



PROJECT AT A GLANCE

CUSTOMER

Waterbury Public Schools

ABOUT

Located in Connecticut, Waterbury Public Schools is an urban school district educating 18,000 children in 29 schools.

OPPORTUNITY

WPS wanted energy savings measures with quick paybacks and rapid deployment.

SOLUTION

1,187 Bert® Smart Plugs running Threshold, Measurement, Control and Analysis.

RESULTS

Bert Plug Load ESM had quickest payback, over 3X faster than the project average.

OPPORTUNITY

Faced with an inefficient energy-related infrastructure, Waterbury Public Schools sought to prioritize and implement critically needed energy savings measures as quickly as possible.

SOLUTION

In 2016, the district selected NORESKO, a national leader in energy efficiency and energy infrastructure solutions as its Qualified Energy Service Provider. The \$30 million performance contract included plug load control, new boilers and chillers, energy management system upgrades and lighting retrofits/replacements.

Offering the ideal combination of quick payback and rapid implementation, the Bert Plug Load Management System was one of the first Energy Savings Measures to be completed at WPS. "In most cases, we're able to complete a plug load control ESM within 6 weeks", says Bert® CEO Scott Yetter.

"One reason we're able to complete projects so quickly is because we've created a cloud-based toolkit to automate the entire process from audit to installation. When the IGA is conducted, our audit tool verifies wireless coverage and records the plug load devices in each room. This data is used to generate a savings sheet for each building that summarizes the number of each device type and calculates annual energy savings", Yetter adds.

Information from the audit is shared with the ESCO and the installation partner. This lets the installers know the specific locations where Berts should be installed before they arrive at the building. The installer uses the installation tool to record the building, room/office number, MAC address of each Bert, device type, and other installation notes. Because the system is cloud-based, the Bert Support team remotely monitors the installation and verifies that newly installed Berts are communicating with the server software as they are installed.

Meet BERT Your energy control freak.



WATERBURY PUBLIC SCHOOLS

"We consider our implementation tools to be a significant strategic advantage. Besides making our installations faster and more accurate, our installation partners, ESCOs and end users can track daily installation progress. When the project is finished, the installation data functions as the "as built" document for project wrap-up", says Yetter.

RESULTS

The Bert Plug Load Control Energy Savings Measure (ESM) had the fastest payback of the 14 ESM's implemented at Waterbury Public Schools.

PROJECT SPECIFICS

Annual Energy Savings: \$27,543

Annual Energy Reduction: 201,247 kWh

Estimated Incentives: \$60,372

Simple Payback (Net of Incentives): 4.2 Years

Project Average Payback (Net of Incentives): 14.1 Years

THE POWER OF BERT

When it comes to Intelligent Buildings, Bert controls the small things and delivers big. With 30,000 units installed in over 700 buildings, Bert's end-to-end solution typically lowers plug load expense by 40 percent, saving users over 5 million kWh annually.

Using patented technologies and the facility's existing Wi-Fi network, Bert remotely measures, analyzes and controls plug and hardwired loads, ranging from individual 120V/15A devices to 277V/20A circuits. Frequently installed as a standalone solution, Bert delivers even greater value by integrating miscellaneous electric loads to Building Automation Systems (BAS), enabling the BAS to control all building loads and to collect additional measurement, temperature and other building data for increased efficiency and comfort.

Learn how K-12 schools, colleges, offices, local governments and sporting venues save money and energy by visiting www.bertbrain.com.

MEASUREMENT



Real-time energy usage data by device, group, or building for hour, day, week, month or year. Most recent measurement data also stored locally for backup.

ANALYSIS



Administrative software; analyzes energy consumption; runs M&V reports; creates and stores multiple schedules including; School Year, Vacation, Demand Response and Load Shifting

CONTROL



Mass remote control logic turns loads off nights, weekends and holidays when buildings are unoccupied. Plug devices into Smart Plugs and wire circuits with Inline Series Berts to control plug and hardwired loads.

THRESHOLD



Prevents sensitive equipment from turning off until the shutdown cycle is complete or the compressor has turned off.

TEMPERATURE



Real-time temperature data and temperature-based control using high/low set points.