Greenock Community Engagement Meeting Minutes

MEETING SPECIFICS:

- Date – November 22, 2023
- Start time – 5:00pm
- Location –
  - Virtual: Teams Call
  - In-Person: Cargill Community Centre 999 Greenock Brant Townline, Cargill, ON N0J 1J0
- Host(s) – David Anders, Director, Distributed Energy Solutions (Alectra)
  Tremor Temchin, SVP, Development (Convergent)

ATTENDEES:

- Sean M
- Tanya P
- Vickie Z
- Judi P
- Lorne S
- Debbie S
- Nancy D
- Dylan M
- Paul Z
- Bobbi P
- Donna R
- Norm R
- Randy A
- Larry L
- Mike S
- Cheryl H
- Allan D
- Travis W
- Ed S
- Ian B

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. Where are the batteries produced?	• Batteries are produced in Korea; the systems are integrated typically by very large North American companies.
2. Where are you proposing it?	• Concession Rd 10

3. How was this advertised?	• We sent out letters to all neighbouring properties, adjacent landowners. If you are an adjacent property and did not receive a letter, that was a mistake, and you should have received one. We also notified the Town Council of the meetings. • This was on our website, and we worked to extensively with Sonia and Fiona to ensure this was added to the municipal website as well.
4. We should not be moving forward with this.	• We aren't suggesting that this is the only site in the province to put an energy storage system. There are other companies right now proposing other sites. We are dealing with a compressed timeline and looking for land that's available in close proximity to transmission lines. The more remote we make it, the harder it will be for us to service and respond to. • The IESO are not allowing any of these systems north of Barrie. There is essentially one transmission corridor that connects the North to Southern Ontario and that transmission corridor is completely off limits because the province is putting a bunch of wind north of Barrie. They have asked us to stay south of Barrie and there are areas that off limits, Windsor and Sarnia, most of the GTA, Ottawa is very difficult as well.
5. At the previous council meeting, you displayed another area with an A plan/B plan. Have you changed where you are going to do this?	• This site has not expanded, this is still 10 acres. Initially we had looked at 2 different landowners as an overall parcel with the idea that somewhere on that parcel we would situate the project. This is to represent the amount of area we need. Currently we have refined the area, we are considering only this parcel. We heard significant feedback during the last community meeting about site being closer to the road. We are trying to be responsive and respectful of the feedback we are getting.
6. You are not really generating hydro; you are storing it. Why are you concerned about the grid being overloaded? From my understanding, if you're trying to supplement when loads are off peak and you're trying to get rid of green house gases which is natural gas. Why wouldn't the preferred area be close to a natural gas plant? Is it really a capacity issue because you're not really contributing to the capacity.	• When the IESO looks at capacity on the transmission system, they look at the maximum power flowing on that line whether its for an hour, half an hour or 10 minutes, they have to ensure there is no congestion and no issues. We are not a generator, but we are generating power in the sense that we are storing during off peak and the hours where we are asked to, we are pushing power on the line as a generator. We will be acting as a generator as required by the IESO. The IESO is going to call on these resources for a variety of reasons. It could be because a line is out, and another generator is down and they need to quickly put more power on. They are also going to look to the energy markets and bring on more generation for longer durations, but they are going to need something to bridge that gap.
7. Why don't you put it	• Transmission loses are typically very low. There are lots of

closer to your transformer station?	questions about putting these somewhere else and there are a lot of projects being proposed in other places. Right now, this is the project that we are proposing. We've already had to provide these sites to the IESO for consideration. We don't have the flexibility now to change the site to another location. We do have a number of sites that we are evaluating as part of this process, and we have been narrowing it down and we will be submitting a list to the IESO of the projects that we feel are the most viable to move forward.
8. The regional infrastructure plan from Hydro One for the Greater Bruce and Huron regions identified by the end of 2028 that those two lines need 200 MW by the end of it. In less than a decade we are going to be looking at adding more capacity regardless. There are no load centres north of the proposed site, they are all south. You are going to have to discharge these batteries at a much higher rate.	• We rely on the IESO working with Hydro One to identify capacity - for what we need; this is a location that can provide it. • The IESO requires many different services to help the grid work. Generation is one, many generators have bi-lateral contracts with the IESO. Capacity is bringing power on very quickly for short durations. Through operating regulations to ensure reliability, right now that is typically provided by natural gas. • We are going to be contracted to supply the capacity service to the IESO but when we charge and discharge, we are going to be paying market rates just like everybody else. • The IESO and Hydro One are trying to plan around contingency events. If one of the reactors goes down, they want to have capacity available on these circuits to fill that up. A fast-reacting system like this one is actually a very good solution.
9. How many hours do you have?	• The system is designed to provide 4hrs at its rated capacity. That means that at half of that capacity it could provide up to 8 hours, which is what the IESO asked for.
10. Are these things switching in and out all the time?	• Not all the time but you're on the right track, it is used to stabilize demand and supply of power. • This is a system wide service that can be connected to the transmission grid, its not required to be near the load or generator.
11. Are there already other projects like this one built on Ontario or Canada? If there is, how has the land value depreciated around those sites?	• Through this procurement process there have already been 250-300 MW of battery storage that has already been awarded and is in the process of being constructed now. There are smaller projects in operation, but there is nothing of this size that is currently operating. I can't answer your question on the land value as there are a lot of factors that affect value.
12. Has there been some analysis done to help you determine this specific site?	• We have done some initial due diligence onsite for the purposes of our preliminary analysis. As we go through that whole process, post award, through planning we will be doing detailed site survey. • We canvassed a number of different sites throughout Ontario. As this is a condensed process, we looked at available land

	near transmission lines that are in areas that have a good chance of being deliverable. We are in that process now of refining that list and engaging communities. We started with 10 different sites; we've narrowed that down to about 5 that we are still looking at.
13. Is there a written report?	• There is no written report. We are at very early stage of this process, there is going to be a whole planning process at the municipal level and provincial level, environmental assessments, engineering reports that we will have to undertake.
14. Was there a site evaluation?	• Yes, we have evaluated the site and due diligence report was completed, high level factors like constructability access, any environmental issues. We had numerous sites and we have eliminated some of those sites and are moving forward with only the ones that are still viable.
15. Are there any of these projects anywhere or is this a prototype thing? If yes, how successful are they?	• Yes, they are very successful because they are extremely flexible, and they provide a service that is very hard to get from other sources. • They do two services simultaneously; they can take power off the grid and charge up so they can serve as a load, and they can feed that power back when you need it. • This project would be a drop in the bucket when compared to how many of these projects are already in operation globally right now. • Convergent has projects in Sault Ste Marie, Windsor, Sarnia, all that we developed starting in 2016 and onward without fail.
16. You say that battery storage is safe, how many fires have you had this summer? Water doesn't put out these fires, one was burning for 4 days.	• We had 2 product failures this summer in upstate New York. • Nobody was injured, there was no contamination found in the soil or the air. We conducted all the studies through a third party and all those failures, to be explicit, were product failures. That means that the product that we sourced, which is different then the product here, failed because of poor manufacturing.
17. For public transparency, can you provide clarity on how the misunderstanding of a solar project came to be?	• We went through an extensive process throughout Southern Ontario to look for available sites. We used land agents to speak with potential landowners. • The land agents' mis-represented the solutions as 'like solar'. We've profusely apologised to landowners that it was misrepresented.
18. What do you do with it when its done, how do you get rid of it? What will it take to stop this from proceeding?	• The contact is for 21 years. At the end of the contract, we expect the project to still be viable, battery capacity will be about 80%. We can refurbish it, re-contract it, augment it and continue to provide the same service on an ongoing basis, if we need to, we can de-commission the site which means removing the batteries. Battery themselves, about 80%, will be recycled by the manufacturers. • We are seeking municipal support to help us move forward with this project.

19. If there was a fire, how far back do you have to evacuate? How will our volunteer firefighter's department be able to put these out?	• One of the first things we do is engage the local fire department, make them aware of the technology and how to treat it in case of a fire. • Its standard practice now to ensure training and build an emergency response plan. They will also inform who get notified in case of a fire. • By the time this project is operational, we would have had a hazard mitigation study, an emergency response plan, repeated trainings with the local fire department. • The way these failures work, these systems are spaced out, if one module catches fire the goal is to prevent propagation to other modules. • There may be no evacuation necessary, as it may only be one module out of 100s that fail.
20. How many of these units to you operate?	• We have over a gigawatt operating in North America.
21. If overall demand needs more power, we need to generate more power. Basically, you guys buy low and sell high.	• The transaction on the energy side, there are two separate markets that are operating on the energy side in Ontario. As a wholesale participate you pay and hourly price for the electricity that you provide. If you put it back on the grid you get paid the hourly price whatever that happens to be. When there is more demand for electricity, the price tends to increase, when it's less it goes down. • We have this capacity on call and ready to go for the IESO to deploy when they need it.
22. If we do take all the lines capacity to discharge these as a top up over 8 hours, there is ample capacity and generation capacity to put the 250MW on the connector.	• The IESO is looking into those resources as part of the capacity. They will need, starting in 2028, an additional shortfall that they aren't going to be able to meet. • The issue is the timeline to build those new resources. It takes longer than 2028, they are looking at 2035 for some of the big nuclear refurbishments, SMRs coming online in different locations.
23. Brockton itself already has very limited aggregate resources. Would you guys take all the available aggregate and leave local the community with nothing for housing projects, agricultural?	• We would not do that to this community. If the community needs that aggregate, we will obviously have that conversation with the community.
24. The $250,000 a year the municipality would be receiving would be taken up quite quickly.	• That would be for any other needs the community has. Anything related to the direct cost of the project would be us.
25. This property only has weight restricted roads leading to it. A project this size has a lot of truck	• Municipality will work with Alectra to ensure they are not left in a worse state.

drops. Who pays for the repairs to these roads?	
26. If there is a fire, it's going to take the fire department 30 minutes to get there. What are the neighbours supposed to do in that time?	• Where we are currently siting it, it is set back quite aways away form your property line. The response plan is going to take into account that nature of the technology and the nature of the site. • One of the ways it is mitigated is if there is a failure in an individual cell, the way it is designed is to contain that failure. • We will be going through provincial approvals for environment identifying if there is any risk, there should be no air or water impacts. There shouldn't be any contamination off-site at all.
27. How many no's do you need to put a stop to it?	• As we said, we are looking for municipal council support to help us propose this project to the IESO and the IESO will decide whether or not it gets awarded.
28. Even if council says no, you can still go to IESO?	• We need municipal support for the project.
29. Do you know what kind of gases are omitted when these batteries are on fire?	• Primarily the issues we would be talking about are carbon dioxide, carbon monoxide, oxygen, hydrogen, hydrocarbons. • Earlier levels of design where they didn't have a requirement to vent the gas builds up and there have been explosions. There is now a requirement in all these containments that they vent. • Where they've had fires, they have had monitoring of any hazardous gases around the area, and they have not found harmful emittance.
30. If the wind was blowing in this neighbours window you should be open about what gases.	• This will all be a part of the hazard assessment. They will do an air modeling study. • We will work with manufacturer to understand their product and how it responds to fire. • There is a UL9540 standard, it's a full-scale fire testing for exactly these products. • The products failures we had in upstate New York this year, one of them was close to a school, we had a hazmat team on-site immediately and we will share these reports with you when they become public but the air emissions, the soil emissions, the water emissions, across the board these were found to be not dangerous.
31. How can you get your study done in a year?	• This has been a priority to us.
32. Is the Brockton fire chief and emergency management office aware of this project?	• We haven't personally engaged them yet; this would be a step we would do. • Municipal response: yes, the fire chief is aware of it. • There are multiple ways you can respond to a fire, you can use water and water is sometimes used to cool adjacent units, not sprayed directly on the fire. There is also a consideration where you allow that single unit to burn itself down where you don't use water because you don't want to contaminate the soil and you don't want to have run off into the Greenock swamp and I think that's probably something we would really consider here.

33. Is the $250,000 yearly municipal contribution a new thing? Was it proposed at the last meeting?	• That wasn't announced at the last meeting, but it is part of what we want to propose to add to the benefits.
34. You mentioned the ideal place would be near Windsor. Is it because it's not safe to build in Windsor or because you don't have the land?	• It's neither, it comes down to that capacity. The IESO awarded a round of projects in February and then again in June and all of the capacity that was there in Windsor has been used up. • You literally cannot find a way to interconnect them electrically to the grid. • In the previous round of procurement, we did have projects in areas in Southern Ontario and a number of those were awarded so that gave us some insights into where the constraints were.
35. Where is your closest project right now that is up and running?	• We have projects in Bolton, Sarnia, Windsor, Sault Ste Marie, Kingston. • Alectra has some projects in Guelph, 3 battery projects under construction in Vaughan and Guelph.
36. No rural projects yet?	• Our Sault Ste Marie project is quite rural.
37. But is it up and running?	• Yes. That one has been operating since 2018.
38. Has there been any studies to see what the sound of the units does to the wildlife in the area?	• The ministry of environment and conservation has a very strict requirement for these systems. They have indicated that these systems cannot emit more than 40 decibels at any given time at the points of receptor. The sound is created by the HVAC systems, generally it's not very loud. • The notion is that these are fairly pulled back and we will conduct an acoustic study and that study will dictate the receptors, just as the gentleman's house across the road, that would be a receptor.
39. 40 decibels sounds awfully low.	• That's at the receptor. Obviously, we have to have these set back enough and have any particular screening or noise mitigation. • It's quiet and there are strict requirements. If we did find that we were not meeting noise specs it means, we would have to put additional mitigation measures to meet that requirement.
40. I live 500 meters from this line, why did you guys get their farm and not mine?	• There is going to be more rounds of this procurement, let's have a talk after this. We unfortunately didn't have the luxury of engaging every potential landowner. We are on a constrained timeline with bids due on the 12th and we have already submitted the specific points of interconnection to the IESO and now we can't deviate from those points.
41. These are lines that could be used up when we locally could need the capacity in 15-20 years.	• This is different than a load. We are dispatched by the IESO specifically when it's required to help serve that load. We are not going to be allowed to operate in any way that further constrains the system.
42. The Hydro One study identified that the only	• The IESO has already published guidance on where they want these projects to be located and where they can't be

long-term energy needs in the Greater Huron/Bruce as additional load capacity that was needed was down on the Steveport LS7 line. Everything else regionally was fine.	accommodated. • There has been a lot of different ways on how the IESO has procured energy capacity, there's power markets, bi-lateral contracts. • Part of what they are doing is also Conservation and Demand Management, they are worried about how the grid is going to stay reliable after 2028. We aren't going to get as much power from Quebec, that power is going to New York, the nuclear plants are reaching their end of life and are needing refurbishment, the gird is fairly constrained in the major cities and the IESO is trying to find a rapid way to respond to this emerging need.
43. You mentioned earlier that there would be local jobs, but this is a remotely monitored station, I don't see any opportunity for the local economy.	• We obviously want as much of the benefit of this project to stay in this community. Most of the jobs with an asset like this happen in construction. We know they are shorter term jobs - construction, engineering, planning, permitting. • We did this with our other projects as well, we really tried to work with local contractors to keep money local. • In the operations phase it does ramp down, it becomes more site maintenance and O&M operations.
44. We championed gas when it came to the municipality just a couple meetings ago.	• The IESO needs both and they are looking at procuring both. In the long term the province has positioned it that they ultimately eventually want to get off of gas. Those of us that want to move towards cleaner sources of electricity know that it has to be a process and that gas has a role to play right now. • Right now, they want the most economical resource that can do the job whether its gas, or energy storage as long as it can perform for what it's required to do. • Ontario is blessed by having one of the cleanest grids. It's 95% clean generation at night and that's because we have the nuclear plants and hydro as the two generation sources at night that makes a clean grid. That clean grid is what makes this attractive for foreign businesses to come in and want to manufacture here. • Mercedes, VW, big manufacturers are coming to Ontario because it helps them drop their carbon emission numbers that they publicize on. • This project is not a silver bullet that is going to fix all the problems Ontario has, we are going to need gas, batteries, new generation. What this does is take that extra power that Bruce is producing at night that historically got shipped across the boarder to New York and sometimes we had to pay New York to take it, we take that extra power, we put it in the battery, and we put it back in Ontario during the day.
45. It's in the exact wrong spot based on the Hydro One report from a year ago.	• The study talks about the lines eventually becoming constrained and the issue is that they are going to run out of enough capacity to carry the power during the peak periods. We are charging at night, not during peak periods when there is extra capacity on those lines and we are trying to feed it back into the grid. I understand what you're saying when we feed back into the grid during those peak periods, those line

	may become constrained in 15-20 years from now. That's a challenge we are all up against as a province.
46. How could they approve this?	• We are going to be engaging with them and making sure that we adhere to any of the restrictions they have when it come to environmental protection.