Who is CarbonFree?

Ontario Renewables Pioneer

Founded in Ontario in 2006, CarbonFree is Canadian, privately owned, with 20 years of success developing and financing renewable energy infrastructure across the province.

Unique Project Sourcing Strategy

CarbonFree has a team dedicated to identifying and securing suitable land and partners driven by a deep understanding of the energy market and the regulatory environment

History of Developing Projects with FN Partners

CarbonFree has developed and financed 400MW+ of renewable energy projects with Indigenous partners in Ontario

Operational Success

CarbonFree has a long history of operating renewable energy infrastructure safely and sustainably by partnering with local suppliers, contractors, and communities.




Ontario's Significant Power Needs

Ontario's Independent Electricity System Operator (IESO), has identified the need for new energy and capacity supply in Ontario.

What is causing this Growth?

- Increased Economic Activity
- Population Growth
- Electrification of Transport
- Retirement of Energy Generation Facilities

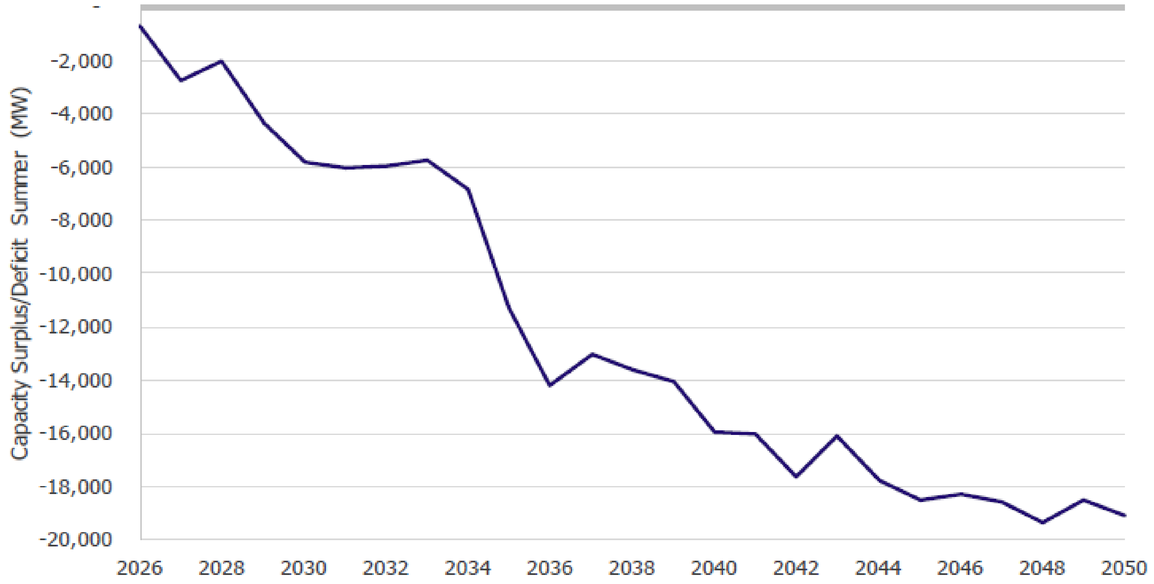
Long-Term 2 Capacity (LT2c)

To close this supply gap, IESO is running competitive procurements. The contracts have a 20-year term. This is a competitive RFP process with the singular goal of reducing ratepayer costs

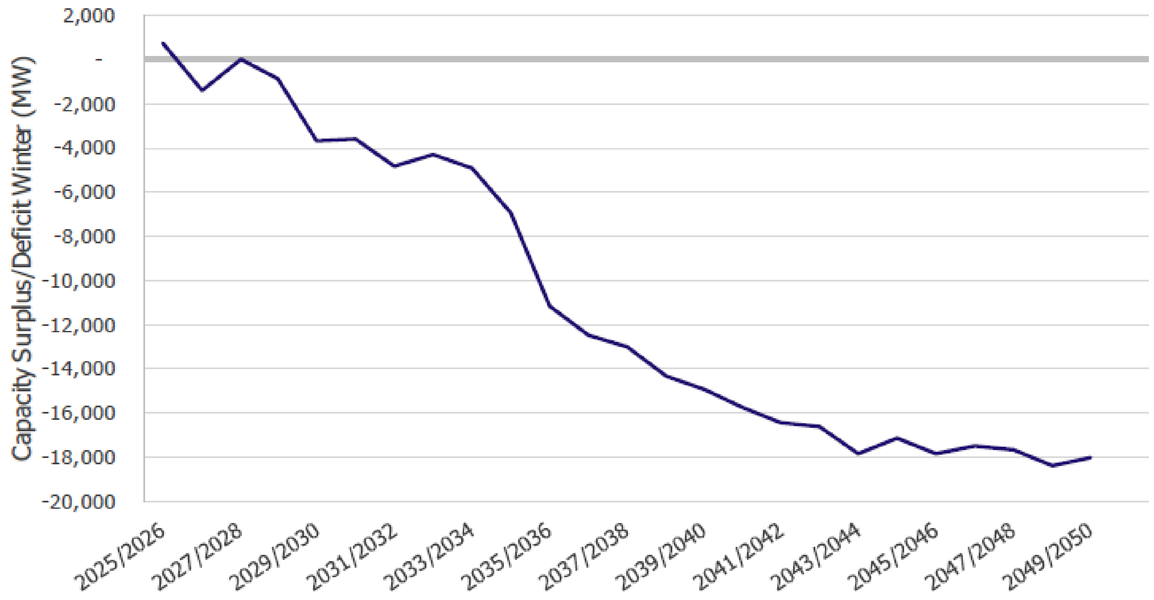
The proposed project will take part in this IESO LT2c RPF process. The proposed project is intended to improve the electrical transmission system in Ontario, addressing weak points in electrical capacity, efficiency and reliability.

By charging during the times of reduced demand and discharging during times of peak demand Batteries offer increased grid efficiency and reduced costs.

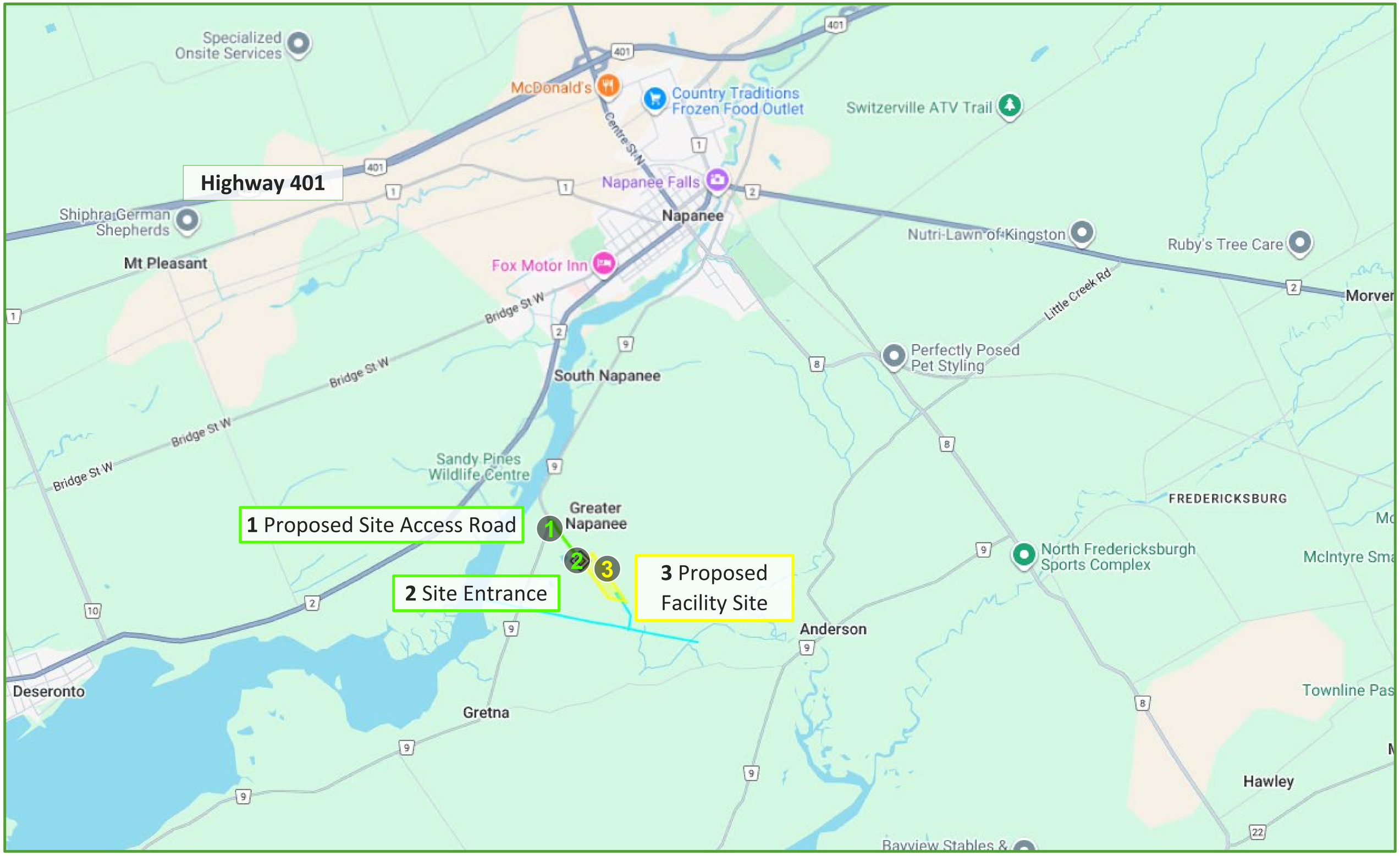
Summer Capacity Surplus/Deficit



Winter Capacity Surplus/Deficit



Napanee BESS Project Location



Napanee BESS Project Description

The proposed project would be in Ward 2 of Greater Napanee on the former Engine Renewals lands in the traditional territory of the Mohawks of Bay of Quinte (MBQ). The project would advance to permitting if a contract is awarded by the IESO in 2026.

Project Site:

- The project site is on the southern end of the property, set back 500m from **County Road (River Rd) 9.**

- These **rural zoned** lands were previously used for light commercial/industrial purposes**.** The facility would occupy approximately **15-25 acres** depending on the IESO contract capacity.

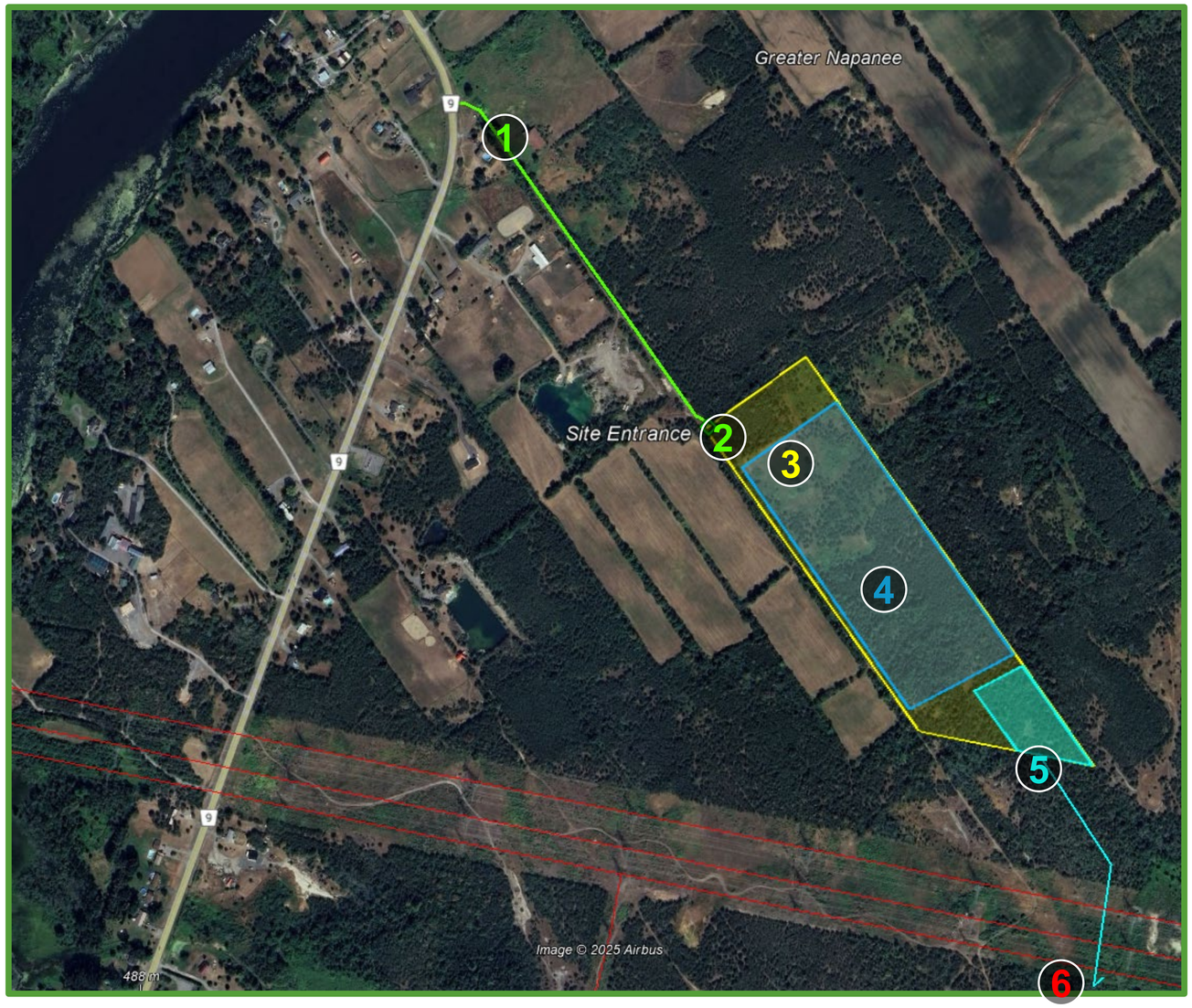
- The site was selected due to its proximity to the transmission line corridor and the Napanee Transmission Station.

The Battery Energy Storage System (BESS) Facility:

- CarbonFree Napanee BESS will store and inject up to **250 MW** of power for up to eight hours.

- The storage system would use **Lithium Iron Phosphate (LFP)** batteries which have lower density and have proved to be safer than NMC batteries common in the last decade.

- A substation at the southern end of the facility will step up the medium voltage from the facility to the 230 kV voltage of the neighbouring transmission lines.



Map of proposed preliminary location for the proposed CarbonFree Napanee BESS Facility. Map Key: **1** Proposed Site Access Road, **2** Site Entrance, **3** Proposed Facility Site, **4** Battery Field, **5** Substation, **6** Existing Transmission Corridor

Benefits to the Local Community

The project would be a **critical infrastructure asset** that will help meet Ontario's growing power demands, provide additional **revenue** to local community, provide property tax revenue to Greater Napanee, and will serve a vital role in the process of **Reconciliation** with local First Nations.

First Nation Partnership

The **Mohawks of Bay of Quinte (MBQ) are a 50% ownership partner** in the project ensuring that significant project revenues remain local to the region and adding a significant step towards the federal commitment to Reconciliation

Municipal Revenue

A **Community Benefit Agreement,** in addition to property taxation, will provide up to **$10 million** over the life of the project ($2,000/MW/Yr)

Economic Growth

The Project will drive **local economic growth** through **job creation and increased investment,** driving revenues for surrounding businesses and trades

Meeting Ontario's Energy Needs

The project will **strengthen and diversity Ontario's energy grid** by managing peak loads and maximizing efficiency of other generation sources to avoid risks such as power outages and rolling blackouts.

Regional Energy Centre

The township of Greater Napanee is emerging as a major energy centre and the addition of battery storage projects solidifies this growing position.

Project Stages & Timeline

Public & Municipal Consultation	2025 Q3-Q4	2025
IESO LT2c Proposal Submission*	December 18, 2025	
IESO LT2 Project Award*	June 16, 2026	
Public Consultation	Follow up public meeting(s) to keep stakeholders informed	2026-2027
Pre-Construction (Target: 2026-2027)	Site Investigations Environmental and Construction Approvals	
Construction (Target: 2028-2029)	Project procurement and construction Testing & Commissioning	2028-2029
Operations (Target: 2029-2049)	24/7 monitoring Regular site maintenance Repowering / upgrading equipment as required Community Benefit Agreement	2029-2050
Decommissioning & Closure (Target: 2049-2050)	Dismantling equipment Recycling and disposing of replaced materials off-site Site rehabilitation	

* These dates are set by the IESO LT2 process

Community Consultation & Input

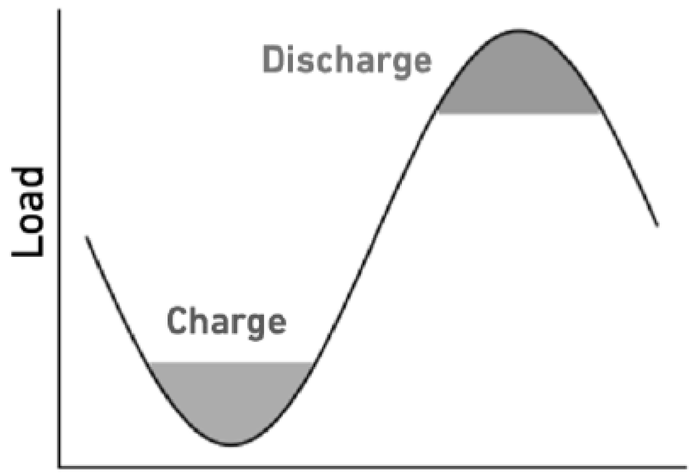
Public input is an essential part of the process. We are committed to engaging landowners, public stakeholders, members of the local community and First Nations whose traditional lands incorporate the proposed lands.

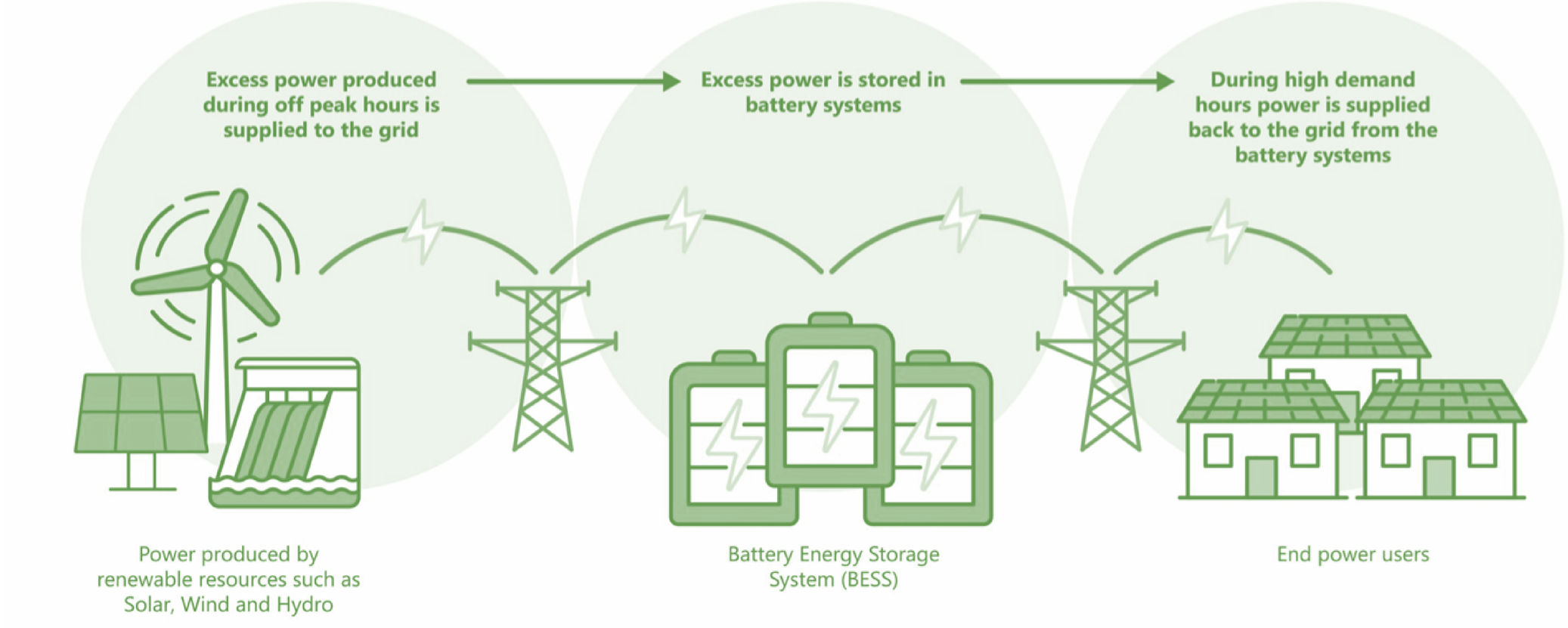
Our Commitment	
Project information Notices	Delivered to homes within 1km radius from the proposed Project Site
Door to Door	Neighbourhood canvassing conducted prior to public meetings, A report with community feedback will be submitted to the municipal staff and Council.
Public Meetings	Tonight's meeting is the first of several to be conducted during the pre-development phase of the project. Subsequent meetings will be scheduled if the project is awarded a contract.
Municipal Engagement	• Council delegation Nov. 10, 2025 with introduction of proposed project • Public feedback report to follow first public meeting • Follow-up with Staff & Council - Dec. 9, 2025
Project Website **Email**	Project Website with ongoing updates: **www.cfnapaneestorage.com** Direct messaging is available on the project website Project Email: cfnapaneestorage@carbonfree.com
Stay Informed	We will remain attentive to any questions or concerns that may arise from the local community at any stage of the project's development. All inquiries will be responded to in a timely manner, and we will ensure that clear and helpful information is always available.

Battery Energy Storage System (BESS)

Battery energy storage projects are critical infrastructure assets that provide flexibility and stability to the electrical grid during peak demand periods, avoiding events such as rolling blackouts. Battery energy storage system (BESS) have been procured by the Independent Electricity System Operator (IESO) since 2014.

- The BESS is charged overnight during low demand period.
- Electricity is injected back onto the grid during peak energy demand hours offsetting the need for emissions-intensive generation (natural gas)





BESS Technology

What is a BESS?

- A Battery Energy Storage System (BESS) is an electrochemical system that utilizes batteries to charge (collect energy) from the power grid, store, and discharge that energy when called upon do so by the grid operator.

- BESS consists of rows of modular, outdoor-rated enclosures roughly the size of shipping containers. These enclosures house lithium-ion batteries, similar to those found in everyday items such as laptops, tablets, cellphones, electronic toothbrushes, and other household power tools.

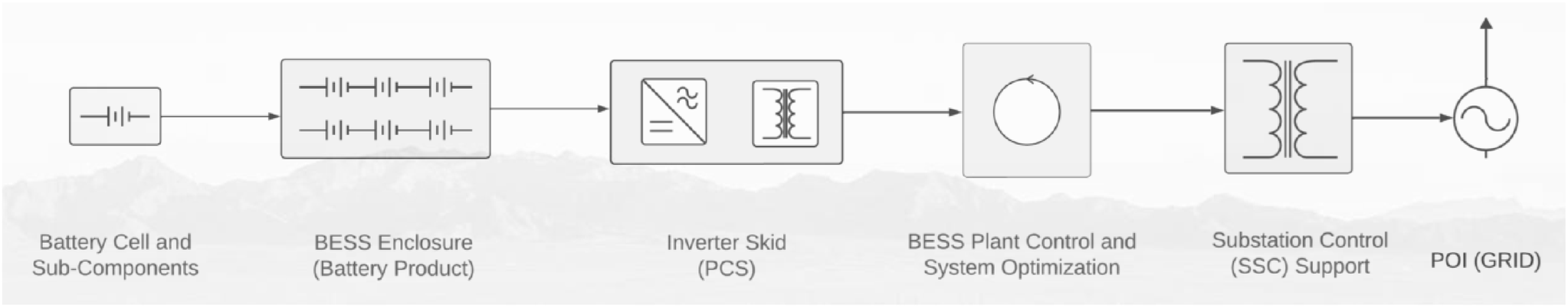
- For the proposed project, the batteries will use lithium iron phosphate (LFP) technology, which has a lower energy density and is therefore less likely to overheat.

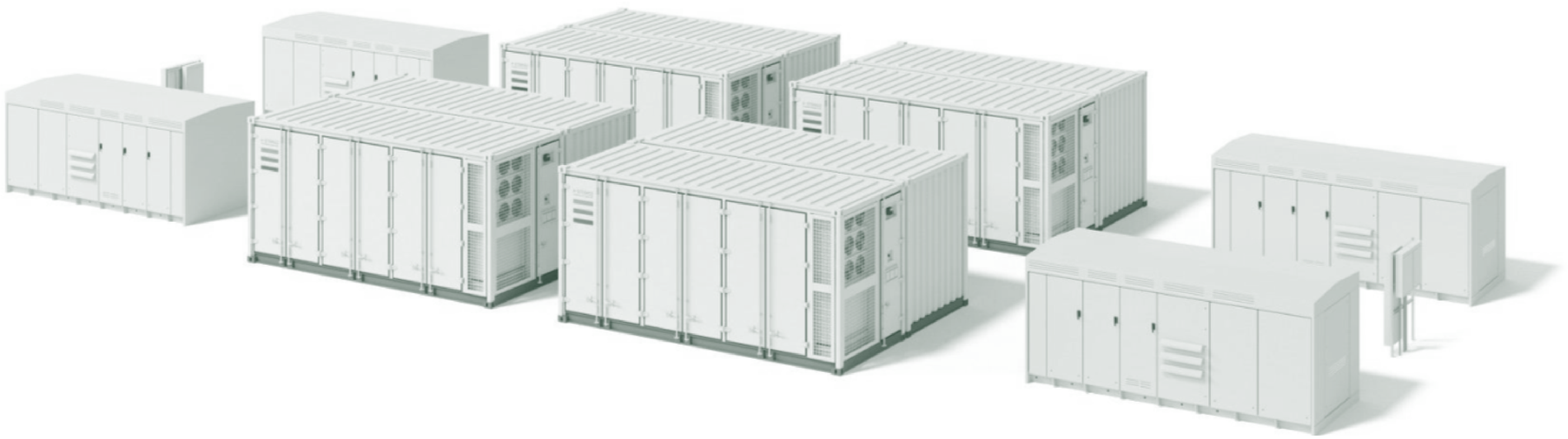
An example of a BESS unit that may be used in the facility.

BESS Technology

What other components are used in a BESS facility?

In addition to the Battery Energy Storage System (BESS) enclosures that contain the battery cells that store energy, the facility will also include inverters, medium voltage transformers, monitoring/control enclosures, and a high-voltage substation. The facility may also include space for storage, a small operations room, back-up power, and networking equipment.





An example layout of BESS units, inverters, and transformers that may be used in the facility.

Commitment to Safety

Stationary Battery Energy Storage Systems are subject to several local and modern safety standards that work to identify and mitigate the risks of thermal events and other environmental risks.

The proposed project will be a state-of-the art development equipped with safeguards to protect against operational risks, and designed to meet or exceed internationally accredited codes and standards. Compliance will be certified and assessed by independent and qualified third parties.

Multiple regulatory bodies oversee the development of BESS projects. The project design and operations will be subject to regulatory review and oversight, and we will be actively engaging with regulators to ensure we are satisfying regulatory requirements.

Codes and Standards

- National Building Code
- National Fire Code Canada
- NECB 2017 National Energy Code of Canada for Buildings
- ULC -Underwriters Laboratories of Canada
- UL 1741 Standard for Inverters, Converters, Controllers, and Interconnections
- UL 1973 Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER)
- UL 9540 Standard for Energy Storage Systems and Equipment
- UL 9540A Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems
- NFPA855 Standard for the Installation of Stationary Energy Storage Systems

Authorities Having Jurisdiction

- Local Municipality
- Ontario Ministry of Energy
- Independent Electricity System Operator
- Ontario Ministry of Environment, Conservation and Parks
- Electrical Safety Authority

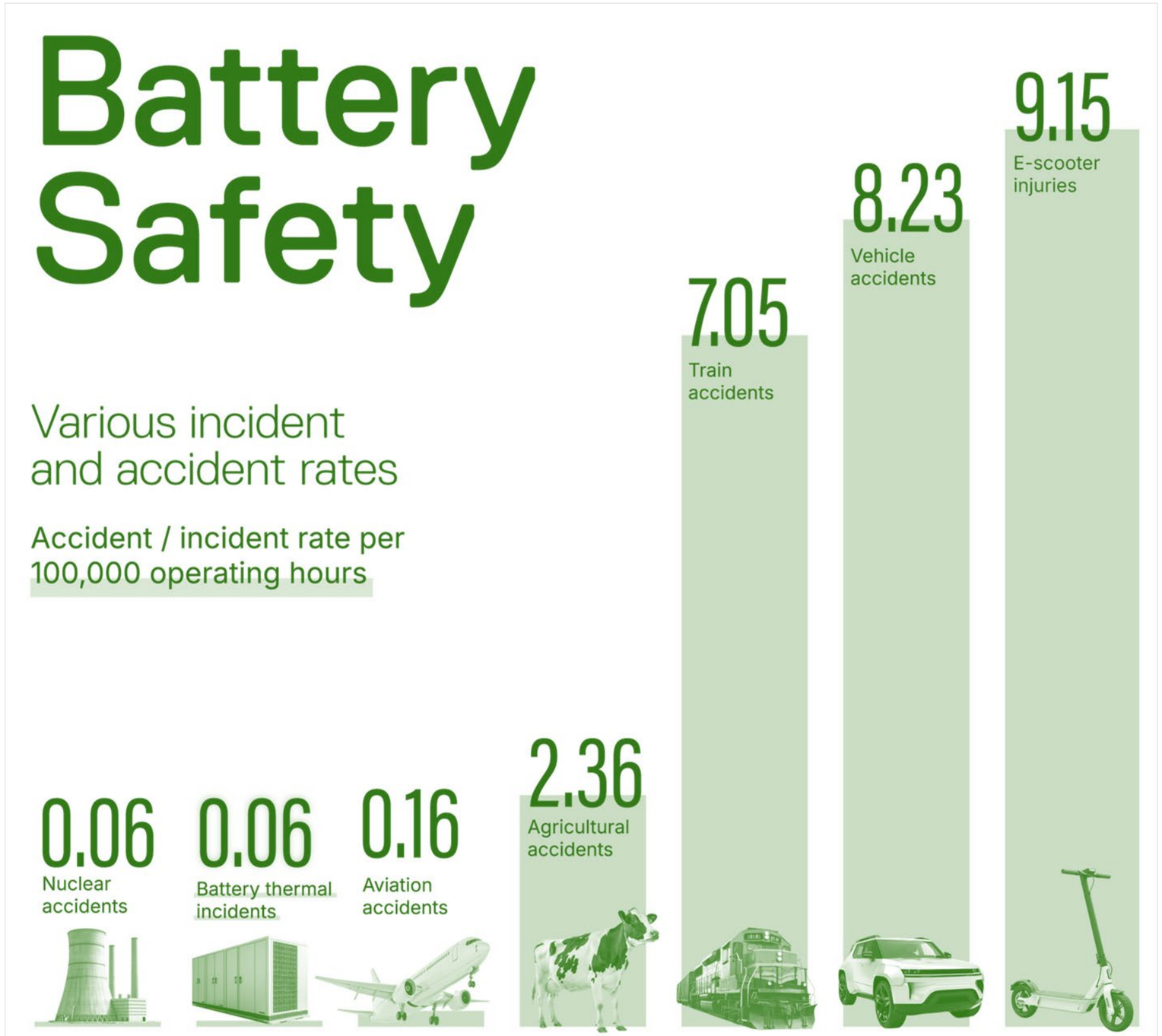
Battery Safety

Safer Technology

- Battery chemistries are shifting to types that are much less prone to thermal runaway. Older generation systems have typically been nickel-magnesium-cobalt (NMC) chemistries, but more modern systems like ours are increasingly using much safer lithium-iron-phosphate (LFP) batteries.

- Management systems are improving every year and can better detect overheating, overcharging and short circuits, and even predict when a failure may happen.

- Modular designs of batteries, often inside shipping containers, prevent fires from spreading by isolating the event to a single container, or even a single unit within a container.



Source: Federal Railroad Administration, National Transportation Safety Board, National Association of City Transportation Officials, BESS Failure Incident Database

FIRE PREVENTION AND MITIGATION

PREVENTION

EQUIPMENT SELECTION

- **Field Tested Equipment with a long safety track** record. Working with two of the best BESS suppliers in the world with tens of operating facilities and thousands of BESS units deployed.
- **Safer Lithium Iron Phosphate (LFP) type battery cells** which have a substantially lower risk of thermal runaway events compared to older generation Nickel Manganese Cobalt (NMC) type cells.
- Integrated **extensive safety and fire prevention systems** with redundancy and back-up.

SITE DESIGN

- Site design will be informed by **Hydro One's BESS Fire Protection Risk & Response Assessment Standard** requirements. Prepared by the Fire & Risk Alliance.
- **Codes and Standards**
  National Fire Code of Canada,
  Ontario Fire Code,
  NFPA 855 Standard for the Installation of Energy Storage Systems,
  UL 9540: Standard for Energy Storage Systems and Equipment,
  UL 1973: Standard for Batteries,
  UL 9540A: Standard for Test Method for Evaluating Thermal Runaway Fire Propagation

CONTINUOUS MONITORING

- The Facility including every individual BESS unit will be continuously **monitored by experts 24/7** to ensure that any potential issues are identified and addressed from an early stage before a failure occurs.
- Systems can be controlled, isolated, and shutdown remotely.
- Redundant internet connectivity and back-up power to maintain remote control in case of a failure.

MITIGATION

FIRE SUPPRESION

- Equipment designed to **prevent unit-to-unit fire propagation.**
- **Fire Alarm System.** Provides both prevention and mitigation functions by shutting down the batteries in the event of an alarm.
- **Venting System.** Maintains combustible gasses within 25% of lower flammable limit in case of a thermal run-away event.
- **Deflagration Panels.** Redundant safety system designed to vent out the gases generated during deflagration event.

INCIDENT RESPONSE PLANNING

- **Fire Department/First Responder Training and Site Familiarization Drills:** Industry best practices based on Emergency Response Plan and Full-Scale Fire Test experience**.**
- Subject Matter Expert availability to provide support to Incident Commander in case of an event.
- **Emergency Response Planning.** The facility does not go into operation without having a site-specific emergency response and evacuation plan.

CONTINUOUS MONITORING

The Facility including every individual BESS unit will be continuously monitored by experts 24/7 to ensure that any potential technical issues or security issues are identified and addressed from an early stage before a failure occurs.

- An Energy Management System (EMS) will monitor status of all BESS equipment and report any fault detected to the operator immediately. It will proactively analyze operating data to optimize system health and identify potential issues from early stage
- A Battery Management System (BMS) will monitor and track critical parameters of each individual battery, and report operating limits, alarms, rapid fault isolation on rack and enclosure level

An example of fire safety systems in a typical BESS unit that may be used in the facility.

Environmental Approval

CarbonFree is working **with Hatch** to conduct environmental assessments for the project site. Hatch is an Ontario based, employee-owned, engineering services firm.

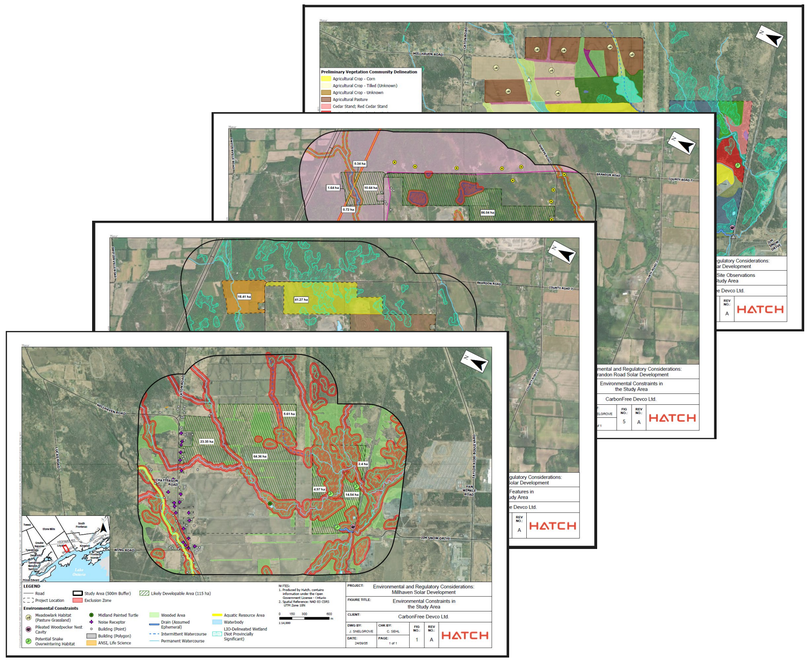
Battery projects are classified as **electrical transmission infrastructure.** and are subject to the Ministry of the Environment, Conservation and Parks Class Environmental Assessment for Minor Transmission Facilities ("**Class EA**").

The Class EA is an environmental assessment process under the Ontario Environmental Assessment Act for projects that have predictable and manageable environmental effects.

The Class EA assesses a range of environmental factors and should there be an unexpected result, further studies are undertaken and mitigation measures are implemented.

Key Features of a Class Environmental Assessment

- Pre-approved process under the Ontario Environmental Assessment Act
- Requires proponents to follow a **phased planning process**, including:
  - Assessing potential environmental impacts
  - Identifying and evaluating alternatives
  - Consulting with the public, Indigenous communities, and agencies
  - Documenting findings in an Environmental Study Report (ESR) or similar document
  - Includes mechanisms for resolving concerns.



Noise - Construction and Operation

- A detailed **noise impact assessment** will be completed as part of the **necessary environmental permitting prior to construction**. As a part of the study, ambient noise levels will be measured, noise receptors (including homes) will be mapped, and any other factors that may impact the propagation of noise will be accounted for.
- Installation of berms, noise barriers, vegetation or other **mitigation measures** may be incorporated based on the noise study results and **permitting requirements.**
- The proposed location of the facility is significantly **set back from the road and neighboring residences**. This substantially reduces the resulting noise levels at the road.
- If the project proceeds, construction activities would take place only during **permissible hours.**
- The main source of noise during operation is the **air conditioning /HVAC** systems on the battery containers. An individual BESS unit can produce up to 75 decibels at 1 meter distance when running at full load - similar to the noise level of a vacuum cleaner. At 500 meters, the sound level would be expected to **drop below the typical nighttime background noise** in a rural setting, before accounting for baffling from the surrounding environment or mitigation measure required by the noise study.

Artistic rendition of a typical rural battery project

Limited Local Disruption and Impacts

- **Visual Impact.** We recognize the importance of the local landscape. The project is designed with a low-profile layout where the most equipment is only 3 meters tall. The strategic use of existing vegetation, and new perimeter screening with native trees and shrubs will blend the facility into the surroundings as much as possible.

- **Limited Lighting.** Site lighting will be strictly for safety and security, designed to minimize "light pollution" and intrusion on neighboring properties. We will use fully shielded, downward-facing fixtures that focus light only where needed (e.g. entrance gates) and employ motion-sensing technology to keep lighting at low levels.

- **Limited Traffic**. Once the facility is operating, traffic will be very limited since it is operated remotely and does not require regular deliveries or shipments. Significant traffic will be limited to the main construction phase, and scheduled maintenance a few times a year over the project's year lifespan. A Traffic Management Plan will be implemented to manage construction vehicle routes and schedules, minimizing impacts on local roads.

- **Physical Security.** The safety and security of the community and the facility are a top priority. The site will be surrounded by a robust, non-climbable perimeter fence with controlled access. Security will include features like intrusion detection systems, cameras, and regular 24/7 remote monitoring to ensure the site remains secure at all times.

- **Air Quality.** Emissions during construction are primarily dust and vehicle exhaust, which will be localized, temporary, and will have minimal impact. A dust management plan will be in effect during construction to limit dust emissions.

- **Zero Emissions During Operation.** Unlike fossil fuel power plants, manufacturing plants, or warehouses, our facility has zero emissions during operation. It does not burn any fuel.

Artistic rendition of a typical rural battery project

Water Resources

- **No Groundwater Extraction.**
  Battery facilities do not use groundwater during construction or operation, or at any other time. If water is required during construction, it will **NOT** be pumped from wells, aquifers, or water bodies.

- **No Water Use During Operation.**
  Unlike data centers or manufacturing plants, battery facilities **do not consume water** during operation. During construction water use would be limited to site preparation (e.g. dust control) and concrete. Any water required would be brought in on tanker trucks.

- **Drainage and Stormwater Management Plans.**
  A Stormwater Management Plan will be designed to control the quantity, rate, and quality of any runoff from the site. This will include features such as sedimentation and erosion controls during construction and permanent features as required like vegetated swales or retention basins to manage post-construction flow.

- **Containment For Working Fluids.**
  Liquids are limited to the air conditioning units and the transformers and would be designed with containment trays that can capture more than the total volume of the liquid in case of a leak. The liquids are cooling fluid (e.g. a water-glycol mixture, like antifreeze) and transformer insulating oil common to electrical installations. Where possible, we try to use biodegradable natural oil in our transformers.

- **Compliance with Ontario Regulations and Permitting.**
  Necessary permits would be obtained from several levels of government, including the municipality, the Ministry of the Environment, Conservation and Parks (MECP), and the local conservation authority. The project's water and stormwater management plans will be designed to comply with the applicable provincial regulations, including the Environmental Protection Act and the Ontario Water Resources Act.

- **Minimal Impact on Permeability.**
  The project design will aim to maintain natural ground permeability. Strategies include the use of existing access roads, using gravel in low-traffic areas, and maximizing the use of vegetated, permeable surfaces to maintain similar rates of natural groundwater drainage and recharge.

Capstone At A Glance

PROFILE

A publicly-traded developer and long-term owner-operator of renewable and thermal power projects, including wind, solar, run-of-river hydro, biomass, & natural gas cogeneration.

Based in Ontario

- Capstone has been a major player in the Ontario renewable energy market since 2005 when our 99 MW Erie Shores Wind Farm began commercial operation
- Our business is built on the strong foundation created through the success of our 20 power facilities operating in the province
- Our people work and live in the communities where we operate, and we actively support community-level initiatives

Capstone in Ontario by the numbers

450+MW

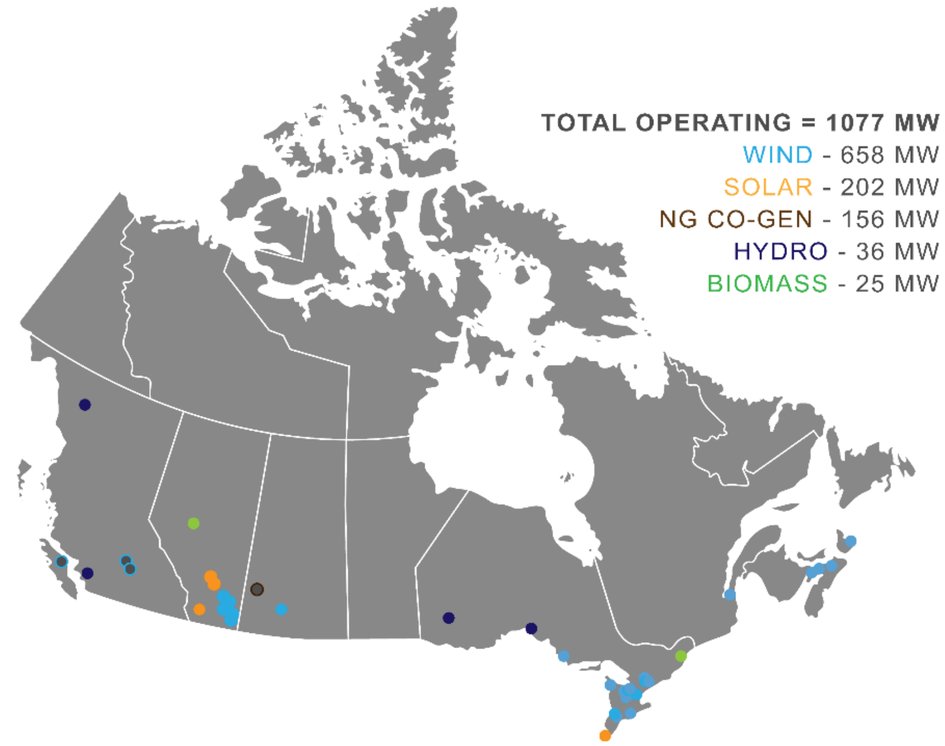
Gross installed capacity, more than 50% of our Canada-wide footprint

950 GWh+

Clean electricity generated in Ontario every year. This is enough to power 90k+ households annually

120 FT Staff

With our Head Office in Toronto and 20 of 36 facilities, Ontario is home 2/3 of our employees



KEY STATS

1,077 MW

Gross installed capacity across Canada

~5 GW

Current development project pipeline in Canada & US

36 Facilities

Proven track record of Operational and HSE Excellence