More Sustainable, Reliable & Affordable Energy

Summerside Reveals Performance Tests with BluWave-ai

Renewable Energy's Global Appeal

The city of Summerside, PEI is part of a growing trend to rely on more renewable sources of energy for increased sustainability, reliability, and affordability.



Indeed, renewables are to account for 22.5% of the global energy mix by 2020.¹ However, there remain some challenges to managing fluctuations in load with the peaks and troughs of renewable energy supply and grid power real-time pricing.

Realizing Promise of Renewable Energy

Even with Summerside's significant wind and solar infrastructure, the city still has to import 57% of its energy supply from neighboring NB Power. Weather conditions can reduce solar generation by up to 70% and no wind means no power. At the same time, not having real-time insight into user load, means Summerside has to constantly over-provision capacity to ensure reliable supply.

If the utility makes too much wind energy, they sell it at rock bottom prices; if they have to buy power at the last minute, it costs a premium. Plus, being an island community detached from the main grid, leaves Summerside vulnerable to outages. Then there is the carbon footprint impact.



- 43% of power from wind & renewables
- Import 57% of energy
- Renewables produce no emissions, unlike imported power
- Island community
- Energy innovator

AI Test Results

- Forecast annual savings mid six figures
- Renewables poised to reliably supply majority of city's energy
- Increased grid resiliency
- Reduced cost & risk of imported power
- Decreased emissions

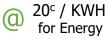
What if Summerside was in California?

- Strong renewables mandate & penetration
- Significant user load
- Higher energy costs

12MW 17MW Wind Load



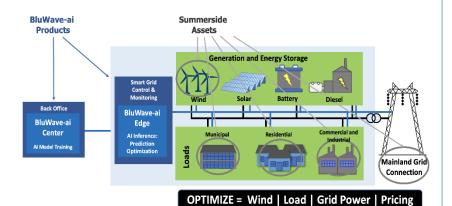




\$2M in Annual Savings

Grid Optimization at Summerside

BluWave-ai, with its grid energy optimization platform collects volumes of data from IoT sensors around Summerside's grid to predict, optimize, and dispatch control to maximize the use of renewable sources and reduce the city's overall energy spend.



Quantitative results from Summerside's recently completed performance testing with BluWave-ai reveal:

- Forecast annual savings in mid six figures
- Renewables now poised to reliably supply majority of Summerside's energy needs
- · Improved local grid resilience

Plus, there are several qualitative benefits including greater environmental responsibility and reduced import reliance on the main North American grid.

About BluWave-ai

BluWave-ai

- SaaS-based grid optimization platform
- Operates in public or private cloud

BluWave-ai Edge

- Connects to IoT sensors & meters
- Provides AI assisted optimization of local energy generation & storage

BluWave-ai Center

- Manages multiple BluWave-ai Edge points
- Uses machine learning to continually improve AI models used by BluWave-ai Edge

"...positions (us) on leading edge of technology with artificial intelligence... to make energy purchases more efficient..."

Bob Ashley, CAO, Summerside

<u>BluWave-ai</u> puts the smart in smart grid. Our grid optimization platform lets communities, corporations, and utilities optimize their energy decisions for sustainability, reliability, and affordability. BluWave-ai is pleased to work with energy innovators like Tata Power, Hydro Ottawa, and Natural Resources Canada to realize a more sustainable grid for all.

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