

# Let's Save Energy



## School Energy Managers Project



### Finding a time to save

November 2013

#### OWEN COUNTY implements Winter Setback

The Holidays may be "the most wonderful time of the year," as the song goes, but for Owen County Schools, this is also the time of the year for saving.

Maintenance Director Dan Logan believed that his department could contribute to the district's efforts to save money by devising an energy-conservation plan for the holidays. Last year, Logan and his building managers decided to use extended setbacks for the system's four schools during this period. They developed a list that included steps such as checking to be sure that exhaust fans were off; that concession stands were shutdown for the winter; and that small appliances, monitors, printers and televisions were not only turned off, but also unplugged. The list also included turning off and unplugging computers and ensuring that the HVAC controls were working properly and scheduled to an aggressive setback level of 55 degrees.

Having worked in the district for several years, Logan knew that the basketball teams would still have practice, and he and his team knew the building control systems well enough to incorporate the holiday practice schedule into the extended setbacks. The plan was put into action in

November 2012. Getting buy-in from the building managers was easy because they were involved with the planning process. School personnel were happy to participate because they were competing in a district-wide energy reduction contest.

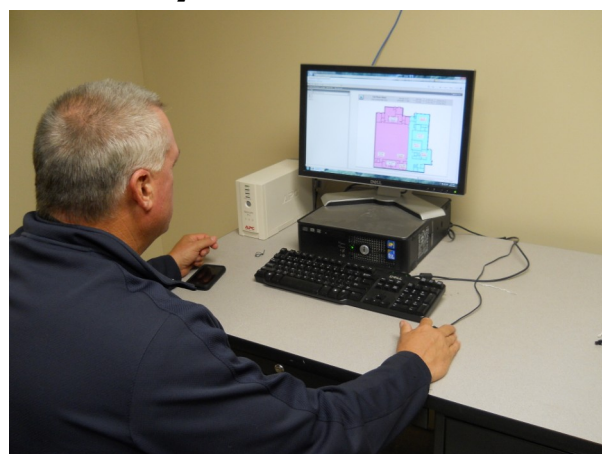
The resulting bills proved the success of the project. The Owen County district used 65,000 less kilowatt hours in December 2012 compared with the same period in the previous year, producing a savings of \$5,000. The concept of having a district-wide setback plan for all school breaks became a priority as school officials recognized that any day when students are not in the building is an opportunity to save money. Logan, his staff and new Energy Manager Brian Linder evaluated last year's setback plan and have made a few minor changes for this year's holiday period.

"This year is very important to us," Logan said. "Our winter break is 16 days long. This is a prime opportunity to bank a few dollars for our district to neutralize the effects of any bad weather ahead." If all goes as planned, this year will truly be "the most wonderful time" for saving in Owen County Schools!

### Whether it's 20 year old technology or the latest digital control, you can use it to save money



Billy Bramblett, Owen Lower Elementary School with older control system.



Dan Logan changing digital control system at Maurice Bowling Middle in Owen County.

**EXAMPLE OF A SCHOOL DISTRICT  
WINTER SETBACK CHECKLIST**

Name \_\_\_\_\_ School \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

<b>Setback Action</b>	<b>Completed</b>
1. Turn off electronic whiteboards, projection systems, computer monitors, printers, scanners, etc. Confirm with district IT regarding turning off computers	
2. Turn off and unplug TVs, DVD players, coffee pots, and any other non-essential classroom/office electronic equipment	
3. Clean out and unplug personal refrigerators. Leave the door open	
4. Turn off all classroom lights. Turnoff AND unplug any personal lamps	
5. Never hang items from ceiling where lighting sensors may be located	
6. Turn off nonessential exhaust fans	
7. Set exterior lights to turn off during daylight hours (this should be done at every day, but would be good to confirm)	
8. Turn off all display case lighting	
9. Reset controls OR thermostats to recommended setback temperatures	
10. Unplug chilled-water fountains, except in occupied areas. Check and report any leakage of water fixtures	
11. If temperatures fall below 20 degrees, plan on inspecting buildings on days when no one is working in the building to ensure proper operation	

Notes/Observations

## ENERGY MANAGEMENT AT HOME FOR THE HOLIDAYS

Technology has provided more options for schools to use in reducing their energy consumption. It also has given us new ways of reducing energy consumption at home. As you make plans now for holiday decorations, consider using the newer LED lighting. A comparison of the energy cost for four popular types of holiday lights is below.



	Old Style		LED Lights	
	Large Bulbs (C7, C9)	Small Bulbs (Mini)	Large Bulbs	Small Bulbs (Mini)
Lights Per String	25	100	25	70
Watts Per String	175	40	2	4.2
Hours of Use Per Day	6	6	6	6
Days In Month	30	30	30	30
kWh Average Cost	\$0.10	\$0.10	\$0.10	\$0.18
Number of Strings	10	10	10	10
<b>Average Monthly Cost</b>	<b>\$31.50</b>	<b>\$7.20</b>	<b>\$0.36</b>	<b>\$0.76</b>

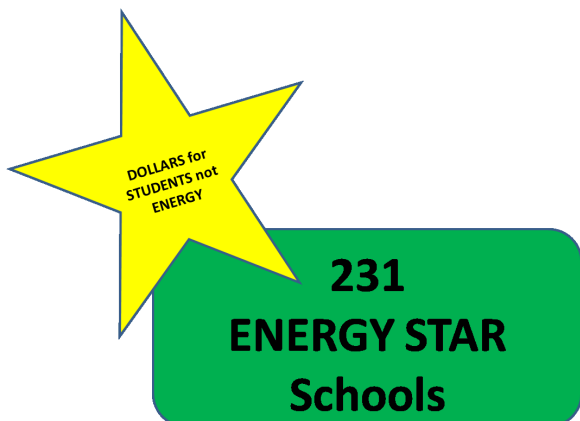
*The above calculations assume large incandescent, old style light bulbs use 7 watts per bulb while small incandescent, old style bulbs use 0.4 watts per bulb. It also assumes large LED bulbs use 0.08 watts per bulb and small LED bulbs use 0.06 watts per bulb.*

[http://www.nstar.com/residential/energy\\_efficiency/holiday-lights.asp](http://www.nstar.com/residential/energy_efficiency/holiday-lights.asp) - updated to use average Kentucky cost perkw/h

## Energy Management Report Update

At this point, 87 percent of Kentucky School districts have submitted their Energy Management Report to comply with KRS 160.325 and Board Policy 05.23. As data continues to be verified, a few trends are beginning to emerge. Between the 2010 – 2013, many districts have seen significant reductions in their energy consumption. This reduction has offset the rising energy costs over the last three years.

The Kentucky Energy and Environment Cabinet has contacted districts that have not yet submitted their Energy Management Report. Immediate attention to this report is important since a final report to the Legislative Research Commission is due by December 1st.



**Kentucky**  
**#3 in the nation**  
**in percentage of**  
**ENERGY STAR Schools**



**Congratulations to the following  
School Districts for being recognized  
for having an ENERGY STAR School**

**ENERGY STAR Labeled Buildings & Plants**

**Showing** ENERGY STAR Labeled K-12 Schools in Kentucky

<b>Anderson County (4)</b>	<b>Floyd County (6)</b>	<b>Mercer County (2)</b>
<b>Barren County (7)</b>	<b>Frankfort Ind. (2)</b>	<b>Murray Ind. (2)</b>
<b>Bellevue Ind. (1)</b>	<b>Franklin County (1)</b>	<b>Nelson County (2)</b>
<b>Boone County (6)</b>	<b>Gallatin County (2)</b>	<b>Ohio County (1)</b>
<b>Bowling Green Ind. (2)</b>	<b>Grant County (1)</b>	<b>Oldham County (10)</b>
<b>Boyle County (1)</b>	<b>Grayson County (4)</b>	<b>Owen County (3)</b>
<b>Bracken County (1)</b>	<b>Hardin County (8)</b>	<b>Pendleton County (4)</b>
<b>Bullitt County (16)</b>	<b>Henry County (2)</b>	<b>Rockcastle County (2)</b>
<b>Burgin Ind. (1)</b>	<b>Jefferson County (11)</b>	<b>Rowan County (2)</b>
<b>Butler County (4)</b>	<b>Jessamine County (2)</b>	<b>Scott County (10)</b>
<b>Calloway County (1)</b>	<b>Kenton County (11)</b>	<b>Shelby County (2)</b>
<b>Campbell County (3)</b>	<b>Laurel County (4)</b>	<b>Simpson County (1)</b>
<b>Carroll County (1)</b>	<b>Lincoln County (4)</b>	<b>Southgate Ind. (1)</b>
<b>Casey County (1)</b>	<b>Madison County (3)</b>	<b>Trimble County (1)</b>
<b>Christian County (8)</b>	<b>Magoffin County (1)</b>	<b>Walton Verona (2)</b>
<b>Corbin Ind. (6)</b>	<b>Marion County (3)</b>	<b>Warren County (19)</b>
<b>Danville Ind. (2)</b>	<b>Marshall County (1)</b>	<b>Williamstown Ind. (1)</b>
<b>Daviess County (14)</b>	<b>Mayfield Ind. (1)</b>	<b>Woodford County (1)</b>
<b>Fayette County (13)</b>	<b>Meade County (4)</b>	