

- **Name**  
Shelby Dockendorff
- **Enter the date of the meeting you wish to present to council**  
February 6, 2025
- **Which is your preference for attending the meeting.**  
In Person
- **Will there be anyone other than yourself addressing Council?**  
Yes
- **Which is their preference for attending the meeting.**  
In Person
- **Please provide the names of everyone who will be addressing Council.**  
Asier Ania, Senior Development Manager for Boralex, Nick Petrakis, Chris Ollson,  
,Mark van der Wood, and Caitlin Port
- **Use the space below to clearly outline your purpose for presenting to council. Provide a brief outline of your subject matter including your suggested outcome.**  
Boralex is developing the Oxford Battery Energy Storage Project in the Township of South-West Oxford just on the border of Woodstock. The Boralex team will be providing information about the project and next steps.  
  
Giving the presentation will be Asier Ania, Senior Development Manager for Boralex and on hand to answer questions will be Nick Petrakis from Energy Safety Response Group, Chris Ollson from Ollson Environmental Health Management, and Michelle Wong Ken from Avaanz
- **Will you be providing any additional written information in addition to your summary above? If YES please note it must be provided to the Clerks department no later than 12:00pm on the Tuesday prior to the meeting**  
Yes
- **Will you be providing any additional electronic information in addition to documents you will be attaching? If YES please note it must be provided to the Clerks department no later than 12:00pm on the Tuesday prior to the meeting**  
Yes
- **Presentation Attachments**

1. [Feb 2025 Oxford BESS PPT - Full version \(1\).pdf \[1.7 MB\]](#)

- **Have you appeared before council to discuss the same topic in the past?**

No

# Oxford Battery Energy Storage Project



**BORALEX**

February 6<sup>th</sup>, 2025



# About Boralex



**Canadian-based** company.



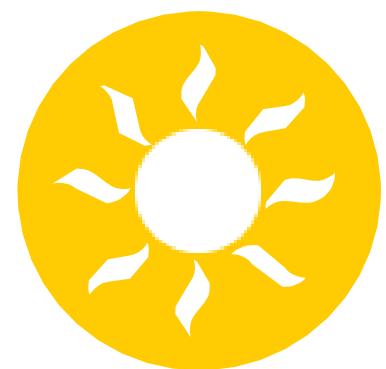
**Leader** in renewable energy in **North America** and **Europe**.



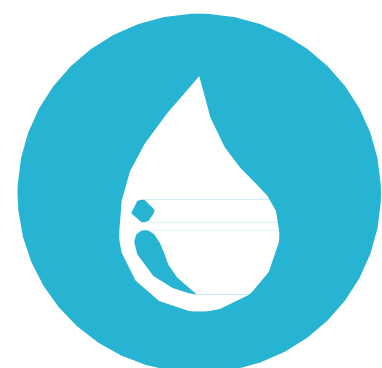
More than **30 years** of experience, including over **10 years** in **Ontario**.



**Over 3 GW** of installed capacity.



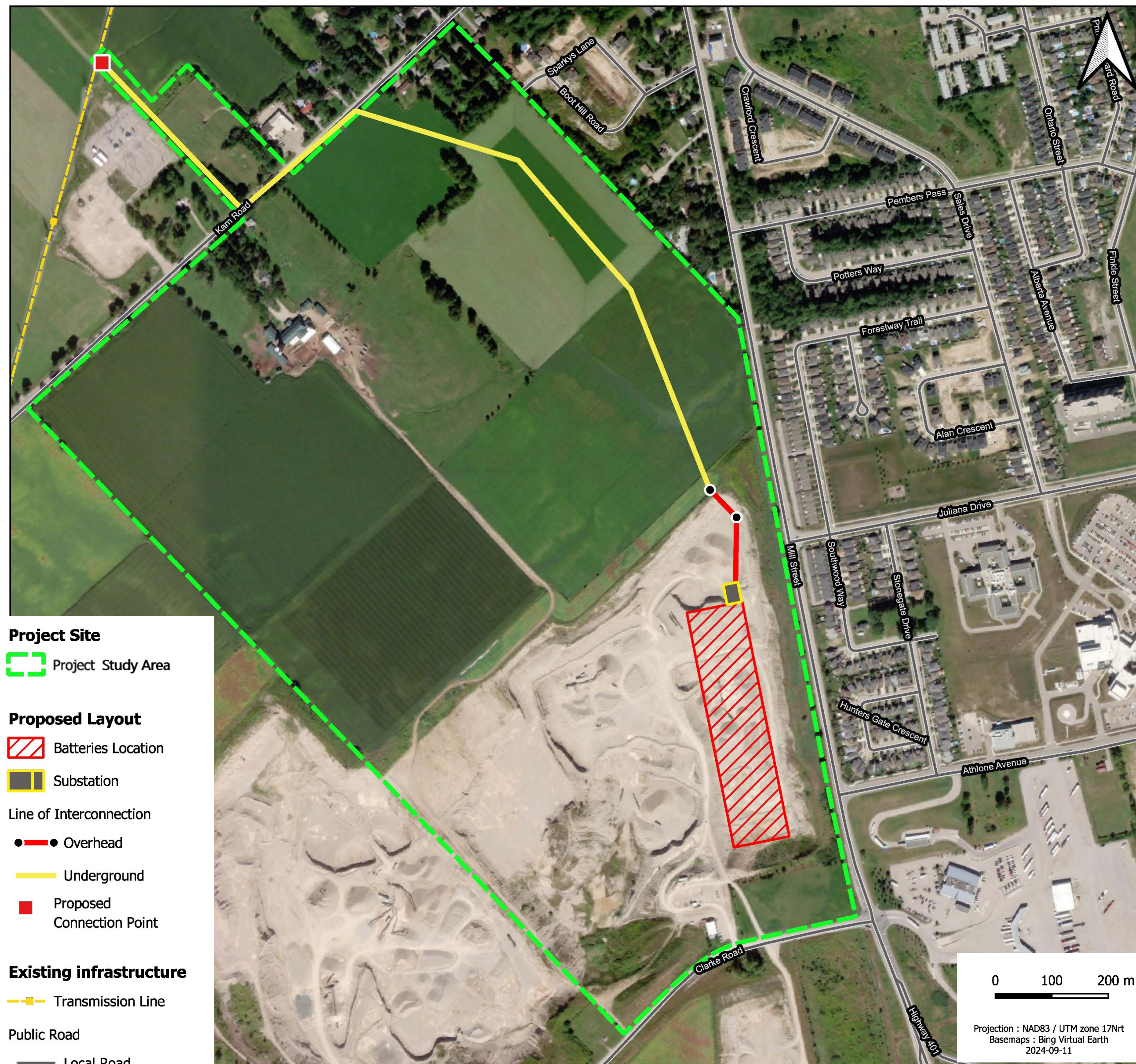
We **develop, build, and operate** wind, solar, hydro electricity generation systems, and storage.



# Why Is This Project Needed?

- Ontario requires new electricity resources, such as energy storage, to meet our energy needs for **this decade**.
- To address this need, the Independent Electricity System Operator (IESO) secured approximately **3,000 megawatts (MW)** through competitive bids, including the **Expedited Long-Term Request for Proposals (E-LT1 RFP)** and **Long-Term Request for Proposals (LT1 RFP)** processes.
  - Boralex was the **Leading Contract Awardee** in E-LT1, with **two Storage Projects totalling 380 MW / 1.5GWh**.
  - On May 9, 2024, Boralex, in partnership with Six Nations of the Grand River Development Corp., won a contract for the **Oxford Battery Energy Storage Project** to provide **125 MW** of storage capacity through the LT1 RFP process.

# Project Description



- Located in the Township of **South-West Oxford**.
- **125 MW** for 4 hours capacity.
- Connection to the existing 115 kilovolt (kV) transmission line.
- Majority of the 1.5 km interconnection line will be underground.
- The project will be located in an aggregate facility to **minimize environmental impact and repurpose non-arable land**.
- The inherent sound barriers formed by the surrounding aggregate pit walls make this **site naturally conducive to sound reduction**.

# Project Phase Overview



## PERMITTING

- **Class Environmental Assessment (EA)** for Transmission Facilities to be obtained from the Ministry of the Environment, Conservation and Parks (MECP).
- **Zoning Bylaw Amendment & Official Plan Amendment.**
- **Environmental Compliance Approval (ECA)** for stormwater to be obtained from the MECP.
- **Other as required.**



## CONSTRUCTION

**Implement standard construction mitigation practices**

**Elements that will be carefully considered:**

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



## OPERATION

**Comply with requirements**

**Procedures that will be carefully enforced:**

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

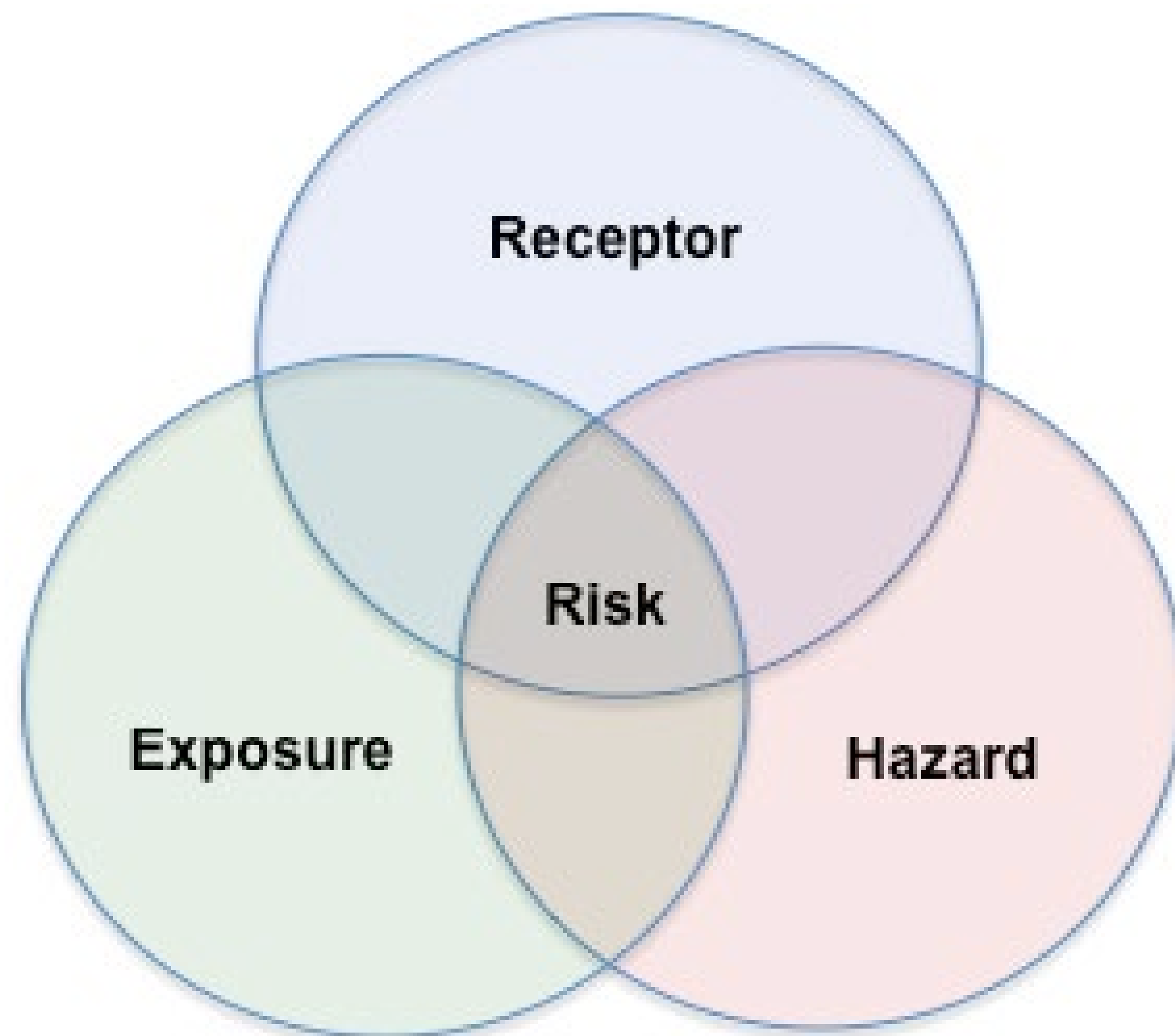
# Community Risk Assessment (CRA)

The purpose of the CRA is to review the potential impacts of BESS on the **health and safety** of the community's residents and to develop mitigation plans that help **avoid and minimize** the potential and severity of potential impacts.

## The CRA concluded:

- In the highly unlikely event of a fire, chemical emissions to air will not impact the general public.
- Potential impacts to local groundwater are not expected. The facility will be constructed and operated according to the requirements set out by MECP through an ECA.
- Normal operations of the facility will adhere to stringent MECP sound standards.
- Construction activities will be similar, or less, than those occurring daily in the aggregate pit.
- Design and operations standards for BESS facilities have improved significantly in the past five years.
- Recommendation to complete an Emergency Response Plan (ERP).

**The Oxford BESS will not pose an undue risk to the community.**





# Commitment to Fire Safety



## PREVENTION

- Retain 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.

# Anticipated Timeline

## Q3 2023

- Host Public Open House (Sept 14)
- Preliminary Environmental Studies

## Q2 2024

- IESO announces contract awards (May 10)

## Q1-Q3 2025

- Detailed Design & Engineering & Permitting
- South-West Oxford Council Meeting (Feb 4)
- Zoning and Official Plan Amendment
- Open House (Date TBD)

## Q4 2026/Q1 2027

- Anticipated COD

## Q4 2023

- IESO RFP Submission

## Q2-Q4 2024

- Complete Technical Studies
- Draft Class EA Report
- South-West Oxford Council meeting (Sept 17)
- Host Public Open House (October 3)

## Q4 2025

- Start mobilization/construction

ONGOING CONSULTATION PROCESS

# Thank You!

## Any Questions?



Project website:

[www.boralex.com/projects/oxford](http://www.boralex.com/projects/oxford)

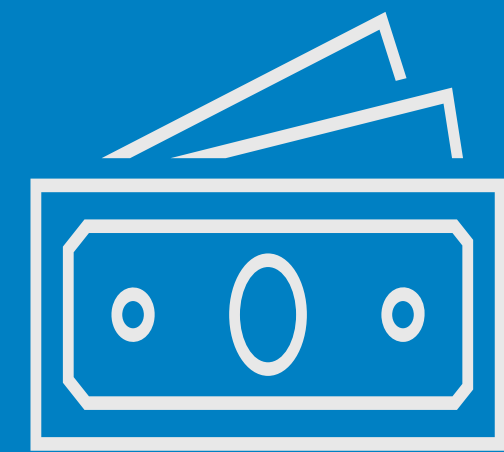
# Appendix

# Community Benefits



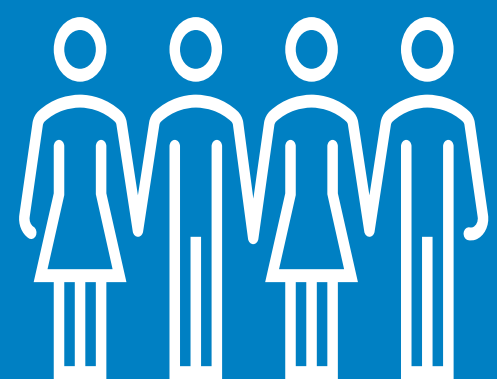
## Employment

**Creating jobs in host communities:** ~ 100 Jobs created during construction. ~ 1-2 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** by reducing carbon emissions from traditional energy systems (e.g., fossil fuels).

## Supporting the Local Community

Boralex is dedicated to being a good neighbour 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.

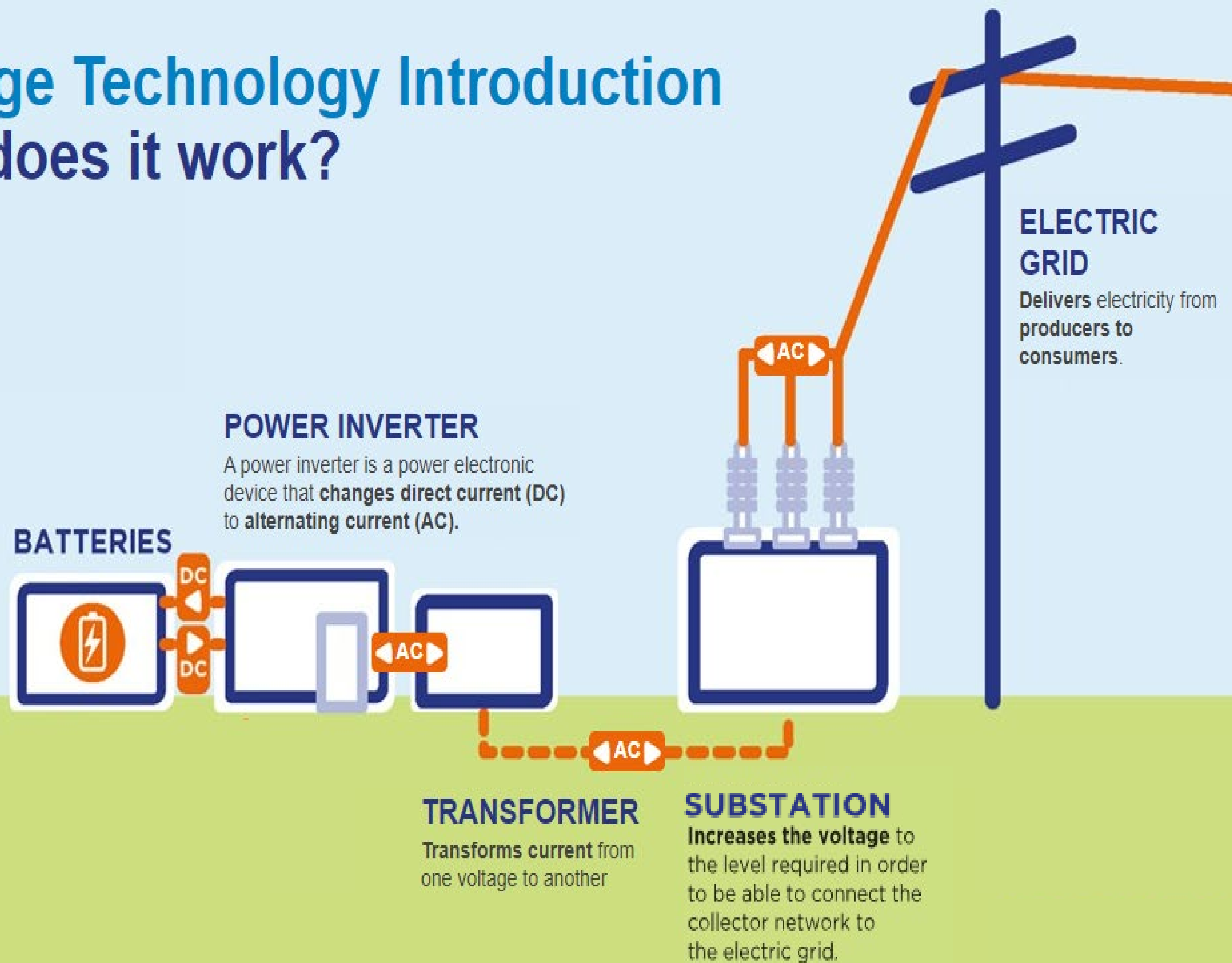
We believe a successful project benefits the entire host community.



# 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.

## Storage Technology Introduction How does it work?



- Energy is generated from various sources.
- This energy enters the grid.
- The energy is constantly metered and monitored by a battery management system.
- If there is surplus energy, energy from the grid is converted from alternating current (AC) to direct current (DC) for storage in the BESS.
- The energy is stored and the battery management system continuously monitors and controls the flow of energy and optimizes how batteries are charged/discharged.
- When there is a need for more energy on the grid, energy is discharged from the BESS and converted from DC to AC to feed back into the grid.