Welcome

Grand Energy Storage LP
Open House

Have more questions or looking for additional information?

Please visit the Grand Energy Storage LP website at

www.grandenergystorage.ca

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Long-Term Request for Proposal Process

- Ontario is entering a period of emerging system needs that will require new electricity resources this decade.
- Ontario's Independent Electricity System Operator (IESO) is competitively securing up to 2500 MW of capacity through the Long-Term 1 RFP process.
- The LT1 RFP will acquire capacity services from new-build electricity resources with a commercial operation date of 2027, with the option of longer terms for those able to reach commercial operation earlier

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About Our Partnership

Samsung Renewable Energy Inc. (SRE),
Pattern Energy (Pattern) JV

SRE and Pattern developed and currently operate 5 Wind facilities in Ontario. As joint venture (JV) partners, we have been developing renewable projects in Ontario since 2010, and combined, our projects amount to ~800MW in capacity.

The communities that we have projects in include the Municipality of Chatham-Kent (2 projects: South Kent Wind and North Kent Wind), the Municipality of Kincardine (Armow Wind), Essex County (Belle River Wind), and Haldimand County (Grand Renewable Wind).

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Grand Renewable Wind

The 149 MW wind power facility commenced commercial operations in 2014.

Giving Back

Over the first 20 years of operations, the facility will contribute an estimated $15 million to the Community Vibrancy Fund. Administered by Haldimand County, the Community Vibrancy Fund supports land stewardship initiatives, recreational activities, community and protective services, and public infrastructure.

Long-Term Benefits

Grand Renewable Wind is estimated to generate over $45 million in direct economic activity in the community through property taxes and landowner royalties over the life of the project. The facility expects to produce an estimated $8 million in taxes over 20 years, benefitting Haldimand County.

Local Jobs

Approximately 12 full-time employees operate and maintain the facility at Grand Renewable Wind. We routinely work with local contractors and hire additional staff to meet seasonal needs.

Local Machines

Grand Renewable Wind features 67 Siemens 2.3 MW Ontario-made wind turbines with towers built in Windsor and blades manufactured in Tillsonburg.

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In the Community

Good Neighbours Produce Meaningful Partnerships

We believe in acting as a good neighbour through long-term engagement and giving. Grand Energy Storage equally commits to listening and respecting the landowners and communities that host our facilities through relationship building, open communication, and the reception of feedback.

We encourage you to call or email our team to start a conversation.

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About Grand Energy Storage

Pattern Energy Group (Pattern) and Samsung Renewable Energy Inc. (Samsung) are currently considering the installation of a Battery Energy Storage System (BESS).

- In proximity to the existing Grand Renewable Wind Facility located in Haldimand County, Ontario.
- The Grand Energy Storage LP (the Project) is expected to total 300MW.

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About Battery Storage

What is battery storage?

Battery storage, or battery energy storage systems, are facilities that enable energy directly from generation sources, or from transmission or distribution power grids, to be stored and then released when customers need power most.

Lithium-ion batteries, which are used in mobile phones and electric cars, are currently the most-used storage technology for large scale storage projects to help electricity grids ensure a reliable supply of energy.

Why is it needed?

Battery storage technology has a key part to play in ensuring homes and businesses can be powered by electricity. The energy system must match energy supply with customer demand.

Battery storage systems charge when energy sources are producing more energy than customers need and discharge during times of peak demand to provide a reliable, steady supply of energy.

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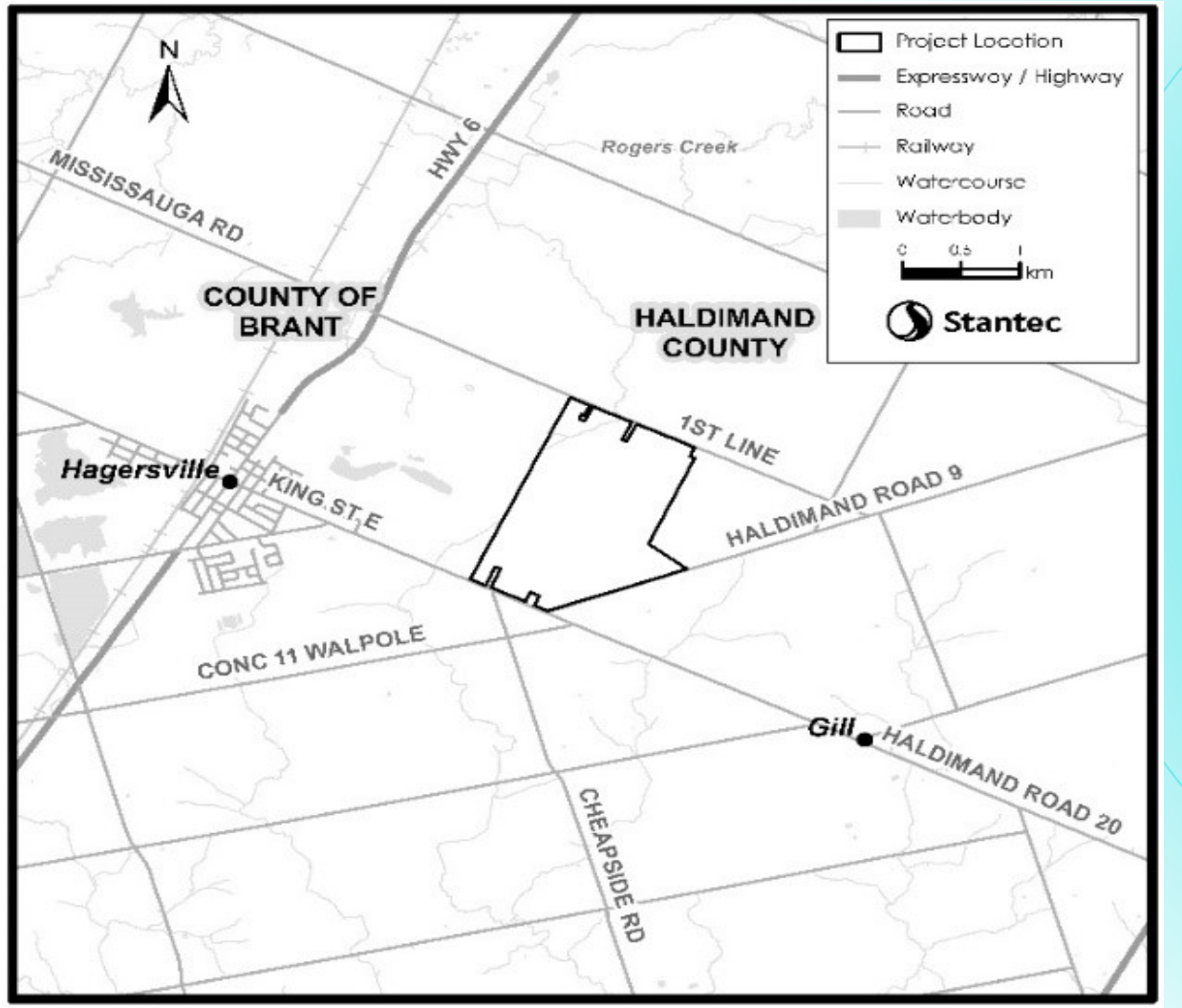
Proposed Property



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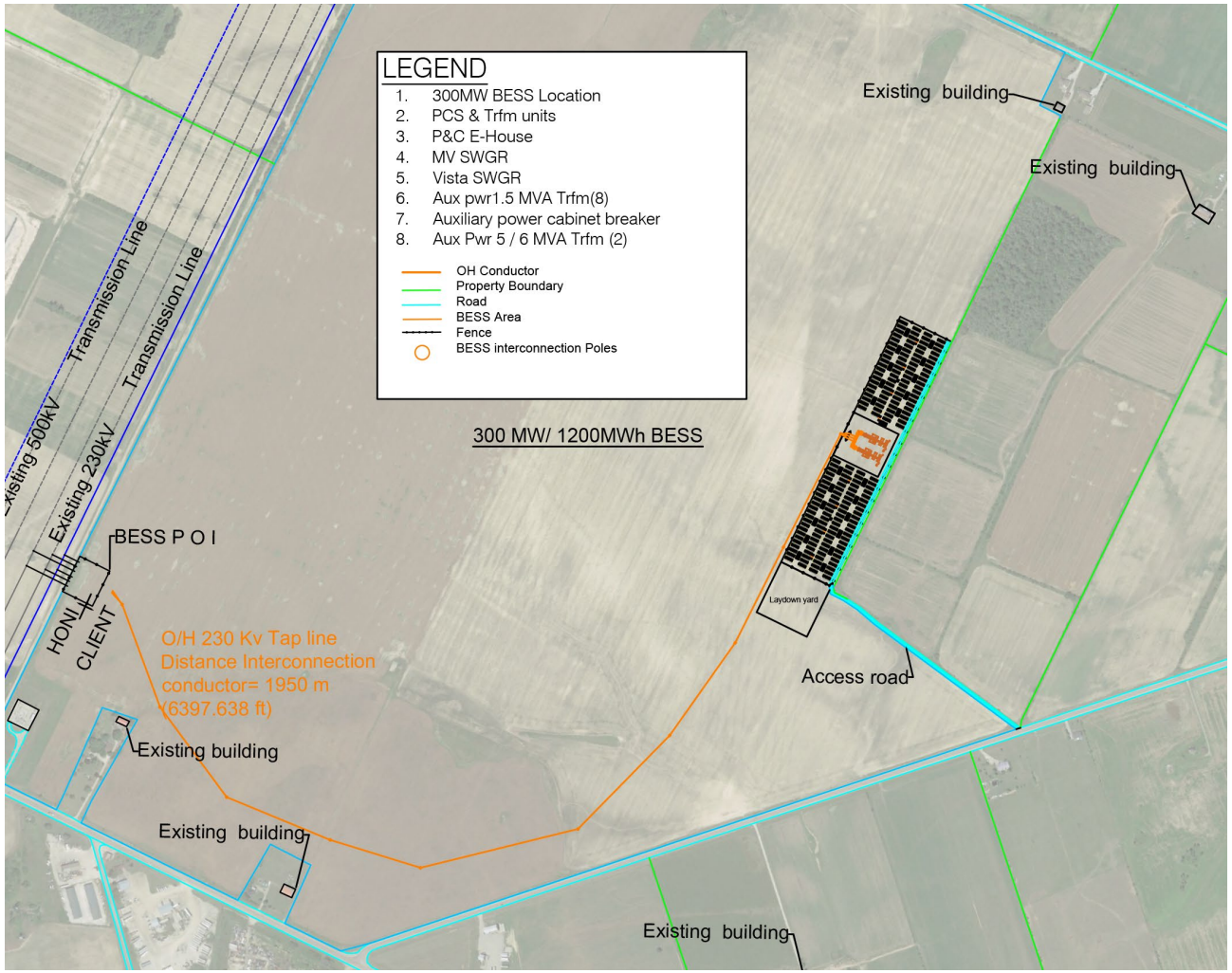
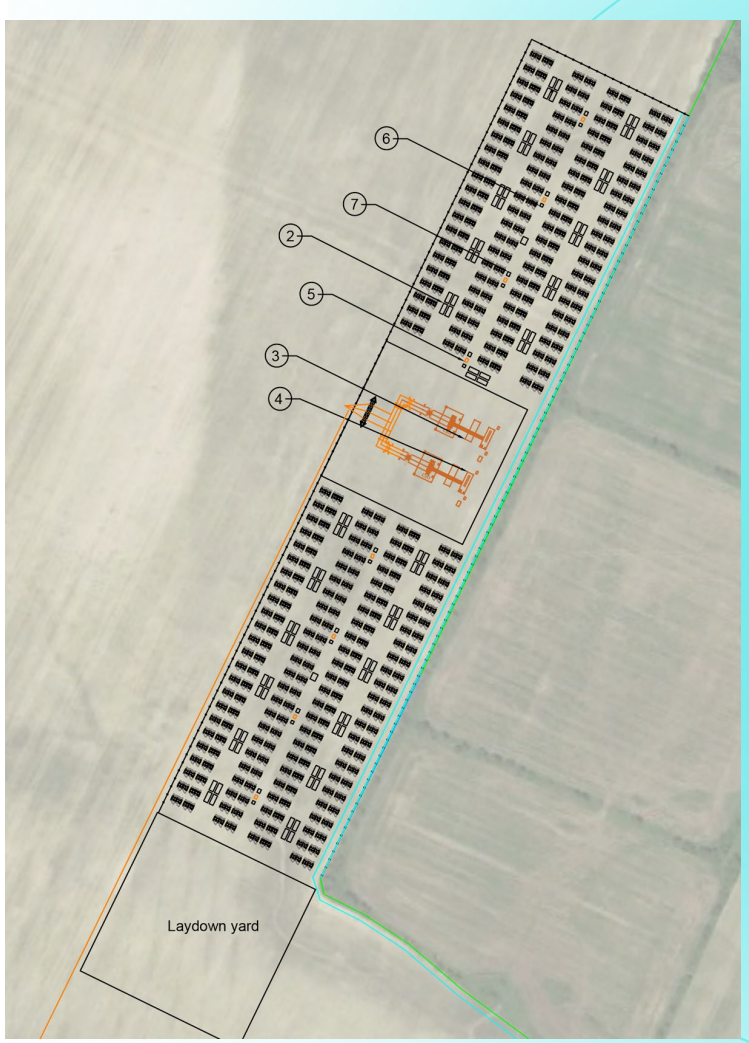
Proposed Project Layout





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Anticipated Timeline

Nov 21, 2023

Open House

Dec, 2023

IESO LT1 RFP Submission

Q2, 2024 (Anticipated)

IESO LT1 RFP Contract Award

Notice of Commencement

For Class Environmental Assessment (EA) for Minor Transmission Facility

Q1, 2025 (Anticipated)

Complete EA

For Minor Transmission Facility

Environmental Assessment

Permitting & Approvals

Environmental Assessment & Permitting

- Class Environmental Assessment (EA) for Minor Transmission Facilities to be undertaken
- Environmental Activity and Sector Registry (EASR) for air/noise and an Environmental Compliance Approval (ECA) for Stormwater to be obtained from the Ministry of Environment, Conservation and Parks (MECP)
- Municipal Site Plan approval and building permits

Construction

- Implement construction mitigation practices (Traffic Control Plan, adhere to local noise bylaw, etc.)

Operation

- Continued compliance with EASR and ECA requirements
- Operate under a site-specific emergency response plan which will address safety and fire management

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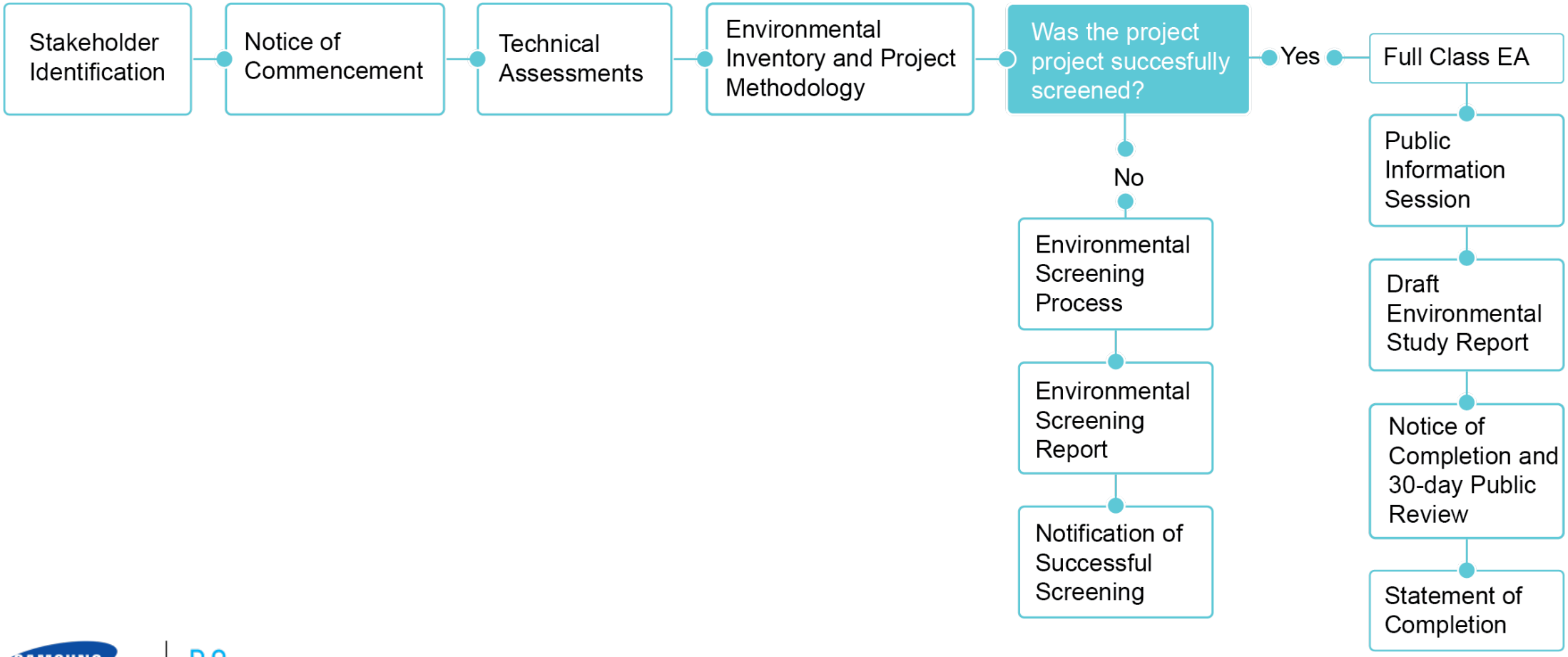
Class Environmental Assessment (EA)

for Minor Transmission Facilities Process Flowchart



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Q&A

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Contact Us

Comments regarding the study are welcome at any time. To provide your comments or to be added to our mailing list, use the form found on the **website www.grandenergystorage.ca**

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Thank you

FAQ

How does battery energy storage work?

Battery energy storage systems are considerably more advanced than the batteries you keep in your kitchen drawer or insert in toys and other electronics. A battery storage system can be charged by electricity generated from generation sources, like wind and hydroelectric power, or from a transmission or distribution power grid.

Intelligent battery software uses algorithms to coordinate energy production and computerized control systems are used to decide when to keep the energy to provide reserves or release it to the grid. Energy is released from the battery storage system during times of peak demand, keeping costs down and electricity flowing.

FAQ

What will battery energy storage sites look like?

The battery energy storage project will consist of battery storage enclosures, electrical inverters and transformers, internal access roads, electrical and communication cabling, a transmission substation, and other related electrical and infrastructure facilities.

The exact layout of the infrastructure footprint has yet to be confirmed and will be determined through additional engineering studies, equipment procurement, and an environmental assessment.

FAQ

Will this project require environmental assessments?

The project will be subject to the Class Environmental Assessment (EA) for Minor Transmission Facilities in accordance with the Ontario *Environmental Assessment Act*.

The Class EA is a streamlined process for transmission projects anticipated to have a predictable range of environmental effects that can feasibly be mitigated with protection measures in place.

How will this benefit ratepayers in Ontario?

Currently, when energy demand outpaces supply, energy sources such as gas-fired power plants must increase energy production.

The battery storage projects are expected to provide significant benefits to Ontario's ratepayers by reducing the need and cost associated with using gas-fired power plants during times of peak demand.

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