

Case Study



Higher energy efficiency and improved comfort for over 1,450 stores of a leading pet specialty retailer.

Energy and cost savings through an IoT analytics-driven program.



The Customer

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.

The retailer made the decision to embark on a four-year program with Carrier ABOUND 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 Carrier ABOUND 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 ABOUND™ Insights platform. The stores had 24/7 support from the Carrier Customer 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 Abound Insights 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 Abound Insights 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 the Abound Insights platform to ensure maximum energy savings.

Equipment inefficiencies or breakdowns were flagged by the Abound Insights 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 team at the 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 Carrier Customer 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. The program successfully achieved the following benefits when scaled to over 1,450 stores of the retailer, spread across 19+ million sq.ft. in total.

- i. 8% energy saving in the 4th year of the engagement
- ii. 75 million kWh saved over the duration of the engagement
- iii. 95% temperature compliance maintained for store operations during the last year of the engagement
- iv. 90% of store requests for lighting and HVAC were resolved remotely
- v. 12% reduction in total call volume in the last year of the engagement

This project won a 2018 Energy Manager today 'Top Project of the Year' award.

Write to us at abound@carrier.com for more on how we can help your company achieve its business and sustainability goals.

About Carrier Abound

Carrier Abound provides digitally connected lifecycle solutions and services for diverse building portfolios. The solutions and services enable building management to see deeply and broadly across their assets, prioritize and act on real-time insights, and refine, adapt, and scale on a continual basis to improve energy efficiency and asset performance, enhance occupant comfort and productivity, and streamline compliance reporting. Carrier Abound is part of Carrier Global Corporation, global leader in intelligent climate and energy solutions.

For more information, please visit abound.carrier.com and join the conversation on [LinkedIn](#).

