

# 5MW Clear Creek Non-Wires Alternative Merchant Battery Project

## Grid Innovation Fund Project Details

**Lead Proponent:** NRStor Inc.

**Partners:** Hydro One, AECON, TESLA, Lepton Technical Services, Workbench Corporation

Strategic Area(s):	Enabling Non-wires alternatives
Project Total Cost:	\$8,475,000
Year Contracted:	2020
Status:	Active
Location:	Clear Creek, Norfolk County
Economic Development:	10 jobs

## Project Objectives

This project will develop the 5MW (10 MWh) Clear Creek Non-Wires Alternative (NWA) Battery Project, Canada's first fully-merchant grid-scale energy storage facility, using an existing Hydro One grid-connection. Operational learnings include merchant IESO market participation, Hydro One non-wires alternatives value, and feeder level optimization for customer bill savings and reliability benefits. These learnings can enable wide-scale growth of storage and other distributed energy storage resources on the grid.

# Expected Outcomes

This project aims to demonstrate the validity of the 5MW (10MWh) Clear Creek Non-Wires Alternative (NWA) Merchant Battery Project and significantly improve rural customer reliability and bill savings. It will quantify metrics such as peak load reduction, economic benefit, rural customer bill savings and improvements in outage frequency and duration resulting from the battery energy storage solution (BESS) deployment.

The project is expected to provide learnings on fundamental issues facing energy storage including: ownership and optimal capitalization for energy storage resources between regulated, unregulated and private sector partners; technology engineering and construction barriers; regulatory barriers and; operational learnings and value stacking such as joint value creation through participation in IESO-administered markets, transmission-distribution interoperability approaches, and testing of non-wires alternatives.