Question & Answer Session

Edgeware Battery Storage Project – Public Community Meeting

Location: CASO Station (750 Talbot Street St. Thomas, ON N5P 1E2)

Date and time: November 23rd, 2023, 6:00 – 8:00 PM

Siting

1. **Q: Do you own the land right now?**
    A. The property is under a purchase agreement between the project and the landowner.

2. **Q: Why St. Thomas?**
    A. The project is located next to the Hydro One Networks (HONI) 230kV substation and transmission circuits which makes it an ideal location to connect to the transmission system. The project was submitted as part of the IESO Long-term I RFP Deliverability Assessment and received a positive result which qualified the project to be submitted into the Long Term I RFP.

3. **C: Please build on why you chose this location:**
    A. The further you get away from interconnection, the more losses there are in the distribution of the electricity to the system need. The closer we are to the substation, the more likely it is for the electricity to reach the system need.

4. **Q: Will the output serve more than St. Thomas?**
    A. The output will support electricity demand both locally in St. Thomas and in other areas where the electricity is needed via the transmission system. Essentially, it's like a tree with branches. The transmission line is the root, as it hits branches, it shoots off and is taken where electricity is needed.

5. **Q: Where is the start/finish of the transmission line?**
    A. The transmission line that runs near the site connects into a transmission grid that covers roughly a third of North America. It's all same frequency, stepping down voltages. The specific transmission lines connected to the HONI substation connect to other substations in London and continue west towards Windsor.

6. **Q: When did you first start looking at this site?**
    A. This project was identified by EDP as a potential development early in 2022.

Project Timeline/Lifecycle

7. **Q: When would you expect to have it up and running?**

A. We want to have the site commissioned by 2027. The earliest date would be May of 2027, at the latest, at the end of 2028.

8. **Q: What is the timeframe for construction?**
    A. After a contract award and successful permitting, we are assuming a year for construction. If we went operational in 2027, civil construction would begin in 2026 with testing and commissioning taking place in 2027.

9. **Q: What's the life of the batteries?**
    A. There are two types of battery aging – calendar aging and aging over use. Calendar aging is where the battery ages gradually over time. Aging over use is where the battery ages depending on its use. Battery systems usually have an 8,000-to-10,000-hour cycle of life. Contractually, they are useful for a period of 20 years.

Technology

10. **Q: Where do the battery containers come from/where are the battery units themselves made?**
    A. We don't have a supply agreement in place right now as we are early in the process, so we don't know what technology we would use at this time. Typically, the batteries used are lithium-ion. That said, we also do not yet have a selected manufacturer or supplier.

    SunGrid Solutions: We are Ontario based, and our Canadian office is in Cambridge, ON. We build battery system across North America. The batteries could be coming from somewhere in Asia, like Japan or China, or the U.S. There are manufacturers here in Canada as well. The battery sites located in Ontario that are currently under construction have batteries from all the locations listed previously.

11. **Q: What technology would change it from AC to DC and DC to AC?**
    A. The most popular technologies are silicon carbide. They are standard inverters, same as a solar inverter, designed to discharge electricity. They are simple, run of the mill converters, just bigger. They do the transmission switching, and they do this very efficiently both ways. This is not new technology, and the quality is ever evolving.

Decommissioning

12. **Q: What happens at the end of life?**
    A. There is a growing industry for battery recycling in North America. Companies are incentivized to recycle the batteries and are seeing a 95% recovery rate. Batteries from the site will be recycled at the decommissioning phase. These batteries contain valuable materials and there would be multiple recycling

facilities that would be bidding to recycle them at their end of life. Some of these facilities are:

i. Li-Cycle (Canada) with plants in Kingston (ON), Rochester (NY, USA), Tuscaloosa (AL, USA), Gilbert (AZ, USA), Germany (Magdeburg)
ii. Redwood Materials (USA), Camp Hall, Berkeley County (CA, USA)
iii. Lithion (Canada), St. Bruno-de-Montarville, Montreal operational by year end 2023
iv. Retriev Technologies (recently acquired Battery Solutions and Heritage Battery Recycling) with facilities in Trail (BC, Canada), Lancaster, Baltimore, Ohio, Brea, California (USA).

13. Q: Will they then be replaced? Will you have new cells to replace the old ones?
    A. If the Independent Electricity System Operator (IESO) still needs the project to operate, we would likely do a re-powering. This is when we open and remove cells to replace them with new ones. The contracts for this procurement are 20 years in duration. At the moment, there are no discussions about re-powering or extending the contract past those 20 years.

14. Q: Would there be clean up at the site?
    A. Yes. We would establish a Decommissioning Plan as part of the permitting process. There will be practices involved to see what that would look like. We typically remove topsoil, stockpile it, and then return the land back to previous use. That is the ultimate goal: to bring the property back to its previous use.