

**A World Leader in Innovation**  
**Come and grow with us!**

# **SUMMERSIDE ELECTRIC'S HEAT-FOR-LESS ENERGY PROGRAM**

## **THE CHALLENGE**

The Summerside wind farm was producing more energy than needed during the night. With no way to store energy, selling on the open market was not cost effective.

## **THE APPROACH**

The Utility developed a unique smart grid system that detects excess energy during off-peak hours and turns on Electric Thermal Storage (ETS) units in homes and businesses to store it for use when needed.

## **THE RESULTS**

The City has reduced electrical energy exports from over 8,500 MWH annually to 2,615 MWH. Because ETS units use electricity produced during the night, customers get a rate discount, which lowers their power bills and offsets the cost of the ETS unit.

## **BACKGROUND**

ETS units use high-density ceramic bricks to store heat given off by elements inside the units. Elements come on during off-peak hours to heat up the bricks, with stored heat available for peak daytime use. While ETS has been around since just after WW2, the challenge was how to integrate and communicate with an electric utility in real-time and synchronize directly with the production of wind power. A smart grid system using communications and metering technology was the answer.

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## LIVING LAB

City of Summerside  
Prince Edward Island

# About the Summerside Living Lab

A Living Lab is a platform for industry to collaborate with government in exploring real-world issues and demonstrating how innovation can provide solutions. The overarching goal of Summerside's Living Lab is to advance innovation and create export development opportunities in partnership with early start-ups or established enterprises, while assisting the City's growth.

The Lab brings together partners with a shared vision that will produce results for those who wish to build business models for advanced deployment in earlier stages of product life.

With its unique and empowering infrastructure, Summerside is a test bed for firms looking to develop real market solutions, validation, and full-scale deployment of products and services.

### In Summerside we understand...

- ▶ **The Problem:** A Business faces challenges validating its technology through rapid testing, prototyping and commercialization. Providing product credibility presents a major barrier.
- ▶ **The Solution:** A municipality devoted to reducing development time and validation in a fail-fast/fail-cheap environment — a unique opportunity for rapid commercialization.
- ▶ **The Bottom Line:** Summerside provides a robust and sophisticated environment with a unique range of empowering assets including its own electrical company, renewable energy and fibre optic network. It operates in a completely open and mutually beneficial collaborative manner.

## Come and grow with us!

If you are interested in validating your technology for North American markets:

### CONTACT

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