

Vehicle-to-home (V2H) for Improved Rural Reliability and Peak Reduction

Grid Innovation Fund Project Details

Lead Proponent: Peak Power

Partner: Hydro One Networks Inc

Strategic Area(s):	Infrastructure Resilience
Project Total Cost:	\$730,500
Year Contracted:	2020
Status:	Active
Location:	Hydro One Network's distribution service territory

Project Objectives

Peak Power will partner with Hydro One Networks Inc. to demonstrate the feasibility and cost-effectiveness of Vehicle-to-Home technology for two distinct use cases - improving reliability for residential customers by providing back-up power during outages, and modelling participation in IESO Administered Markets (IAMs) when the vehicle is connected, and it benefits the grid to do so.

Participants include residential homes in Hydro One's service territory.

Expected Outcomes

If successful, this project will demonstrate that residential V2H technology can cost-effectively provide enhanced residential reliability in comparison to traditional solutions, and that V2H can provide value to the grid through DER participation in IAM and demand reductions.

Quantifiable outcomes include outage duration improvement, peak load shifting, GHG emissions reductions and financial value for EV owners.



Photo of residential charging using Peak Power's V2H technology.