



AUTOMATED ENERGY

Argos Community Schools Case Study

Overview

It all began with a desire by school Maintenance Director Brad Carter to do a lighting retrofit in the school's two gymnasiums. He felt the move would save the school system money but he didn't have proper data to support his argument and couldn't convince leadership to approve his decision.

Peak-A-Boo

Carter was seeing a huge peak from 8:45-10:15 AM daily, which was projecting an unusually high electricity rate on his monthly bills. He felt a couple of reasons were to blame for this peak, but his calculations were based on common sense and guesswork.

Take A Load Off

Carter looked to Argos Utilities who, teaming with the Indiana Municipal Power Authority, called in Automated Energy to provide answers. Once Automated Energy's Load Profiler was installed, the real-time data confirmed Carter's theories. By analyzing usage levels, he realized he needed to stagger HVAC start-ups to lower peak morning hours.

He also found that the main culprit in his huge peak was that all the light switches in two gyms were being turned on at the same time every day. The Load Profiler showed that by just turning on half the lights, 15-minutes apart each day eliminated the large peak and provided more realistic energy rates.

"The Load Profiler data not only allowed us to determine the problem," said Carter, "but also to directly verify our savings."

Argos Goes Retro

Which brings us back to the lighting retrofit. With Load Profiler data to back him up, Carter was able to influence his leadership and initiate the retrofit. Originally proposed for the school system's two gymnasiums, the retrofit was implemented in both gymnasiums and in all classrooms, providing a more well-lit environment and energy savings.

Shedding A Light

With Load Profiler tracking results, the retrofit has resulted in a reduction from 100,200 kWh to 90,167 kWh or roughly \$250 cash savings per month. And what Carter predicted to be a 3.5 year retrofit payback is now scheduled to payback in 1.5 years.

Peak Performance

So what about the peak load that was inflating Argos' electric bill? By staggering HVAC start-ups and light usage, the school district reduced their peak load and shaved another \$430 from their monthly bill. Now that's information turned into action.

Profiling

Load Profiler and its online analytical data proved to be a catalyst for efficiency improvements and an effective tool to measure performance. Through peak shedding and a complete light retrofit, Carter's Argos Community Schools electric bill is almost \$700 less a month. And that can buy lots of No. 2 pencils.