



NRStor Simcoe Battery Project

100MW Battery Energy Storage System (BESS) in Norfolk County

November 15, 2023



CONFIDENTIAL – INTENDED RECIPIENTS ONLY

Agenda

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 - About Energy Storage
 - IESO LT1 RFP
- Proposed Simcoe Battery Project
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NRStor Overview

NRStor works closely with communities, utilities and energy consumers to identify opportunities and deliver world class projects

- NRStor was founded in 2012 to develop low cost, reliable energy storage projects that provide value-add services to customers
- Our success stems from our:
 - **Woman-Led Management Team.**
 - **Proven Track Record Deploying First of Kind Projects.**
 - **Partnership-First Business Model.**
 - **Diversified Value Streams and Monetization Strategy.**
 - **Trusted Relationships.**
 - **Impact Investments.**



Utilities

Enabling clean, flexible and reliable electricity systems through large-scale energy storage projects



Microgrids

Partnering with remote communities and mines to reduce dependence on diesel fuel using clean energy microgrids



Commercial & Industrial

Delivering savings to large energy users with emissions-free, behind-the-meter energy storage solutions (*Sold to Blackstone 2019)



Distributed & Residential

Empowering residential customers to take control of their energy supply

Partnership Overview

NRStor works in partnership with Indigenous partners to deploy energy storage in a way that advances economic reconciliation.



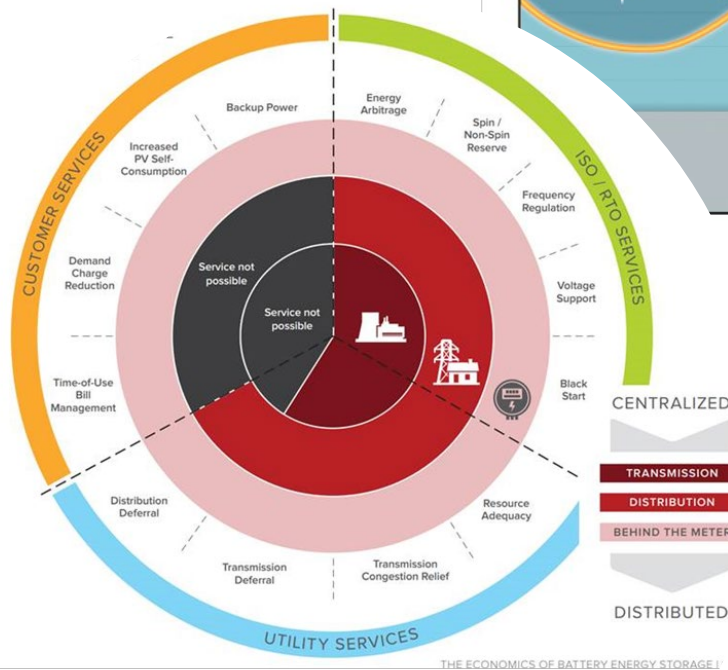
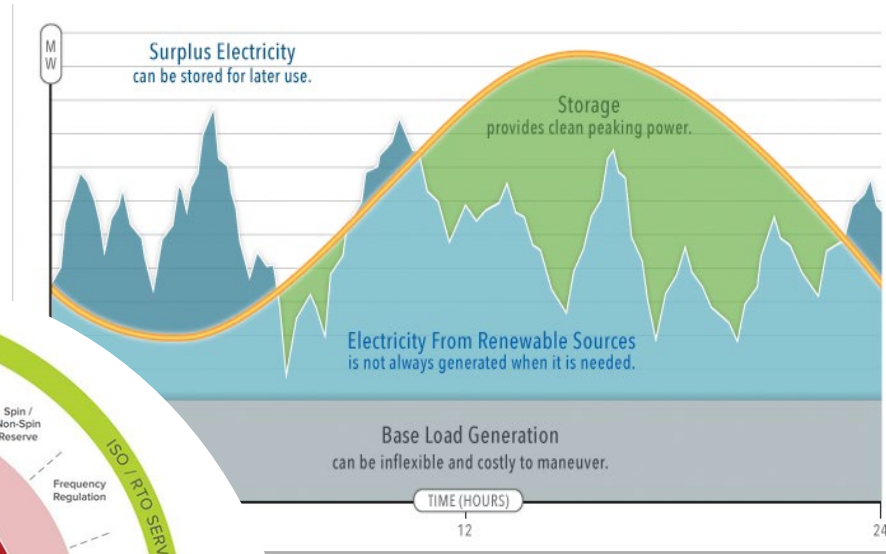
- Six Nations of the Grand River Development Corporation (SNGRDC) was launched in May 2015 with the mission to achieve economic self-sufficiency without compromising the values of the Six Nations people.
- The purpose of SNGRDC is to generate income, outside of the federal funding, to tackle community priorities that affect the Six Nations Community as a whole. This includes improving social conditions, aiding in infrastructure development and creating a healthy & sustainable environment for individuals, families and businesses to thrive.



- Mississaugas of the Credit Business Corporation (MCBC), founded in 2018, is the wholly owned business development corporation of MCFN. MCBC acts as the general partner of MCBLP, of which MCFN is its sole limited partner.
- MCBLP exists to build long-term wealth generation and develop short-term income opportunities for MCFN and its membership. In its pursuit of these goals, MCBLP always seeks to maintain a respected and reputable profile for itself, as well as represent the history, culture and values of MCFN with honour, in the business community.

What is Energy Storage

Energy storage can unlock local and system benefits providing better value and utilization at a lower cost



- Storage takes energy when it is not needed and supplies that energy when it is needed
- Storage provides clean peaking capacity that is provided by gas plants today
- Storage can manage & store clean energy when gas plants cannot
- Storage manages the volatility brought on by climate change
- Storage is modular and scalable
- **Energy storage improves the efficiency of the whole system**

Source: Rocky Mountain Institute

We have been operating energy storage projects since 2014



2MW Minto Flywheel Facility	4MW Strathroy Battery Facility	2MW Goderich CAES Facility	Cecil Virtual Power Plant Pilot w/ 13.5kWh Powerwalls
Service: Frequency Regulation	Service: Frequency Regulation	Service: Capacity, Operating Reserve	Service: DER Test Cases for Demand Response, Target Ramp, and Operating Reserve
- Flywheel life up to 100,000 cycles. 30 year+ asset.	- BESS life up to 10,000 cycles. Degrades with usage.	- CAES has no degradation. 30 year+ asset.	- 10-year warranty, first major residential battery rental program in Canada
- Flywheel RTE ~95%	- BESS RTE 85-95%	- CAES RTE 40-70%	- PW RTE 90%

Leveraging Learnings from the Oneida Energy Storage Project

NRStor has launched a 250 MW/1000 MWh Battery Energy Storage Project in Ontario in partnership with Six Nations of the Grand River Development Corporation. The project is now in construction.

Project Highlights:



- Significant Indigenous ownership in low carbon infrastructure assets, training and employment opportunities



- Largest battery storage project in North America and amongst the largest in the world



- 4.1 M tonne reduction in CO2*



- \$400M to \$760M net savings to ratepayers



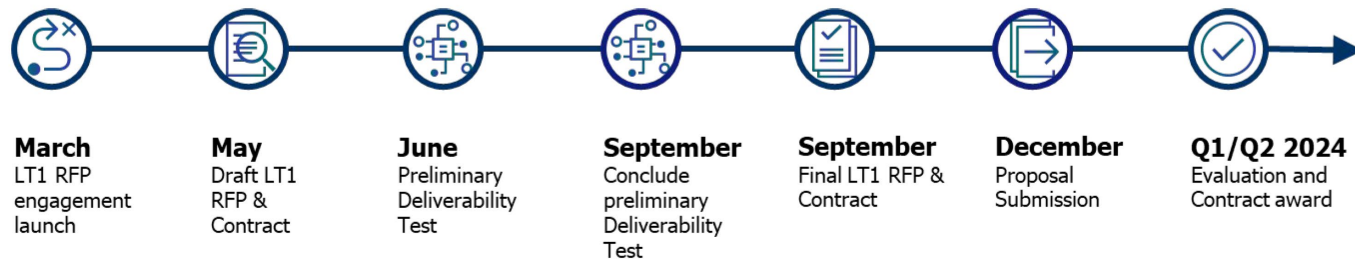
- Over 900,000 hours of local employment*



IESO Has Launched an RFP to Meet Ontario's Energy Capacity Needs

NRStor, SNGRDC and MCBC are working in partnership on a new project in Norfolk County

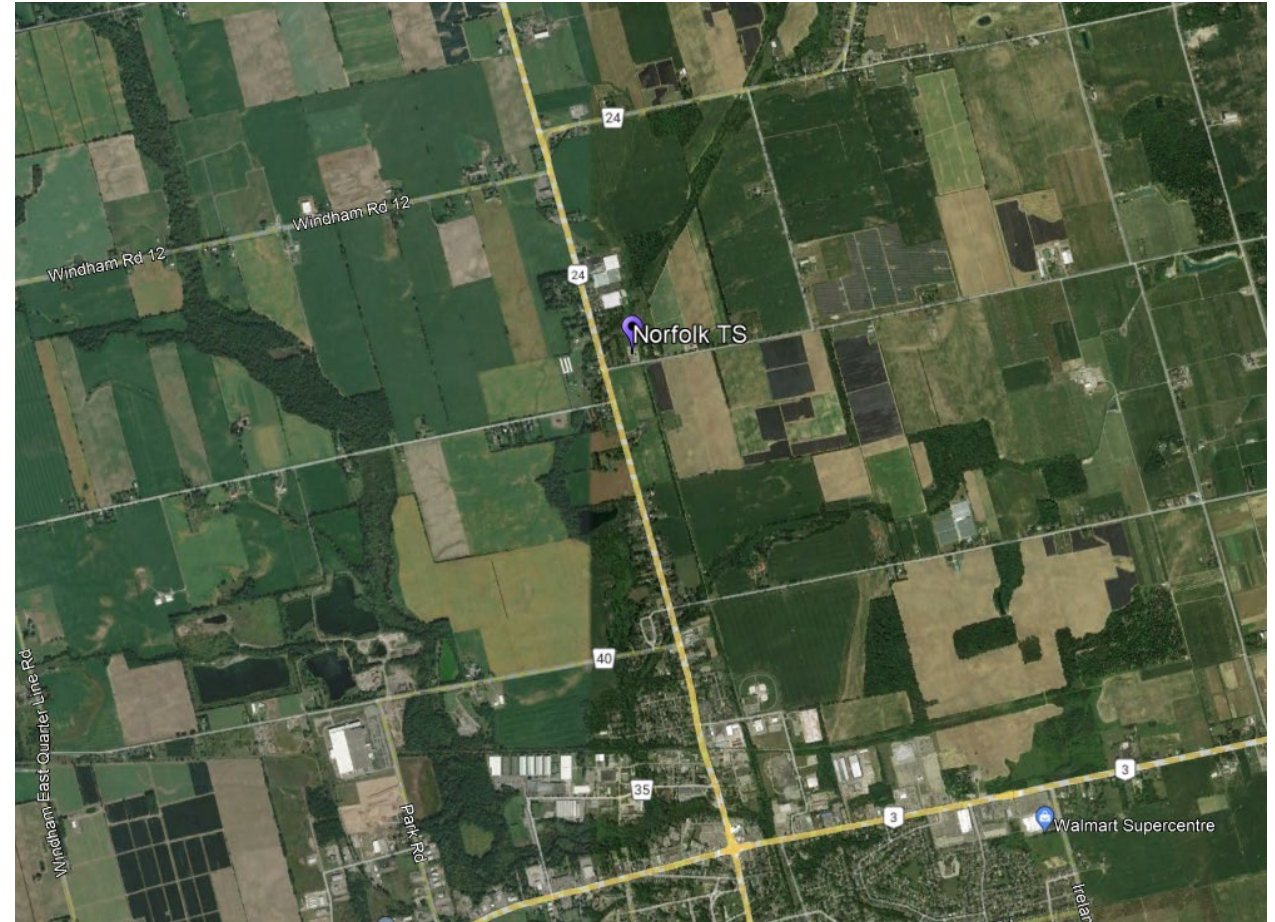
LT1 RFP Procurement Timeline



- IESO has identified a large need for new capacity to meet the energy needs of Ontarians over the coming decade. As such, the **IESO is currently undertaking LT1 procurement process to secure 1600 MW of new energy storage capacity.**
- **NRStor is a Qualified Applicant** for the IESO's RFP process
- The RFP bid deadline which NRStor plans to submit the Simcoe Battery Project into is **December 12, 2023**
- Projects will require a **Municipal Support Resolution**
- The new battery project would be under a **20+ year contract** with the IESO to provide services until April 2048

Simcoe Battery Project at a Glance

- Project Size: 100MW / 400MWh
- The project will provide capacity services to the Ontario grid using emissions-free Lithium-Ion Battery technology
- In addition, the project will provide local grid reliability benefits
- Interconnection is on 115kV lines near the Norfolk TS
- Land size is approximately 20 acres
- Partnership established with NRStor, SNGRDC and MCBC



Project Benefits

System Efficiencies

- Provide capacity and resilience needed today
- Solve today's system flexibility needs
- Ratepayer savings

Environmental Benefits

- Accelerate the transition to renewable energy and reduce reliance on gas

Local and Regional Benefits

- > 300 person-years of employment
- Support local electricity reliability needs
- Enable Indigenous partnerships and economic reconciliation
- Achieve provincial and federal government low carbon objectives
- Position Norfolk County, Ontario and Canada as global leaders in low carbon energy

Alignment with Norfolk County's Strategic Priorities

- **Empowering Norfolk:** Creating a place where businesses and residents can thrive, supporting changing energy needs and encouraging innovation in Norfolk
- **Building Norfolk:** Developing low carbon infrastructure for current and future energy needs, fostering responsible growth
- **Sustaining Norfolk:** Implementing and enhancing climate action strategies with a major project providing emissions reductions.

Request for Norfolk Council Support Resolution

We are seeking a Municipal Support Resolution to make our project bid more competitive in the IESO RFP process

- NRStor, MCBC and SNGRDC are seeking a Municipal Support Resolution from Norfolk County for the Simcoe Battery Project
- The IESO RFP provides bidders with the opportunity to obtain Rated Criteria points, which will be used to more favourably position their bids in the evaluation process
- IESO has provided a Municipal Support Resolution template, and the resolution must be substantially in accordance with this form
- The statement in the resolution may be qualified as being solely for the purposes of enabling the Proponent to receive Rated Criteria points under the IESO RFP, and does not supersede any applicable permits or approvals that may be required.

Thank You & Next Steps

Public Open House:

November 28th 5 – 7pm

Simcoe Recreation Centre Hall
182 South Drive, Simcoe, ON

