Case Study

Carrier ABOUND

A large banking and financial services company saves energy with IoT and analytics.

The bank met energy consumption reduction targets while improving occupant comfort.

The Customer

A leading banking and financial services company with a banking network of close to 7,800 branches and over 17,000 ATMs spread across India.

The Challenge

Around the year 2015, the bank had an annual expense of over 70 million USD towards electrical energy consumption. Typically, 90% of this consumption was in the network of its retail branches. Their challenge was controlling and optimizing energy costs because of the varying sizes of the branches and their vast geographical spread. The bank partnered with Carrier Abound to optimize energy consumption without compromising on customer and employee comfort.

The Solution

The bank and Carrier Abound entered a multi-year engagement to manage the energy consumption of the retail branches. Carrier Abound carried out the system integration and connected the branches to the Abound™ Insights platform. The platform collects daily energy and temperature data records from the branches and weather data feeds from local weather stations. Additionally, the static data like equipment details, branch size, and electricity spend was also fed into the platform which was analyzed using its machine learning algorithms.

The Abound Insights platform utilizes the Service Window® framework to analyze the energy consumption of the branches each day. The framework shows unique energy and business profiles that a typical branch goes through during its daily operations. Based on effective monitoring of energy consumption in these service windows, the platform highlighted higher energy consumption during non-business hours and holidays and enabled actions to control them. It also enabled enhanced control of the customer area, the ATM area & server rooms using its IoT controllers at each branch. Remote visibility and live key performance indicator tracking using intuitive dashboards provided relevant information about branch energy consumption patterns and variations during business and non-business hours along with Management Information System (MIS) reports.

The simple yet powerful interface ensured that the administration team could easily understand and monitor operational anomalies, energy profiles, and thermal compliances. This engagement also included support by a Carrier Customer Command Center. The command center provides IoT-enabled remote services with remote commissioning, monitoring, and diagnostics. The command center team tracks persistent deviations weekly, for enhanced visibility of the health of critical cooling equipment, occupant comfort, demand optimization, and much more. The team also assists in minimizing security threats by reporting intrusions during non-banking hours and server health.

The center also proactively coordinated & enabled site-level corrections by ensuring rigorous worklist tracking and reporting. Weekly actionable worklists helped to improve compliance, energy efficiency and asset performance. The insights were also used by the leadership for prioritizing decisions such as the replacement of equipment.

The Result

Service Window framework-based International Performance Measurement & Verification Protocol (IPMVP) methodology was being used to validate the enterprise-wide average energy savings.

Key results achieved over the 7 years since the program began in 2016 for over 390 branches:

i.   Average savings of over 13%
ii. 2.3 million tons of average CO_2 emission avoided annually
iii. 16% improvement in customer comfort from baseline
iv. 18% improvement in employee comfort from baseline

This program won a Confederation of Indian Industry (CII) 'Best Energy Efficient Case Study' award at the inaugural National Energy Efficiency Circle competition.

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

Carrier