



## **A national specialty retailer optimizes operations with the CORTIX™ platform**

An award-winning case of improving energy efficiency and reducing maintenance costs.

### **The Client**

A specialty retailer and leading supplier of office products and services with approximately 1,300 stores in the USA, with a large portfolio of exclusive products and various brands. The retail stores have an average area exceeding 20,000 sq. ft. with over 18,500 total units of connected equipment across all stores.

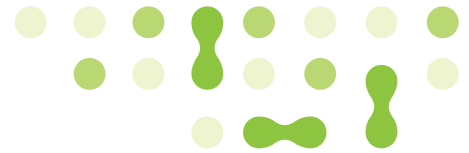
### **The Challenge**

The retailer was facing strong competition and increasing utility and maintenance costs. To address these issues, it was imperative that they focused on reducing energy consumption. EcoEnergy Insights targeted 4% energy consumption reduction during the first year of engagement across their national store network, while maintaining occupant comfort.

### **The Solution**

EcoEnergy Insights seamlessly integrated the CORTIX™ building IoT platform with the retailer's existing building management systems (BMS), of multiple types, in over 1,200 stores. This enabled a uniform representation and analysis of the stores, independent of the technology used.

The platform started generating actionable insights and recommendations based on the unique context in which each store operated. Every day, the AI-enabled platform processed around 9.6 million records across approximately 100,000 data points from over 18,500 units of connected equipment. These data points included parameters related to heating, ventilation and air-conditioning (HVAC) operations, temperature, humidity and lighting lux level, to name a few. The platform drew correlations using data from weather feeds, maintenance management, and billing management systems.



EcoEnergy Insights also deployed a team of data scientists, analysts, controls engineers, and domain experts from their Command Center, to provide round-the-clock support. The team remotely diagnosed and resolved store issues related to lighting, HVAC, and occupant comfort. The team guided field technicians during site interventions and equipment breakdowns, ultimately reducing technician field visits and resolution times. EcoEnergy Insights implemented the solution using its proprietary Three Waves approach.

## The Results

This engagement enabled the retailer to move to data-driven store operations and the field technicians to act more effectively.

EcoEnergy Insights helped deliver a 5.33% cumulative reduction in energy consumption in the first year of the project. Within 23 months, the reduction was 7.92%. Throughout the engagement, monthly saving targets were exceeded and a massive energy saving of over 48 million kWh was delivered across over 1,200 sites.

Alarms were set in place for deviations in set-points, schedules, and equipment operation. As a result, the time taken to resolve issues as well as the number of service disruptions and costs due to equipment downtime were all reduced. First-call Resolutions were improved through proactive monitoring and problem management. The Command Center team remotely diagnosed and resolved store issues related to lighting, HVAC, and occupant comfort, and minimized technician field visits by resolving 82% of the work orders remotely.

This project's success helped improve the retailer's utilization of resources by channelizing them towards tactical and strategic improvements in store planning and operations. The project was cash positive from the start as EcoEnergy Insights was able to leverage the existing BMS infrastructure.



**This engagement won the '2019 Energy Manager Today Project of the Year' award. Here's what one of the judges had to say:**

"Identifying improvements across an entire portfolio is the best way to scale energy efficiency and have the largest, most streamlined impact. This project was able to leverage existing technology in the stores' BMS to add on controls, detection, and analysis for long-lasting energy reductions in a low-cost (to implement), low-impact (to occupants) way. This is a comprehensive plan from rich data analysis through reduced truck-rolls. Other companies with large retail portfolios can model improvements in a very similar fashion to achieve similar savings. This is a shining example of best practices in retail energy efficiency."



Write to us at [info@ecoenergy.utc.com](mailto:info@ecoenergy.utc.com) and elevate your business now.

**About EcoEnergy Insights** - EcoEnergy Insights is a leading provider of outcome-based services to some of the world's largest enterprises in industries such as restaurants, retail, hospitality, banking and water utilities. Its CORTIX™ technology platform leverages a combination of advanced software and expert human analytics to uncover insights and use them to achieve results across sites, multiple industries and a range of geographies. EcoEnergy Insights is a part of Carrier, a leading global provider of innovative HVAC, refrigeration, fire, security and building automation technologies.

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