Public Community Meeting for Almonte BESS Project

December 15, 2022

Presented by –

COMPASS ENERGY CONSULTING

Meeting Agenda

1. About Us
2. Ontario's Power Needs
3. What is Battery Energy Storage?
4. Why Almonte?
5. Almonte BESS Project Development
6. Community and Indigenous Engagement Plan
7. Questions and Comments

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Purpose of today's Public Community Meeting

Almonte BESS Limited Partnership is proposing Almonte BESS, an up to 4.999-megawatt (MW) stand-alone lithium-ion battery energy storage project in the Municipality of Mississippi Mills located at **County Road 29, Mississippi Mills, ON, K0A 1A0.**

Overview

- The Independent Electricity System Operator ("IESO") is running two Request for Proposals (RFP) for 4,000 MW of new capacity projects in the province.
- The Greater Ottawa Region has been identified as a priority region by the IESO.
- Almonte BESS Limited Partnership has been created by Compass Renewable Energy Consulting Inc. ("Compass").
- Almonte BESS will bring local benefits and investment including grid stability & flexibility, employment, and spending in the local economy.
- In order to successfully integrate the project into Municipality of Mississippi Mills, we are seeking Community and Indigenous feedback and support that will inform the development of the project.

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About Compass Energy Consulting

Compass Renewable Energy Consulting Inc. ("Compass") has been consulting and developing energy projects in Ontario for over 10 years. We have experience across the development lifecycle from pre-screening, contracting, construction, commissioning and operations.

10+ years Experience in Energy Development in Ontario

- We have developed over 100 renewable energy projects in Ontario representing over 100 megawatts (MW) in the last 6 years and supported the development of over 2,000 MWs for our clients.
- Track record of success with principles that designed and launched Ontario's renewable and clean energy procurements in the public sector.
- Our projects provide sustainable energy to communities while offering land-owners long-term, guaranteed passive income through lease payments.

About Almonte BESS Limited Partnership

- Almonte BESS Limited Partnership has been created by Compass for the development of the Almonte BESS Project and will be the Proponent submitting the project proposal for the IESO's Expedited Long-Term 1 Request for Proposals (E-LT 1 RFP).

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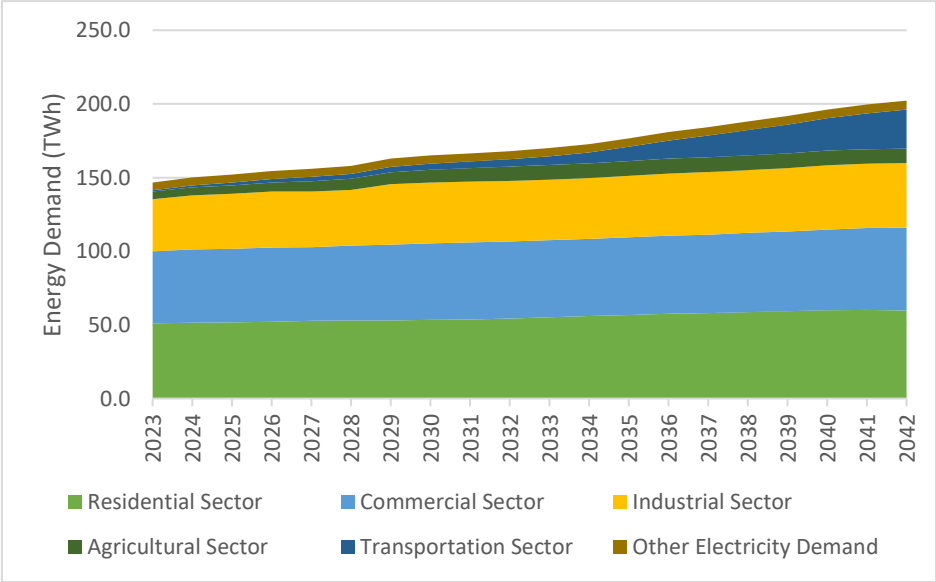
Ontario's Power Needs

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 the next 20 years.

ieso
Connecting Today.
Powering Tomorrow.

ON's Energy Demand Forecast



What is causing this growth?

- **Increased Economic Activity**
- **Electrification of Transport**
- **Agricultural Sector**
- **Retirement of Generation**

To close this supply gap by 2030, the Ministry of Energy has directed the IESO to conduct two capacity 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, has been recognized by the IESO as a Qualified Applicant for both procurements, having the experience and capability to construct new projects in the Province.

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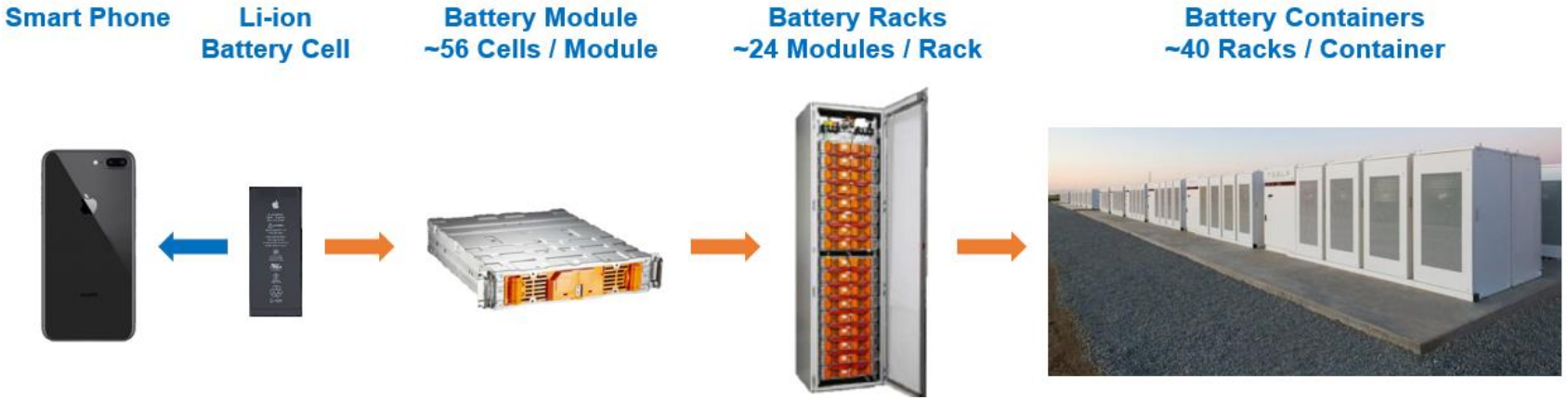
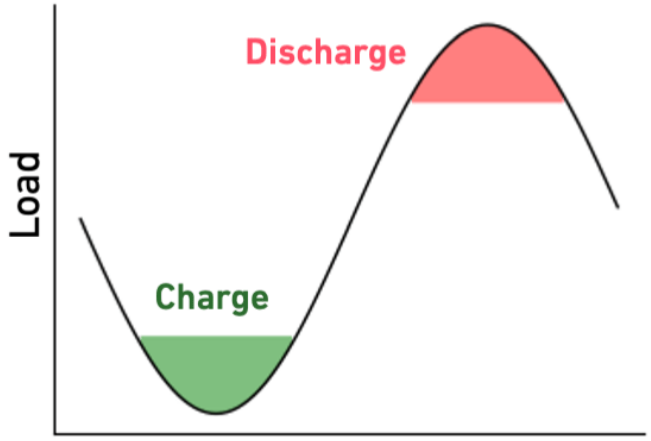
What is Battery Energy Storage?

Battery System Components and Integration



- Lithium-ion battery cells are the building blocks of Battery Energy Storage Systems (BESS).
- BESS can bridge the gap between high and low demand period, improving the stability and quality of grid power and reducing the price burden on the consumers in the long run.



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What is Battery Energy Storage?

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

Battery Storage Characteristics

- **Small Footprint Size:** 0.5 – 1 acres
- **Secure:** Project is fenced in and locked.
- **Operations:**
  - Project is 24/7 remote monitored and controlled. Operations and maintenance contractors are locally based in Ontario.
  - Scheduled site visits occur 4 times a year.
- **Design:** Each container or battery storage cabinet will have its own HVAC system and meet provincial sound limits.
- **Safety:** Project will be built to comply with several accredited international standards to ensure safe operation and prevent damage to the BESS and land.

Look and Feel

- The project will consist of painted, 30 to 40 ft containers, electrical equipment and a transformer.
- The containers will rest on a concrete pad and be interconnected.
- The containers will then connect to the transformer before going out to the grid.

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Why Almonte?

The IESO has identified the "Greater Ottawa Region" as one of the areas of demand growth in the province and has a "preference" for new resources in this area.

Greater Ottawa Region

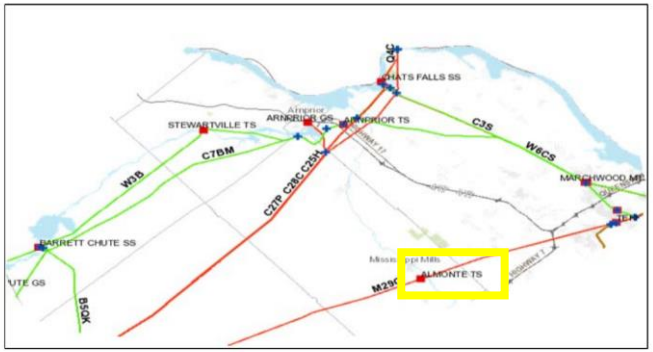

Figure 3: Outer Ottawa Sub-region Map (Western Part)

6.3.3 Near- and Medium-Term Needs

Three near term needs have been identified in the Nepean/Kanata sub-system:

1. the need for improved reliability of supply to Terry Fox MTS;
2. the need for additional supply capacity for a section of circuit S7M; and
3. the need for additional supply capacity in the South Nepean area.

Need for Improved Reliability of Supply to Terry Fox MTS

Terry Fox MTS is a dual element spot network ("DESN") type station, a design which is typically supplied by two circuits, however the initial configuration of Terry Fox consists of two transformers, both connecting onto 230 kV circuit M29C, the only 230 kV supply in the vicinity. M29C is a 316 km circuit connecting Merivale TS in Ottawa to Cherrywood TS in east Greater Toronto Area ("GTA"). Another station - Almonte TS - is located west of Terry Fox, and is also solely supplied by this circuit.

Source: Hydro One, Greater Ottawa Region Needs Assessment, July 15, 2018

Local Electrical Benefits

Table 3 | East of FETT stations

Bus Name	Eligible for Rated Criteria Points?
Agincourt TS	4 pts
Albion TS	2 pts
Almonte TS	2 pts
Armitage TS	4 pts
Arnprior TS	2 pts
Barrett Chute SS	2 pts

Source: IESO, Revised Locational Preference Breakdown, Nov 7, 2022

- Our Project will provide improved reliability to the Almonte Transformer Station located within 1km of the Project Site
- The Almonte Transformer Station is in a high priority area for the IESO, and has been identified to have near- and medium-term reliability needs by Hydro One

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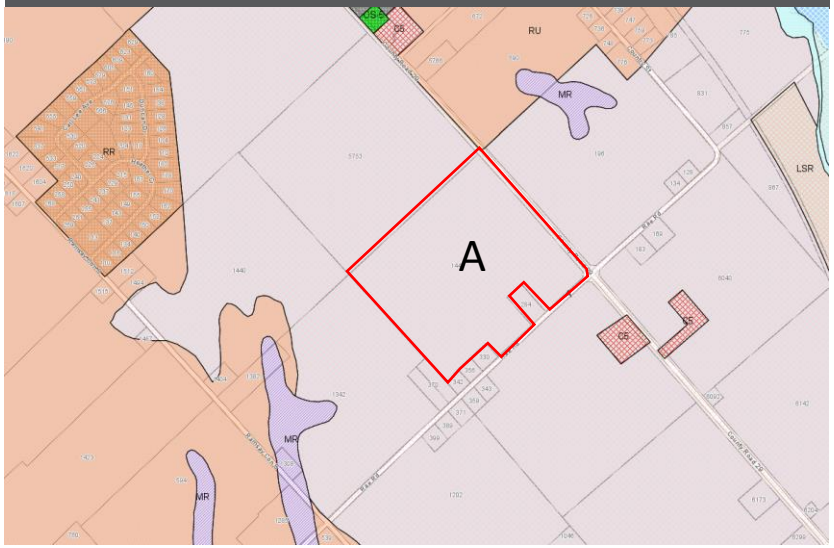
About The Almonte BESS Project

Almonte BESS is a proposed to have a maximum nameplate capacity of up to 4.999 Mega-Watt (“MW”). Almonte BESS will be a lithium-ion battery storage Project located at County Road 29, Mississippi Mills, ON, K0A 1A0, developed by Walker BESS 4 Limited Partnership (“Proponent”).

Zoning



- Zoning of the property is Agriculture (A).
- Solar farms in Mississippi Mills have been developed on Agricultural zoned land.

Almonte BESS

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Scale Site Map for Almonte BESS

Almonte BESS

- Connection Point
- Property Outline
- Proposed Site Area
- Hydro One - Circuit M28

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Local Benefits

Almonte BESS will be a critical infrastructure asset that will provide supply to meet growing power demand, additional revenues for landowners, property taxes for Municipality of Mississippi Mills, and economic activity within the region.

Local Benefits

- **Grid Stability and Flexibility** - Prevention of rolling blackouts, power brown outs, and grid failure.
- **Employment** – High skill, sustainability employment in construction – civil works, mechanical installation, electrical connection, landscaping.
- **Financial** – Property tax benefits, diversified income stream for the landowners that currently have underutilized land.
- **Economic Growth and Diversification** - Needed energy capacity allows for increased development in the Greater Ottawa Region.
- **Natural Gas and Transmission Line Offset** – Distributed energy provides electrical grid reliability and a deeper integration of renewable energy.

Environmental Benefits

Battery energy storage can facilitate deeper renewable energy integration in Ontario's grid to help decarbonize our provincial energy system further. Installation of BESS supports the goals and objectives laid out by the Municipality of Mississippi Mills' Plans.

Municipality of Mississippi Mills

- The Municipality of Mississippi Mills have published plans that are in line with the development of a lithium-ion BESS in your municipality. The Plans emphasize a need to reduce green house 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. The associated plans are –
  - 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.***

Regulatory Compliance

We have made careful note of the regulatory bodies that must be engaged to secure the required permits and approvals for a battery energy storage Project.

Authorities Having Jurisdiction

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

Safety Features

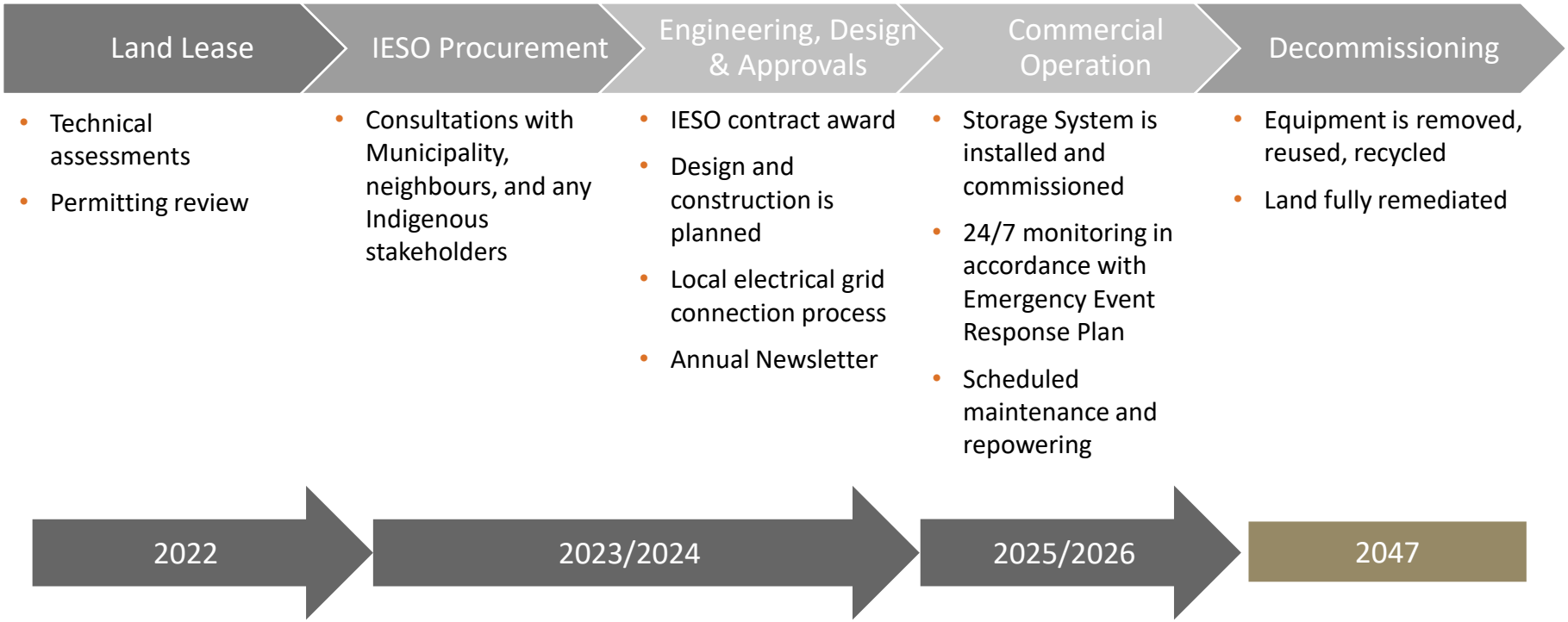
Almonte BESS will be a state-of-the-art development that complies with internationally accredited codes and standards developed for battery energy storage systems. The system will be certified by an independent third-party for compliance.

Codes & 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

Development Timeline

Successful developments require up to five years to reach commercial operation from initiation. Almonte BESS is expected to come online by 2025-26 and have an operating life of more than 20+ years.



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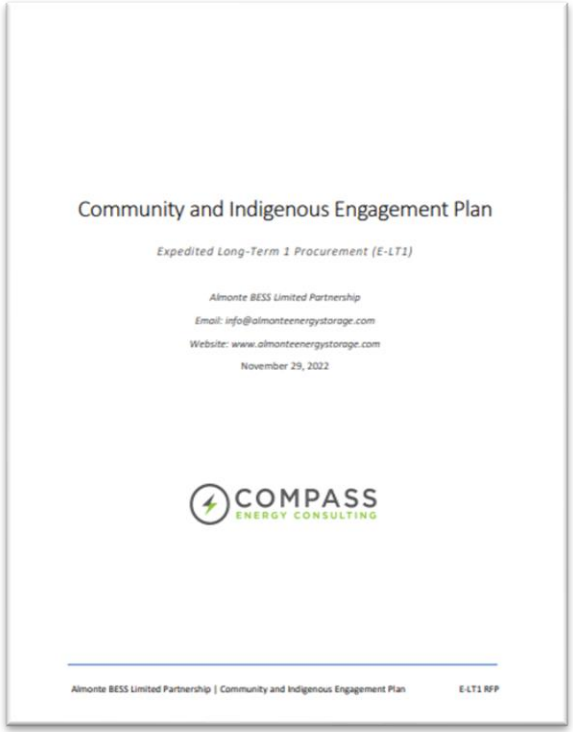
Community and Indigenous Engagement Plan

Capstone and Compass, on behalf of Almonte BESS Limited Partnership, has issued a **Community and Indigenous Engagement Plan** that is available on the Project Website. We invite you to read this document to understand more about our public engagement process.

Our Public Engagement Process Tools


Community and Indigenous Engagement Plan

Expedited Long-Term 1 Procurement (E-LT1)

Almonte BESS Limited Partnership

Email: info@almonteenergystorage.com

Website: www.almonteenergystorage.com

November 29, 2022

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Almonte BESS Limited Partnership | Community and Indigenous Engagement Plan E-LT1 RFP

- **Project Website**, hosts details about the Project and status of development activities, Notice of Public Community Meeting, Community and Indigenous Engagement Plan, regularly updated FAQ section, project Contact details;
- **Notice of Public Community Meeting**, posted to the Project Website, mailed to the mandatory stakeholders as defined by the IESO;
- **Public Community Meetings**, a proposed in-person meeting upon successful contract award through the IESO's procurement process;
- **Public Community Meeting Minutes**, posted to the Project Website after this meeting; and
- **Project Email**, will accept feedback and provide responses through electronic correspondence

Available on www.almonteenergystorage.com

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Thank you

Contact

Rishabh Mundhra
Senior Consultant
Email: info@almonteenergystorage.com

James Marzotto
Associate Director, Development
Email: james@compassenergyconsulting.ca
Cell: 905-650-3682

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Appendices

1. Minister of Energy's Directive to the IESO
2. BESS Frequently Asked Questions
3. Automated Fire Safety
4. Battery Storage Systems Examples
5. Compass' Service Commitment

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1. Minister of Energy's Directive

On October 7, 2022, Ontario's Minister of Energy, Hon. MPP Todd Smith, issued a directive to the to procure new electricity resources, with a minimum of 1,500 MW for standalone energy storage out of 4,000 MW.

Ontario

MOE's Directive to the IESO

MINISTER'S DIRECTIVE

TO: THE INDEPENDENT ELECTRICITY SYSTEM OPERATOR

I, Todd Smith, Minister of Energy ("Minister"), hereby direct the Independent Electricity System Operator ("IESO") pursuant to section 25.32 of the *Electricity Act, 1998* (the "Act") in regards to the procurement of electricity resources to ensure the reliable operation of Ontario's electricity system in response to ongoing and growing electricity needs expected in the future and require IESO to report back on certain questions respecting electricity as set out in this Directive pursuant to section 25.4 of the Act, as follows:

IV. Procurement Eligibility and Target Capacity

11. The Expedited Process, Upgrades Solicitation, and LT1 RFP shall be open to all resource types that meet the mandatory criteria established by the IESO, which may include renewable energy, energy storage, hybrid renewable energy with storage, biofuels and natural gas-fired generation.

12. The Expedited Process, Upgrades Solicitation, and LT1 RFP shall have a combined target capacity of approximately 4,000 MW, out of which the target capacity for i) standalone energy storage projects shall be a minimum of 1,500 MW and ii) natural gas-fired generation shall be no more than 1,500 MW.

https://www.ieso.ca/en/Corporate-IESO/Ministerial-Directives

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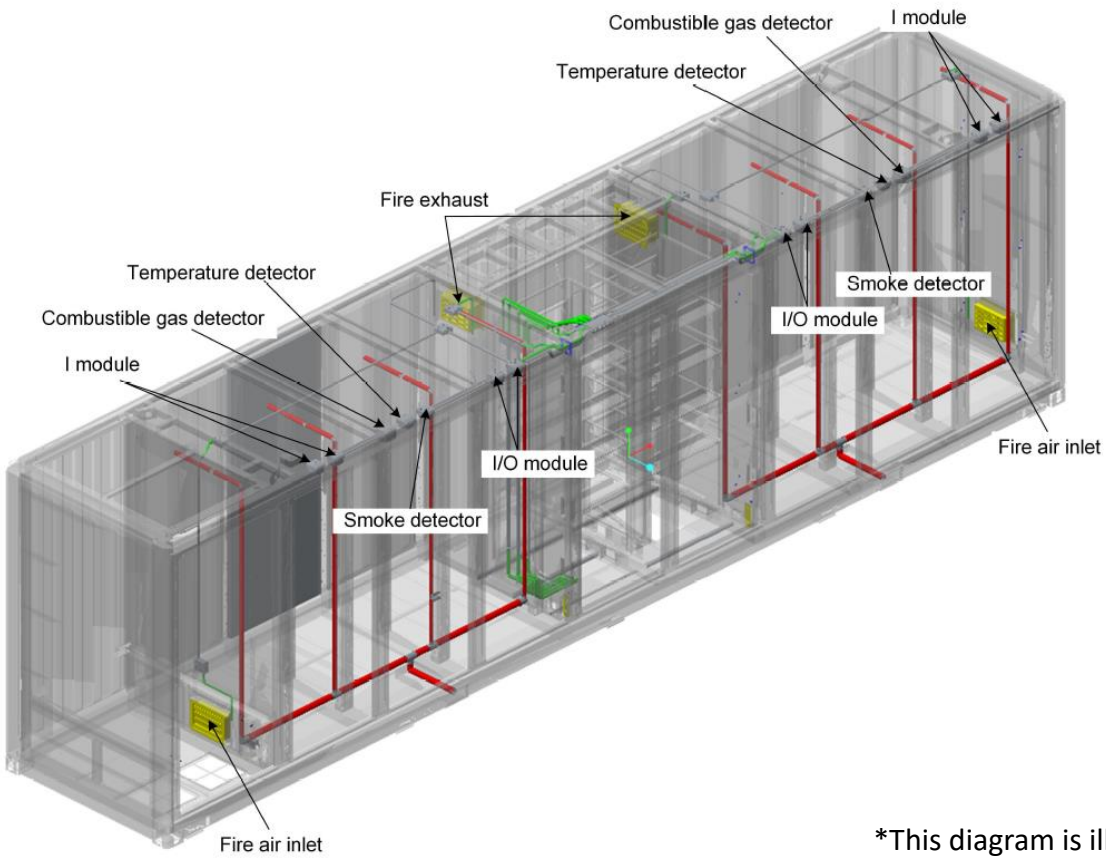
2. BESS Frequently Asked Questions

Question	Answer
How safe is a BESS from a fire hazard?	BESS enclosures have built in fire suppression system (FSS) solutions. The FSS system is composed of smoke detectors, gas detectors and aerosols, whose main function is to prevent fire spread in time when any open flame signal or gas signal appears in the battery system and sent out fire signal to EMS system. BESS are certified to UL9540 and UL9540A standards to prevent fire spread and suppression at the cell and the BESS system level. The management of any risks starts at the cell level, with selection of battery chemistry, and compliance with local authorities having jurisdiction (AHJs) and global certifications. Compass has also engaged the local Fire department for a screening of our site and to provide additional training to equip firefighters with knowledge of the BESS fire protection standards.
What is the noise and visual impact of BESS?	As a part of the Environmental Assessment permitting process, we will conduct a Noise Impact Assessment for the Project. As a part of this report, the ambient noise survey will identify the 'noise envelop' for the Project location based on zoning, proximity to highways and other factors that may affect sound levels. Once a survey is conducted, any potential risks of the BESS exceeding the 'noise budget' and violating any provincial norms would be mitigated based on suggested noise mitigation efforts that may be required to successfully secure an environmental permit.
What other assurances that BESS meet these standards?	BESS systems are subject to third party certification to ensure they comply with all of the required codes and standards. The Project will have to secure multiple environmental and electrical permits and complete a successful inspection certification prior to commissioning.

3. Automated Fire Safety

All fire-related components (combustible gas sensor, smoke sensor, temperature sensor, input and output modules, aerosol (if any)) in the BESS system meet UL9540/UL9540A.



*This diagram is illustrative

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4. Battery Energy Storage Systems – Lithium-Ion Technology Examples

Project Name	Project Size (MW)	Project Status	Project Address	Project Geolocation
Oneida Battery Storage	250	Contract Negotiation	Haldimand County, Ontario	Latitude: 42.887335° Longitude: -80.119111°
Ameresco Canada – "Project A"	2	Announced	Newmarket, Canada	Latitude: 44° 3' 22.529" N Longitude: 79° 27' 42.149" W
Parry Energy Storage, LP	2	Contracted	5 Elliot House Rd., Seguin, Ontario, P2A 0B2, Canada	Latitude: 45° 18' 9.828" N Longitude: 79° 56' 43.692" W
RES Amphora Ontario	4	Operational	Queen Street Strathroy, Canada	Latitude: 42° 57' 15.85" N Longitude: 81° 36' 43.816" W
Elmira Energy Storage, LP	2	Contracted	50 Martin's Lane, Elmira, Ontario N3B 2A1, Canada	Latitude: 43° 36' 13.129" N Longitude: 80° 32' 50.395" W
Owen Sound Regulation Services	25	Under Construction	Owen Sound, Ontario, Canada	Latitude: 44° 34' 26.256" N Longitude: 80° 55' 23.772" W
Source: https://gateway.eme.nrc.ca/en/es/demo_projects?wbdisable=true				

5. Service Commitment

We believe in the importance of transparency when communicating with all stakeholders and tying our success to their success.

System Design Consultation

- Design adapted to site requirements and local building by-laws
- Layout review and consultation with landowner
- Engineered construction plan accepted by local building department
- Long-term, dependable designs

Risk Mitigation & Minimal System Impact

- Scheduled Operation & Maintenance
- System insurance and liability insurance. Building owner named as 3rd party insured
- Physical security measures, and live performance monitoring

Updates & Transparency

- Compass provides monthly project updates during the development and construction of the project
- Clarity for landlords to understand project progress

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