# Community Engagement Meeting

Greenock Energy Storage Project

November 22, 2023

# Agenda

- Introduction to the Alectra Convergent Joint Venture
- Overview of Ontario's Electrical Needs and the IESO Procurement
- Battery Energy Storage System Operations and Technology
- Greenock Project Overview
- Benefits for the Municipality of Brockton and Ontario
- Community Q&A

# About the Alectra Convergent JV

*The JV brings together two of Ontario's most experienced & trusted energy storage developers; our goal is to help meet Ontario's growing electricity reliability and decarbonization needs*

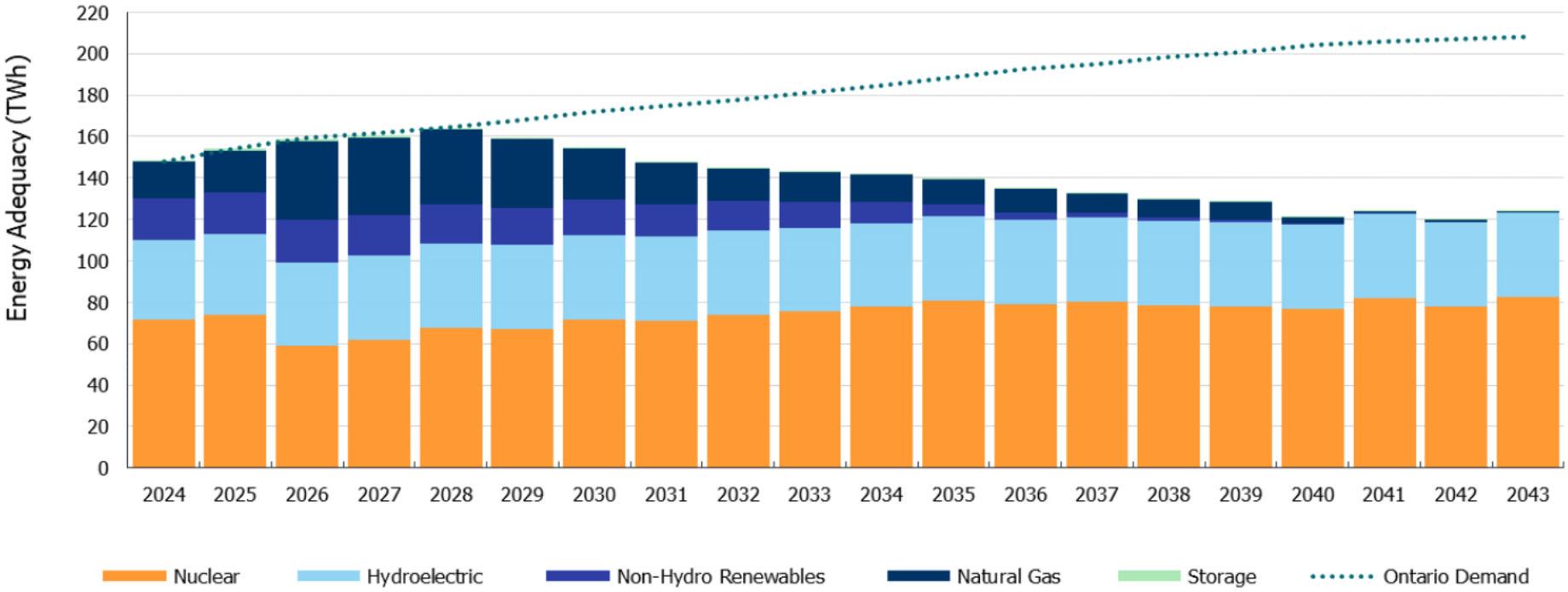
- Alectra Energy Solutions (AES) is a progressive and customer-focused energy company working in many Ontario communities
- As part of the Alectra Inc. family of companies, which includes Alectra Utilities Corporation, a **local utility company** serving more than one million homes and businesses in 17 communities in Ontario's Greater Golden Horseshoe area
- Alectra Utilities is the largest **municipally-owned** electric utility in Canada, based on the total number of customers served

- Founded in 2011, Convergent Energy and Power is a **leading developer of energy storage solutions** in North America.
- Portfolio includes over **1 GW of storage** solutions operating, in construction, or awarded to-date
- Owned by Energy Capital Partners, a leading energy transition private equity fund with **$500M of capital** support for Convergent to-date
- Built **first energy storage asset in Ontario** in 2015; currently operating >45MWs in the Province with customers such as Shell, Ford, Pilkington and the IESO

# Ontario Needs New Capacity

*Ontario is facing electrical capacity shortfalls in the starting in 2028, and the IESO is in the process of acquiring capacity – including energy storage – to support future growth*

- The IESO has forecast the need for additional resources to support the grid, starting in 2028, due to load growth, and retirement of generation assets
- The Long Term 1 RFP process aims to procure 2,200 MW of new energy storage and generation resources to offset this capacity gap




*Source: IESO.ca*

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# Overview of the IESO Procurement

*Ontario is in the process of acquiring long term capacity to support future growth, and the Alectra Convergent JV firmly believes in the "Power of Partnership" with local communities*

***The Opportunity***

- To support projected capacity needs, a Long-Term RFP ("LT1") has been issued by the Independent Electricity System Operator (IESO)
- The LT1 process is now underway with a target of procuring a total of 2200 MW in additional resources to be online by 2028
- Our JV has been pre-qualified to participate in the request for proposals; and was awarded 80MW / 320 MWh of projects in the previous round of the RFP
- The IESO has conducted deliverability assessments on specific proposed project locations put forward by the proponents; capacity for our projects has been affirmed

***The JV Approach***

- The Alectra Convergent JV firmly believes that partnership with local communities is the best pathway to achieving long-term, sustainable success for LT1 projects
- We will work expeditiously to consult with local communities and Municipal Councils to address concerns and build support for the proposed project

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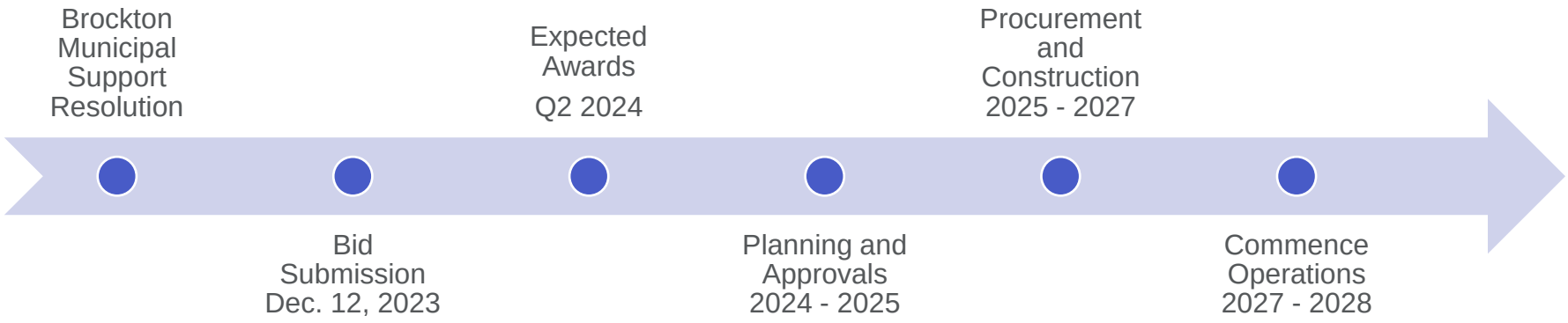
# Municipal Support: The First Step

*The Alectra Convergent JV will work with the municipal and provincial authorities as part of the planning and approvals process*




- A Municipal Support Resolution is not a full and final approval of the project – it is a sign that the Municipality is open to considering this project further
- Significant collaboration with the Municipality will be required between now and the start of construction, including:
  - Site plan approvals by the municipality, including zoning or planning amendments
  - Approval for utility interconnection by Hydro One and the IESO
  - Environmental Impact studies (including noise emissions) and approvals through the Ministry of Environment and Climate Protection (MECP)
  - On-going training and support for the Fire Department and First Responders
  - Inspection and approval by the Electrical Safety Authority

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# Battery Energy Storage Systems - Operations

*Battery Energy Storage Systems (BESS) are safe, affordable, long-lasting energy resources that will make Ontario's electricity grid cleaner, more reliable and more resilient*

- **Operations Profile:** BESS provides flexible power to support the operation of the electricity grid; overnight, the BESS will charge using surplus power on the grid, and it will store that power for use during the day, when demand for electricity is higher
- **Advantages over traditional generation:** BESS can be deployed more quickly than new transmission lines, gas plants or nuclear generation
- **Emissions Free:** BESS produce no point source air, gas or liquid emissions
- **Visual & Acoustic Impact Mitigation:** In an effort to minimize the visual impact of the BESS, the site will be screened by vegetation and landscaping. An acoustic study will be conducted to ensure that noise emissions from the BESS comply with all MECP requirements (40 dB at receptors).

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# Battery Energy Storage Systems - Technology

*Battery Energy Storage Systems (BESS) are safe, affordable, long-lasting energy resources that will make Ontario's electricity grid cleaner, more reliable and more resilient*

- **Tier 1 Batteries & Best-in-Class Integrators:** the Alectra Convergent Development JV will exclusively use Tier 1 Lithium-Ion batteries integrated by major manufacturers that provide performance guarantees for the full contract duration.
- **Safety:** BESS will incorporate 24/7 remote monitoring with a multi-layer approach to fire suppression including dry chemicals and/or deluge systems, in accordance with UL and CUL certifications and NFPA855 codes.


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# Proposed Project Details: Greenock

*The Greenock BESS project intends to build 250MW of capacity*


| Key Information | |
|---|---|
| Address | 1091 Sideroad 5 Greenock, ON N0G 1J0 |
| Site Coordinates | 44.187954, -81.288203 |
| Interconnection Coordinates | 44.183513, -81.293323 |
| Maximum Project Size | 250 MW / 1000 MWh Circuits B22D & B23D |
| BESS Parcel Size | 15 Acres |
| Soil Class | Not prime agriculture |
| Technology | Tier 1 Lithium-Ion BESS |

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# Project Benefits: Community Partnership Payment

*The Alectra Convergent JV recognizes the importance of partnership with the Municipality of Brockton, and is offering a meaningful long-term investment in the community*

**Funding to Support Brockton**

- The Alectra Convergent JV will offer the Municipality an annual payment of $1,000 / MW of Contracted Capacity for the 21-year life of the contract.
- These annual payments will start 1 year after the project achieves Commercial Operation
- If the IESO awards the full proposed Contracted Capacity to the project, this funding would equate to:
    - Up to **$250,000 per year**
    - Up to **$5,250,000** over the 21-year contract life


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# Project Benefits – Beyond Brockton

*The Alectra Convergent JV will maximize local and province-wide benefits in the following key areas*

## Strengthening Ontario's grid

- These projects will be a key resource in maintaining the safe and reliable operation of Ontario's electricity grid; they will serve as a flexible, quick-reacting resource to balance the grid during volatility
- Additional capacity will give Ontario the ability to address increased load growth and electrification over the coming decades; this supports economic growth across Ontario
- For the Municipality of Brockton, this BESS will aid in balancing the local transmission grid, helping to prevent grid outages and improve reconnection times after blackouts

## Local and province-wide economic benefits

- BESS can provide needed capacity at a lower cost than traditional generation or transmission infrastructure, meaning lower costs for ratepayers
- Project construction and operations will engage local labour and businesses, leading to job creation
- Tax revenue will flow to both the Municipality and the Province

## Protecting the environment and supporting clean energy production

- Technology will have minimal site impact, with no emissions
- BESS will reduce the reliance on natural gas peaking plants, and maximize the use of clean Hydro, Nuclear and Renewable energy
- Each MW of storage will eliminate 40.23 tonnes of $CO_2$ per year.

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# Questions?

*We look forward to forging a strong partnership with you to help Ontario meet its energy needs, and build safe, successful energy projects within our communities*

Minutes from this meeting will be uploaded to
www.AlectraConvergentJV.com
for reference by community members who were not able to attend this meeting


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# Appendix: Community FAQ

# Community Engagement Questions

*The Alectra Convergent JV values feedback, and aims to provide transparent, accurate responses to your questions*

**Q: What will be done to mitigate the risk of fire and environmental contamination?**

A: Safety is our top priority. The JV is committed to ensuring the safety of our systems and the well-being of our customers, community partners, employees, and vendors. While the risk of operating electrical infrastructure will never be zero, our approach is comprised of a multifaceted plan:

1. Procuring our BESS from best-in-class, Tier 1 BESS suppliers, who have deployed gigawatts of systems across the globe and share our prioritization of safety.
2. Ensuring that every piece of equipment on site – from the batteries, to the inverters, to the transformers, to the switchgear, to the smoke detectors and fire suppression systems – are fully certified and compliant with the relevant regulations issued by UL, NFPA, Hydro One and other AHJs
3. Conducting site-specific Hazard Mitigation Studies (HMS), carried out by an independent, third party, energy storage expert. These studies will identify potential risks and formulate mitigation measures that take into account the system specifications, the specific project location and specific site conditions.
4. Designing the project to incorporate all required setbacks and adequate spacing, as identified in the HMS.
5. Drafting, issuing and maintaining an Emergency Response Plan, tailored to address a wide range of potential situations.
6. Conducting ongoing training and support for the local Fire Department and First Responders.
7. Incorporating 24/7 remote monitoring capabilities with a multi-layer approach to fire detection (e.g., gas sensors, temperature sensors, and early detection warnings like cell voltage) and suppression.
8. Strict adherence to operational and maintenance requirements, including the construction and maintenance of emergency access roads.

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# Community Engagement Questions

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**Q: How will this affect the Walkerton Fire Department? How will your proposal support training and response?**

A: The JV will commission periodic trainings for the fire department before the system is commissioned and once the system is operational to ensure familiarity with the equipment on the ground, presence of hazards, and the "as built conditions" of the site, including access routes and emergency stop locations. These trainings will be conducted by certified experts in energy storage emergency response. The Fire Department will also be consulted during the drafting of – and ultimately issued - an Emergency Response Plan, tailored to address a wide range of potential situations at each specific BESS site. If additional equipment is required to build the capacity of the Walkerton Fire Department, the JV is proposing an annual Community Partnership Payment to offset these costs.

**Q: Will the BESS impose any costs on the Municipality's ratepayers?**

A: The BESS is 100% contracted by the IESO, so it is paid for by all of Ontario's ratepayers as the BESS delivers its capacity to the grid. Beyond that cost, there will be no cost to the Municipality. The Alectra Convergent JV will pay for the training of the local fire department, and cover all costs associated with the development, permitting, operations and maintenance of the system.

**Q: How close is the site to the transmission lines?**

A: The proposed site is 275m from the center of the B22D and B23D transmission circuits.

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# Community Engagement Questions

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**Q: Why is a Municipal Council Support Resolution needed now?**
A: While not required at this stage, obtaining a Support Resolution now will enhance the competitiveness of this project when it is evaluated by the IESO. If the Council opts not to issue a Support Resolution before the IESO bid deadline of Dec. 12, this project will be less likely to be awarded a contract by the IESO.

**Q: You previously showed two proposed siting options on the map – why did this change? Is the site shown tonight now the only site proposed in Brockton?**
A: We previously showed two proposed siting options in order to solicit feedback from the community. On the basis of this feedback, we determined that the site closer to the road raised significantly more concerns about safety from the community, so we have opted to eliminate that option. The site shown tonight is now the only site proposed in Brockton.

**Q: How would the Cargill/Greenock area and Brockton benefit?**
A: This project would produce significant benefits for the local community, including over $5.25M of revenue for the Municipality over the next 21 years, a more stable and resilient electric grid, local job creation, increased tax revenue, reduced long-term electricity costs, and a reduction in GHG emissions.

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# Community Engagement Questions

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**Q: What stage is the JV at in the process? What will be the next step?**

A: The JV is preparing to submit its bid to the IESO on December 12. We are working with BESS suppliers, EPC partners, development consultants and financiers to optimize our bid strategy and pricing. In parallel, we are engaging with Municipalities and Indigenous and First Nations communities to explore partnership opportunities.

**Q: When would this project be awarded by the IESO?**

A: The IESO will select projects and issue awards in May or June of 2024.

**Q: What happens to the BESS at the end of the contract?**

A: At the end of the contract, the BESS will have approximately 80% of its capacity remaining, so it can be recontracted to continue serving Ontario's grid or removed from the site and recycled / repurposed.

**Q: Do the batteries leak or produce gas?**

A: Unlike the lead-acid batteries in most cars, the Lithium-Ion batteries being used in these systems do not contain a liquid electrolyte, so there is no liquid to leak. At the smallest scale, the Lithium cells look a AA battery you would put inside a child's toy; they are fully sealed and will not leak or produce any off-gassing during normal operations.

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