

Case Study–Retail Energy Optimization

National Retailer sees 100% Increase in Savings Through Optimization Services

Overview

Quest Controls provides optimization and auditing services that ensure maximum and continued energy savings for the entire portfolio of sites. Saving strategies are recommended by Quest and developed through close collaboration with the customer. Through these services' dramatic decreases in kWh consumption and costs can be achieved.

Process

At the beginning of this year, Quest Controls provided a retail partner with a 3 Month Review (January – March 2018) of cost and energy savings over 31 sites containing newly installed HVAC and Lighting controllers. This process included comparing utility bills from 2018 to 2017, normalizing billing days and adjusting for increased billing prices. The significant points extrapolated from this data was a 15% reduction in utility costs and a 17% reduction in kWh consumption over the 3-month period. Proceeding this review, Quest Controls introduced their optimization and auditing services. A bundle including: implementation of monitoring new settings, site-to-program customization, ongoing review of equipment performance, development of exception notifications for degrading equipment or setting deviations, bi-annual report of findings and ongoing consultation on targeted savings opportunities Quest Controls targeted an additional 5 – 10% in savings over the subsequent 4-month period. The data was then collected using the same utility bill analysis described in the 3-Month Review.

Results

As a direct result of the optimization and auditing provided by QES (Quest Engineering Services), over the next 4 months, Quest Controls succeeded in further reducing kWh consumption from 17% to 26%, and increasing cost reductions 100% from 20% to 40%.

3-Month Review			4-Month Optimization & Auditing	
	Cost	kWh Consumption	Cost	kWh Consumption
2017	\$165,358	1,592,893	\$231,977	2,063,977
2018	\$141,754	1,324,712	\$138,527	1,525,686
Savings	\$23,604	268,181	\$93,450	538,291

Conclusions and Future Savings

Due to the massive strides Quest Controls takes in its QES services, many optimization strategies developed during this process are still being implemented and savings are expected to significantly increase as services continue. Furthermore, these predicted savings do not account for the optimization techniques yet to be developed as data is continually received and extrapolated.