

Feeder Level Forecasting and Data Disaggregation for DER Identification

Grid Innovation Fund Project Details

Lead Proponent: Peak Power

Partner: Oshawa Power & Utilities Corporation

Strategic Area(s):	Enhancing Forecasting and Planning
Project Total Cost:	\$674,535
Year Contracted:	2020
Status:	Active
Location:	Oshawa
Economic Development:	4 jobs

Project Objectives

Peak Power is partnering with Oshawa Power and Utilities Corporation (Oshawa PUC) to develop a distribution level forecasting tool that will include energy profile pattern recognition to improve visibility into distributed energy resources (DERs) and electric vehicles (EVs).

The forecasting tool and methodology would apply machine learning techniques to metering datasets provided by Oshawa PUC to identify the location of electric vehicle chargers and other consumer-owned DERs and forecast their impact on demand peaks.

The tool would be used to inform improvements in distribution system planning that feeds into the long-term planning process, as well as data disaggregation for identification of DERs embedded in Oshawa PUC's territory.

Expected Outcomes

If successful, this project will demonstrate a new model for 3rd party private companies to partner with utilities in managing and analyzing customer data while respecting cybersecurity and privacy policies. It would provide utilities with an approach to enhance distribution load forecasting and visibility of the distribution system as the number of DERs and EVs on their networks continue to grow.



A Peak Power platform demonstration.