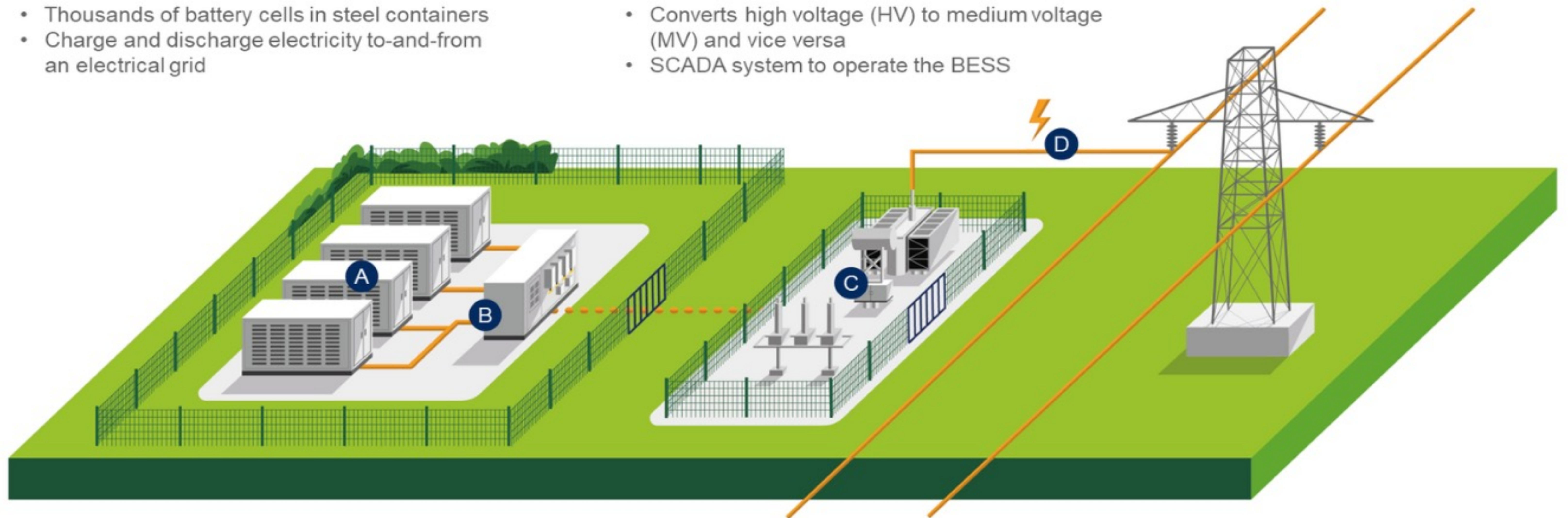
Energy storage will add grid capacity, enhance flexible grid operations and save greenhouse gas (GHG) emissions in Ontario by reducing the need for carbon-intensive power plants during times of peak demand.

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS



## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid

# NEOEN BESS (Battery Energy Storage System) Services



Batteries provide a host of important services to improve the grid:



Frequency support: BESS can react in microseconds to stabilize the grid in real time, thereby preventing grid failures



In case of exceptional events such as sudden spike in demand in winter, batteries can support the network



BESS smoothens the intermittency of renewables already on the grid. Most power for Woodville PR will come from overnight nuclear and hydro generation



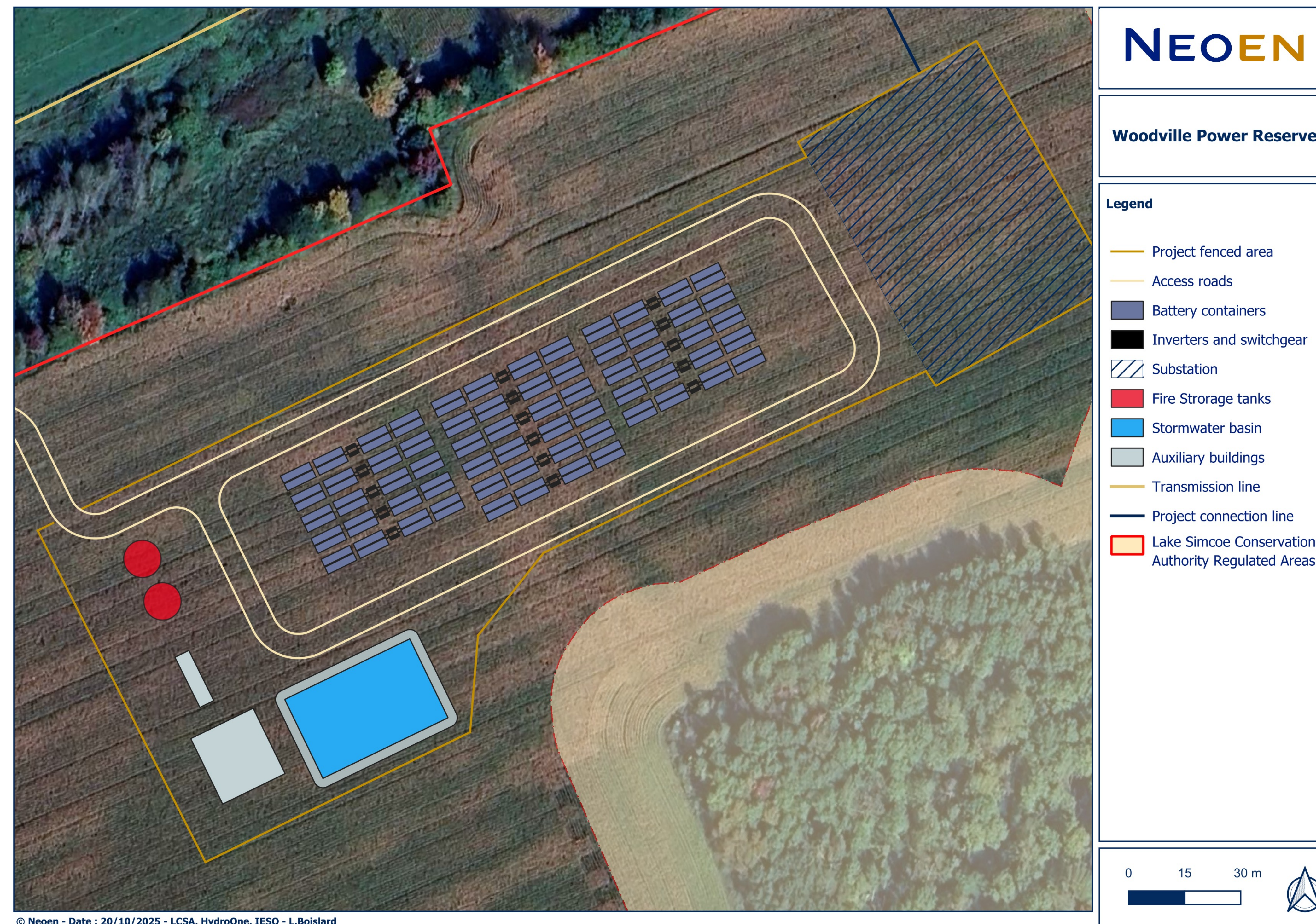
The Independent Electricity System Operator (IESO), responsible for managing Ontario's grid, is looking to procure 1,600 MW of capacity for the LT2 procurement, with proposal deadlines in October and December 2025.

# NEOEN Project location

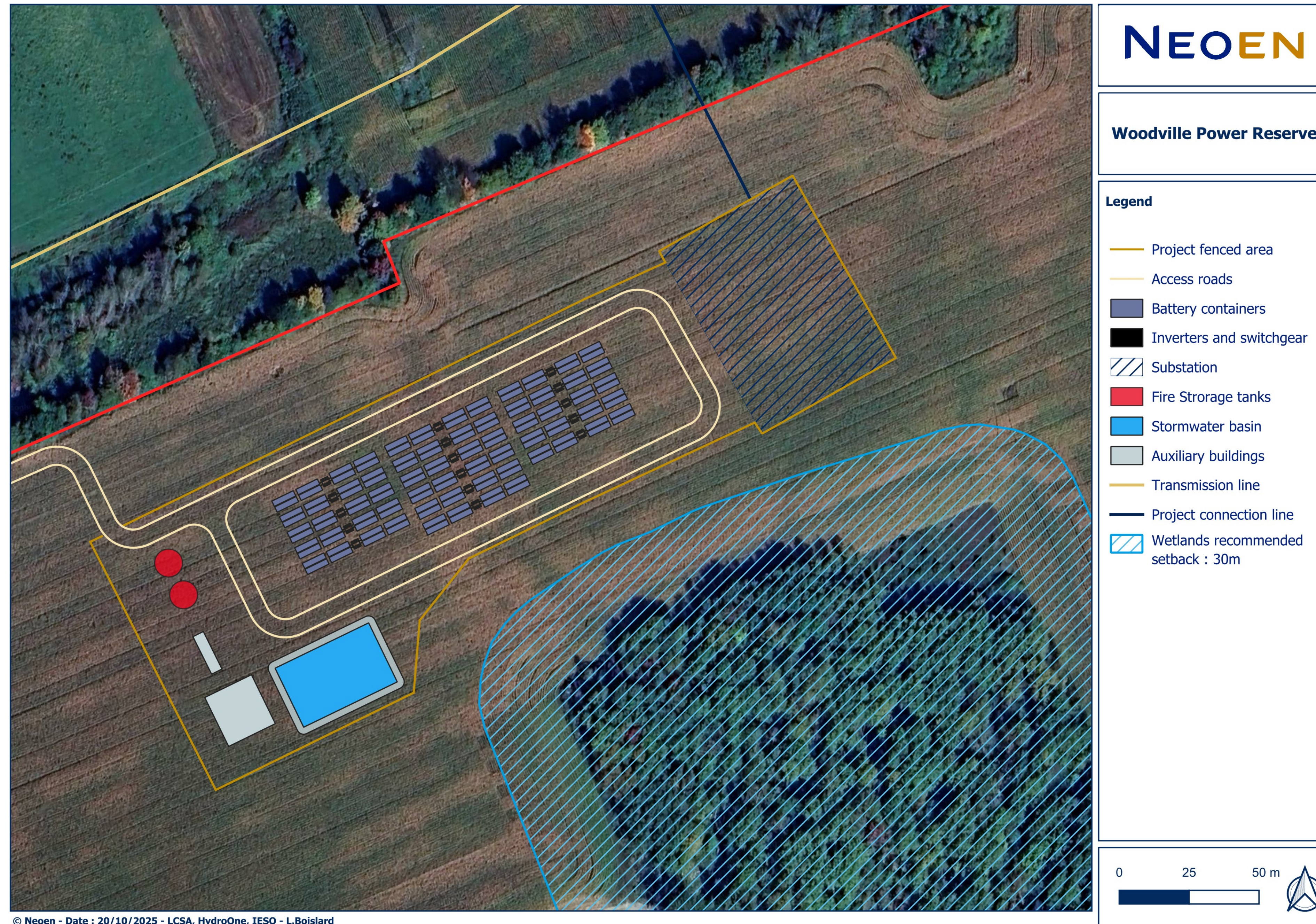


The project site is located at 25093 Simcoe Street, approximately 3km Northwest of Woodville.

# NEOEN Proposed Layout



- Approx. 128 battery containers with built-in inverters and medium voltage equipment
- 230-kilovolt substation with 1 high voltage transformer and circuit breakers
- Operations and maintenance building
- Site access road off Simcoe Street
- Storage buildings and parking
- Total footprint of 6 acres, of which 2 acres would host containers



**Meets Key BESS Requirements**  
transmission capacity, proximity,  
landowner willingness, flat terrain,  
accessibility, low environmental impact



## Environmental Assessment

- No wetlands, waterbodies, or significant wildlife habitat within the project area
- Central woodland swamp is completely avoided
- All regulated areas avoided; 30 m setback maintained
- Natural heritage assessment has been completed
- Flood risk assessment completed : no flood risk

Site mapping shows how the BESS will avoid environmental features

Our safety culture is exemplified by more than 15 years of development experience and operator of utility scale battery projects. Neoen has designed the Woodville Power Reserve with passive and active protection features to mitigate the environmental and operational risks.

## Core Elements of Our Fire Safety Approach



### Prevent

- Technology selection
- Safety certification
- Installation codes
- Testing for performance



### Monitor

- Battery Management System (BMS) to monitor temperature, voltage, and more
- 24/7 staffed monitoring facility to ensure high battery storage system health



### Respond

- Fire response training and coordination
- Water is the preferred suppressant for firefighting
- Work with local first responders to ensure safe and effective response in case of an emergency



In consultation with the City of Kawartha Lakes Fire Services and industry experts, our project will incorporate the highest standard of safety, including:

## **Layers of Safety Features in a battery energy storage system (BESS):**

- Battery management system
- Fire detection system
- Fire suppression system
- Explosion prevention system
- Explosion protection system

## **In the rare event of a fire, firefighting tactics focus on:**

- Addressing immediate threats to occupants or responders
- Containing the fire and limiting damage
- Mitigating environmental impacts

## **Comprehensive Response Plans (CRP)**

City of Kawartha Lakes Fire Rescue Service will develop location-specific emergency response plans based on the potential hazards specific to each site. These plans incorporate standardized response protocols addressing the unique risks associated with energy storage.

- Battery Management System (BMS) with built-in real-time control systems, including temperature and voltage monitoring, surveilled 24/7 by specialized engineers at the local Networks Operation Centre (NOC)
- Dry-pipe fire temperature suppression systems: Automated systems are integrated to reduce the potential for fire, and in case of an emergency, efforts focus on reducing exposure and preventing the spread of flames.
  - Fire hydrants
  - Ventilation panels
  - On-site reservoirs
  - Run-off containment systems
  - Constant environmental monitoring, including groundwater, air, and soil

# NEOEN Local Project Benefits

Lasting Value for the Community: +\$2M over 20 years



**\$70,000 annual  
Community  
Benefits Fund**

- Funds local priorities as identified in CKL 2025-2029 Economic Development Strategy
- Alternatively, funds may be committed to Municipal budget



**Up to \$60,000  
in municipal tax  
revenues**

- Pending zoning & final assessment by MPAC
- The Planning Act permits a host municipality to apply a 4% Community Benefits Charge of land value



**Benefit-sharing  
with neighbours**

- For residential neighbours in the immediate project area



**Over 200 Jobs +  
Local Opportunities**

- 200 skilled and general labour during construction
- Up to 10 long-term operational jobs
- Supplier and service contracts for local businesses



**Community Art,  
Heritage & Nature**

- A public art installation or refurbishment of heritage sites, co-designed with the community
- Potential for investments in biodiversity and ag-land improvements



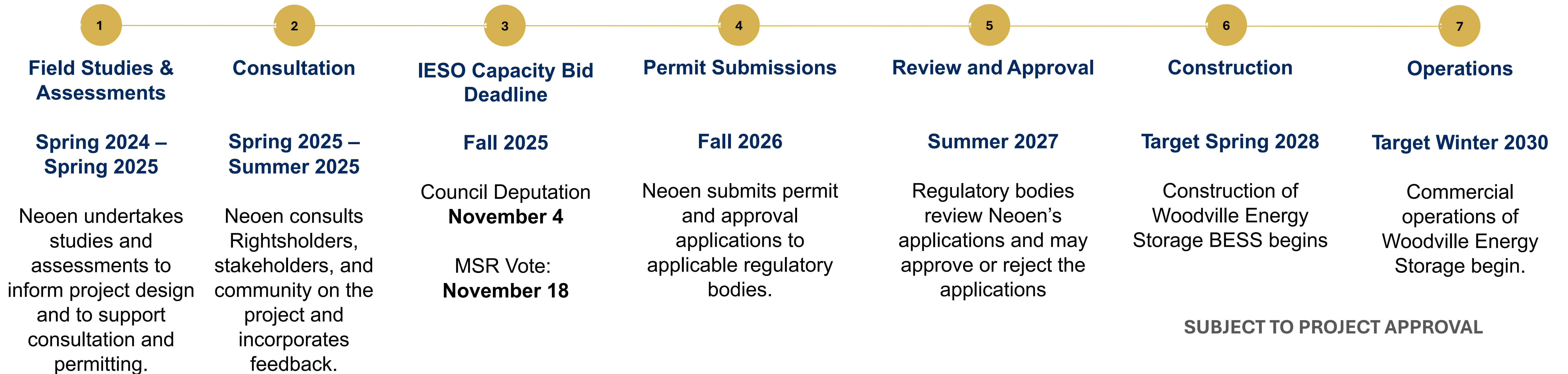
**Potential for Provincial  
Funding Streams**

- Strong competitiveness for \$2.6bn Skills Development Fund (SDF) to train-up local labour
- Support road and bridge upgrades through \$400m Ontario Community Infrastructure Fund (OCIF)

Neoen welcomes feedback on its community benefits plan

# NEOEN Project Timeline

WE ARE HERE



SUBJECT TO PROJECT APPROVAL

## Project Development Milestones

### 1. Land Use Review

City Of Kawartha Lakes Pre-consultation has been completed  
Agricultural Impact Assessment (AIA) Component 1 submitted

### 2. Natural Heritage Review

Natural heritage assessment has been completed  
Hydrology flood risk assessment has been completed

### 3. Noise Impact Review

Noise impact study has been completed

### 4. Archeology Review

Consulting with local First Nations

### 5. Community Engagement

On-going through end of project life

### 6. Class Environmental Assessment (EA)

To commence after contract award



# NEOEN Battery Storage System Operations

CAPITAL BATTERY, AUSTRALIA (100 MW / 200 MWh)



Once operational, a battery typically completes one charge and discharge cycle per day.

A crew of approximately 2-10 workers, contracted by Neoen, will operate Woodville Power Reserve.

Permanent fencing will enclose the battery storage facility. Site lighting and security cameras will be installed. Site lighting will be designed to avoid nighttime light pollution.



**Did you know that Neoen is a pioneer in battery energy storage?** Neoen delivered the world's first utility scale battery, Hornsdale Power Reserve, located in South Australia.

COLLIE BATTERY, AUSTRALIA  
(219 MW / 877 MWh)



ISBILLEN POWER RESERVE, SWEDEN  
(93.9 MW / 93.9 MWh)



# NEOEN We want to hear from you!

- The consultation period for Woodville Power Reserve is ongoing, including **50 attendees at Open House event on October WW**
- Neoen is consulting Rightsholders, stakeholders, landowners, residents in the immediate vicinity, and the broader community.
- We eagerly welcome feedback from CKL Staff and Councillors to ensure project success and alignment with municipal priorities



## We want to hear from you!

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