Ontario's Power Needs

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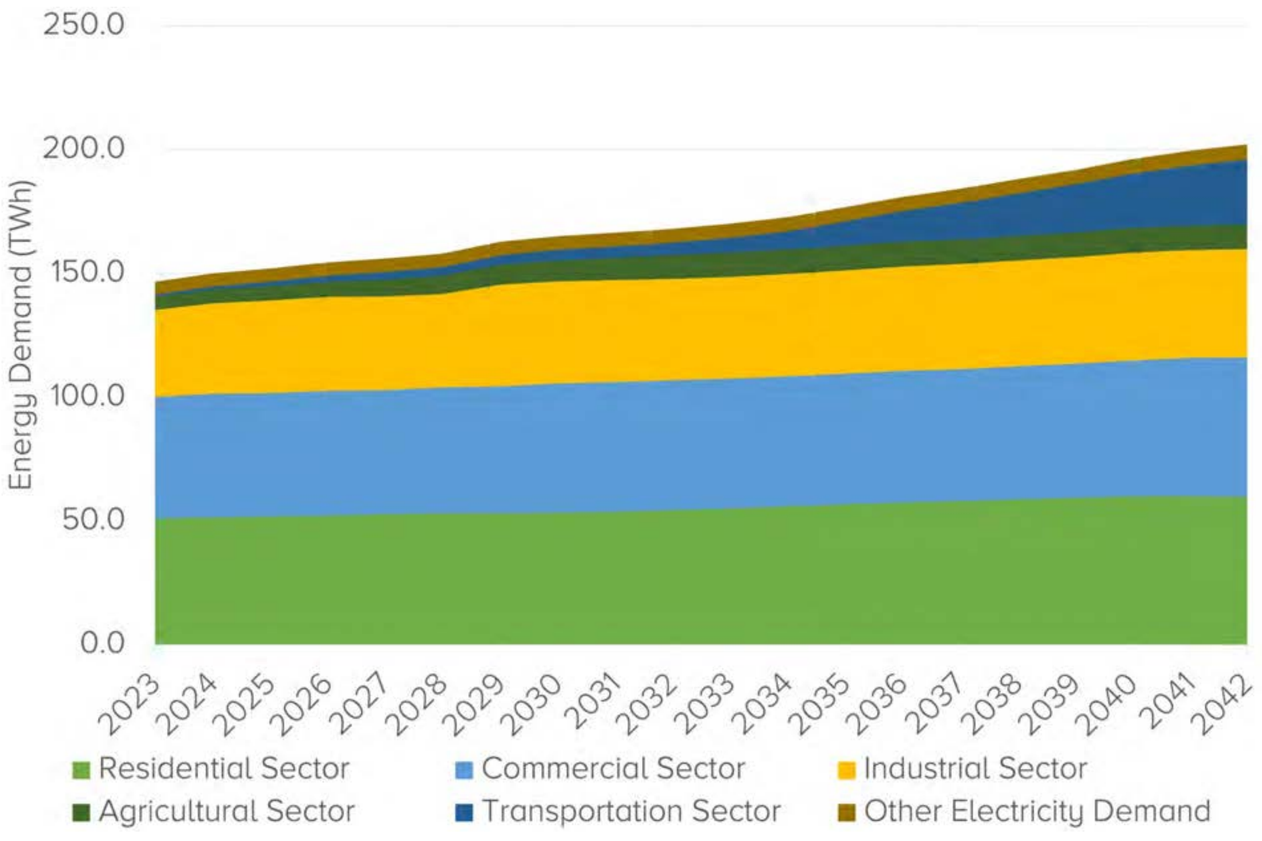
Ontario’s Independent Electricity System Operator (IESO) has identified the urgent need to bring 4,000 megawatts (MW) of new supply onto the electricity grid by 2030 as energy demand is expected to grow 30% over 20 years.

ieso
Connecting Today.
Powering Tomorrow.

Ontario's Energy Demand Forecast



What is Causing this Growth?

- **Provincial Growth**
  As the residential and commercial sectors grow, so does their electrical demand.
- **Electrification of Transport**
  Transition from internal combustion to electric vehicles and buses
- **Agricultural Sector**
  Increase in greenhouse sector
- **Retirement of Generation**
  The refurbishment of the Pickering Nuclear Generating Station along with expiring natural gas contracts has left a material supply gap in Ontario.

To close this supply gap by 2030, the IESO planned two major procurement cycles over 2023-24, the Expedited Long-Term 1 (E-LT1) RFP and the Long-Term 1 (LT1) RFP.

Wahgoshig Solar FIT5 LP, a Compass-affiliate, is recognized as a Qualified Applicant for both procurements, having the experience and capability to construct new projects in the Province.

What is Battery Energy Storage?

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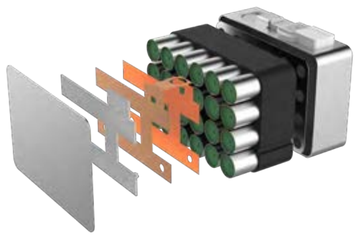
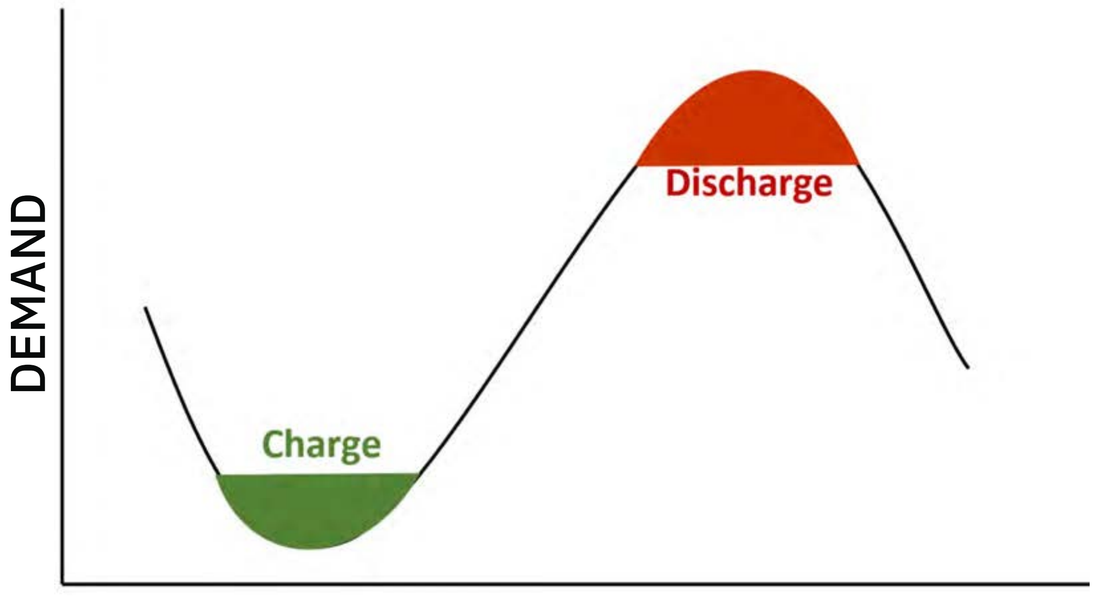
Battery System
Components and Integration

Smart Phone ← Li-ion Battery Cell → Battery Cell → Battery Racks → Battery Containers





- Lithium-ion battery cells are the building blocks of Battery Energy Storage Systems (BESS).
- BESS take power from the grid (charge) when demand is low and put power back on the grid when demand is high (discharge).
- BESS improve the stability and quality of grid power and reducing the price burden on the consumers in the long run.
- BESS has been procured by the IESO since 2014.

About The Project

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The project is located at **6299 County Rd 29, Mississippi Mills, ON K0A 1A0**. It will take advantage of connecting into the Hydro One power lines that run along County Rd 29.

Phase 1

Project Name:
Almonte BESS

Nameplate Capacity:
4.999 Megawatts

Technology:
Lithium-Ion Battery Storage

Project Email:
info@almonteenergystorage.com

Phase 2

Project Name:
Almonte BESS 2

Nameplate Capacity:
9.99 Megawatts

Technology:
Lithium-Ion Battery Storage

Project Email:
info@almonteenergystorage2.com

Zoning

- Rural Special Exception (RU-42-h)
- Per Zoning By-Law #11-83, this zoning allows for battery energy storage systems.

Safety Standards

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Safety of people, first responders and neighbours are our priority. We are taking a proactive approach to ensuring a safe and efficient operation.

Safety is being addressed with a multi-layered approach:

- Battery Chemistry: Lithium Iron Phosphate (LFP) batteries have a lower energy density, making them less likely to overheat.
- Equipment has been selected based on track record, planning and testing, monitoring, automation, isolation, and suppression
- 24 hour monitoring of battery operations and cell temperatures, including gas detectors, smoke detectors and temperature detectors.
- If any abnormality in the operations are detected, the system shuts down and alerts the operator
- The battery system is tested to UL9540A standards which require that fire will not propagate between battery units in the unlikely event of a critical failure.

Local Fire Department Training

As part of our development plan, we are sponsoring the training with the local fire department to ensure they have the necessary knowledge to address any emergency events.

Safety Standards

Stationary Battery Energy Storage Systems are subject to several local and modern safety standards that work to swiftly identify and mitigate the risks of thermal events and contain any hazards or fire.

Standards:

- UL9540 Energy Storage Systems and Equipment
- UL9450 A Test Method for Fire Propagation in Battery Storage Systems
- UL 1642 Standard for Lithium Batteries
- National Fire Protection Association (NFPA) 855 - Installation of Stationary Energy Storage Systems
- UL 1973 Batteries for use in Stationary Power Applications
- UL 1741 - Inverters, Converters Controllers and Interconnection

Compass Projects

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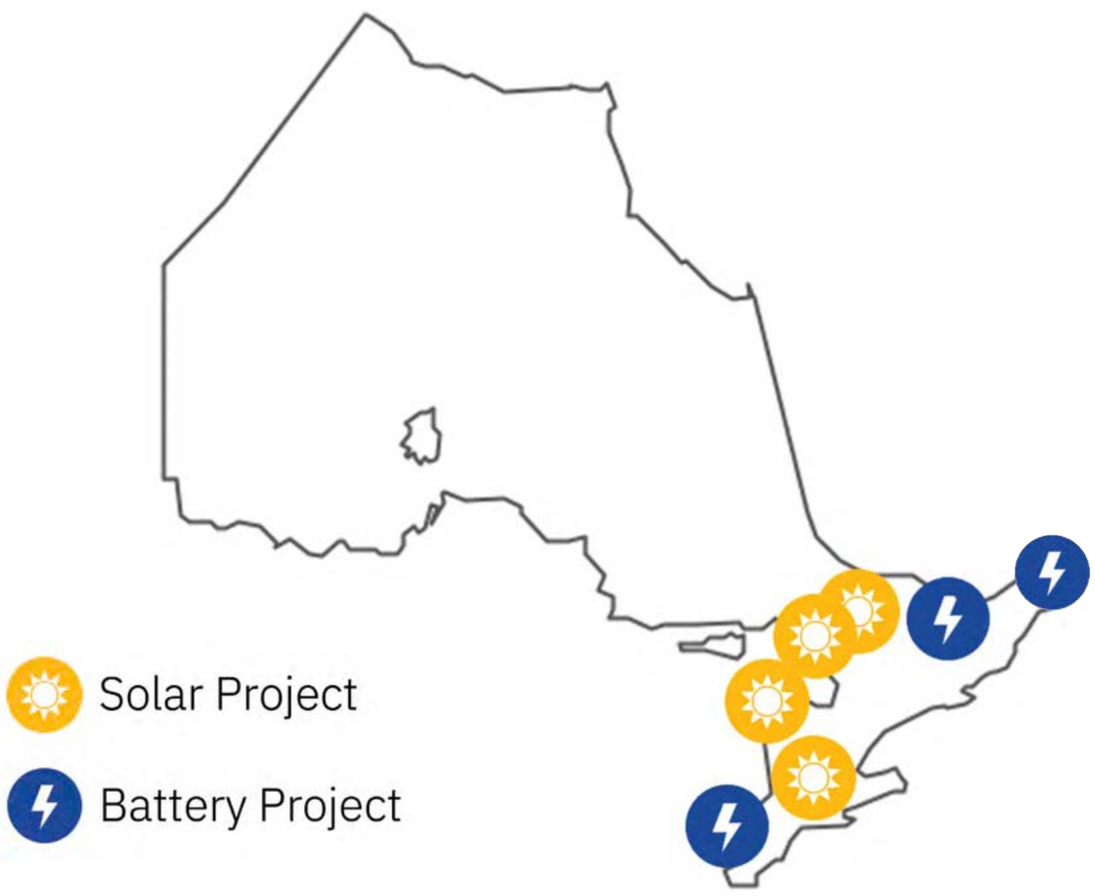
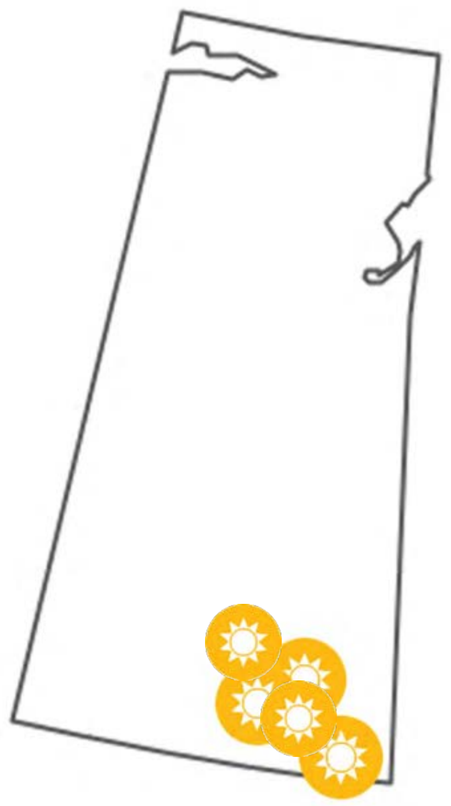
Ontario



Saskatchewan



Success in IESO Procurement

On behalf of Wahgoshig Solar FIT5 Limited Partnership, Compass submitted six (6) battery energy storage system proposals into the Expedited Long-Term 1 (E-LT1) and Long-Term 1 (LT1) procurement, all of which were contracted.

Walker BESS 4, 5, and 6

Location	Windsor, Ontario
Contract Capacity	3 x 4.749 MW @ 4 hours
IESO Zone	West
Local Utility	EnWin Utilities
Anticipated Start	2025

Almonte BESS

Location	Mississippi Mills, Ontario
Contract Capacity	4.749 MW @ 4 hours
IESO Zone	East
Local Utility	Hydro One
Anticipated Start	2025

Almonte BESS 2

Location	Mississippi Mills, Ontario
Contract Capacity	9.49 MW @ 4 hours
IESO Zone	East
Local Utility	Hydro One
Anticipated Start	2025

North Glengarry BESS

Location	North Glengarry, Ontario
Contract Capacity	15.48 MW @ 4 hours
IESO Zone	Ottawa
Local Utility	Hydro One
Anticipated Start	2025

Why Mississippi Mills?

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Mississippi Mills

Battery energy storage is a key component in facilitating more renewable energy in Ontario's grid and support further decarbonization of our provincial energy system. The development of renewable energy will support the electrification of transport and climate change goals that are consistent with the Municipality of Mississippi Mills' plans.

Municipality of Mississippi Mills

The Municipality of Mississippi Mills has published plans that are in line with the development of a lithium-ion BESS in your municipality. The Plans emphasize a need to reduce greenhouse gas (GHG) emissions through renewable energy generation. Lithium-ion batteries minimize the need for natural gas peaker plants and support/compliment the ongoing development of renewable energy systems.

- **Mississippi Mills Strategic Plan 2020-2023**
  - *Community Value Statements - ENVIRONMENT - Ensure a clean, safe and sustainable environment*
- **Municipality of Mississippi Mills Community Official Plan**
  - *4.1.2 Air Quality and Greenhouse Gas Emissions - This Plan recognizes that one component of long-term economic prosperity involves providing opportunities for increased energy generation, supply and conservation, including alternative energy systems and renewable energy systems.*
- *The policies developed for energy, air quality and greenhouse gas emissions are as follows:*

6. *Increased energy supply shall be promoted by providing opportunities for energy generation facilities to accommodate current and projected needs, and the use of renewable energy systems and alternate energy systems, where feasible.*
7. ***Alternate energy systems and renewable energy systems shall be permitted in Almonte, Pakenham Village, villages and rural settlement areas, in rural areas and agricultural areas in accordance with provincial and federal requirements. In rural areas and agricultural areas, these systems should be designed and constructed to minimize impacts on agricultural areas.***

Local Benefits

Local benefits associated with the project are key infrastructure within the region to provide power to meet growing demand, provide additional revenues for landowners, property taxes for the Municipality of Mississippi Mills and economic activity within the region.

Employment — High skill, 'green' collar jobs in construction – civil works, mechanical installation, electrical connection, landscaping.

Financial — Property tax benefits, diversified income stream for rural landowners, especially on underutilized land.

Growth and Diversification — Needed energy capacity allows for increased development in your municipality.

Natural Gas and Transmission Line Offset — Distributed energy provides electrical grid support, intelligence, and resilience.

Regulatory Compliance

Compass has engaged with all necessary regulatory bodies to secure permits and approvals.

Authorities Having Jurisdiction

- Municipality of Mississippi Mills
- The Mississippi Mills Fire Department
- Hydro One
- Ontario Ministry of Energy
- Independent Electricity System Operator
- Ontario Ministry of Environment
- Local Conservation Authorities
- Electrical Safety Authority

Compass has consulted with Mississippi Mills Fire Department to ensure the preparedness of the Emergency Response Plan and adequate National Fire Protection Association (NFPA) compliance training for Fire Stations.

Environmental Assessment

ESA Phase 1 – Complete

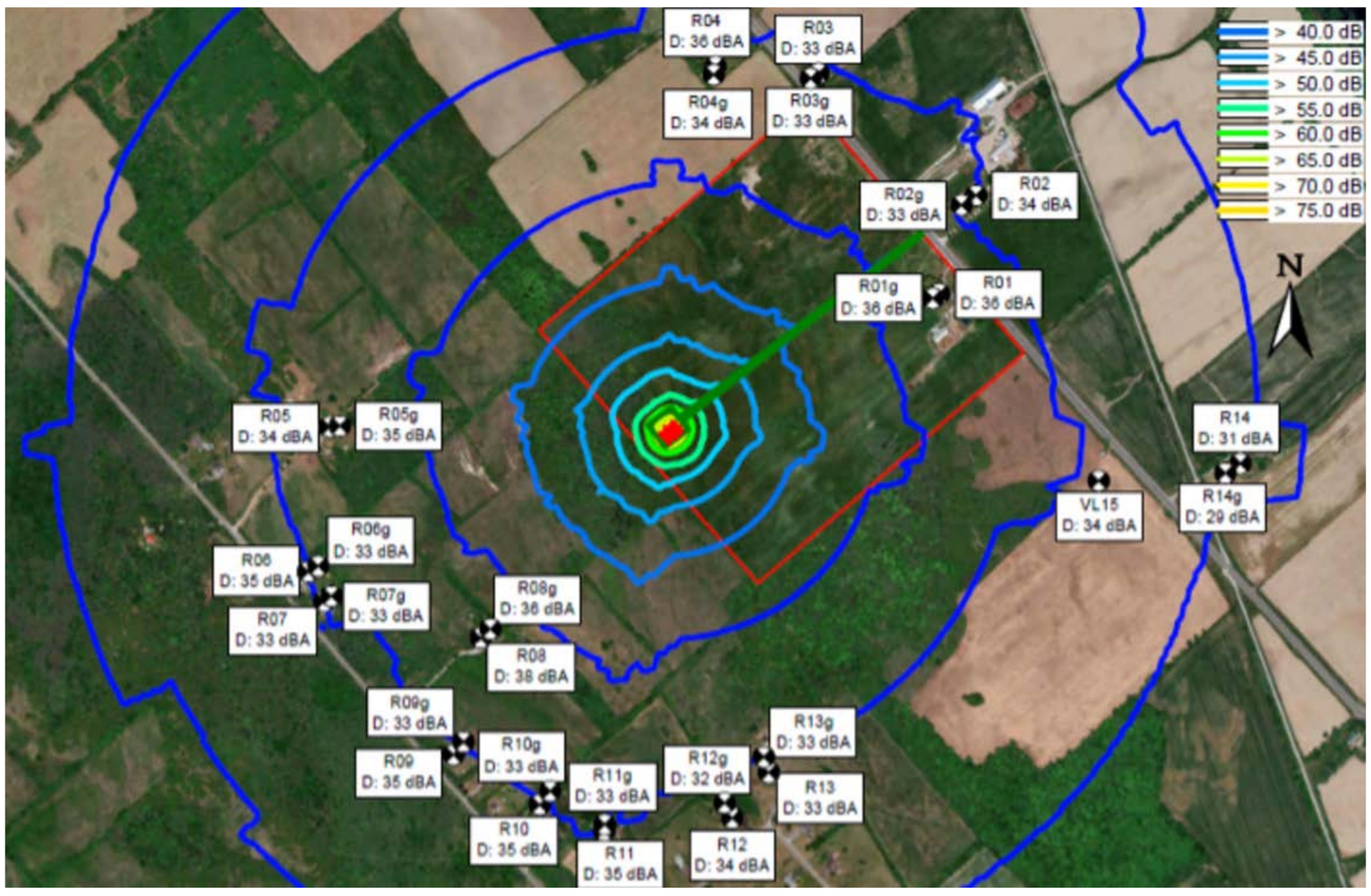
Nothing was identified that is considered to be a potential environmental concern in relation to the Site. As such, a Phase II ESA is not required at this time.

Species At Risk (SAR) Screening – Complete

SAR are absent from the BESS footprints.

Emission Summary and Dispersion Modelling Report – Complete

It was determined the facility has no significant sources of air emissions.



EASR – Complete

It was determined that the combined sound level resulting from sound discharged from the facility at each affected point of reception, as determined using an acoustic assessment, is less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR Publication.

Construction Timelines

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	2024					2025				
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Road Construction*		Break Ground								
Pole Line Extension*										
Site Prep*										
Civil Installation										
Electrical Installation										
Battery System Installation*				Battery Delivery						
Inspections, Commissioning and Testing										
Commercial Operation										Commercial Operation

Intermittent Heavy Equipment and/or Truck Movement Required

Site Plan

Almonte BESS 2 (Phase 2) Almonte BESS (Phase 1)