

# LET'S SAVE ENERGY

## School Energy Efficiency News

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



July 2017

### Maintenance project payback in six months



What happens when you combine a renovation project with a maintenance project that is on the same electric account number? An almost unheard of six-month payback period.

As Fairview Independent was finalizing an addition to its high school, energy efficiency engineer Larry Metcalf, representing the Kentucky Power Commercial Incentive Program, began working with project engineer Ashlyn Jackson from Shroust Tate Wilson Engineers to identify potential rebate opportunities. The board decided to install energy-efficient equipment that would result in an \$8,000 cash incentive once the project was completed.

As the older sections of the high school were being reviewed, the outdated T12 lighting was determined inefficient and a maintenance concern. Knowing there were options for more efficient lighting, the staff worked with energy manager Martha Casher to identify reasonable alternatives to present to the board of education.

The board carefully evaluated those options. It chose a LED Retrofit System with a 10-year warranty, saving \$32 per fixture annually, but still had to decide when to purchase and install the equipment. Metcalf figured if the lighting replacement plan was completed BEFORE the renovation rebate application was finalized, the renovation rebate would grow by an additional \$2,000. This meant the total district incentive would be \$18,000 and the energy savings from the lighting replacement would pay for the upgrade in approximately six months. The total rebate consisted of \$8,000 for the renovation project and \$10,000 for lighting replacement.

The renovation was completed before school began in August 2016 and the lighting project was completed in



*Working together, Fairview Superintendent Michael Taylor, Maintenance Supervisor Dewy Thompson and KPC Commercial Incentive Engineer Larry Metcalf were able to identify and execute energy projects receiving a \$18,000 utility incentive.*

December. The district continues to monitor the progress of the savings; it has already realized a 9 percent reduction in cost per square foot.

The district recognized the benefit of evaluating a maintenance project based on life-cycle cost analysis. KRS 157.455 strongly encourages use of this analysis, also called LCA, when considering new or renovation projects.

"During times of severe budget constraints, we needed to explore any and all opportunities for cost savings," Superintendent Michael Taylor said. "Looking at operational costs in order to maintain staffing levels benefits the students of the district. Kentucky Power made this a simple process for our district to identify and maximize available rebates."

# Woodford County elementary wins first-ever Kentucky's Battle of the School Buildings competition for energy efficiency

Southside Elementary School in Versailles reduced its energy consumption between 2015 and 2016 by nearly one quarter, earning it the championship title in the Kentucky's Battle of the School Buildings competition, sponsored by the Kentucky School Boards Association (KSBA).

In total, 131 schools statewide entered the inaugural competition, overseen by KSBA's School Energy Managers Project (SEMP). KSBA representatives made the announcement in presentation ceremonies May 8 at Southside Elementary, which is part of the Woodford County school system.

"Woodford County has been one of the leaders in a major surge of energy efficiency focus by public schools that has reduced the cost of powering, lighting, heating and cooling these learning centers to the tune of \$123 million over the last seven years," said Mike Armstrong, at that time KSBA's executive director. "Through the work by Southside Elementary and district staff, this school reduced its energy consumption by 24.68 percent between 2015 and 2016. Every dollar saved by these efforts goes right back into the teaching and learning achievements in this district."

At Southside Elementary School, gymnasium lighting was converted from the metal halite format to more highly efficient LED units in

2015. In 2016, the school's overall T12 lighting system also was replaced with LED fixtures and bulbs. Over the 12-month period, it is estimated that the changes reduced the building's utility costs by \$7,000.

Also recognized during the ceremonies were two other participating schools with at least a 20 percent reduction in energy consumption. They are:

Bourbon County Central Elementary – 24.51 percent reduction, savings of \$4,000

Woodford County's Northside Elementary – 22.73 percent reduction, savings of \$5,000

The top 10 schools in the competition were:

Place	School	District	% Reduction
1	Southside Elementary	Woodford	24.68%
2	Bourbon Central Elementary	Bourbon	24.51%
3	Northside Elementary	Woodford	22.73%
4	Fairview Elementary	Fairview Ind	19.80%
5	South Irvine P/K Center	Estill	14.40%
6	Garth Elementary	Scott	13.73%
7	Straub Elementary	Mason	12.88%
8	Bourbon Central Preschool	Bourbon	12.07%
9	Estill County Middle	Estill	10.42%
10	Safe Harbor	Woodford	9.55%



From the recognition ceremony for Kentucky's Battle of the School Buildings: Front row from left, 1st runner-up Bourbon Central Elementary, represented by Principal Keith Madill; winner, Southside Elementary, represented by Principal Jason McAllister; 2nd runner-up-Northside Elementary, represented by Chief Academic Officer Jimmy Brehm; KSBA Energy Services Coordinator Martha Casher. Back row from left, then-KSBA Executive Director Mike Armstrong and Woodford County Energy Manager Ralph Slone.



# Kentucky's Battle of the School Buildings



## An ENERGY STAR® Battle of the Buildings™ Competition



# Let the "games" begin!

## Show how much you can save in Kentucky's Battle of the School Buildings!

Schools compete on the court, the field and the track . . . now there is annual competition at the utility meter for Kentucky Schools!

Kentucky's Battle of the School Buildings is a competition to measure and track monthly school energy use compared with the previous calendar year. There were 131 Kentucky schools that participated in the inaugural competition to compare 2016 energy use to 2015. The second competition is now beginning!

It's easy to participate! Simply:

- Complete the competition form on BACK page, or email the information.
- Enter energy use in Portfolio Manager (we can help you get started!).
- "Share the property" from Portfolio Manager with the SEMP team.
- Report energy usage on a monthly basis.

## LG&E-KU Utility Rate Intervention Update

The Public Service Commission recently approved a reduced rate increase for customers of Louisville Gas & Electric and Kentucky Utilities that went into effect July 1. KSBA, as well as other groups intervened, similar to previous rate cases since 2010.

The size of the rate request for LGE-served schools was reduced by approximately \$1.1 million less than originally requested by LGE, and KU-served public schools reduced an estimated \$1.5 million than initially sought. LGE natural gas-served school buildings also will be less affected compared with the original rate request.

As part of the agreement, the PSC approved special rate tariffs for schools, both public and private, in a pilot program. KSBA is in the process of filing a plan with the PSC and the Kentucky Non-Public Schools Commission for choosing the schools that will be a part of the special pilot school tariff.

### Requirements for KRS 160.325 & Board Policy 05.23

→ **Track and monitor progress of District Energy Management Plan**

→ **Updated District Energy Management Plan to reflect FY18 priorities**

→ **Annual Energy Management Report (EMR) to District Board**

→ **Annual EMR submitted to Energy and Environment Cabinet (report form distributed August 1<sup>st</sup>)**



# Kentucky's Battle of the School Buildings



## An ENERGY STAR® Battle of the Buildings™ Competition



# 2018 Competition Registration Form

The Kentucky Battle of the School Buildings is to recognize:

- The Top School Building that reduces its energy use on a percentage basis over calendar year 2017, as compared with calendar year 2016.
- Any school that reduces its energy use as measured by the weather normalized site EUI (kBtu/sq ft) by at least 20% over calendar year 2017, as compared with calendar year 2016.

Here's all you need to do to participate:

- Complete the competition form below
- "Share the property" from Portfolio Manager with the SEMP Team
- Report the following by dates listed:
 

Aug. 15, 2017	Benchmark calendar year 2016 data in Portfolio Manager
Aug. 15, 2017	Report 1st AND 2nd Quarter energy usage into Portfolio Manager
Nov. 15, 2017	Report 3rd Quarter energy usage into Portfolio Manager
March 15, 2018	Report 4th Quarter energy usage into Portfolio Manager
May 15, 2018	KSBA-SEMP to communicate and recognize final results

Complete this form and email to [martha.casher@ksba.org](mailto:martha.casher@ksba.org) by Aug. 15, 2017.

School Name: \_\_\_\_\_ District \_\_\_\_\_

Sq. Ft. \_\_\_\_\_ Year built \_\_\_\_\_ Number of students \_\_\_\_\_

Address: \_\_\_\_\_ City \_\_\_\_\_ Zip code \_\_\_\_\_

Principal \_\_\_\_\_ Energy Manager \_\_\_\_\_

*We understand that we are responsible for tracking all energy used in our school and will enter that information into Portfolio Manager in order for our energy data to show our progress.*