



A Building Clouds Solution

Visualizing Energy Usage Data: Unveiling Greater Savings and Carbon Reduction

Optimizing Energy Efficiency & Carbon Reduction with Cloud-Native BMS

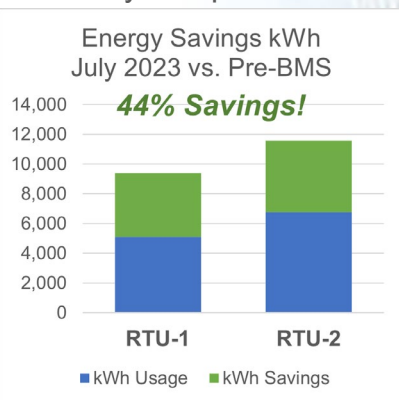
A retail furniture outlet located in the Midwest region of the USA adopted a cloud-native Building Management System (BMS) in 2020. This innovative system not only impressed the outlet with its user-friendly interface but also significantly improved customer comfort levels.

In collaboration with a Building Clouds Authorized Digital Partner (ADP), the retail outlet explored advanced features of the BMS. One feature involved converting data from existing current sensors, specifically amperage, to kilowatt hours (kWh). This conversion provided accurate sub-meter data for the two roof-top air conditioners (RTUs) installed on the premises. This case study explores how this transition to kWh measurements led to insightful energy management and cost reduction strategies.



Data Collection and Analysis:

The BMS, designed with robust runtime tracking functionality, diligently recorded the operational hours of the components within each RTU, including fans, compressors, and electric heaters. This runtime data served as a foundational element for energy consumption analysis. By leveraging this runtime data in combination with the cumulative amperage readings from the RTUs, the ADP compiled several comprehensive reports to discern energy usage patterns. These reports facilitated comparisons of hourly energy consumption for individual units, providing a window into the system's efficiency and performance.



Utilizing Customized Reports:

Employing a customizable template provided by Building Clouds, the ADP created summarized reports for the retail outlet. These reports not only showcased substantial energy savings achieved post-BMS implementation but also highlighted the store's energy consumption patterns before the BMS integration. The data demonstrated remarkable improvements in operational efficiency. But why stop there?



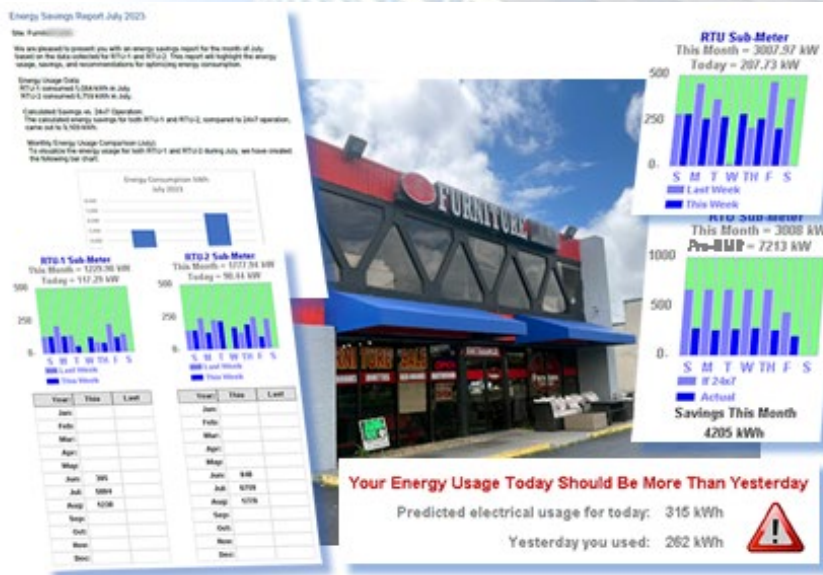
Energy Savings and Optimization Recommendations:

The most significant takeaway from the reports was the identification of potential energy-saving opportunities. By scrutinizing the data, the retail outlet's team identified areas for improvement in energy consumption. The reports provided specific recommendations on optimizing the BMS controls to further reduce energy usage.

Automating Setpoint Adjustments:

An insightful approach was the automation of setpoint adjustments during the store's operating hours. Manual adjustments were initially tested over a brief period, revealing that the store had been overcooling the premises. By implementing automated adjustments aligned with customer footfall and comfort needs, the outlet achieved a dual benefit: substantial energy savings and a reduced carbon footprint. Importantly, customer comfort remained unaffected.

The integration of a cloud-native Building Management System (BMS) has proven to be a transformative step for the retail furniture outlet. The insightful visualization of energy usage data, made possible by accurate sub-meter measurements, has unveiled a realm of opportunities for enhanced efficiency. By leveraging the power of data analytics, they have not only achieved substantial energy savings but also contributed to a significant reduction in their carbon footprint. This case study underscores the immense potential of modern technology in redefining energy management practices, ultimately leading us towards a more sustainable and economically viable future.



Customizable Energy Reports

Data Analytics with Real-Time Control Adjustments

Visualization, the Key to Timely and Appropriate Improvements

Suggested Improvements in Easy to Understand Language

Results are Verified, or Reverted if Necessary Without Impact