

WELCOME

to the



**Lennox Battery Energy
Storage Project**

Open House

BORALEX



About Boralex



Canadian-based company



Major player in renewable energy in
North America and **Europe**



More than **30 years** of experience, including
10 years in Ontario



3,051 MW of installed capacity



We **develop, build and operate** wind, solar,
hydro electricity generation systems and storage

Boralex around the World

An international presence with strong growth potential

Guided by social and environmental values, Boralex provides its customers with clean energy in the most competitive way possible. The Corporation generates profitable and sustainable growth, thereby creating and sharing value while respecting its stakeholders.

Total installed capacity

3,051 MW



2,613 MW



255 MW



178 MW

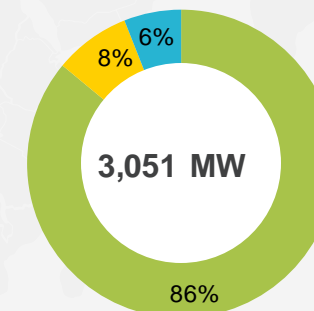


5 MW

Portfolio of projects in
development and construction

6.2 GW

Segment breakdown



WIND

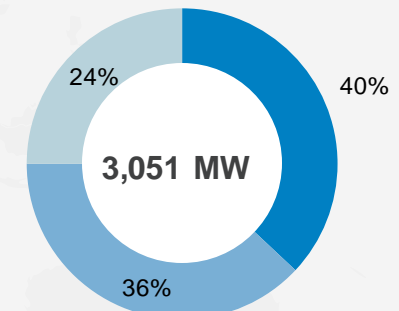


SOLAR



HYDRO

Geographic breakdown



FRANCE



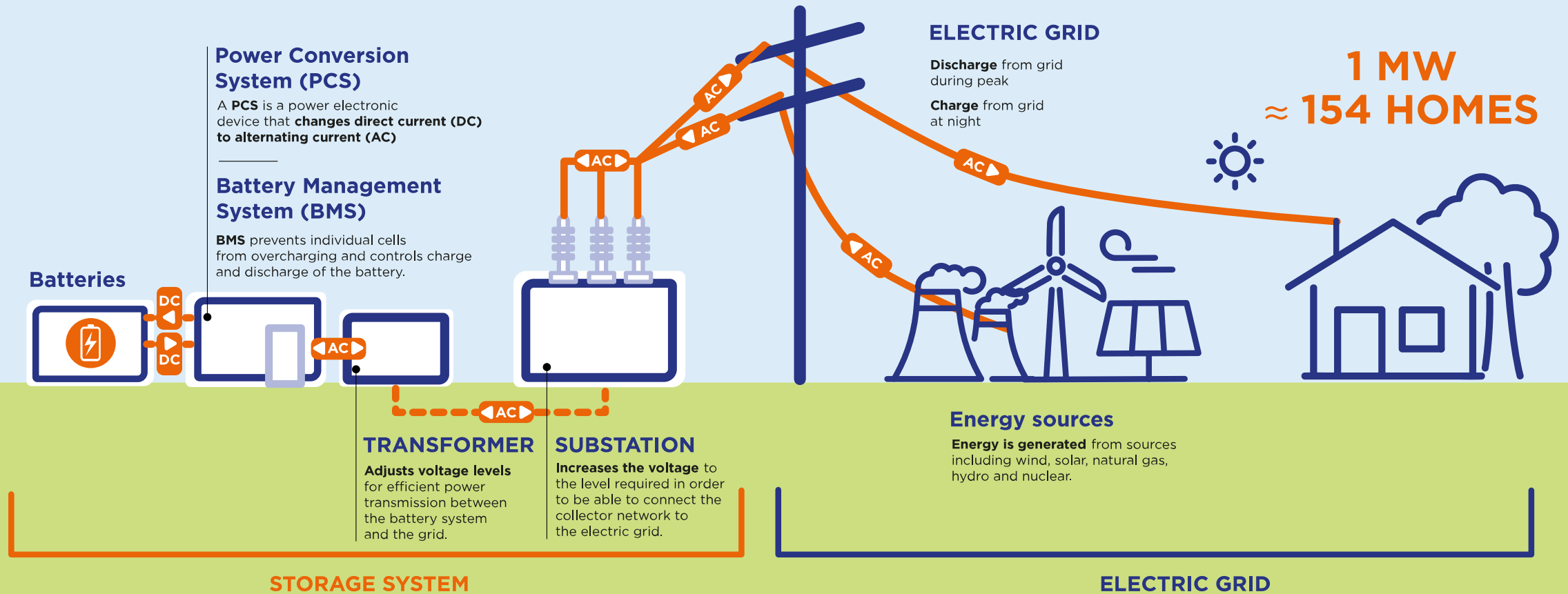
CANADA



UNITED STATES

How it Works

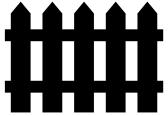
Introduction to Storage Technology



Building a BESS Facility



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



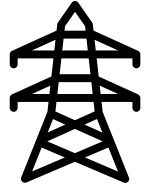
Perimeter Fencing: A fence and safety signage is installed around the perimeter of the facility.



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



Battery Installation: Modular containers that host the batteries are installed in conjunction with a power conversion system (PCS) and transformer.



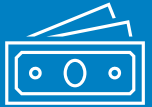
Electrical Components: Balance of electrical equipment includes a project substation with High Voltage metering, breakers, main power transformer and control building. Alternating current (AC) collection cables are used to interconnect the project substation to the battery system rows.

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.



For 2023, Boralex will be contributing nearly **\$750,000** to host communities through our donations and sponsorships programs.

Context for Battery Energy Storage Systems (BESS) in Ontario

- Ontario is entering a period of emerging electricity system needs that will require new electricity resources **this decade**.
- To address this need, The Independent Electricity System Operator (IESO) is competitively securing up to **4,000 MW** through the **first long term request for proposals** process (LT RFP).
- In 2022, the IESO held an expediated process, E-LT1 RFP, securing up to 1,500 MW of capacity, 900 MW to come from energy storage.
- As part of the E-LT1 RFP, Boralex was **the Leading Awardee**, with **Two Storage Projects Totaling 380 MW Selected by IESO**:
 - ✓ Hagersville Battery Energy Storage Park is a 300 MW, four-hour duration battery storage project near the Town of Hagersville, Haldimand County, Ontario.
 - ✓ Tilbury Battery Storage Project is an 80 MW, four-hour duration battery storage project near existing Hydro One infrastructure in the Municipality of Lakeshore, Ontario.
- The IESO is now holding another competitive procurement, **LT1 RFP**, to secure up to 2,500 MW of capacity, of which **1,600 MW** is to come from energy storage.

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 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.



Lennox Battery Energy Storage Project

- Located in the **Town of Greater Napanee**
- Connecting to the existing 230kV transmission line.
- Capacity targeting **up to 400 MW** capacity for 4 hours
- Approx. **22 acres** anticipated footprint

Project Site

Project area

Proposed Layout

Proposed battery location

Proposed line of interconnection

Alternate interconnection route area

Proposed infrastructure

Proposed access road

Existing infrastructure

Transmission line

Road

Railway

0 250 500 m

Projection : NAD83 / UTM zone 17N
Basemap : Google Satellite
2023-09-19

Permitting Process Overview



ENVIRONMENTAL

- **Class Environmental Assessment (EA)** for Minor Transmission Facilities to be obtained from 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



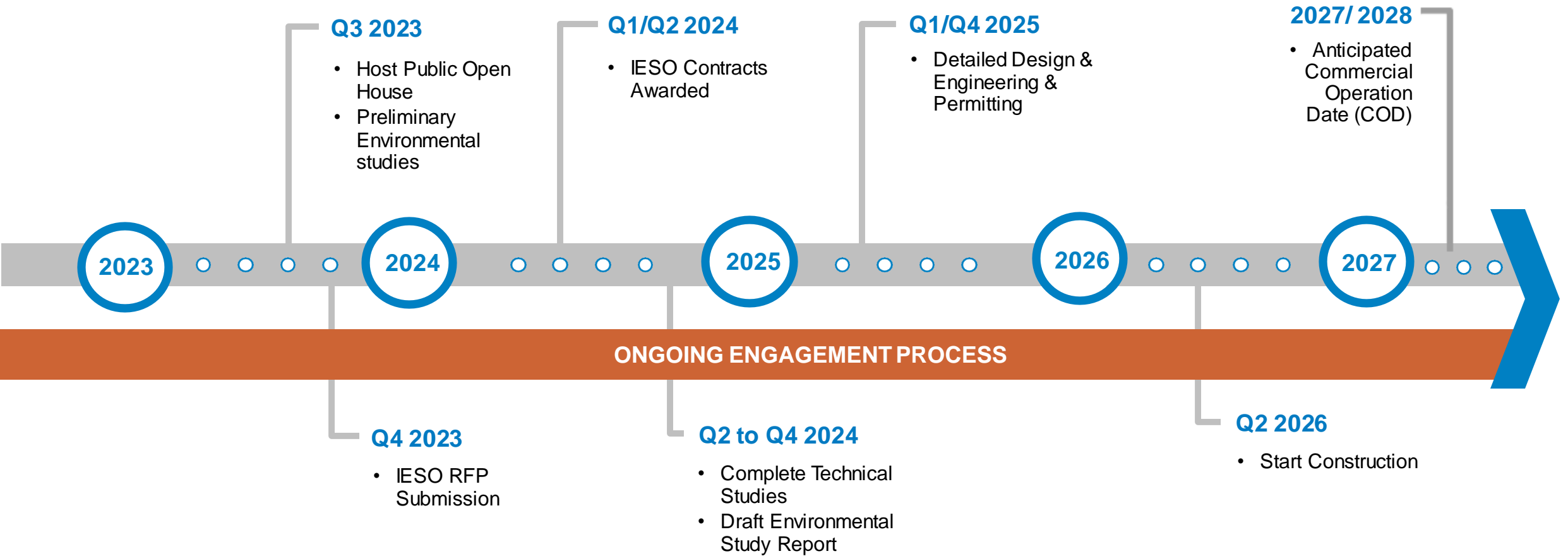
OPERATION

Comply with requirements

Procedures that will be carefully enforced

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

Anticipated Timeline

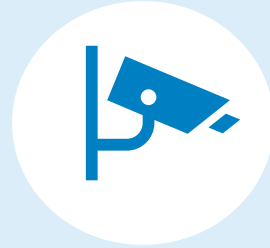


Our Commitment to Fire Safety



PREVENTION

- Retained a **verified third-party Fire Safety Expert**.
- Selecting BESS equipment designed to meet **National Fire Code of Canada, NFPA 68 and/or 69 standards**.
- Batteries are designed and manufactured to **adhere to and pass evolving safety tests** prior to operation, including **UL 9540 and UL 9540A**.



MONITORING & DETECTION

- Thermal **management systems (fans, ventilations, cooling)** to maintain safe operating temperatures.
- In equipment **safety controls (sensors)** to detect potential abnormal battery behaviours.
- Control room **monitors to detect potential** variances in battery behaviors.



EMERGENCY RESPONSE

- Prepare **comprehensive emergency response plan** in collaboration with third-party Fire Safety Experts and local fire departments.
- Provide rigorous **Safety Training for first responders & onsite** personnel.

Thank you !

Have more questions or looking
for additional information?

Please visit Boralex's project website for Lennox
<https://www.boralex.com/projects/lennox/>



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