

Energy Star Award Helps Promote District's Commitment to Energy Efficiency and Fiscal Responsibility

A local school district, located in southern Ohio, consists of 3 public schools; a high school, middle school and elementary school. The district currently serves over 1,936 students in grades K-12.

Challenge

Faced with rising energy costs and budgets, the school district wanted to take a closer look at the energy usage for their three school buildings to see if they could find ways to improve their buildings, reduce their energy usage and save the district money.

Solution

After six months of energy studies, the school district decided to partake in some energy conservation measures (ECMs) at all three school buildings to reduce their energy usage and qualify their school buildings for the Energy Star Label through the Environmental Protection Agency (EPA). First, the district optimized all of their building automation systems and added building scheduling with timers and sensors to condition and address spaces that were occupied. Second, lighting retrofits were conducted in the buildings. Lighting sensors were added to the high school, and elementary school, T8s and lighting sensors were added to the gyms, lighting change outs were done to the middle school gym, cafeteria and auxiliary gym and re-lamping was done to all three school buildings. Third, all unused appliances were removed from classrooms. Next, all computers were installed with automatic shutdown so that all computers would automatically shut down at the end of the day when they were no longer in use. Finally, Gardiner conducted a walk-thru of all three school buildings to make sure that all the lighting and comfort levels were acceptable for a proper learning environment. The process included reviewing the district's utility bills over a two year period, validating lighting levels, confirming ventilation rates and assessing building utilization. Once the data was collected, Gardiner certified it by one of their Professional Engineers (PEs) and submitted it to the EPA for Energy Star qualification and approval.



High School



Middle School



Elementary School

All three schools in the district obtained the Energy Star Award for "Excellence in Energy Utilization and Efficiency"

Energy Star Award

Results

All three schools in the district earned the Energy Star Award for excellence in energy utilization and efficiency. According to the EPA, "K-12 schools that are Energy Star labeled, cost on average, 40 cents less per square foot to operate than K-12 schools without the Energy Star label." The district's savings in electricity was 89,978 kWh and natural gas savings was 5,919 MMBtu, a 40% energy savings. This equates to an estimated savings of \$167,732 a year based on their current rates. The success of achieving the Energy Star label and energy efficiency would not have been possible without the understanding and support of the school district's administration, faculty and community. This achievement is a great way to illustrate to the community, the district's fiscal responsibility and commitment to environmental stewardship.

"The Energy Star Award illustrates to the community that our school district is moving in the right direction and our tax dollars are being used as efficiently as possible."

Facilities Manager



Project Overview

- 3 Schools Awarded Energy Star For Excellence in Energy Utilization & Efficiency
 - High School 86 Energy Star Rating
 - Middle School 85 Energy Star Rating
 - Elementary School 94 Energy Star Rating
- Electricity savings of 89,978 kWh
- Natural Gas savings of 5,919 MMBtu
- Estimated Energy Savings of 40% or \$167,732 Per Year

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