

# LET'S SAVE ENERGY

## School Energy Efficiency News

KSBA-SEMP ... Cultivating energy efficiency, best practices in Kentucky school districts



September 2015

## Taking energy efficiency to the next level . . .

### STUDENT ENERGY TEAMS ARE MAKING A DIFFERENCE

The district is making full use of its HVAC control systems. Exit signs are LED and lighting systems are updated whenever possible. Now, what else can be done to save even more energy? Districts that were involved in early energy management efforts in Kentucky will point you to involving students and teachers. Several programs also offer additional teacher resources for energy education. One that has grown significantly in Kentucky is the National Energy Education Development Project (NEED), a national not-for-profit education organization.

NEED has been providing energy curriculum resources and training for K-12 teachers across the country for over 35 years, and has been active in Kentucky for 20 years. Funding for NEED in Kentucky has been provided by the Department for Energy Development and Independence and three Kentucky utility companies – Duke Energy, Louisville Gas & Electric and Kentucky Utilities Company, and Kentucky Power/American Electric Power. Each sponsor provides a specific level of programming.



Students measure kWh usage of classroom equipment.

#### Kentucky NEED 2015

#### ENERGY WORKSHOPS FOR TEACHERS

Date	City
9/22/2015	Elizabethtown
9/24/2015	Prestonsburg
9/29/2015	Covington
9/29/2015	Richmond
10/1/2015	Gilbertsville
10/14/2015	Pineville
10/15/2015	Morehead
10/20/2015	Georgetown
10/22/2015	Bowling Green
10/27/2015	Shelbyville
10/27/2015	Owensboro
10/29/2015	Campbellsville
11/5/2015	Madisonville
11/12/2015	Maysville

Registration at [www.need.org](http://www.need.org) under "Upcoming Events"

The three major components of NEED are:

**Curriculum:** Over 150 free curriculum guides are downloadable, covering all aspects of energy to assist Kentucky teachers in meeting current science standards.

**Workshops:** Teachers across the Kentucky are invited to attend one-day workshops to introduce the energy curriculum and model hands-on activities to be used in the classroom. (See schedule below.)

**Energy Tours:** Each year Kentucky NEED hosts an energy tour, giving teachers the opportunity to learn more about energy and energy career opportunities in Kentucky. (continued on page 2)

## Teacher resource for Student Teams *(continued from page 1)*

### Student Energy Teams

Karen Reagor, director of Kentucky's NEED Project, says there are over 100 active Student Energy Teams in Kentucky. "Teams may begin in a classroom or as an after-school program, but all use the Blueprint for School Energy Teams, a free downloadable tool from NEED." Reagor adds that this tool was developed specifically for the Kentucky program, but is now being used across the nation.



The Blueprint for School Teams is a guide for districts and teachers to use when establishing Student Energy Teams. It provides all the basics a school club advisor would need to teach students how to monitor energy use and develop

a strategy to educate the school community on behaviors that will reduce energy consumption. Find it at: (<http://www.need.org/Files/curriculum/guides/BlueprintSchoolEnergyTeam.pdf>) It contains:

- Teacher Guide*
- Energy Team Checklist*
- Sample Action Plan Timeline*
- Plug Load Worksheet*
- Awareness Ideas*
- Building Monitoring Survey Instructions*
- Building Monitoring Survey*
- Classroom Energy Checklist*
- Energy Shutdown Checklists*

Student energy projects are a perfect opportunity for energy managers to unite classroom education and district energy goals. "We would love to partner with as many teachers as possible, to support reaching district energy goals, along with greater success in teaching the science standards" says Reagor. For more information contact [krea-gor@need.org](mailto:krea-gor@need.org).

## Student Energy Teams in . . . .

### Kenton County School District



*Students celebrate "wisdom in saving energy" annually!*

Chris Baker, energy systems coordinator for the Kenton County School District, describes Kentucky NEED as, "an instrumental component of our E=WISE2 program." Kentucky NEED staff have participated on an advisory panel, helping with teacher training and engaging students during student workshops. Baker adds that, "our student energy program has grown to one of the most popular extracurricular activities in the district, with a 'Green Engineering Academy,' being a significant addition to the district curriculum."

### Scott County Schools

"Once students understand what energy is, energy conservation starts to make sense," says Jim McClanahan, energy manager for Scott County Schools. "I encourage all teachers who are energy team leaders to attend a NEED workshop where they can learn what to do to get students involved in energy savings. When you get students involved, they will bring the staff along."



*Curriculum resources, teacher workshops and energy tours are resources to help guide student energy teams.*



## Warren County Public Schools

While Warren County Public Schools Energy Manager Jay Wilson had worked on the facilities side of energy management for a number of years, in 2010 he saw a renewed interest as school energy teams were developed. WCPS developed Respect and Conserve Energy (RACE) Program in each school. This program incorporated conservation and sustainability education into student learning, using the resources from Kentucky NEED and the Alliance to Save Energy, a TVA-sponsored program. With the community's interest in car racing because of the National Corvette Museum, the RACE Energy Teams have been well-supported in the community .



*North Warren Elementary "RACE Team" presented their projects at the district competition.*

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## Bullitt County Public Schools

Energy team leaders, especially those who are science teachers, love the [NEED] kits, says Kimberly Joseph, energy manager for Bullitt County Public Schools. "Saving energy and money is great, but people like me are employed because of students. Anything that makes learning fun and makes those science and math connections for them, it's definitely something we all should support."



*The Student Energy Teams at Crossroads Elementary teach other students about energy conservation!*

## Budget impact of rate increase

With new electric utility rates becoming effective July 1, affected districts are now seeing the impact of those increases. While the increases are between 3 and 13 percent, it is important to understand utility companies are partnering with districts in reducing energy consumption and demand and wasteful spending. Louisville Gas and Electric, Kentucky Utilities Company and Kentucky Power Company have provided funding to support district efforts to manage energy resources, as well as future funding for energy projects. KSBA SEMP staff are providing support for all funded energy managers to identify the best ways for their districts to reach those goals.



October is . . .

## Energy Awareness Month

Kentucky will celebrate Energy Awareness Month in October. Consider celebrating school energy efficiency efforts and send stories and pictures about your celebrations to [martha.casher@ksba.org](mailto:martha.casher@ksba.org) for inclusion in the November Let's Save Energy newsletter.

## Annual reports submitted to LG&E/KU show continued reduction

Annual reports have now been submitted to Louisville Gas and Electric and Kentucky Utilities Company showing a continued reduction in the demand (kW) and energy consumption (kWh).

The LGE districts have achieved the following, compared with their FY 2010 baseline:

- August demand reduction, 15.8 percent
- January demand reduction, 6.6 percent
- Summer energy reduction, 4.5 percent
- Winter energy reduction, 5.2 percent

The KU districts have achieved from a FY2010 baseline the following:

- August demand reduction, 15.9 percent
- January demand reduction, 10.8 percent
- Summer energy reduction, 17.5 percent
- Winter energy reduction, 13.6 percent