



# Case Study of KY NEED Project

## Keys to Success



**Project Description**



**Economic Value**



**Challenges & Advice**



**Benefits**



**Stewardship Meaning**



The Kentucky branch of the National Energy Education Development Project (NEED) is a nonprofit education association providing energy education workshops and curriculum for K-12 teachers and students across the Commonwealth.

KY NEED provides one-day energy workshops for teachers, training/support for student energy teams (SET), energy tours for educators and sponsorships for teachers to attend the national conference. KY NEED also provides a two-day High-Performance Sustainable Schools Workshop for architects, engineers, school board members and others; youth awards for energy achievement to recognize student groups that plan and facilitate energy projects in their schools/communities; and is involved in the annual National Youth Awards Celebration.

“Energy to operate a school is typically the second largest item in a school’s

budget,” says Karen Reagor, state director of KY NEED. “In order to offset these expenses and further energy education, KY NEED trains student energy teams to educate the school community about energy conservation and behaviors that will reduce energy consumption.”

**“The KY EXCEL program is an excellent way for KY NEED to partner with and meet others who are addressing energy conservation,” says Reagor.**

Active SETs trained by KY NEED and sponsored by utilities include 69 student energy teams in the LG&E/KU service area and 30 teams in the Duke Energy Kentucky service area.

During SET training workshops, students learn to use energy-management

tools, such as a Kill-a-Watt™ monitor and light meter. Advisors receive copies of the Blueprint for School Energy Management, which outlines how to create a student energy team and implement the program.

The recommended, basic steps of a SET are to establish a benchmark/baseline of the school’s energy consumption, conduct an initial building walk-

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through survey, educate the school community, monitor school energy use regularly, and implement energy shut downs and setbacks during school breaks and vacations. Results are measured and presented to the school and district.

For an energy education team to succeed, it helps to have the endorsement of the senior building administrators. NEED encourages the students to make a presentation to the school board and/or at a faculty meeting to explain their plans and the benefits to the school.

Currently, there is not an organized method for tracking the amount of energy the SETs have helped save. KY NEED trains the student teams, but it's the schools that receive energy bills from the utilities. Energy-smart measures may reduce consumption by an estimated average of 30 percent. Reagor says district energy managers indicate that students impact additional energy savings by educating building occupants about energy-saving behaviors and monitoring these behaviors through their ongoing program.

Jim McClanahan, energy manager for Scott and Woodford school districts, says, "I arranged for one of our teachers to attend a NEED workshop where she learned what she could do to get students involved in energy savings. When you get students involved, they will bring the staff along."

As administrators learn that saving energy means saving funds, they are more willing to turn out classroom lights when leaving a room or wear a sweater rather than raising the thermostat.



Teachers attending an energy tour

"The KY EXCEL program is an excellent way for KY NEED to partner with and meet others who are addressing energy conservation," says Reagor. "It has prompted us to quantify the results of the energy education NEED coordinators, teachers and students are doing in the Commonwealth."



Testing solar cells to see if dirt affects the amount of electricity generated.

This is a great way to connect classroom learning to a real-life project, requiring math skills, knowledge of science and social studies and public speaking skills. Student leaders in energy issues create economic and environmental benefits and educate others about conserving energy.

"Saving energy protects the environment," says Reagor. "For every kilowatt of electricity saved, approximately 1.7 pounds of carbon dioxide are prevented from entering the atmosphere."

**HELPFUL HINT:** Conserving energy is one of the least expensive and quickest ways to address climate change.