

Belwood Energy Storage 1 LP
Community Engagement Meeting Minutes

MEETING SPECIFICS:

- Date – November 15, 2023
- Start time: 5:30pm
- Location – Virtual only: Teams Call
- Host(s) – David Anders, Director, Distributed Energy Solutions (Alectra)
Tremor Temchin, SVP, Development (Convergent)
Will Curry, Director of Development (Convergent)

ATTENDEES:

1. William M
2. Jessica P
3. Barclay N
4. Janet H
5. Gonof L
6. Sam B
7. Rob R
8. Karl H

NOTES:

- Slideshow presented including:
 - Introduction to the Alectra Convergent Joint Venture
 - Overview of the IESO Procurement
 - Battery Energy Storage Systems - Technology
 - Project Overview – Address, MW size, example pictures, etc.
 - Project Benefits – resiliency, economic, environmental

Q & A:

Question	Answer
1. This is relatively new to do large capacity storage like this, other than individual wind turbines and stuff like that. Is this forging new territory in terms of what regulations you have to work with or is this sort of existing regulations that you follow in terms of sort of building and setbacks?	Battery storage have been deployed on the Ontario grid for roughly 10 years. Elsewhere in the world projects of this scale and beyond have been put in place and operations and have driven industry standard. The design of the systems themselves are mature. They are a very scalable and modular technology. The difference between a 4 MW battery system in a 400 MW battery system is replicating the same thing again and again, in terms of interconnection to the transmission line is all established utility practice. We feel we have a unique capability as a distribution utility to understand and navigate those. It's at a level now where we believe and certainly the IESO believes that these technologies can be deployed at this scale as a commercially viable alternative to some of the traditional generation and grid infrastructure technologies that we've had.

<p>2. You mentioned a lot about fire suppression techniques, your experience, and your fireproof boxes. What about explosion proof?</p>	<p>When you maybe read about some of these battery fires that have occurred especially a number of years ago, the majority of the issue was the fact that when they do start to overheat and start to combust there are gases that are released and if they are not vented then that can be especially dangerous. The new designs have built in systems to ensure that in the case of pressurization within those cabinets, they allow gases to be vented. As well we don't employ large containers, it used to be you'd have a walk in enclosure with the battery racks, we don't really do that anymore. They are much smaller modular systems, they have doors that open to the outside, they're not designed for anyone to go inside. It's one area where there has been a really great advances that have dramatically improved the safety versus some of those older legacy systems and so that's a risk that we think has been really well mitigated with these technologies.</p>
<p>3. I presume that the intention is not that these sort of sit idly by and then suddenly when we have a power cut, they jump into action. Is the intention that this is going be used for power consumption monitoring as well so it's going to be constantly charging and discharging to the grid?</p>	<p>It's going to be dependant on what the IESO needs are. It's a capacity service which means the obligation is that we have to make sure that we are able to deliver those four hours of power between certain hours of the day. Between 7:00 AM and 11:00 PM, we basically have to be on standby ready to go if there is, for example, a contingency event, for example, a major outage, a generator goes down the IESO suddenly needs to bring online several 100 megawatts of power in a matter of minutes. We are able to fill that gap while they then are able to dispatch alternatives in the market or through interties or other methods that they have for those longer durations. If there isn't such a need, then essentially we, like a lot of the gas plants, are ready to go provide power, but we are essentially on call for the IESO. If they ask us to discharge, we'll provide power to the grid during those hours, we will then charge back up during the off hours and be ready to go for the next day. If the IESO doesn't need us to discharge power, then we wouldn't be cycling the batteries because we want to make sure that we maintain that that state of charge throughout that period as a resource, being ready to go and when we're dispatched.</p>

<p>4. Why are these being put on farmland?</p>	<p>Ontario needs power on the transmission system. They're looking at different options to try and address the capacity shortfall that they're facing and in consideration of that, they could build new transmission lines, they could build new nuclear plants, they could build new gas plants, or they can build this energy storage, which is what we're proposing. The issue is that they have concerns starting really in the next two years because all three of the major nuclear plants in Ontario are going through either refurbishment or retirement. The province needs power, and they need it soon.</p>
<p>5. Our biggest problem right now is if our water here in the rural areas gets contaminated, it's a huge issue because all the residents are out here, rely on it. 7 million people that live in the GTA do not drink well water, and if there is an environmental danger, it is air pollution only. There's plenty of land in in the cities to accommodate these battery plants. There is plenty of room to scale up. Put them on top of buildings. There's tons and tons of different options. It just so happens to be the least expensive to put them out in farmlands. The lease agreements are the cheapest as well as environmental hazards. It's one of the cheapest ways to ensure these battery plants.</p>	<p>One of the considerations why you're seeing these projects being proposed not just by us, but by lots of proponents and developers in these areas is in part because Ontario does not have the capacity right now to host these systems on the transmission and distribution grids in the load pockets, because there's been such significant growth of electrical demand.</p> <p>That was one issue you raised and it really comes down to the fact the Windsor and Sarnia regions are booming. The GTAA load growth is significant. There are electric vehicles coming online and there's an increasing electrical demand and there's increasing electrification, especially at large steel facilities like.</p>
<p>6. What municipalities already have working battery systems?</p>	<p>There are systems in Sault Ste. Marie and Barrie, and there's several systems obviously in the GTA and in the Windsor and Sarnia region. There are systems in Kingston. In Ontario's case behind the meters of very large industrial loads, and that's really the ideal solution. IESO is trying to get reinforcement on the transmission grid, so you haven't seen too many of these styles of systems in Ontario yet. They're very common in California. They're common throughout parts of PJM and the eastern and northeast states. But we haven't seen many in Canada and even in Ontario, which is relatively advanced compared to the other provinces in in terms of the amount and volume of storage on the grid.</p>

<p>7. Taking 13 acres out of more farmland, that just keeps contributing to the 319 acres that we lose every day. We have a valuable resource of farmland and we're losing it to more urban projects like this one. We have a ton of land available in the cities and if these battery plants are safe, there should be no reason not to have these battery plants in the outskirts of the cities. Is it because of transmission that we're building here or is it because of locations and being rural?</p>	<p>It really does, from our standpoint, boil down to transmission, that's the reason you're seeing this cluster of development in your area. The area between Bruce Power and the larger urban centers to the South, this is one of the last areas in Ontario that has available capacity for new generation on the transmission grid and that's why you're seeing a whole bunch of these projects being proposed, not just by us.</p>
<p>8. The transmission lines, there's a huge amount of land already purchased through acquisition due to the twinning or the tripling of the Bruce Power Lines. What's wrong with using some of the land that's already been basically idle. Why can you not put it right beside the power lines?</p>	<p>It comes down to ownership. You can put it outside of 100 meters of the right of way for the transmission lines. That is the set back requirement that Hydro One has.</p>
<p>9. I know that Hydro One has a lot of land under their acquisition. I guess it was 20 or 25 years ago, maybe sold some of it, but they still have under ownership a lot of land that's not being farmed. Why is it not going there?</p>	<p>We approached Hydro One to try to site these projects on their land and Hydro One's unwilling to offer that land of for this type of development.</p>
<p>10. Did you make full disclosure on how much rent you're paying to this farmer or this landowner? Are you also disclosing on who owns the land?</p>	<p>No. We're not doing that in these public information sessions.</p>
<p>11. I know that the Ontario teachers' pension are heavily invested, they spend about a billion dollars every year for the last 15 years in Ontario farmland. Are they going to get some of these contracts as well?</p>	<p>The organizations that they finance may win some of the contracts, they themselves will not.</p>

<p>12. What you're saying is that most or maybe possibly a good portion of the rents that are supposed to be paid on these lands will actually not stay in the community. So not only is all the energy supposed to go to the city, but all the profits or the potential rental income is also going to go towards the city.</p>	<p>I can tell you the owners of these parcels are local in the community. It's a family farm and to the best of my knowledge they live and work in this community.</p>
<p>13. Is that the landowners dwelling on the proposed site?</p>	<p>Yes, I don't know if the if that's the owner's residence, but there is a dwelling there.</p>
<p>14. I just don't understand why the focus is so hard and ingrained into making this a problem for the people here in the rural country.</p>	<p>This is across Ontario and it's a product of the politics and the way that the IESO and Hydro One interact. In the interest of transparency, again, we lobbied very hard to push the IESO to incentivize development of these assets closer into the cities and the IESO explicitly refused to do so because the areas close to the cities don't have the capacity for the projects that we need.</p>
<p>15. Aside from Belwood, what other locations are you proposing?</p>	<p>The Greater Toronto area, that stretch of land basically between Ottawa and Toronto, where a lot of that nuclear generation is being lost. That's an area that needs more reinforcement, that's really where we're focusing.</p>
<p>16. What's the life of the battery plant proposed in Belwood?</p>	<p>21 years. The battery plant is allowed to degrade at 1% per year into the 21-year contract. It will have 79% or 80% of its original capacity left. It could be re-contracted for future use, but the initial contract is 21 years.</p>
<p>17. Does the risk of fire as the years go by go up?</p>	<p>The risk of fire does not go up if. Batteries are most volatile at the beginning. Due to the chemistry of the batteries, they are most volatile at the beginning of life. By the end of life, they're storing less power, so the risk of fire fundamentally goes down as they degrade.</p>