



Welcome to the

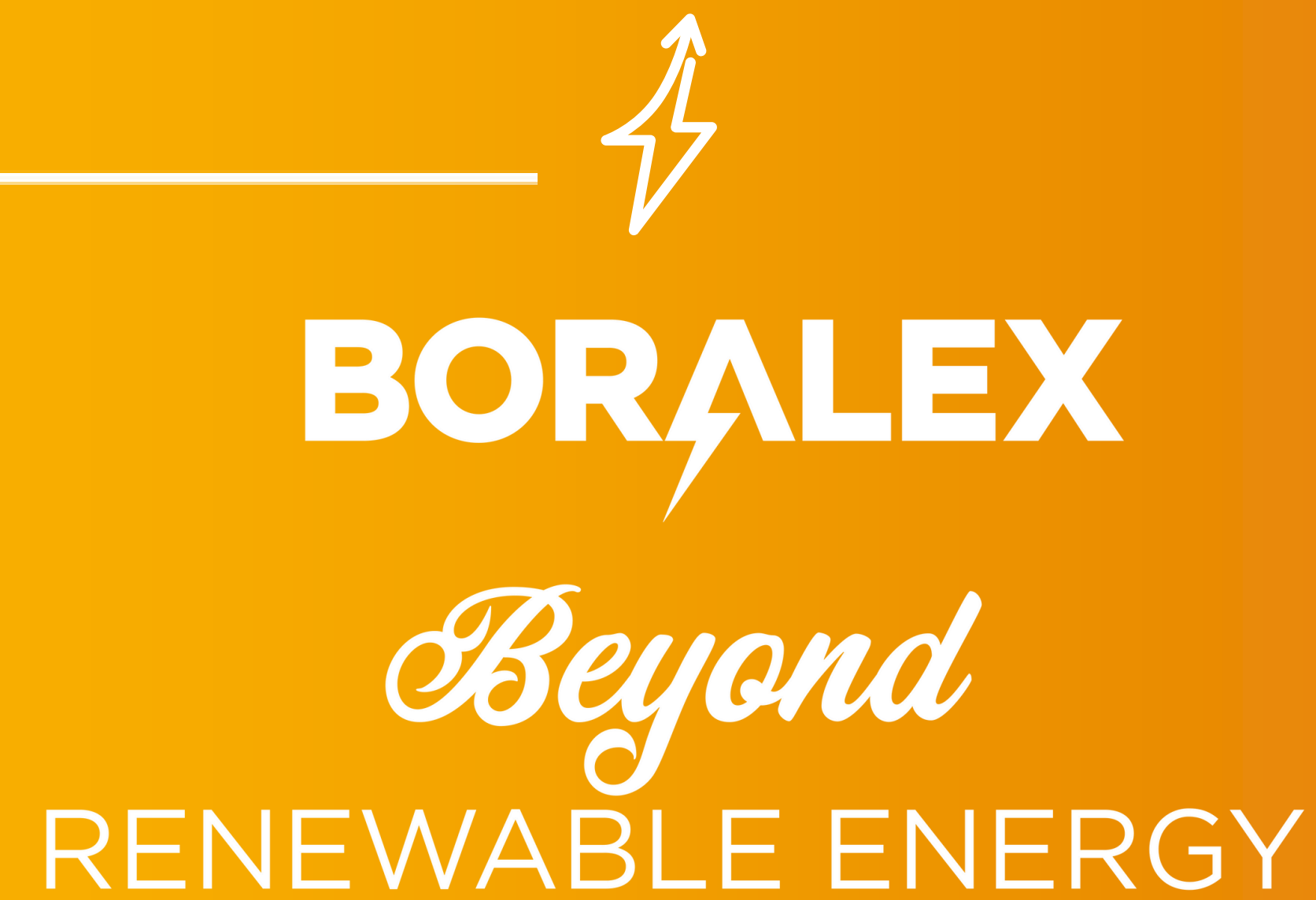


# Lennox Battery Energy Storage Project

## Open House

**BORALEX**





Boralex is a Canadian renewable energy company with over 35 years of experience, and has been developing, building and operating renewable energy projects in Ontario for over 15 years.



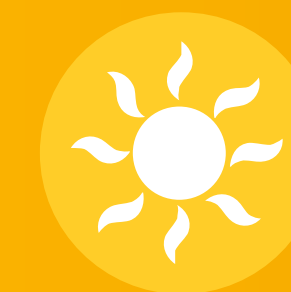
**We are deeply committed to engaging ethically and responsibly with communities, clients, partners, landowners and farmers as we work together to build a more sustainable future for our planet.**



## 3.2 GW of Installed Capacity



Wind 2,817 MW



Solar 268 MW



Hydroelectric 178 MW



Storage 5 MW

## 505 MW of Storage in Development or Construction



Hagersville 300 MW X 4 hrs  
1200 MWh



Tilbury 80 MW x 4 hrs  
320 MWh



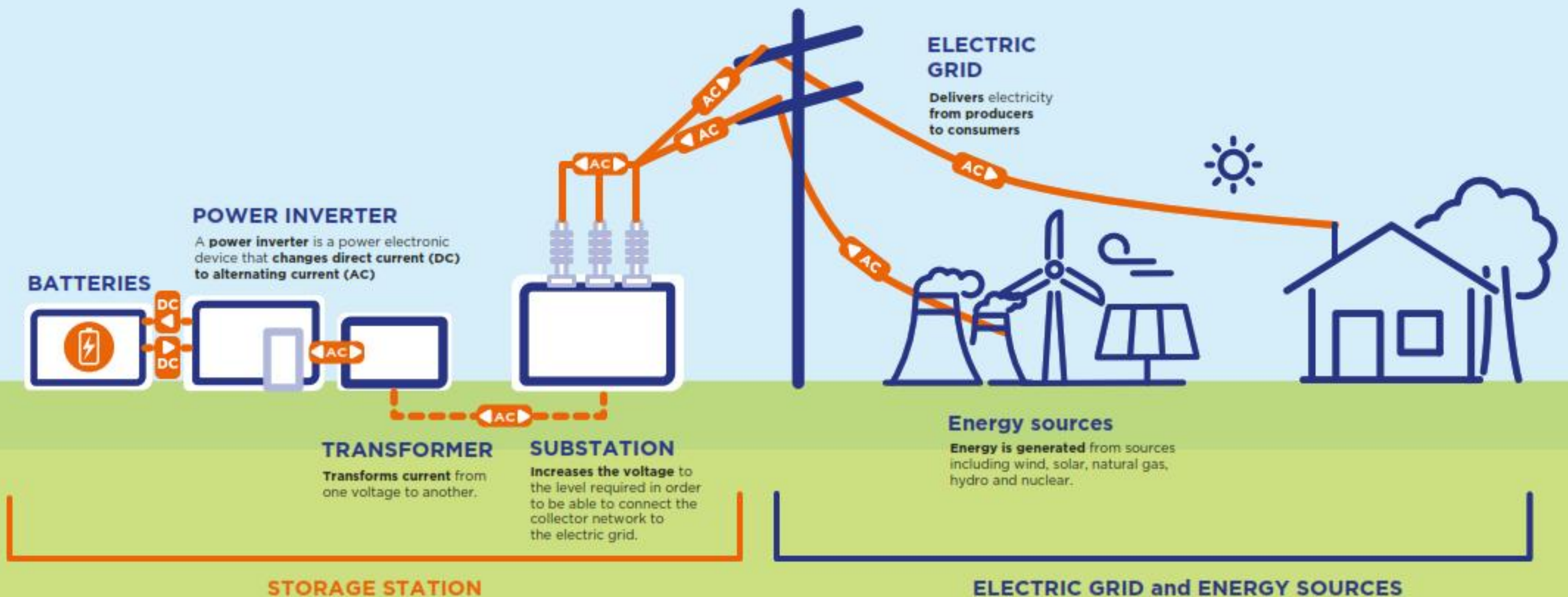
Oxford 125 MW X 4 hrs  
500 MWh



# How Does Battery Storage Work?

ENERGY STORAGE IS THE PROCESS OF CAPTURING AND RETAINING ENERGY AT ONE POINT IN TIME, SO THAT IT CAN BE USED AT ANOTHER POINT IN TIME.

## INTRODUCTION TO STORAGE TECHNOLOGY





# Lennox Battery Energy Storage Project Details

## The Story of the Lennox Site

### LT1 RFP

After more than a decade of reliable electricity supply, Ontario entered a period of emerging system needs and launched the Long-Term Procurement 1 in 2023. Boralex prepared to submit the Lennox Battery Energy Storage Project in the LT1 RFP.

### The First Bid

Boralex held an Open House in September 2023 and received a Municipal Support Resolution for the Project. However, due to deliverability issues on the transmission line, the project did not move forward.

### LT2 RFP Window 1

In order to continue to address capacity needs, the Independent Electricity System Operator (IESO) is competitively procuring 600 MW of new capacity projects in December 2025.

### 2025

Upgrades to the Hydro One substation will enable Boralex to rebid the Lennox Battery Energy Storage Project into LT2 Window 1 this December 2025.

## The Details



**Battery Energy Storage projects** store energy from the grid during off-peak hours and supply it back to the Ontario grid when demand is at its highest.



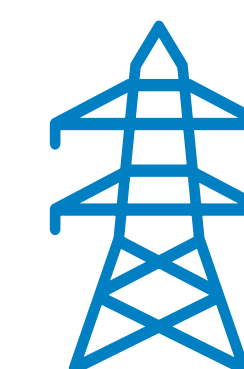
**200 MW** for eight-hour duration (1600 MWh)



**In partnership with Alderville First Nation**




Located in the Town of Greater Napanee, on land zoned for energy use, the Project will have an anticipated footprint of **approximately 22 acres**





The Project will connect to the existing 230kV transmission line.



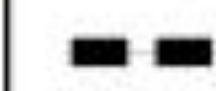
#### Project Site

 Project Site Boundary

#### Proposed Layout

-  Proposed Battery Location
-  Proposed Line of Interconnection
-  Proposed Connection Point



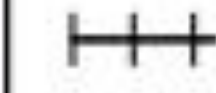
#### Proposed Infrastructure

 Access Road

#### Existing infrastructure

 HONI Transmission Line

#### Public Road

-  Expressway
-  Local Road
-  Railway

0 250 500 m

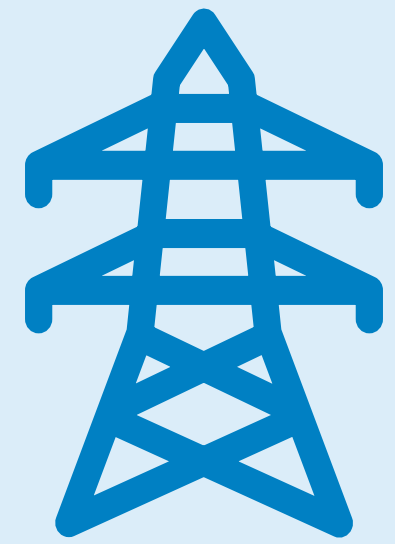
Projection : NAD83(CSRS) / Ontario MNR  
Lambert  
Basemaps : Google Satellite  
2025-09-02



# Why This Location?



**Location:** This location forms part of the backbone of Ontario's grid and is ideal to serve the needs of the system. The nearby Lennox Gas Generating Station's contract expires in 2029.



**Land Use:** Land already zoned for energy use, transmission route is existing easement.

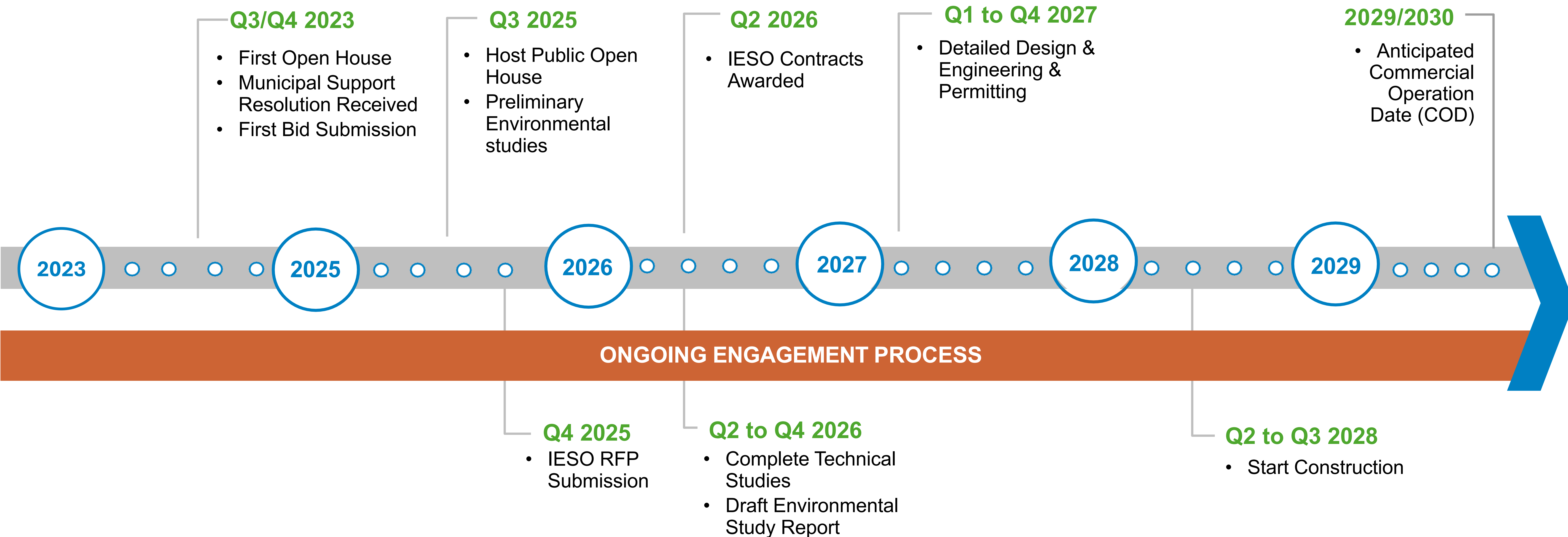


**Project Footprint:** small footprint minimizes environmental impact.



**Visual Impact:** Visually distant/shielded from neighbours.

# Anticipated Project Timeline



# Studies & Regulatory Approvals



## CLASS EA SCREENING

**Class Environmental Assessment** for Transmission Facilities – to be obtained by the Ministry of Environment, Conservation and Parks (MECP)

**Environmental Activity and Sector Registry (EASR)** for noise to be obtained from the MECP

**Municipal Permits and approvals** for planning, development, and building, as determined in consultation with municipal staff



## CONSTRUCTION

**Implement standard construction mitigation practices**

**Elements that will be carefully managed**

- Erosion and Sediment Control
- Air Quality
- Sound
- Environment & Wildlife
- Local Traffic Safety
- Fire Management



## OPERATION

**Comply with requirements**

**Procedures that will be carefully enforced**

- Emergency Response
- Fire Management
- Sound
- Environment
- Vegetation Management



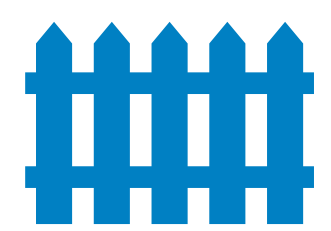
# Building a BESS Facility



**Civil Work:** The ground is prepared to ensure the facility is built on a flat surface.



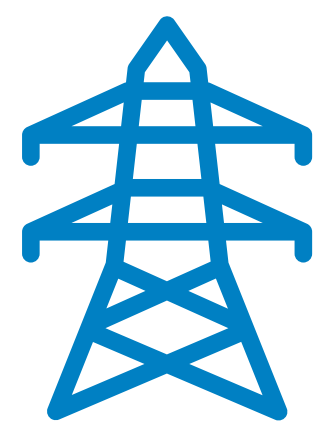
**Foundation Work:** Concrete slabs, piers, or helical piles will be installed as foundations that will accommodate the battery modules and electrical components.



**Perimeter Fencing:** A fence and safety signage are installed around the perimeter of the facility.



**Battery Installation:** Modular containers that host the batteries are installed in conjunction with a power conversion system and transformers.



**Electrical Components:** Balance of electrical equipment includes a Project substation with High Voltage metering, breakers, a main power transformer and a control building. AC collection cables are used to interconnect the Project substation to the battery system rows.



# Commitment to Fire Safety

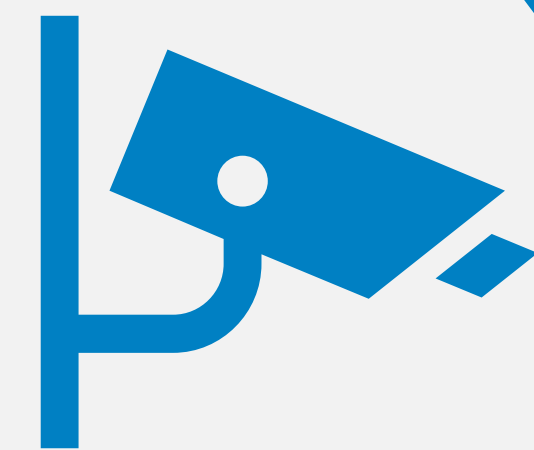
## Fire Safety Plans and Protocols



### Prevention

Lennox BESS equipment will be procured that is designed to meet **National Fire Code of Canada, NFPA 68 and/or 69 standards.**

Batteries **adhere to and pass evolving safety tests** including **UL 9540 and UL 9540A.**



### Monitoring & Detection

Thermal **management systems (fans, ventilations, cooling)** are used to maintain safe operating temperatures. Equipment **safety controls (sensors)** can detect potential abnormal battery behaviours. A control room **monitors to detect potential variances** in battery behaviors.



### Emergency Response

A **comprehensive emergency response plan will be prepared** in collaboration with third-party Fire Safety Experts, and local fire departments.

Prior to site operations, **safety training will be provided for first responders & onsite personnel** to understand actions to take in the event of a fire and address any specific equipment (e.g., onsite firewater tank) that is required by the Fire Chiefs.

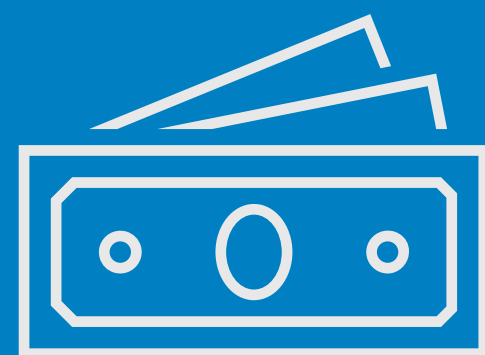


# BESS Benefits



## Employment

**Creating jobs in host communities:** ~ **240 Jobs** created during construction. ~ **2 to 4 full time employees** for operation.



## Economy

**Procuring local:** Expect to procure **materials and services** from host communities (e.g., aggregates, civil works, machinery).



## Consumers

**Reduce energy bills:** Significant benefits to **Ontario's ratepayers** by **reducing the need and cost** associated with using gas-fired power plants during times of peak demand.



## Environment

**Sustainable Energy:** Fosters **penetration of renewable energies**, reducing carbon emissions from traditional energy systems (e.g., fossil fuels).

## Supporting the Local Community

Boralex is dedicated to being a good neighbor and an integrated part of the community.

Every year we support local non-profit organizations, charities, and events that contribute to the vitality of the area.

We believe a successful project benefits the entire host community.



Since 2023, Boralex has contributed more than **\$1.5 Million to host communities** through our donations and sponsorships programs.



# Boralex Battery Energy Storage Projects in Development or Construction



## **Hagersville Battery Storage Park 300 MW / 1200 MWh**

Located in Haldimand County near Hagersville. The Hagersville Battery Storage Park, in partnership with Six Nations of the Grand River Development Corp., received a 20 year contract during the IESO's Expedited Long-Term Procurement (E-LT1) in 2023. It started construction in Fall 2024 and is anticipated to come online end of 2025.



## **Tilbury Battery Storage 80 MW / 320 MWh**

Located in the Municipality of Lakeshore. Tilbury Battery Storage, in partnership with Walpole Island First Nation, received a 20-year contract during the IESO's Expedited Long-Term Procurement (E-LT1) in 2023. It started construction in Fall 2024 and is anticipated to come online end of 2025.



## **Oxford Battery Energy Storage 125 MW / 500 MWh**

Located in the Township of South-West Oxford. Oxford Battery Energy Storage, in partnership with Six Nations of the Grand River Development Corp., received a 20-year contract during the IESO's first Long-Term Procurement (LT1) in 2024. It is anticipated to come online end of 2026/beginning of 2027.



# Thank you for attending!

Have more questions or looking for additional information?

Our Project team is ready to answer any questions

Feel free to complete a comment form

Email us at [info@boralex.com](mailto:info@boralex.com)

Scan the QR code to visit our project website

[www.boralex.com/en/projects-and-sites/storage-lennox](http://www.boralex.com/en/projects-and-sites/storage-lennox)



We acknowledge we are on aboriginal land that has been inhabited by Indigenous peoples since the very beginning. As settlers, we express gratitude for the opportunity to meet here and thank all of the generations of Indigenous people who have cared for this land.

In particular, we acknowledge the traditional territory of the Anishinaabeg, Haudenosaunee, and Huron-Wendat Peoples and that this territory is covered by the Williams Treaties.