ECOENERGY
INSIGHTS

Higher energy efficiency and improved comfort for over 1450 stores of a leading pet specialty retailer.

Award-winning energy and cost savings through an IoT analytics-driven program.

The Client

A leading pet specialty retailer in the United States of America that sells pet products and pet care services. The company operates more than 1,500 locations across North America.

The Challenge

The retailer had deployed a series of initiatives aimed at improving energy efficiency across its portfolio of stores. However, the company wanted to implement a fully functional system that would enable it to use building data to improve energy efficiency. They aimed to achieve operational energy savings at an enterprise level, whilst maintaining temperature compliance in stores.

In 2016, the retailer made the decision to embark on a four-year program with EcoEnergy Insights to achieve an enterprise-wide operational energy savings without compromising on the pet specialty retailer's guest experiences or the safety and comfort of the animals in the stores.

The Solution

The retailer's energy management team worked with EcoEnergy Insights to implement an analytics-driven energy management service across the store network in the USA. The key objective of this project was to achieve operational energy savings at an enterprise level, whilst improving customer and pet comfort in stores.

The initiative leveraged the retailer's existing Building Management Systems (BMS), servers for data collection, and the CORTIX AI and IoT platform. The stores had 24/7 support from the BluEdge™ Command Centers that offered a centralized service desk for remote diagnostics and technical assistance as well as proactive monitoring and problem management to improve first call resolutions.

The program first standardized the way that the retailer managed energy and implemented Heating, Ventilation and Air-Conditioning (HVAC) and lighting control-based saving strategies at their stores. Equipment operations were standardized, and base savings strategies were deployed across all locations.

Data from each store's BMS was collected and centrally analyzed by the CORTIX™ platform, which collected and analyzed data from over 120 data points in each store. The platform also collected and analyzed data from external sources like weather feeds, maintenance management, and utility billing management systems.

This data provided insights that led to the formulation of new energy-saving strategies and identification of deviations in system operations throughout the retailer's stores. The CORTIX platform was able to resolve many common, high-impact system deviations at the individual store level. For instance, the operating schedules of HVAC and lighting within stores were regularly adjusted in response to occupancy information-based data.
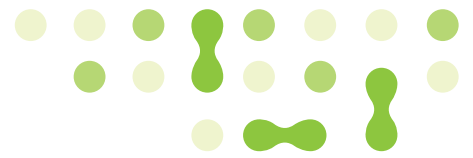
By controlling unnecessary loads when stores were closed, the retailer gained significant energy savings. Also, economizers were effectively configured, and sensors required for utilizing fresh air were continuously calibrated by CORTIX to ensure maximum energy savings.

Equipment inefficiencies or breakdowns were flagged by the CORTIX platform and addressed by the field service partners. Humidity in the pet grooming area has been one of the biggest challenges for the retailer. The 24/7 BluEdge™ Command Centers captured insights and took effective measures proactively, to resolve issues and provide quick and effective resolutions to minimize discomfort.

The maintenance team was provided with the right insights and the BluEdge™ Command Centers remotely supported them to resolve issues. This process led to the stores maintaining strict indoor environmental quality conditions, to enhance occupant comfort and to save on non-utility bills. In addition, operational process improvements were introduced such as mandatory checkouts for technicians and combining of work orders for stores - including all open issues into a single work order while dispatching a technician.

The Result

The program started with a 200-store pilot and standardized the way the retailer's stores managed energy. The engagement was rolled across the stores and was cash-positive for the retailer within the first year on account of the energy cost savings delivered by the program. In addition to cost reduction, it also gave the retailer unprecedented visibility into the temperature maintained for store operations, which led to an increase in overall temperature compliance levels achieved through monitoring and management. It successfully achieved the following benefits when scaled to over 1450 stores of the retailer, spread across 19+ million sq. ft. in total.

- **8%** energy saving in the 4th year of the engagement

- **75** million kWh saved over the duration of the engagement

- **95%** temperature compliance maintained for store operations during the last year of the engagement

- **90%** of store requests for lighting and HVAC were resolved remotely

- **12%** reduction in total call volume in the last year of the engagement

This engagement was featured as a success story on Energy Star and won a 2018 Energy Manager Today Project of the Year award. Here's what one of the judges had to say:

"This project is very useful to provide measurable benefits with a well-defined timeframe and return on investment. The success of the project is demonstrated by the data provided that it exceeded by +63%, the 4% goal by achieving 6.5% energy savings.

This software platform can generate energy and environmental reduction with minimal upfront costs. This product showed excellent reduction results in a very short period of time".

Write to us at **info.ecoenergy@carrier.com** and elevate your business now.

About EcoEnergy Insights - EcoEnergy Insights is a global leader in providing AI and IoT solutions for building and equipment operations. Their CORTIX™ platform collects data from multiple sources, analyzes it, acts on defined deviations autonomously and offers predictive actionable insights and prescriptive recommendations. The award-winning platform, combined with expert human analytics, has been delivering industry- leading outcomes in comfort, maintenance and energy efficiency across industries such as retail, hospitality and banking. EcoEnergy Insights is a part of Carrier, the leading global provider of healthy, safe and sustainable building and cold chain solutions.

For more information on EcoEnergy Insights and the CORTIX™ platform, visit www.ecoenergyinsights.com and www.cortix.ai.