## **Ontario's Power Needs**

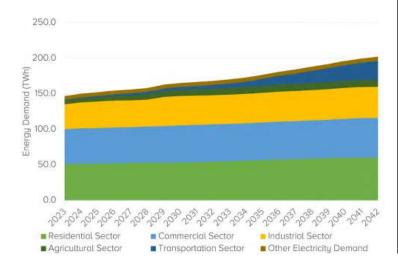




Ontario's Independent Electricity System Operator (IESO) has identified the urgent need to bring 4,000 megawatts (MW) of new supply onto the electricity grid by 2030 as energy demand is expected to grow 30% over 20 years.



#### **Ontario's Energy Demand Forecast**



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.

## 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.

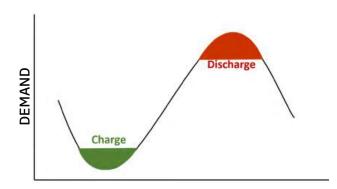
Wahgoshig Solar FIT5 LP, a Compass-affiliate, is recognized as a Qualified Applicant for both procurements, having the experience and capability to construct new projects in the Province.

## What is Battery Energy Storage?





# Battery System Components and Integration



- 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**





The project is located at **3940 North Service Road East, Windsor, ON, N8W 5R7**. It will connect to the Enwin lines on North Service Road East.

Project Name
Walker BESS 4

Nameplate Capacity
4.999 Megawatts

Technology Lithium-Ion Battery Storage

Contact info@walkerenergystorage4.com

Project Name
Walker BESS 5

Nameplate Capacity **4.999 Megawatts** 

Lithium-Ion Battery Storage

Contact info@walkerenergystorage5.com

Project Name
Walker BESS 6

Nameplate Capacity **4.999 Megawatts** 

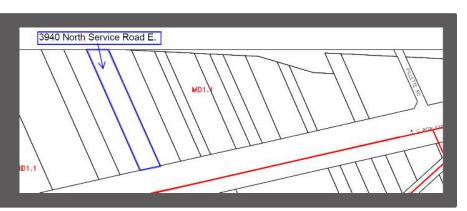
Technology **Lithium-Ion Battery Storage** 

Contact info@walkerenergystorage6.com

### Zoning

Zoning of the property is Light Industrial with limited Commercial (MD1.1).

Per Zoning By-law 8600, this zoning allows for Bulk Storage Facility, Food Processing Facility, Manufacturing Facility, Repair Shop – Heavy, Gas Bar.



# **Safety Standards**





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**



#### 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
Contract Capacity
IESO Zone
Local Utility
Anticipated Start

Windsor, Ontario 3 x 4.749 MW @ 4 hours West

vvest

**EnWin Utilities** 

2025

### **Almonte BESS**

Location Contract Capacity IESO Zone Local Utility

**Anticipated Start** 

Mississippi Mills, Ontario 4.749 MW @ 4 hours

East

Hydro One

2025

### **Almonte BESS 2**

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

Hydro One

2025

East

## **North Glengarry BESS**

Location
Contract Capacity
IESO Zone
Local Utility
Anticipated Start

North Glengarry, Ontario 15.48 MW @ 4 hours

Ottawa Hydro One 2025

# Why City of Windsor?





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 objectives laid out by the City of Windsor's Climate Change plans.

### **City of Windsor**

In 2005, the City of Windsor started on the path of environmental actions with its first Environmental Master Plan. The City then developed many other plans to help balance the environment with Windsor's economy and social atmosphere.

The Environmental Sustainability and Climate Change Office has helped make the environment a part of decision making for the City of Windsor. This has been through the creation of many plans and policies, which include:

- Environmental Master Plan (2017)
- Climate Change Adaptation Plan (2012)
- Community Energy Plan (2017)
- Corporate Climate Action Plan (2017)
- Report on the State of Our Environment (2017)
- Green the Fleet Manual (2012)
- Community Garden Policy
- Sustainable Purchasing Guide (2015)



### **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 City of Windsor 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 City of Windsor
- The City of Windsor Fire Department
- · Hydro One
- Ontario Ministry of Energy
- Independent Electricity System Operator
- · Ontario Ministry of Environment
- Local Conservation Authorities
- Electrical Safety Authority
- ENWIN Utilities



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

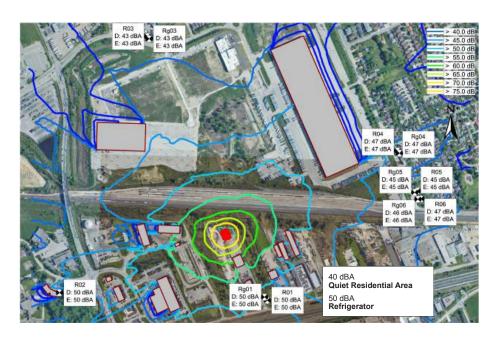
## **Environmental Assessment**

#### ESA Phase 1 & 2

Phase 1 highlighted the presence of fill of unknown quality, therefore a Phase 2 was conducted.

Phase 2 revealed that some soil exceedances were present in shallow samples of soil/fill located adjacent to the west property boundary. These abut the neighbouring concrete plant and appear impacted by material originating from this neighbouring property. There were no exceedances of Table 3 Standards for groundwater.

As recommended in the Phase 2 report, the soil/fill/debris on the site that originated from the neighbouring property, has been returned to the adjacent property (concrete plant).



#### **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.

#### Emission Summary and Dispersion Modelling Report – Complete

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

# **Construction Timelines**



	2024				2025				
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Site Prep		Break Ground							
Civil Installation									
Electrical Installation									
Battery System Installation				Battery Delivery					
Inspections, Commissioning and Testing									
Commercial Operation									<b>©</b>
	Intermittent Heavy Equipment and/or Truck Movement Required								Commerc Operation

## Site Plan

