

Cuba Middle/Senior High School (CUSD #3)



Program Area:
Energy Program

Grant Amount:
226,330

County:
Fulton

Location:
Cuba, IL 61427

Grantee:
Cuba Middle/Senior High School (CUSD #3)

Grant Date:
January 2002, April 2002, May 2006, May 2012

Cuba Middle/Senior High School, located in Fulton County at the intersection of Illinois Routes 95 and 97, has received various grants from the Foundation over the years to support energy efficiency and renewable energy. Cuba was among the first grantees to receive a Design & Commissioning grant back in 2002. The school went on to add solar photovoltaic (PV) panels, upgrade lighting when more efficient technology became available, and install a small wind turbine. Cuba paved the way for schools in Illinois to embrace energy efficient design and renewable energy for the benefit of students and as a demonstration to the surrounding community. The energy efficiency and renewable energy projects were intended to reduce operating costs, increase the health and safety of the school, and set an example for others. Because of its dedication to sustainability, Cuba has been named “One of Illinois’ Great Rural Schools”.

The Cuba Middle/Senior High School is a 65,000 square foot building that houses grades 7-12. The total cost of the building was \$8,198,353. A geothermal system heats and cools the entire school with the exception of the gymnasium. Extensive daylighting reduces energy usage and has also been linked to improved student performance. The combination of daylighting and high efficiency lightbulbs resulted in a 40% reduction in the annual lighting load compared to a conventional building. Cuba also reduced energy usage by installing a 60kW solar PV system. The arrays are pole mounted in front of the school for students and visitors to see. The system has been installed for 8 years and has been producing an average of 68,000 kWh per year. Overall, the school lowered operating costs by 25% and cut utility bills 53%, which was estimated to save \$3,597 per month.

In 2012, Cuba received another grant for an educational wind turbine through the Foundation’s K-12 Wind Schools Program. The 2.1 kW Skystream wind turbine further increases the school’s renewable energy generation and provides students with a hands on opportunity to learn about renewable energy. This installation reduces the school’s energy usage and lowers utility bills even further. The live wind production data is available at <http://illinoissolarschools.org/wind-schools/cuba-high.php>.