

# LET'S SAVE ENERGY

## School Energy Efficiency News

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



October 2017

### Seeds planted turned into innovative "energy light" for Washington County High School

In 2010, plans were being made to renovate Washington County Middle/High School. School and community members, as well as professional architects and engineers met to discuss all options and the many ideas suggested for the renovation work. One person participating in those discussions was then-energy manager TJ Poliske, who served six area school districts.

Aware of the utility costs to run a school, and the importance of tracking both consumption and demand, Poliske offered a unique suggestion: "Let's use an energy light to let the staff and students know how much they are using." He had seen this in a building in another state where he had been working. Even though Poliske moved to Indiana, the "seed" he planted grew.

As the group continued its work, the school board decided in April 2012 not to renovate but to build a new school. Renovation versus new construction was a tough decision with valid arguments on both sides. Yet, as a result of the board's progressive thinking, they made the tough choices to execute a new building design incorporating features that lowered their long-term operational costs.

Implementing the "energy light" idea became a priority for the school district, since it was a



WCHS student Derrick Milburn keeps his eye on the school's energy light to let others in the building know if the energy use is getting too high.

simple way to alert students and staff when the building was consuming electricity at a higher rate than normal. The challenge was given to the designers and engineers from RossTarrant Architects and CMTA Consulting to implement this idea.

Eric Steva of RossTarrant and CMTA's Brad Reeves worked closely with the district during the design phase. Reeves recalled, "Through our discussions, we decided it would be good to make our energy light like a stoplight with green, yellow and red -



# Kentucky's Battle of the School Buildings



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



We compete on the court, the field, and the track, why not compete at the meter! Kentucky's Second Annual Battle of the School Buildings is now underway!

Kentucky's Battle of the School Buildings provides the opportunity for recognition for faculty, staff and students who are involved in saving energy . . . and money! Kentucky's P-12 schools have made significant progress in the last five years in eliminating wasteful spending on energy. School boards, staff, and students have become focused on implementing best energy efficiency practices.

The competitors who will face off in 2018 Kentucky's Battle of the School Buildings are:

District	School	School
<b><i>Anchorage Independent</i></b>	Anchorage Independent School	
<b><i>Barren County Schools</i></b>	College Street Campus	Temple Hill Elementary
	Barren County Middle School	Eastern Elementary
	North Jackson Elementary	Hiseville Elementary
	ROTC	Trojan Academy
	Barren County High School	Park City Elementary
	Red Cross Elementary	Austin Tracy Elementary
<b><i>Bath County Schools</i></b>	Crossroads Elementary School	Chenault Agriculture Center
<b><i>Bourbon County Schools</i></b>	Cane Ridge Elementary School	Bourbon County Preschool Head Start
	North Middletown Elementary School	Bourbon County High School
	Bourbon County Central Elementary	Bourbon County Middle School
<b><i>Bullitt County Schools</i></b>	Freedom Elementary School	Pleasant Grove Elementary School
	Zoneton Middle School	Bernheim Middle School
	Hebron Middle School	Bullitt Lick Middle School
	Eastside Middle School	Mt. Washington Middle School
	Old Mill Elementary School	Bullitt Central High School
	Mt. Washington Elementary	Bullitt East High School
	Shepherdsville Elementary	North Bullitt High School
	Cedar Grove Elementary	Roby Elementary School
	Lebanon Junction Elementary	Overdale Elementary School
	Maryville Elementary School	Crossroads Elementary School
	Nichols Elementary School	Brooks Elementary School

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2018 Kentucky's Battle of the School Buildings (continued)

<b>District</b>	<b>School</b>	<b>School</b>
<b><i>Clark County Schools</i></b>	Baker Intermediate School	
<b><i>Crittenden County Schools</i></b>	Crittenden County Elementary School	
<b><i>Eminence Independent</i></b>	Eminence Independent School	
<b><i>Estill County Schools</i></b>	West Irvine Elementary School Estill County High School Estill County Middle School	Estill Springs Elementary School South Irvine P/K Center
<b><i>Fairview Independent</i></b>	Fairview Elementary School	Fairview Middle/High School
<b><i>Franklin County Schools</i></b>	Western Elementary Peaks Mill Elementary School The Academy Bondurant Middle School Bridgeport Elementary School Collins Lane Elementary School Elkhorn Elementary School	Early Learning Village Elkhorn Middle School Franklin County High School Hearn Elementary School Western Hills High School Westridge Elementary School Franklin County Career & Technical
<b><i>Henry County Schools</i></b>	New Castle Elementary Campbellsburg Elementary School Eastern Elementary	Henry County Middle School Henry County High School
<b><i>Hopkins County Schools</i></b>	Madisonville North Hopkins High School	
<b><i>Lee County Schools</i></b>	Lee County Elementary Schools	Lee County Middle High School
<b><i>Mason County Schools</i></b>	Mason County Intermediate School	Mason County High School Campus
<b><i>Morgan County Schools</i></b>	Morgan County Middle School East Valley Elementary School	Morgan Central Elementary School Ezel Elementary School
<b><i>Rowan County Schools</i></b>	McBrayer Elementary School Rowan County Senior High School Clearfield Elementary School	Rowan County Middle School Rodburn Elementary School Tilden Hogge Elementary
<b><i>Scott County Schools</i></b>	Anne Mason Elementary Royal Spring Middle School Eastern Elementary Stamping Ground Elementary Northern Elementary Preschool	Garth Elementary Georgetown Middle School Southern Elementary SCHS/9th Grade/SCMS Campus Elkhorn Crossing School Lemons Mill Elementary
<b><i>Trimble County Schools</i></b>	Milton Elementary Bedford Elementary School	Trimble County High School Trimble County Middle School
<b><i>Woodford County Schools</i></b>	Woodford County High School Woodford County Middle School Huntertown Elementary Northside Elementary	Southside Elementary Simmons Elementary Safe Harbor



## Washington County High School's energy light (continued from pg 1)

green meaning low energy consumption, yellow being average and red being high energy consumption."

Reeves said the electrical design was already in place to have separate electric meters for lighting, HVAC, kitchen and other areas. These meters are integrated within the building management system, making it possible to take the totals of those meters and activate the proper light based on the current demand.

The ranges at which the green, yellow and red lights are activated are all adjustable within the building management system. The initial ranges were based on the expected energy usage and can be modified as usage patterns need to be adjusted.

Superintendent Robin Cochran said that the "energy light" has been a simple approach to

involving students and staff in reducing energy consumption. "A student keeps his eye on the energy light and if it is yellow or red, he will communicate with other students and teachers to turn off unnecessary lights or adjust thermostats." She added, "He will then continue monitoring until the stoplight is back to green."

Reeves added that if a school has electrical demand meters connected to the building management system, it becomes easier to implement the energy light. It becomes an issue of interconnecting the wiring and integrating with the Building Management System. The task becomes easier using a single color-changing LED light.

Seeds were planted and grew into a simple process for involving students and staff. Where will the next seed fall?



### ENERGY STAR in the news:



Bourbon County Middle School was recently recognized as the district's fourth ENERGY STAR School. From left are: KSBA representative Martha Casher, BCMS Principal Travis Earlywine, student Elizabeth Toohey, KSBA Energy Manager Jim McClanahan, Superintendent Amy Baker, Energy Manager Chuck Tanner and Comfort & Process Solutions representative Rick Valentine.

*During the September meeting of the Northern Kentucky Cooperative for Educational Services, Beechwood Independent Schools Superintendent Dr. Mike Stacy (below left) and Boone County Schools Superintendent Dr. Randy Poe were recognized for schools in their districts that were recently certified as ENERGY STAR. The schools were: Beechwood Independent School and Boone County Schools: Camp Ernst Middle School, Erpenbeck Elementary, Gray Middle School and R.A. Jones Middle School .*

