

Meeting Minutes: Public Meeting for the Proposed Fitzroy BESS Project

Evolugen hosted its first Public Meeting to introduce the proposed Fitzroy BESS Project at the Fitzroy Harbour Community Centre (100 Clifford Campbell St, Fitzroy Harbour, ON, K0A 1Z0) in the Main Hall on Wednesday, November 1, 2023, from 4:00 – 7:00 p.m.

Background & Meeting Purpose

After more than a decade of strong supply, Ontario is entering a period of emerging electricity system capacity needs, driven by:

- Increasing demand
- Retirement of the Pickering nuclear plant
- Refurbishment of other nuclear generating units, as well as
- Expiring contracts for existing facilities

To address these needs, the Ontario Independent Electricity System Operator (IESO) is continuing their competitive procurement process through the Long-Term Request for Proposals for ~2,500 MW of year-round renewable energy (1,600 MW of energy storage and 900 MW of natural gas).

In response to the IESO RFP, Evolugen is proposing the Fitzroy BESS project. The purpose of this meeting is to introduce the project to the local community and obtain feedback that can be incorporated or addressed if the project moves forward.

Agenda

- 4:00 5:00 pm: Welcome and open opportunity to engage with Project team members
- 5:00 5:30 pm: Project presentation
- 5:30 6:00 pm: Question and answer session
- 6:00 7:00 pm: Wrap up and thank you

Participants

Internal (Evolugen/Brookfield Renewable)

• Mike Peters, Director, Public Affairs (Presenter)



- Rémi Moreau, Vice-President, Government and External Relations
- Geoff Wright, Senior Vice-President, Head of Development, Canada
- Zachary Benoit, Senior Analyst, Business Development
- Tyler Vandervelde, Manager, Engineering & Technical Services
- Robyn Moffatt, Manager, External Relations

External

• 62 community members signed in, and approximately 15 additional community members attended without opting to sign in.

Meeting Minutes

Time	Details	
4:00 – 5:00 pm	Participants had the opportunity to read the six Project poster boards located throughout the Hall and ask questions to the Project Team. (Project poster boards are available on our website).	
5:00 – 5:45 pm	Formal Project presentation (PowerPoint) displayed on the projector screen, presented by Mike Peters. (<i>Project presentation is available on our website</i>). • Welcome & Thanks for Attending	
	 Presentation Outline Who we are IESO LT1 RFP overview What is the project Why this location Next steps Open Q&A 	
	 Housekeeping Sign-in at the front table Presentation available in French Comment cards located at the front table, which can be mailed to our team Food/drinks Canadian Presence – asset map In Canada, Evolugen owns and operates 61 renewable energy facilities, including 33 hydroelectric facilities, 4 wind farms, and 24 	



solar sites, with a total installed capacity of 1,912 MW, located across British Columbia, Ontario and Quebec. Recently, Evolugen announced a new to-be-built ~40MW solar facility in Alberta. As a renewable energy industry leader, Evolugen provides sustainable solutions designed to accelerate the transition to a low-carbon future in Canada.

- Ontario Presence asset map
 - In Ontario, Evolugen owns and operates 49 renewable facilities, including 21 hydroelectric facilities, 4 wind farms, and 24 solar sites (4 utility and 20 distributed generation installations), totaling an installed capacity of 1,448 MW. Evolugen continues to advance development projects across Ontario, including but not limited to the Fitzroy BESS. In addition to various renewable facilities, Evolugen has six Plant Offices (small offices) located across the province.
- Our Philosophy
 - Foundation of our approach to doing business is a collaborative strategy to operating sustainably.
 - Operating sustainably Growing our renewable power portfolio while also having a positive environmental, social and economic impact on the communities where we live and work.
 - Partnering locally- Our relationships with the communities where we own and develop assets is key to the success of all and, is predicated upon building trust through open dialogue and shared knowledge.
 - Developing collaboratively Striving to be a trusted partner of choice for governments, organizations and Indigenous Peoples looking to sustainably develop Canada's renewable power resources.
- Uniquely Positioned Partner
 - Evolugen's capabilities include:
 - Extensive experience owning and operating renewable assets
 - Broad expertise in project development
 - across multiple technologies
 - Low-risk developer with reputation for delivering on-time and on-budget



- Significant experience partnering with host communities and First Nations
- Committed to long-term and sustainable partnerships
- Execution excellence in complex business environments
- Sophisticated in-house trading, risk management and control centre capabilities
- Robust Health Safety Security & Environment (HSS&E)
 policy supported by our Environmental, Social &
 Governance program
- Independent Electricity System Operator (IESO) LT1 RFP
 - Ontario recently launched a competitive procurement process, called the long-term request for proposals, LT1 RFP.
 - After more than a decade of strong supply, Ontario is entering a period of emerging electricity system capacity needs, driven by:
 - Increasing demand
 - Retirement of the Pickering nuclear plant
 - Refurbishment of other nuclear generating units, as well as
 - Expiring contracts for existing facilities
 - To address these needs, the Ontario Independent Electricity System Operator (IESO) is continuing their competitive procurement process through the Long-Term Request for Proposals for ~2,500 MW of year-round renewable energy (1,600 MW of energy storage and 900 MW of natural gas).
- Fitzroy BESS Project Overview Scale Map
 - o BRPI or an affiliate will be advancing the Fitzroy BESS Project.
 - Project will consist of installing battery modules, some additional power equipment, light civil, safety and security infrastructure.
 - Scale map that showed the boundaries of the Project site, the proposed location of battery containers and substation, location of the connection point and location of the connection line/transmission lines.
 - Project is in the feasibility stage
 - Sits on ~14 acres of an ~80-acre site
 - Adds up to 250 MW of capacity and 1,000 MWh of energy storage
 - Interconnects to IESO using the nearby 230 kV circuit
 - LFP chemistry batteries
- Fitzroy BESS Project Highlights



- Project adds renewable capacity and storage to meet Ontario's rising energy demands, especially during peak-periods, reducing the chance for power outages.
- Project represents a local innovative low-carbon solution, with a large investment that will create job opportunities during the construction phase in the Fitzroy Harbour region.
- Project supports sustainability efforts by reducing reliance on higher carbon intensive facilities.
- Project is in the feasibility stage; subject to the IESO determining the Project to be best for Ontario ratepayers.
- Project will make direct municipal tax contributions over the course of the Project life, funding services such as roads, parks, and education. We also plan to establish a Community Benefit Fund.
- How BESS Projects Work
 - Energy storage adds grid capacity, enhances flexible grid operations and avoids greenhouse gas (GHG) emissions in Ontario by reducing the need for carbon-intensive power plants during times of peak demand
 - Diagram showing overview
- What BESS Facilities Look Like
 - o Two examples of BESS projects in Indiana and Texas.
- Why This Location
 - We're exploring all options to be an economic driver in the community, working with the City of Ottawa, First Nations and partners to explore sustainable solutions
 - o The Fitzroy BESS Project:
 - Is strategically positioned next to an existing 230 kV transmission line with available capacity to support a 250 MW BESS
 - Is located on Rural Land, avoiding development on agricultural land, to conform with the City of Ottawa's Official Plan
 - Is located ~45 minutes from our Gatineau office
 - Is situated more than 400 meters from the nearest residential home to lower the impact of noise and visual obstructions
 - Evolugen is committed to working with the City to ensure alignment with the Official Plan, relevant bylaws, and zoning



requirements. We have engaged a local consulting firm to assist in the planning, consultation, and if necessary, application process as it related to land zoning.

- Primary Environmental Considerations
 - We're committed to working with communities and authorities to ensure safe and thoughtful planning of Fitzroy BESS Project.
 - Some of the primary concerns include:
 - Noise
 - Wildlife
 - Fire
 - Wetlands
 - Trees
 - If Evolugen is chosen by the IESO, we will need to obtain all required approvals and permits from the City of Ottawa and provincial authorities.
- Safety & Fire Mitigation
 - Our safety culture is exemplified by more than two decades of experience and our track record of zero employee or contractor fatalities.
 - Core elements of our fire safety approach include:
 - Prevent
 - Technology Selection
 - Safety Certification
 - Installation Codes
 - Testing for Performance
 - Monitor
 - Battery Management System (BMS) to monitor temperature, voltage, and more
 - 24/7 staffed monitoring facility, located in our Gatineau office
 - Maintenance program to ensure adequate BESS health
 - Respond
 - Fire response training and coordination
 - Water is the preferred suppressant for firefighting
 - Work with local first responders to ensure safe and effective response in case of an emergency
- Canadian Systems Control Centre



	 Our Canadian Systems Control Centre is located in our Gatineau office and is staffed 24/7 to ensure safe operations Project Timeline & Next Steps May 2023: RFP Launches Sept 2023: Deliverability Results Posted Q4 2023: Project Public Engagement Commences Dec 12, 2023: IESO bid submission due Q2 2024: IESO Contract Announcement Permitting: obtain permits from the City of Ottawa, Mississippi Valley Conservation Authority and provincial authorities Q2/Q3 2025: Construction Commences, if awarded a contract and permits Q2 2028: Facility to be operational 	
5:45 – 7:00	Questions	Answers
5:45 – 7:00 pm	Are there any operating BESS facilities in Ontario at this scale?	In Ontario, there are other Battery Energy Storage System (BESS) projects, but they're smaller in size, in the 20-40 MWh range. However, the 250 MW/1,000 MWh Oneida Energy Storage project in Jarvis, ON, is under construction. Additionally, there are various large-scale BESS facilities in development elsewhere in Ontario, including the 300 MW Haggersville Project, the 265 MW Napanee Project and the 120 MW York BESS. The BESS facilities in development were awarded contracts during the Independent Electricity System Operator's (IESO) earlier Request for Proposals (RFP), announced this year. Our parent company, Brookfield Renewable currently operates BESS facilities in the United States. There are other larger facilities in operation in the United States as well as more under construction.
	How will our community benefit from the Project	The Project adds renewable capacity and storage to meet Ontario's rising energy demands during peakperiods, which reduces chances for power outages.



	The Project also reduces the need for new carbon intensive facilities. We plan to establish a Community Benefit Fund which will be used to support various local programs, initiative and organizations that focus on: Environmental initiatives; Health and safety; Education and research; Community services; and Indigenous communities. The Project will make direct municipal tax contributions over the course of its life, funding services like roads, parks, and education. We believe in supporting the communities where we live and work. With more than half of our Gatineau office employees living in the Ottawa region, we currently support various programs, initiatives and organizations. For example, over the past five years we've supported: the CHEO Foundation, the Ottawa Food Bank, Dress for Success Ottawa, Ottawa Riverkeeper, the Ottawa Hospital Foundation, United Way Ottawa and more.
Can the batteries leak?	Although we have not selected a final battery chemistry, equipment decisions will be based on the quality and safety of the components and will adhere to all applicable standards and certifications.
	There is virtually no potential for leakage with lithium-iron phosphate (LFP) batteries used in BESS systems because they are sealed dry celled batteries.



	This is different than the typical acid-based batteries, for example those that are used in vehicles. During the UL 9540A (Underwriters Laboratories, a main standard organization) test, three entire BESS modules are placed within a cabinet and purposefully forced into a thermal runaway (i.e. overheating leading to fire conditions). During this test, there was no observation of leakage from the batteries.
What happens if the facility catches on fire?	The risk of fire in a battery energy storage system is very low as they're equipped with battery management systems, which ensure batteries operate at appropriate temperatures. In very rare circumstances, fire can occur at BESS systems if certain precautions are not taken. There are rigorous standards in place for the implementation of BESS projects. For example, current industry standards require vendors to complete destructive testing to demonstrate how a fire in one cell/module will not cascade to another (UL 9540A), while also proving that entire battery system is intrinsically fire safe (UL 9540). Evolugen's projects will comply with all of the industry standards. Across our operations, we prioritize the health and safety of our employees and communities, which is
	reinforced through our Public Safety Program and our Health, Safety, Security and Environment (HSS&E) Program. A full Emergency Response Plan will be shared if the Project is awarded a contract from the IESO, it will be developed with local emergency response teams.



	Is water the safest fire suppressant? Can it leak into the groundwater?	The LFP chemistry is considered to be the least toxic chemistry used in the energy storage industry. Water is the preferred fire suppression agent since it can provide extended cooling for the batteries to reduce their temperature and stop a thermal runaway. Hydro One's Fire Protection Risk and Response Assessment also recommends water as the fire suppression agent (see 8.4.3 - Clean agent or aerosol systems, if provided, should not serve as a primary fire suppression system where required. If these systems are installed, there should be large-scale test data demonstrating their effectiveness and they should be backed up by a water-based fire sprinkler system). We are currently exploring ways to contain the potentially contaminated water during fire suppression and ensure we minimize all potential impacts and contamination.
	Are batteries explosive?	Lithium-ion batteries do not explode. However, all batteries are required by NFPA 855 and UL9540 to have ventilation systems or deflagration management systems, which will evacuate the hydrogen from the cabinets. The ventilation systems will evacuate the hydrogen gas before the pressure becomes too high, while the deflagration panels are designed with deflagration panels to direct the force of the explosion away from any personnel on the ground.
	What happens after the Project's life?	If awarded a contract from the IESO, it would start in May 2028 and last 20 years. At the end of the 20-year contract, we will explore repowering or decommissioning the facility. To repower and extend the life of the Project, we would need to obtain another contract from the IESO. If, however, there



	was no longer a need for the system, we would remove the batteries and remediate the site.
	Battery modules would be removed from the containers and transported to recycling facilities. At the facilities, the batteries would be recycled to recover valuable materials such as lithium carbonate, copper and aluminum. Recycling processes are being developed which recycle lithium-iron phosphate batteries, as well as other lithium-ion chemistries used more commonly in electric vehicles.
Have you purchased the Project land?	We do have site-control, but we don't own the land. We have a conditional offer to purchase the land if the Project is awarded a contract from the IESO.
How will you connect to the transmission lines? What land will be used?	Although our scale map does show the planned connection point and location, we are exploring a few connection points.
How will the Project affect my property value?	Experience with other renewable facility developments has shown that impacts to property values are generally limited, but we are committed to minimizing the negative impacts of our facilities on our potential neighbours. We will work through the detailed site plan during the design stage to ensure that appropriate visual and noise mitigations are in place to limit any potential impacts.
	Examples of visual mitigations include landscaping (planting trees, shrubs and other vegetation where safe), fencing and screening and structural design (painting or design elements).
Will the Project expand past the current ~14- acre development? Will you use the full 80 acres?	There is no intention to increase the footprint of the Project over time: • If we are successful, our contract would be for a fixed capacity;
_	Project land? How will you connect to the transmission lines? What land will be used? How will the Project affect my property value? Will the Project expand past the current ~14-acre development? Will



	 The 230 kV transmission line is only capable of taking the 250 MW; The 14-acre footprint on the 80-acre property will not expand and we will work with neighbours and the local community to explore visual and noise mitigation ideas.
How many homes would a Project of this size power?	Given the nature of battery power, it is hard to provide an accurate number as average household energy consumption is typically measured on an annual basis. Fitzroy BESS will be designed to deliver electricity for up to four hours at a time at maximum output, intended to provide power during peak times of highest overall demand on the grid. There are many factors that would impact how many homes and businesses this power could supply, including location and line losses, among others.
How will you have water on-site for emergency response? How much water will be on-site?	We will work with the local emergency responders to ensure there is an adequate plan for water. We note the absence of hydrants at the site and will determine whether upgrades are required or whether tanker trucks can shuttle water from nearby hydrants.
If other southern Ontario BESS Projects were denied Municipal Support, why would yours be approved?	We can't speak to other projects or the decisions that were made by other municipalities. During the IESO's earlier call for proposals, various BESS projects were denied and various were awarded Municipal Support, based on a wide range of factors. It is very important for us to meet the community tonight and hear your feedback about the Project.
Have you completed Environmental Assessments?	Since the Project is in such early stages, we have not conducted an Environmental Assessment and are in process of gathering more information about the site. If awarded a contract, we will complete all



		required Environmental Assessments to obtain our permits, which will be shared publicly on our website. Currently, we are in preliminary discussions with the City of Ottawa and the Mississippi Valley Conservation Authority (MVCA) to assess the site. We have also engaged a consultant to run an Environment Desktop Assessment and Permitting
		Roadmap to support the development of the project which is planned to be completed before the end of November 2023.
	How much light will the facility emit?	Lighting will be installed for the principal purpose of ensuring a safe working environment if someone were required to visit the site in the dark. The exact installation and height are still to be determined, as are angles, locations etc. which can be designed to minimize impacts on neighbours. However, because the site will not be manned at all times, there is no need for the lights to be on continuously. We are exploring options to tie them to motion sensors or other systems that would ensure they are only turned on when absolutely required.
	What rules/standards does the IESO require Projects to comply with?	Rules and standards are not governed by the IESO, they are governed by the Ontario Electrical Safety Authority, the Canadian Electrical Code, and the CSA Group. The batteries will be designed to all applicable CSA codes and the Canadian Electrical Code. Additionally, the facility will be designed in compliance with NFPA 855, which is the Standard for the Installation of Stationary Energy Storage Systems. Additional permits and authorizations will be required from the City of Ottawa and the province.
	Will the Project affect our groundwater supply?	The project does not impact the groundwater supply at all in normal operation. The batteries are solid state and do not require water.



		As for potential leak of equipment like oil in transformers or coolant from the water-cooled system of the batteries, the equipment is designed with containment to prevent potentially harmful liquid leaking on the ground.
prop the t	this location on the perty? Why not put facility in the middle ne property?	The scale map displayed is a preliminary design. We are exploring various locations on the property but want to ensure we are building the facility as far as possible from residences. Visual mitigation measures will be explored.
polit char	at happens when the tical party/landscape nges? Will your ect be cancelled?	If our Project is awarded a contract from the IESO, it will be for 20 years, which will not be impacted by a potential change in government.
	the Project increase power rates?	The IESO is procuring projects that are deemed best to Ontario ratepayers.
	the facilities perature controlled?	Each BESS container will be equipped with an HVAC system so that the temperature in the cabin is maintained at an adequate state for operation (varies, usually between 10 and 30 degrees Celsius). If the Project is built, it would be managed by our Canadian Control System Centre, located in our Gatineau office.
prop	the creek on the perty be affected by project?	We are working with the MVCA and the City of Ottawa to ensure that the Project has the least environmental impacts possible. The current proposed layout provides the required 15m setback from the creek.
trees will I	you need to clear s? How many trees be cleared? Do you e a permit?	We will need to obtain a permit for tree clearing, should the Project be awarded a contract from the IESO. The exact number is unclear, but our commitment is that there will be no net woodland loss as a result of this Project. That may mean



	planting additional trees on the property or in a
	suitable area near the property.