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## **OZ-1 Battery Energy Storage System: Public Meeting Minutes**

**Date:** Thursday, October 3rd, 2024

**Time:** 5:00 PM - 7:00 PM

**Location:** Chesley Community Centre

### **Attendance List:**

1. Councillor Penner
2. Christine Fraser-McDonald
3. Steve Tiernan
4. Derreck Pattison
5. Doug Bell
6. Grant Rhody

### **Presentation by SolarBank:**

- Introduction and Agenda
- Presentation and background on the IESO's procurement of Expedited Long-Term Reliability
- Services (E-LT 1) including:
  - Ontario's forecasted electricity reliability issues.
  - Procurement details regarding Independent Electricity System Operator's (IESO) LT 1 RFP and E-LT 1 RFP procurement targets and approximate timelines.
  - Overview of Project requirements and capacity to deliver.
- Battery Energy Storage Systems (BESS) Information
  - Discussed BESS details, including nameplate capacity, project name and address, technology, safety, illustrative diagrams, location, and key components.
  - A scale map and site plan showing the boundaries of the Bess Project site, location of the Connection Point and the Connection Line, and other considerations such as Project boundaries and existing structures.
  - Discussed zoning of the Project Site
  - Discussed fire safety details
  - Discussion about the BESS charging and discharging mechanism such as it will be independently connected to the distribution grid.
- Development Timeline Summary
  - Project is expected to be completed in the Fall of 2025.
- Benefits to the Community
  - Grid reliability, local economic growth.

Community attendees were encouraged to ask questions anytime before and after the Project presentation. Questions asked and answered are summarized below:

- **Could you provide details on the design and appearance of the access road?**
  - The access road is designed to extend from the street, gently curving around the shed and leading directly to the battery energy storage system site. The road will be built to accommodate both construction vehicles and long-term maintenance access. There will be minimal use of the road, as construction is expected to take around 6 months and preventative maintenance includes 2 site visits per year.
- **Where is the Point of Interconnection (POI) located, and how will the connection be established?**
  - The Point of Interconnection (POI) is the 44kV Hydro One distribution circuit situated to the east of the BESS site. It is in close proximity to the site and minimizes the number of utility poles required for connection.
- **What are the anticipated noise levels during operation?**
  - The noise generated during normal operation is expected to be very low and blend in with the existing ambience. The inverters and cooling systems may produce a faint hum, but it will remain well below regulatory limits set out by the Ministry of Environment, Conservation, and Parks (MECP). We work with a 3<sup>rd</sup> party acoustic engineer to prepare an Acoustic Report and confirm we are compliant. At the nearest point of reception, near the shed, the noise level is 40 dbA. This is around the noise level of a refrigerator.
- **Are there any risks of toxic emissions from the facility?**
  - The battery energy storage system uses lithium iron phosphate (LFP) technology, which is recognized for its safety and low environmental impact. The system has no toxic emissions under normal operating conditions. In the event of a malfunction, off-gassing would be managed by fail-safe venting systems and emissions are well below hazardous levels, as they dissipate into the air. This is confirmed by the Battery Manufacturer and verified by 3<sup>rd</sup> Party Environmental Engineers.
- **Is the property zoned for industrial or agricultural use?**
  - The project site is zoned as Business Park 1 and the land use is Industrial. The project is a permitted use, and would be compliant with municipal zoning by-laws, HydroOne regulations, Electrical Safety Authority (ESA) and the MECP requirements.

- **Can you specify the total size and scope of the project?**
  - The BESS project will cover approximately 0.3 acres and will house 4.99 MW of storage capacity. The system consists of containerized battery units, each measuring approximately 6 meters in length, 2.9 meters in height (4 m including HVAC at highest point), and 2.4 meters in width. The BESS will store electricity and charge the batteries overnight when the demand is low, and discharge during the day during high demand, and intended to stabilize the local grid during peak demand.
  
- **What type of foundation will the pad be constructed on?**
  - The BESS will be mounted on cement piles at 6 points of the containers. This will provide a minimal impact on the existing landscape. After the term of the contract, the land will be restored to its original state as much as possible.
  
- **Will the site be managed remotely? If so, how will that be handled?**
  - Yes, the site will be monitored remotely through an advanced Energy Management System (EMS). The EMS provides real-time data on battery performance, system health, and conditions. Operators can control the system remotely, and maintenance teams will be dispatched as needed. The site can be remotely shut off and turned on as well.
  
- **What is the distance between the nearest battery and the existing shed on the property?**
  - The nearest battery is located approximately 17 meters from the existing shed on the property, ensuring a safe distance that complies with all safety regulations. This separation helps to minimize any potential risks and allows for efficient access for maintenance and emergency services when needed.
  
- **Can electrical fires at the site be extinguished with water, or are there alternative methods?**
  - In the event of an electrical fire, water should not be used. Instead, specialized fire prevention mechanisms are in place to prevent overheating and fire. However, in the case of a battery fire, the standard practice is to isolate and allow the battery to burn out until it discharges fully. We have been in contact with the Arran-Elderslie Fire Department and have conducted an information session with Fire and Risk Alliance. The system will be monitored, and emergency response protocols will be in place to contain the situation safely.

- **Is there any risk of explosion associated with the facility?**
  - The BESS is designed to minimize the risk of explosion. Lithium iron phosphate (LFP) batteries have a lower risk of thermal runaway, and the system incorporates several layers of fire safety, including thermal barriers and automatic isolation of faulty components. Gas detection and venting systems are also in place to prevent the accumulation of flammable gases. The system is monitored by multiple parties 24/7/365 down to the cell level, and can be remotely shut off before any overheating occurs.
  
- **Where will the electricity generated by the storage system be supplied?**
  - The stored electricity will be supplied back to the grid during periods of high demand. This helps stabilize the grid and provides reliable power to surrounding homes and businesses. The electricity will flow through the POI to the local utility network. It is connected to the 44 kV distribution line, and will only serve the local communities, not the entire province of Ontario.
  
- **Can you outline the construction schedule, particularly when the most intensive building periods will occur?**
  - Construction is set to commence early next year and is expected to be completed by early Fall 2025. The most intensive construction period will occur over a span of 1 to 1.5 months, during which major activities such as site preparation, foundation installation, and equipment setup will take place. This focused timeline allows for efficient progress while minimizing disruption to the surrounding area.
  
- **What will the overall visual impact of the project be once completed?**
  - The overall visual impact of the project will be minimal, as the battery energy storage system will be situated behind the existing shed. This strategic placement helps to obscure the view of the facility from the street and surrounding areas, ensuring that it blends seamlessly into the landscape. The project will be surrounded by a barbed-wire fence with green slats inserted to further screen the BESS.