

# STORIES BEHIND THE BATTLE



## Lake High School Complex

CCG Energy Solutions, Inc.  
Uniontown, Ohio

### RECOGNITION:

#3 overall winner  
20% energy use reduction

### SAVINGS:

36.2% energy savings  
\$263,428 estimated cost savings  
1,514 MtCO<sub>2</sub>e greenhouse gas emissions prevented

### BUILDING STATS:

Type: Education  
Ending EUI: 184 kBtu/Sq. Ft.

“Do your homework! First, understand your energy consumption, review usage per building system, and query occupants about realistic space needs. Next, research and select vendors based on proven results ... Lastly, understand which M&V [Measurement and Verification] process to use to measure project performance.”

#### Providing a high quality learning environment

Lake High School completed a full-scale energy conservation project with CCG Energy Solutions that included lighting retrofits, transformer upgrades, mechanical design improvements, and an upgrade to the building automation system (BAS). Of these, the BAS had the biggest impact on energy savings. Lake High School is now continuously monitored remotely through the BAS by CCG's performance improvement specialists who focus on identifying energy savings opportunities.

#### Redesigning to save

The team also focused on upgrades to mechanical systems, a transformer, and lighting fixtures. Previous lighting did not meet the required design standards. Now the lighting not only exceeds these standards, but also provides a better work environment while reducing the electric demand throughout the building.

Upgrades were completed on the building's electrical distribution system to reduce electrical transformer losses. This upgrade moved the building into a lower utility rate class, resulting in huge cost savings.

Lastly, the mechanical system was redesigned to take advantage of the existing oversized condensing boilers. The packaged rooftop units that were heating much of the building were only rated at 80-percent efficiency, but now new piping helps to utilize them at 98-percent efficiency.

There was also a focus on training the staff of Lake High School to provide them with additional ideas on how they can operate the buildings more efficiently and continue the savings trend into the future.

#### For additional information, contact:

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