REDUCING ENERGY COSTS WITH SOUTH FLORIDA CONTROLS

LOCATION

Millennium Partners owns and operates a 10-story class “A” office building in Miami. In an effort to gain energy efficiencies while enhancing system control, they were considering a renovation to their existing HVAC system structure. Prior to allocating funds for the system enhancement, they needed a tool to accurately predict the potential energy savings of the renovation.

Additionally, once the renovation was completed, this same tool would be used to track and report energy consumption to justify the capital funds being spent.

OUR CHALLENGE

Before undertaking a retrofit and commissioning of The Offices located at the Four Seasons Hotel and Tower Miami, South Florida Controls needed to prove to their client and building owner, Millennium Partners, that the project would not only pay for itself through future energy cost savings, but also generate a healthy return on investment.

OVERVIEW

64% reduction in electrical consumption

Nearly $5,000 in savings per month in electrical energy consumption

$60,000 realized savings in electricity in 2016

"CopperTree isn’t selling analytics. They’re selling savings."

Hector Hernandez, President
South Florida Controls
THE SOLUTION

South Florida Controls used CopperTree Analytics to study the building and identify which equipment, systems and structures could have the most energy-saving impact.

Then South Florida Controls used CopperTree trend logs and reports to model the projected energy savings and ROI.

This established the building’s baseline consumption and potential energy reductions to be realized as a result of the renovation. It also provided the building management a tool to monitor energy usage in the future.

FEATURES USED

South Florida Controls used CopperTree Analytics’ CopperCube to extract current and historical trend logs from the building automation system. To investigate the building and establish a baseline, trend logs were then processed by CopperTree’s Kaizen, a powerful analytics engine and logic builder.

The Energy view product and demand charts then allowed them to view energy trends in the building and CopperTree’s customizable reports gave them the ability to pinpoint which equipment and systems could deliver the most energy-savings impact. It also allowed them to build a model predicting return on investment of the renovation through the energy cost savings to be realized. As the graph below (Fig. 1) demonstrates, the energy savings were drastic after implementation and stable thereafter.

- Fig. 1: Screenshot of Consumption Chart in CopperTree showing a 64% drop in electrical usage from January 2015.

THE BENEFITS

The savings predicted by the CopperTree solution were within 1% of the actual savings realized, which means the pilot model is reliable.

Verifying the model means South Florida Controls and Millennium Partners now have a proven tool they can use to project the ROI on future renovations in this and other buildings in their portfolio.

The CopperTree solution also provides them with a way to monitor and report on the ongoing energy consumption of the building so that they can preserve their commissioning and continue to realize significant energy cost reductions.

FINAL RESULTS

Since deploying mid-January 2015, the building owners and operators have seen a reduction in their electrical energy consumption of 64% per month.

They’re now saving an average of $4,997 per month in electricity. Going forward, they’re on track to save $59,970 in 2016.

KAIZEN FOR TODAY AND THE FUTURE

CopperTree Analytics believes in providing actionable insights for building automation and energy management professionals. Learn more about what we can do for you and your business at www.coppertreenalytics.com.