

Let's Save Energy



School Energy Managers Project



June 2015

KENTUCKY SCHOOLS RECOGNIZED FOR "GOING TO BATTLE"

One hundred and twelve teams in 5,745 buildings in the nation "battled it out" to see who could cut the most waste and save the most energy for 2014 in the U.S. Environmental Protection Agency's (EPA) ENERGY STAR "Battle of the Buildings Competition: Team Challenge for 2014."

Among those teams were four Kentucky school districts – Bullitt, Scott and Woodford counties and West Point Independent.

The first "Battle of the Buildings" competition was held in 2010 with only 14 competitors. The EPA believes the sustained interest in the competition is due to the fact that organizations find great value in harnessing the competitive spirit of the employees and students who occupy their buildings. When it comes to saving money and protecting the environment, it's the small steps that eventually add up to make a big difference.



The annual competition is to serve as recognition *and* encouragement to reduce energy and water consumption, both of which have seen rising costs. Data is entered at the mid-point and end-point of the competition year into ENERGY STAR's Portfolio Manager, an on-line tracking software.

Teams that reduce the greatest percentage and/or reduce 20 percent over the previous year, are recognized at the end of the competition.

A number of other Kentucky districts have participated in previous years, including the Kenton, Pendleton and Shelby county systems, and Bellevue, Dayton, Southgate and Silver Grove independent districts.

This issue of Let's Save Energy will highlight this year's Kentucky districts for their participation in becoming more energy efficient.

Woodford County Public Schools Takes Honors in ENERGY STAR's National Battle of the Buildings Competition



Simmons Energy Team Member Camilla Cosby says, "If your device is not charging, unplug the charger, because it is STILL using energy!"

Includes excerpts from a May 13 Kentucky Energy and Environment Cabinet news release.

Woodford County Public Schools finished in the Top 10 in the 2014 (EPA) ENERGY STAR "Battle of the Buildings Competition.

Ranking eighth in the nation, the seven WCPS schools were competing against 5,745 individual buildings from across the U.S. The school system was recognized for reducing energy consumption by 10.2 percent over the previous 12 months. The district's Simmons Elementary team led the way, reducing energy consumption by 17.2 percent. The district's conservation efforts resulted saving \$62,400 in annual energy costs for 2014.

"As a former teacher in Woodford County, I am especially proud of the school system's dedication to

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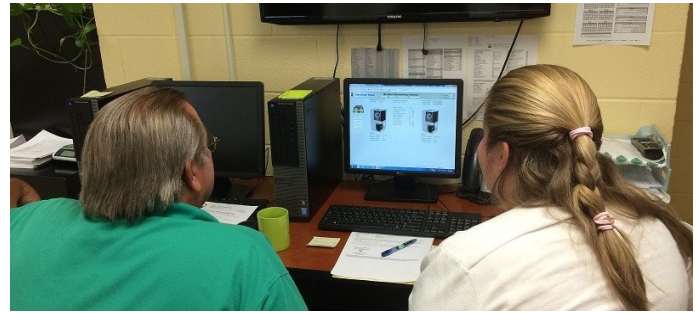
Bullitt County Public Schools and West Point Independent

Participate in National Battle of the Buildings

Out of the 179 Kentucky buildings in this year's competition, 26 were from Bullitt County Schools and one from their partner, West Point Independent. In spite of the fact that the district implemented many energy saving initiatives over the past eight years, they still wanted to improve.

With district facilities being well-below the average Kentucky energy use per sq.ft. of 60, Energy Manager Kimberly Joseph knew they were extremely efficient, but saw this as another challenge to help improve the individual building energy usage.

"BCPS strives to be a leader in energy efficiency," said Joseph. "What better way to continue our energy efficiency mission than to participate in the EPA Battle of the Buildings. From the schools – where we have active support from 19 school energy teams – to our central office building – which has successfully lowered its energy use for the third year in a row – we take pride in



Joe Stottman, BCPS Lead HVAC technician and Kimberly Joseph, Energy Manager monitor systems daily to ensure they are working efficiently in their 23 schools and other / support buildings.

being responsible with taxpayer dollars and being good stewards to the environment."

Over the past two years, BCPS has partnered with West Point Independent in energy management. For calendar year 2014, West Point was able to reduce energy consumption by 6 percent, which resulted in a \$1,700 savings. Additionally, the district recently installed a new control system which will allow staff to significantly reduce consumption through use of scheduling activities in the school, rather than running on occupied-mode year round.

Scott County Public Schools

Participate in National Battle of the Buildings

Scott County Schools has participated in the Battle of the Buildings for the past four years. In fact, that first year in 2011, Northern Elementary School reduced their consumption over 28 percent and finished No.1 among all participating buildings in Kentucky.

Each year Scott County's EUI has improved, which makes it difficult to show a high percentage of improvement from one year to the next. But Energy Manager Jim McClanahan continues to support the Battle of the Buildings. "Recognition is good for schools," he said.



Ms. Elizabeth Cook, along with Head Custodian Larry Stubbs, Custodian Jeffrey Kovalich, Custodian Beverly Dolliver and the entire Northern Elementary Energy Team were recognized for winning the Energy Reduction Banner in April 2015 with a reduction of 21.9 percent.

"Scott County Schools are now 100 percent ENERGY STAR certified, but the 'Battle of the Buildings' provides an opportunity to show our community that we continue to use our energy resources wisely," said McClanahan.

He describes one strategy used to keep schools engaged is a monthly recognition of the school that has reduced energy use to most, compared to the previous year. "It is amazing how students, staff and teachers take pride in this award," said McClanahan.

Woodford County Schools

continued

reducing their energy dependence and being recognized for their endeavors on a national stage,” said First Lady Jane Beshear. “Improving energy efficiency in Kentucky has been one of my main initiatives throughout this administration, and I am encouraged by the efforts of Woodford County’s schools and the hundreds of other schools across Kentucky that are conserving energy while teaching students ‘green’ practices that they will carry with them throughout their lives.”

WCPS adopted an energy management plan and, through a partnership with neighboring district, Scott County Schools, utilizes the services of a

part-time school energy manager.

“Getting everyone on the same page as it relates to saving energy is critical to the success of the project,” said Woodford County Superintendent D. Scott Hawkins. “The board of education knows that every dollar saved on energy can be applied to the classroom and educating its students. With this in mind, everyone - from the building administrators, teachers, staff and students - participated in the competition.”

School Energy Manager Jim McClanahan attributes the district’s success to simple changes, such as turning off lights, shutting outside windows and doors, and engaging students in discussions about how to save energy in the school and home.



School Energy Managers Training



Graham Gray, Heating and Cooling Engineer in University of Kentucky Campus Physical Plant Division, described opportunities for efficiency with the four large central chiller plants that serve the campus cooling needs. Two of the chillers are 5,000 ton units.

With the many responsibilities of school energy managers, it is important to stay focused on the process and provide results to districts and utility companies who are funding this work. Last month, training served as a reminder for 40 energy managers of that process and of those basic steps.

During the training, energy managers were given a self-check quiz (*see page 4*) to evaluate themselves on their progress. Given that they must be self-directed and flexible in supporting their districts, challenges exist in Kentucky’s statewide approach to school energy management to secure *“Dollars for Students, Not Energy.”*



ENERGY MANAGER Proficiency Quiz

- 1 Communication -- I deliver a monthly package to the Board of Educations for my district(s)
- 2 Communication -- I update my district(s) website monthly
- 3 Communication -- I give a monthly update to key district personnel (superintendent, CFO, facilities director, etc.)
- 4 Visibility -- I am visible each week in all of my districts
- 5 Visibility -- I check-in with my district contact each week
- 6 Data Entry -- All of my bills are entered and updated in my tracking tool within one week of bill receipt
- 7 Data Entry -- Portfolio Manager is updated monthly
- 8 Data Reporting -- I report my funded demand activities within one month of quarter's end
- 9 Data Reporting -- My EMR is accurate and within the allotted time
- 10 ENERGY STAR -- All of my districts are ENERGY STAR Partners
- 11 ENERGY STAR -- All of my school buildings are entered in Portfolio Management
- 12 ENERGY STAR -- I have a steady history of progress for all of my buildings
- 13 ENERGY STAR -- I use the ENERGY STAR scores to drive improvements
- 14 District Energy Plan -- The district energy plan serves as the basis for energy-related decisions
- 15 District Energy Conservation Measures -- I actively identify a list of ECMs through routine audits of my buildings
- 16 District Energy Conservation Measures -- I create an annual list of prioritized ECMs using life cycle cost for my district contact
- 17 District Energy Conservation Measures -- I present an annual list of prioritized ECMs for the Board
- 18 District Energy Conservation Measures -- I actively execute the prioritized list
- 19 Rate Analysis -- I review all of my buildings for potential rate changes with each tariff change
- 20 Professional Development -- I take active responsibility for my own professional development
- 21 Monthly Execution -- My timesheets are complete and entered within 1 week of month's end.
- 22 Teams -- I actively participate in supporting school teams and team leaders
- 23 Data Analysis -- I verify the accuracy of my data by checking month to month
- 24 Data Analysis -- I verify the accuracy of my data by checking year to year
- 25 Data Analysis -- I can easily spot mismatches in Faulty Inputs (Demand, kwh, cost, etc.)



Energy managers participated in a tour of the University of Kentucky Facilities energy management efforts. Galen Tolliver, supervisor of the UK "Delta Room," provided a sneak peek inside the 24/7 Building Automation Control Center that saves more than \$3 million dollars annually.