

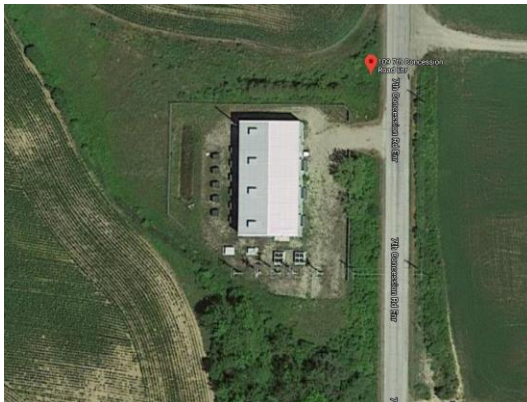
Local Distributed Energy Resource (DER) Integration and Rental Program Pilot

Grid Innovation Fund Project Details

Lead Proponent: NRStor Inc.

Partners: MPower, Enbridge and, Toronto Hydro

Strategic Area(s):	Enabling Non-Wire Alternatives
Project Total Cost:	\$1,090,590
Year Contracted:	2018
Status:	Closed
Location:	Toronto, Ontario
Economic Development:	N/A



Aerial photo



Building photo from the road

Project Objectives

This pilot will demonstrate a rental model for deploying behind-the-meter energy storage in an electrically constrained urban neighbourhood. The project will explore how this model can make energy storage affordable for homeowners while providing valuable services to the local and provincial electricity system.

Expected Outcomes

This project will verify the provincial applicability of an apparent solution to residential energy storage's "stacked benefits" and affordability challenges. Given the partners involved, there is a clear path to scalability if the pilot is successful.

The project is expected to generate a wealth of data and learning for the IESO to inform how the organization pursues integration of DER aggregations into current and future markets and related programs, advises on DER policy to government and the OEB, and considers Non-Wires Alternative options. The IESO will benefit from the first 'on the ground' runs of its Standardized DER Test Cases.

If successful, some of the project's expected outcomes include:

- Enabling the creation of a significant and first of-a-kind scalable platform led by a private sector cleantech start-up alongside an electric and gas utility.
- Offering a residential battery rental program that will offer homeowners a backup power supply (with or without solar) for a low monthly fee, which will increase uptake and affordability.
- Creating a unique aggregation of DERs in a confined/constrained urban zone for both localized and system-wide applications and benefits.
- Increasing the consistency, effectiveness and convenience of load displacement for the homeowner.
- Building capacity in the residential sector and providing meaningful demand response services through aggregated dispatch and control of a large residential battery fleet.
- Educating and informing industry, government and academia as regulations are currently being rewritten on how to reduce GHG emissions.
- Creating significant learnings for the storage and utility community and allowing for the replication of similar projects going forward.