

# ***Henderson County Schools' Energy Management***

## ***Annual Report to BoE***

***Report Period: July 1, 2012 to June 30, 2013***

January 21, 2014

6:00 PM CDT

Duration: 5 minutes

HCS Professional Development Center  
631 N. Green Street  
Henderson, KY

Facilitator: Darrel Pfingston, PE, CEM



## ***HCS District EUI [Energy Use Intensity] Improvement Assessment***

<b>Attribute</b>	<b>Unit-of-Measure</b>	<b>Quantity</b>
<b>EUI for FY2010</b>	<b>[kBtu/sq.ft/yr.]</b>	<b>74.1</b>
<b>EUI for FY2013</b>	<b>kBtu/sq.ft/yr.]</b>	<b>72.2</b>
<b>EUI Reduction</b>	<b>kBtu/sq.ft/yr.]</b>	<b>1.9</b>
<b>Annualized Reduction Rate</b>	<b>Percent per year</b>	<b>0.9%</b>

***Trend IS Favorable  
Rate of change MAY BE ABLE to be Improved***

# **FY2013 District Energy Cost & Unit Price Comparisons with State Average**

Sovereign Entity	Electrics			Natural Gas			Propane			Weighted Average of all Energy Sources		
	Cost [000's]	Unit Price	Unit	Cost [000's]	Unit Price	Unit	Cost [000's]	Unit Price	Unit	Cost [000's]	Unit Price	Unit
HCS-Districtwide	\$1,075	.07	\$/kWh	\$180	0.69	\$/ccf	\$27.	1.70	\$/gal	\$1,281	1.15	\$/sq.ft
Kentucky-Statewide	N/A	.09	\$/kWh	N/A	0.77	\$/ccf	N/A	1.59	\$/gal	N/A	1.24	\$/sq.ft

**Unit price trends ARE Favorable**  
**District \$/sq.ft is VERY Favorable**

## ***2013 Noteworthy Improvements***

- ▶ *District Energy Management Team Membership has been revised. Engagement of Team members has significantly improved.*
- ▶ *Successful collaboration between Henderson County Schools & City of Henderson significantly improves Information Technology data keypunching efficiency & data quality.*
- ▶ *Successful collaboration between Henderson County Schools & Kenergy to increase lighting efficiency at Niagara Elementary & Cairo Elementary campuses improves our overall electrical energy use efficiency.*
- ▶ *The new campus, the Thelma B. Johnson Early Learning Center, uses HALF the energy per square foot as our weighted Districtwide average. This new campus building has significant favorable effect for our District wide improvements.*

# **2014 District Energy Team Goal & “Game Plan”**

## ► **Goal**

- ❖ Identify a “stretch goal” of 2.6% year-over-year improvement in District-wide EUI.

## ► **“Game Plan” Strategy:**

- ❖ Exploit lighting efficiency improvements from Niagara & Cairo campuses.
- ❖ Install lighting efficiency improvements at campuses with rebate driven incentives.
- ❖ Encourage habits of each campus to turn off unused lighting & set back thermostats when campuses are unoccupied.
- ❖ Revise team meetings to focus on energy supplier accounts that are demonstrating sub par Year-over-Year performance.

# ***Reference Materials (included in BoE Members Packet)***

1. *2013 EMR Henderson County School District.pdf.* (HCS submittal to State.)
2. *Review & Recommendations for FY2014 Energy Management Goal: A White Paper for Members of District Energy Management Team 6/27/2013.* (District Energy Management Team sub-Committee Recommendation for FY14.)
3. *EMR Final Report for FY2012-13 12-02-13.pdf.* (Aggregated report to LRC).
4. *Kentucky School Districts- District Energy Use Intensity.pdf.* (Quartile Ranking.)
5. *Henderson IT Information Flow Models' Review May 3,2013.pdf.* (Documentation flow chart- Present condition and desired condition.)
6. *Henderson Year-to-Date Costs by Account.pdf.* (District Quarterly Meeting performance data review template.)
7. *Henderson Year-to Date Energy Usage by Account. pdf.* (Data review template.)
8. *Henderson Campus Pro Forma Evaluation Baseline.pdf.* (Campus performance.)

***Questions/Comments?***

***End of Presentation***

**Review & Recommendation for  
FY2014 Energy Management Goal**

**A Whitepaper for Members of District Energy  
Management Team**

6/27/2013

Henderson County Schools

***Executive Summary:***

**In the opinion of the Review Team, an annual FY 2014 energy management goal of 2.6% energy savings is challenging, yet achievable. The Review Team's opinion is based on the District's past performance, comparison within peer group, & an assessment of identified energy savings opportunities.**

**Whitepaper assembly, for District Energy Management Team information & review, was requested by Dr. Thomas Richey at Henderson County Schools' Quarterly District Energy Management Team meeting of May 3, 2013.**

### ***District Past Performance***

District energy cost & use data is required to be reported to the Commonwealth of Kentucky on an annual basis per Henderson County Schools' Board Policy 5.23. Board Policy 5.23 exists to support the statutory requirements of KRS 160.325.

Henderson County Schools' data that has been submitted for the last two fiscal years is summarized in Tables 1 & 2. *District energy cost* is the aggregate of all building & grounds energy costs for a fiscal year. *District energy use*, likewise, is the district annualized aggregate of all sources of billable energy that service the district's buildings & grounds.

Note from the data that the average annual energy cost for the District is \$1.27 million. The average annual energy use is 75.7 million kBtu's, or 75.7 GBtu's.

The three sources of billable energy that service our District are: electricity, natural gas, & propane.

Percentage cost split for the three sources for the total \$1.27 million is: electricity 84%, natural gas 13%, and propane 3%.

Percentage use split for the total 75.7 GBtu's is: electricity 67%, natural gas 31%, and propane 2%.

To assist in State's analysis, Henderson County Schools has also been required to report the aggregated total building floor area for buildings that have air conditioning and/or heating. For buildings with one story, floor area is calculated using the building exterior dimensions. For buildings with multiple stories, the exterior dimensions are multiplied by the number of usable stories to determine the area of the "conditioned space".

For the latest report submitted, HCS's aggregated total building floor area of "conditioned space" is identified as 1.12 million square feet.

**Table 1. Henderson County Schools  
Annual District Building Energy Cost & Use**

**&**

**Energy Source % Split**

Fiscal Year	District Total		Electricity		Natural Gas		Propane		Comments
	Cost [\$ million]	Use [million of kBtu]	Cost [% of total]	Use [% of total]	Cost [% of total]	Use [% of total]	Cost [% of total]	Use [% of total]	
<b>2011</b>	1.32	80.2	82%	63%	15%	35%	2%	2%	
<b>2012</b>	1.21	71.2	86%	72%	11%	26%	3%	2%	Mild Winter
<b>2 year average</b>	<b>1.27</b>	<b>75.7</b>	<b>84%</b>	<b>67%</b>	<b>13%</b>	<b>31%</b>	<b>3%</b>	<b>2%</b>	

**Table 2. Henderson County Schools  
Annual District Building Energy Cost & Use**

**&**

**Energy Source Cost & Use**

Fiscal Year	District Total		Electricity		Natural Gas		Propane		Comments
	Cost [\$ million]	Use [million of kBtu]	Cost [\$ million]	Use [million of kBtu]	Cost [\$ million]	Use [million of kBtu]	Cost [\$ million]	Use [million of kBtu]	
2011	1.32	80.2	1.09	50.59	0.20	28.19	0.03	1.47	
2012	1.21	71.2	1.04	51.16	0.14	18.66	0.03	1.41	Mild Winter
2 year average	1.27	75.7	1.06	50.87	0.17	23.43	0.03	1.44	

### ***Comparison within Peer Group***

Two database sets are available for peer group comparison with our District. Both state & federal governments have tracking systems in place to monitor performance of K-12 public schools' energy use & cost.

At the Kentucky state level, public school district building energy use & cost data is compiled from individual district's annual reports. The wide range of energy use & costs, due to the wide range of student population in the districts, requires the use of "normalization metrics" to allow peer group comparison among districts.

The primary normalization metric is identified as *District EUI*—Energy Use Intensity. *District EUI* is calculated by dividing the District's yearly energy use by the district's "conditioned space" building floor area. A *District EUI* could be significantly affected by the number of required attendance days per year, the number of attendance hours per day, regional climate, & regional weather. Fortunately for Kentucky public schools, these factors are similar for all districts when viewed on an annual time-frame basis. As a result, District EUI, although not a perfect peer comparison metric, does provide good evidence for identifying if opportunities for improvement are likely to exist.

For the latest reporting period for which data is readily available (FY2011), Henderson County Schools posted a *District EUI* that is 12% above the state average. A lower *District EUI* indicates better energy management. A higher *District EUI* suggests that opportunities for improvement do exist.

At the federal level, K-12 building energy use & cost can be tracked with an application program & in a database supported by the US Environmental Protection Agency. The name of the application program is *Energy Star Portfolio Manager*. Due to its "no-cost" cost structure, ease-of-use, & usefulness of output, *Portfolio Manager* has become a popular building energy management tool. *Portfolio Manager* identifies 17 categories of buildings which allow the opportunity for an effective peer comparison. One

building category that *Portfolio Manager* users have available is *Education, K-12 School*.

The EPA does use the data stored in the *Portfolio Manager* database to monitor and analyze the emergent trends in building energy use & cost.

The most recent EPA trends' analysis, issued in October 2012, identifies an average annual improvement for all building categories of 2.4%. The average annual improvement for K-12 building category is slightly better at 2.6%.

The EPA does recognize that its *Portfolio Manager* users are “not a random selection” of building managers. It is suggested that *Portfolio Manager* users demonstrate a higher level of building energy management awareness & are more effective at implementing year-over-year improvements than the general population of building managers.

Unfortunately, neither the Kentucky tracking database nor the EPA *Portfolio Manager* database suggest specific areas where effective improvements may exist.

To determine HCS' aggregate savings opportunity for FY14, Dr. Richey identified the need for a Review Team, defined its membership, and charged them with responsibility of selecting areas for effective improvement &, ultimately, identifying associated, probable savings.

The output of the Review Team is profiled in the next section of this Whitepaper.

## ***Assessment of Identified Energy Management Opportunities***

Review Team, comprised of Bill Austill, Don Thacker, Cindy Cloutier, & Darrel Pfingston, met during May & June 2013 to achieve the following:

- 1) Brainstorm for Energy Management Opportunities (EMOs), &**
- 2) Achieve consensus on an effective, numeric energy management goal for FY 2014 that results from implementation of the selected EMOs.**

The energy management opportunities that were identified can be categorized into three broad groups: Harmonization, Habits, & Hardware.

- **"Harmonization" encompasses those EMOs that do reduce a district's operational cost but do not directly reduce the energy use/ costs. To effect "harmonization", review of existing procedures & inter-department interaction by an engaged team having authority to implement the identified change is typically required.**
- **"Habits" encompasses those EMOs that do reduce a district's energy use/cost and do not require funds for modification to the district's infrastructure to implement. A successful modification of habits, that is likely to remain in place for the long-term, requires that the campus instructional environment remain comfortable for both students & faculty.**
- **"Hardware" encompasses those EMOs that do reduce a district's energy use/cost and do require funds to be expended to effect the modification of the district's "hardware". Sometimes, hardware modification is dictated to maintain the building's physical condition in a safe, stable condition. Energy use/cost savings, although realized, are not the prime driver for change. Sometimes, hardware modification is used to obtain a lower total building life-cycle cost. In this case, energy use/cost savings may become significant.**

Those opportunities that had consensus agreement for implementation for FY2014 are identified & discussed below.

### ***Harmonization EMOs***

**Two “Harmonization” EMOs were identified by the Review Team.**

**The first Harmonization EMO results from collaborative work between the City of Henderson (CoH) Accounting Department & the Henderson County Schools Central Office.**

**Previously, CoH energy use/cost data was manually entered into an energy management application database from monthly physical bills by HCS staff. Since CoH furnishes nominally 76% of the building energy to HCS District, manual data entry is reasonably assumed to be nominally 76% of the overall energy data tracking task.**

**Discussions with CoH were initiated during Fall Semester of FY 13 to evaluate the possibility of eliminating the manual re-entry of digital data. As a result, a revised interfacing process between CoH & HCS has recently been assembled. Since April 2013, CoH has trialed their data processing procedure to allow energy use/cost data to be furnished to HCS in electronic digital format. The procedure is scheduled to be in place for the full year of FY 14.**

**Human resources efficiency improvement, calculated by HCS Central Office Finance, results in an associated calculated cost avoidance of \$15.4 k/year. Elimination of this “hidden cost” is equivalent to a 1.2% savings of the total building energy cost.**

**The second Harmonization EMO results from the utilization of the CoH digital format data. On a timely basis, District Maintenance will be able to compare year-over-year cost & use for the energy service accounts. A collaborative effort to determine the Root Cause & Corrective Action, RCCA, for the accounts that have demonstrated the poorest year-over-year performance, is scheduled to be in place at the beginning of FY14.**

**An allowance “challenge” for possible FY14 energy savings resulting from RCCA reviews, although not yet defined, is identified as .1 GBtu. As corrective actions are identified & action plan approved, the associated annual energy use savings & associated cost savings will, then, be logged.**

## ***Habit EMOs***

**Two “Habit” EMOs were identified by the Review Team.**

**The first Habit EMO results from observation that buildings do retain their internal temperature for some period of time after the temperature controlling Building Automation System, BAS, has been reset from OCCUPIED to UNOCCUPIED. If the BAS is reset prior to the completion of the extra circular event; then, with no discomfort to the building occupants, building energy can be saved. Habits of those entrusted with identifying the BAS EVENTS duration--- typically each campus lead custodial director-- will require modification.**

**At full implementation across the District, a cost savings of \$14 k/year is possible. However, since this savings is based on an engaged effort by individuals not represented on the Review Team, the use of an “Implementation Success Rate” of 50% is considered realistic. Resulting associated energy savings is .55 GBtu/year & cost savings is \$7k/year.**

**The second Habit EMO has been identified by the District Food Services Director, Sabrina Jewell. For FY 2014, each campus will observe “Green Bag Lunch Day” on a monthly basis. This eliminates 5% of oven gas load, 5% of exhaust vent hood electrical load & make up air ventilation, & nominally 5% of dish washing electrical load.**

**For FY 2014, this is considered a pilot program that will be continued in “out years”, if viewed favorably by Food Services Staff & Cafeteria Customers. The associated energy savings is calculated to be .25 GBtu/year & cost savings is \$3.7k/year.**

**Both of these Habits’ revisions, if implemented correctly & embraced by the end-users, do appear to be able to remain in place for the long-term.**

## ***Hardware EMOs***

**Four “Hardware” EMOs were identified by the Review Team.**

**The first Hardware EMO results from the scheduled FY 14 roof maintenance that is required to maintain the District’s building complement in a leak-free, safe, stable condition. FY 14 roof maintenance is scheduled to occur at NMS, SMS, East Heights, Bend Gate, & Bus Garage.**

**During the FY14 roof maintenance, roof deck color will be revised from black to white. US DOE testing of white roofs has demonstrated that, in regions where air conditioning load is a significant contributor to the overall annual energy use, revision of roof deck color from black to white, will reduce energy use & cost. To assist end-users in evaluating the economic effect of roof color revision, the DOE Oak Ridge National Laboratory has developed an application program identified as *White Roof Calculator*. It takes geographic region, electrical cost, and natural gas cost into consideration when determining the possible savings of alternatives.**

**Using *White Roof Calculator*, annual use savings of .12 GBtu & associated cost savings of \$2k/year are predicted.**

**The second Hardware EMO results from the scheduled revision of existing fluorescent lighting to a more efficient hardware assemblage of fluorescent lighting.**

**The existing hardware is identified as 40 watt T-12 lamping & magnetic ballasts; the revised hardware is identified as 32 watt T-8 lamping & electronic ballasts. This revision has been found to have the lowest life-cycle cost for a retrofit condition and, as a result, is presently very popular with many building managers interested in improved energy efficiency.**

**The campuses of Niagara, Cairo, & AB Chandler will have had a recent lighting upgrade that will have their first full year of savings in FY14; or, are slated for upgrade in FY 14 & will receive at least a partial year of benefit in FY 14. These campuses are served by the District’s “higher-cost” electrical service electrical service providers, KU & Kenergy.**

**With rebate & in-house installation expertise, the Simple Payback Period (SPP, the amount of time required for the energy cost savings to pay for the cost of the revision), is projected to be 1.5 years. In a public school environment, lamping nominally lasts 10 years (20,000 hours); ballasts typically last 20 years (40,000 hours). Clearly, over the life of the installed hardware, significant cost & use savings will accrue as a result of these changes.**

**Each of the three schools is calculated to save \$ 3.8 k/year for each full year of use of the more efficient lighting. Adjusting for the installation timing for each campus, a use savings of .35 GBtu & associated cost savings of \$8.7k are calculated for FY14.**

**The third Hardware EMO is associated with installation of Occupancy sensors in restrooms & other areas across the District that simultaneously meet the following criteria:**

- 1) Low human occupancy (hours/day)**
- 2) High “Lights-on” duration (hours/day).**

**SMS has piloted a “retrofit evaluation” of sensors during the FY13 Spring Semester and is very satisfied with their functionality.**

**Over the full range of usage variability, Simple Payback Periods of one year are considered typical. Typical hardware life is estimated at 10 years (20,000 hours). At time of model number selection hardware life will be re-reviewed.**

**The associated cost savings is calculated to be \$ 19.2 k/year. Adjusting for the installation timing for each campus, an energy use savings of .37 GBtu & associated cost savings of \$8.1k are calculated for FY14.**

**The fourth Hardware EMO is associated with installation of LED (Light Emitting Diode) lamping on a pilot evaluation basis. LED lamping has lighting efficacy nominally equal to that of the most efficient fluorescent lamping. It has advantage of significantly longer expected lamp life. A lamp-life of 100,000 hours (50 years in a public school environment) is a typically advertised selling feature. Initial cost is higher but can be justified for**

**installations that are difficult to access & labor cost for replacement significant.**

**Review Team recommends pilot evaluation in HCHS Gymnasium. Existing incandescent lamps would be replaced with screw-in LED's with equivalent light output & ~80% reduction in electrical usage. Calculated energy usage reduction for the pilot evaluation is identified as .01 GBtu and associated cost savings is \$ 0.3k/year.**

**No SPP is calculated for this EMO due to its classification as a pilot evaluation.**

### ***Summary of Recommended Energy Management Opportunities***

**The Review Team recommends implementation of the eight EMOs identified herein for FY 2014 as the basis for energy use goal determination.**

**The aggregated energy savings for the identified EMOs, including challenge, is 2.6%. This energy savings goal is consistent with energy savings improvements trends tracked by the US EPA for our peer group, engaged K-12 schools.**

**The associated cost avoidance, although not suggested to be a portion of the District's goal, is calculated to be a respectable 3.8%.**

December 2, 2013

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Re: Annual Reporting Requirements for KRS 160.325

Gentlemen:

The attached report is submitted pursuant to KRS 160.325 for fiscal year 2012/13 which required:

1. Mandatory enrollment by all school districts in the Kentucky Energy Efficiency Program for Schools (KEEPS) offered by the Kentucky Pollution Prevention Center (KPPC) by January 1, 2010 and,
2. Mandatory filing by KPPC of a report for each preceding fiscal year with the Department of Energy Development and Independence (DEDI) and the Legislative Research Commission on the status and development of energy management plans by boards of education and the anticipated savings to be obtained by those plans.

All school districts had enrolled in KEEPS by the end of fiscal year 2010/11 and most have developed and are implementing Energy Management Plans resulting in millions of dollars returned to school districts. However, with staffing and funding changes which have occurred at the KPPC, this year's energy management report has been collated and analyzed by the School Energy Management Project at the Kentucky School Boards Association.

This year's process was initiated by a letter under Energy and Environment Cabinet Secretary Dr. Len Peter's signature to school superintendents on August 30, 2013 requesting districts to submit their fiscal year 2012/13 Energy Management Report. The form asked for district specific information of square footage of conditioned buildings, and a compilation of energy usage and costs by energy sources. Of the then 174 school districts in Kentucky, 158 (90%) reported.

An Energy Utilization Index, EUI, which shows the energy use (kBtu) per square foot, has been calculated at a statewide level and for each reporting district. For the base year of fiscal year 2009/10, the statewide EUI index was 64.2 kBtu/sf/yr. This year's EUI number has significantly improved by dropping to 58.6 kBtu/sf/yr. The corresponding cumulative avoided cost to date from consumption reduction, rate corrections, rebates, refunds, and utility case intervention is nearly \$32 million.

Table 1 shows the statewide energy costs, energy usage and square footage for both the base year and the recent fiscal year. Table 1 also summarizes the energy usage and costs for each energy source as well as the statewide average price and price range.

Overall observations and conclusions for the reporting districts:

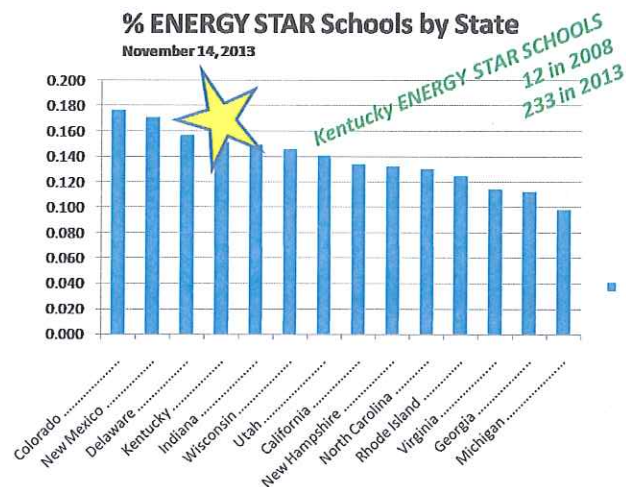
- The conditioned square footage has increased 3.6%.
- The total energy use has decreased 7.2%. This decrease can be attributed to better, new, and renovated spaces using efficient energy design as envisioned by KRS157.455 along with overall better building energy management as envisioned by KRS160.325.
- The overall cost of energy for these reporting districts has remained relatively flat only increasing 0.1%. This can be attributed to several factors including: selection of advantageous rate structures; aggregated natural gas purchasing; all the while rising electric costs being partially offset by falling natural gas costs.
- The statewide EUI for the reporting districts has fallen from 64.2 kbtu/sf/yr in the base year (2009/10) to 58.6 kbtu/sf/yr in the most recent completed fiscal year of 2012/13.

Figures 1 and 2 show the distribution of district EUI values compared between the base fiscal year 2009/10 and the most recent fiscal year 2012/13. Comparisons of these figures show a lowering of the overall average and a tightening of the distribution.

Table 2 shows the Site Energy Use Profile statewide. A comparison to the base year is also provided which shows little change in the profile. Not surprisingly, fuel oil and coal have decreased as an energy fuel in Kentucky schools. Other fuel sources have remained steady.

Table 3 shows a ranking of school districts based on their 2013 EUI. It also shows the comparison to the 2010 base year EUI.

At the time of enactment of KRS160.325 there were 12 ENERGY STAR labeled K-12 schools in the Commonwealth. Today there are 233, making Kentucky fourth in the nation on a percentage basis. Table 4 is a listing of K-12 ENERGY STAR labeled schools by district.



Please address questions or comments to;

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Respectively,

**David A. Baird**

Interim Executive Director

**TABLE 1**

<b>Comparisons</b>	<b>FY 2012/13</b>	<b>FY2009/10 (base)</b>
Energy Usage & Costs		
Total Statewide Energy Cost,\$	\$ 125,080,228	\$ 125,010,576
Total Statewide Energy Usage, MMBTU	5,954,123	6,414,709
Square Footage	100,759,796	97,222,074
Average Energy Use Intensity (EUI), kbtu/sq ft	58.56	64.16
EUI Standard Deviation	12.26	14.3
Operating Cost, \$/sq ft	\$ 1.24	\$ 1.29
Electricity Usage Statewide, kwh	1,195,313,485	1,256,737,035
Electricity Cost Statewide, \$	\$ 110,231,823	\$ 106,367,453
Electricity Rate Statewide Average, \$/kwh	\$ 0.092	\$ 0.085
Electricity Rate Statewide Low, \$/kwh	\$ 0.04	\$ 0.03
Electricity Rate Statewide High, \$/kwh	\$ 0.14	\$ 0.12
Natural Gas Usage Statewide, ccf	17,314,799	19,497,158
Natural Gas Cost Statewide, \$	\$ 13,344,220	\$ 16,991,610
Natural Gas Rate Statewide Average, \$/ccf	\$ 0.77	\$ 0.87
Natural Gas Rate Statewide Low, \$/ccf	\$ 0.59	\$ 0.68
Natural Gas Rate Statewide High, \$/ccf	\$ 2.21	\$ 2.12
Propane Usage Statewide, gal	547,610	537,505
Propane Cost Statewide, \$	\$ 871,059	\$ 812,942
Propane Rate Statewide Average, \$/gal	\$ 1.59	\$ 1.51
Propane Rate Statewide Low, \$/gal	\$ 1.17	\$ 0.98
Propane Rate Statewide High, \$/gal	\$ 2.90	\$ 3.64
Fuel Oil Usage Statewide, gal	154,006	288,948
Fuel Oil Cost Statewide, \$	\$ 514,351	\$ 670,407
Fuel Oil Rate Statewide Average, \$/gal	\$ 3.34	\$ 2.32
Fuel Oil Rate Statewide Low, \$/gal	\$ 2.87	\$ 2.05
Fuel Oil Rate Statewide High, \$/gal	\$ 3.69	\$ 2.48
Coal Usage Statewide, tons	896	1,241
Coal Cost Statewide, \$	\$ 118,775	\$ 168,164
Coal Rate Statewide Average, \$/ton	\$ 142.11	\$ 135.54
Coal Rate Statewide Low, \$/ton	\$ 129.55	\$ 130.56
Coal Rate Statewide High, \$/ton	\$ 159.00	\$ 145.01

Note: The above data is from 156 districts reporting for FY2012/13. For ten (10) districts not reporting in the base year (FY2009/10) the base and current reporting years were assumed to be the same. The data has not been weather normalized.

FIGURE 1

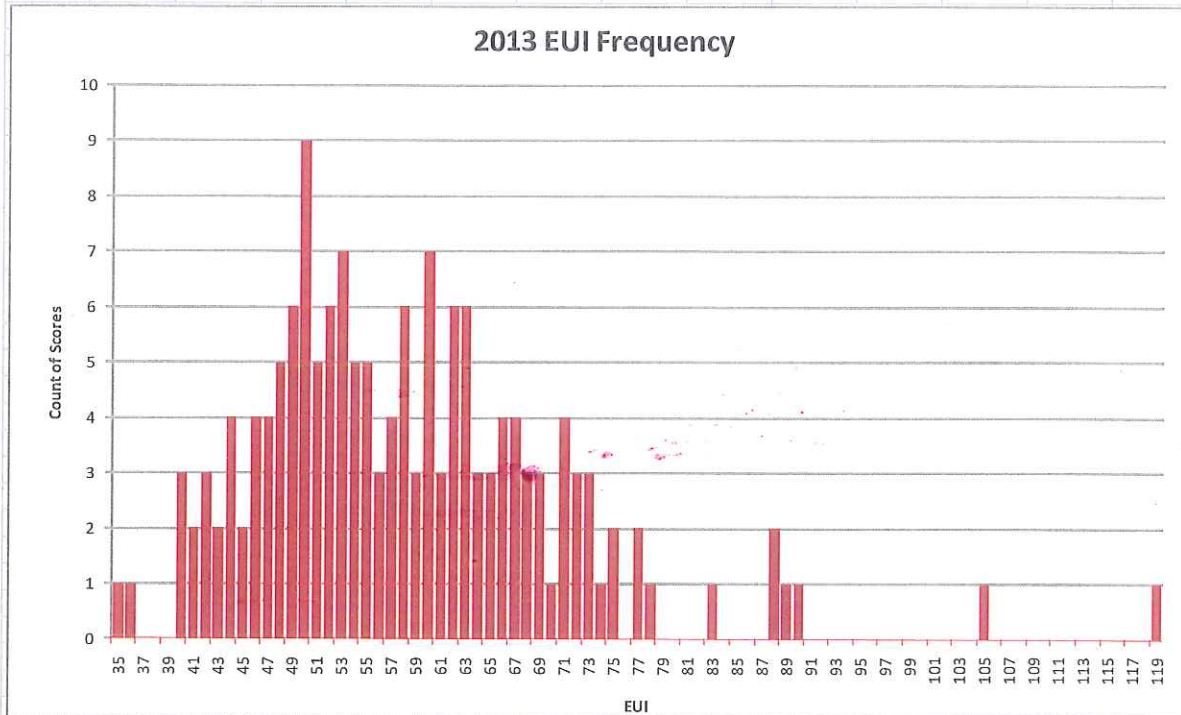
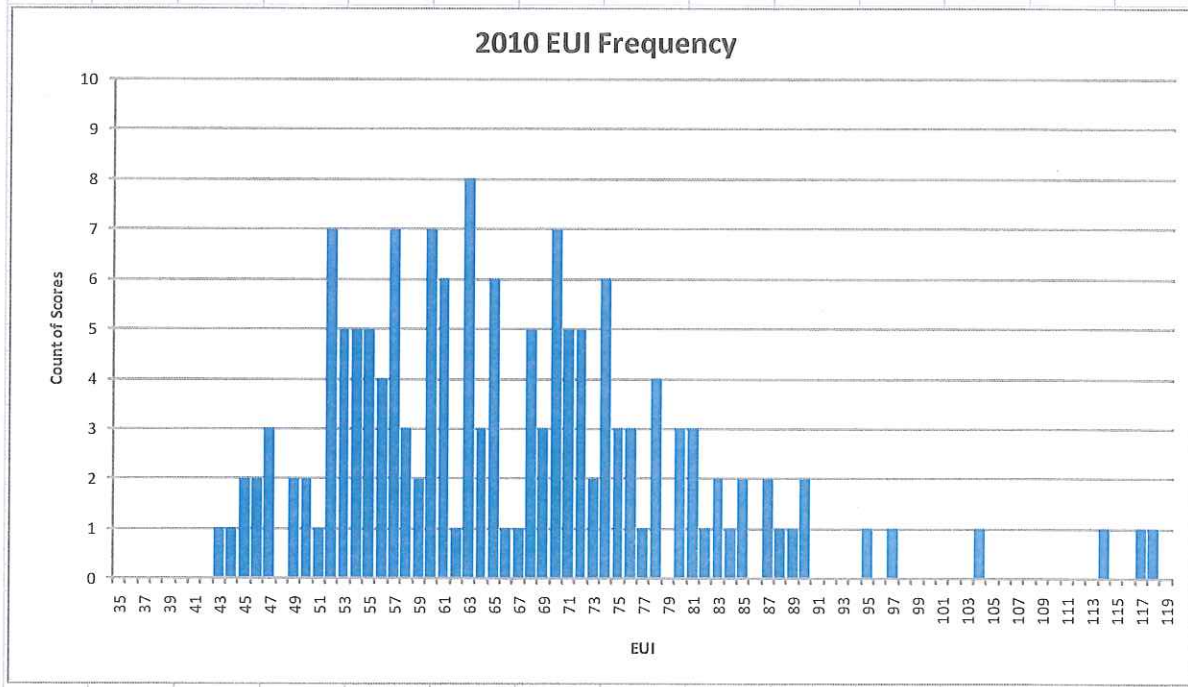


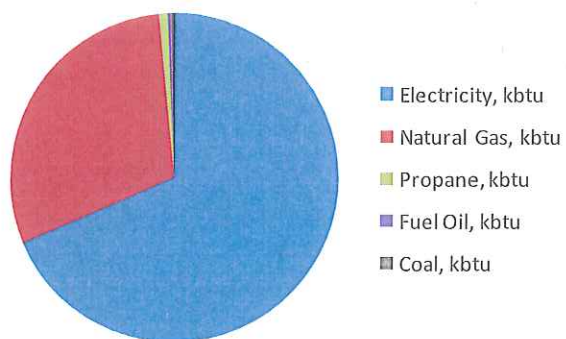
FIGURE 2



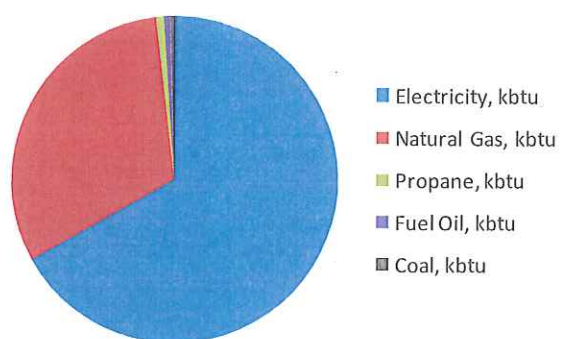
**TABLE 2**

Site Energy Makeup Profile	FY2012/13	%	FY2009/10	%
Electricity, kbtu	4,078,409,611	68.5%	4,287,986,763	66.8%
Natural Gas, kbtu	1,781,692,822	29.9%	2,006,257,541	31.3%
Propane, kbtu	50,187,179	0.8%	49,260,997	0.8%
Fuel Oil, kbtu	21,359,169	0.4%	40,074,343	0.6%
Coal, kbtu	22,474,368	0.4%	31,128,912	0.5%
Total, kbtu	5,954,123,149		6,414,708,557	

**FY2012/13 Site Energy Use  
Profile Statewide**



**FY2009/10 Site Energy Use  
Profile Statewide**



**TABLE 3 – DISTRICT RANKING BY 2013 EUI**

DISTRICT	2010 EUI, kbtu/sf	2013 EUI, kbtu/sf	DISTRICT	2010 EUI, kbtu/sf	2013 EUI, kbtu/sf	DISTRICT	2010 EUI, kbtu/sf	2013 EUI, kbtu/sf	DISTRICT	2010 EUI, kbtu/sf	2013 EUI, kbtu/sf
Butler	42.8	35.2	Carlisle	46.9	49.9	Boyle	65.9	57.1	Ballard	80.1	65.8
Corbin	51.6	36.3	Allen	57.1	50.0	Rowan	72.3	57.3	Caverna	84.2	65.9
Walton-Verona	44.6	39.7	Magoffin	64.0	50.1	Raceland Worth	67.3	57.3	Washington	83.5	66.4
Robertson	114.5	40.2	Barren	49.8	50.1	Pineville	54.7	57.4	Marshall	70.9	66.5
Casey	79.9	40.3	Trigg	60.2	50.2	Woodford	63.5	57.5	Hickman	67.6	67.0
Anderson	52.3	40.8	Russellville	52.5	50.3	Madison	56.4	57.9	Laurel	70.4	67.0
Owen	62.5	41.3	Southgate	47.2	50.6	Cloverport	72.7	58.0	Carroll	82.9	67.2
Scott	53.3	42.1	Glasgow	62.6	50.7	Clark	74.7	58.3	Union	69.1	67.2
Murray	47.2	42.2	Estill	53.4	51.1	Monroe	48.6	58.3	Boone	74.0	67.3
Oldham	45.7	42.3	Paintsville	53.3	51.1	Webster	75.5	58.6	Montgomery	70.2	67.7
Dawson Springs	61.0	42.7	Russell	70.3	51.1	Harrison	61.9	59.1	Berea	75.7	67.8
Monticello	58.0	43.0	Augusta	55.6	51.5	Clay	65.4	59.2	Campbell	70.2	67.9
Hardin	54.3	43.7	Frankfort	80.7	51.5	Elliott	48.8	59.6	Bell	104.3	68.5
Bullitt	53.7	43.7	Spencer	45.6	51.8	Menifee	90.4	60.0	Danville	64.6	68.8
Warren	50.7	44.0	Garrard	51.5	51.8	Jenkins	DNR	60.1	Muhlenberg	68.5	68.9
Burgin	60.5	44.5	Lawrence	68.6	52.0	Owensboro	70.1	60.4	Morgan	116.8	69.9
Grayson	60.0	44.6	Paris	59.6	52.3	Henry	67.7	60.4	Pikeville	81.9	70.6
Nicholas	80.7	45.0	Pulaski	52.4	52.4	Mercer	78.3	60.5	Simpson	73.6	71.4
Taylor	64.7	45.5	Marion	60.3	52.5	West Point	60.5	60.5	Anchorage	73.8	71.5
Jessamine	50.3	45.9	Boyd	67.4	52.5	Hazard	87.2	60.6	Hopkins	71.7	71.8
Gallatin	60.0	46.1	Caldwell	60.7	52.8	Breckinridge	71.2	60.8	Bellevue	68.4	72.0
Trimble	52.3	46.2	Metcalfe	60.9	52.8	Bardstown	62.8	60.9	Henderson	74.1	72.2
Clinton	53.5	46.8	Nelson	53.0	53.0	LaRue	55.1	61.7	Covington Ind.	80.5	72.5
Fleming	69.8	47.0	Bracken	55.0	53.1	Bourbon	65.0	61.8	Beechwood	62.6	73.2
Wayne	64.2	47.1	Edmonson	58.7	53.3	Bowling Green	73.6	61.8	Hart	73.5	73.2
Erlanger	56.9	47.1	Russell	80.5	53.4	Franklin	87.3	62.3	Fayette	78.2	73.9
Science Hill	56.5	48.1	Cumberland	71.2	53.5	Grant	70.7	62.3	Barbourville	76.8	74.7
Lyon	53.7	48.2	Whitley	57.7	53.6	Mason	57.9	62.5	Bath	71.8	74.9
Jackson Co	57.4	48.3	Lee	78.3	53.8	Ashland	75.1	62.6	Middlesboro	76.1	76.7
McLean	45.9	48.4	Kenton	64.9	54.2	Jefferson	68.2	62.6	Somerset	89.8	77.1
Crittenden	57.1	48.5	Livingston	56.9	54.2	Dayton	67.4	62.8	Ft. Thomas	72.2	77.7
Williamstown	63.3	48.6	Williamsburg	54.9	54.5	Mayfield	60.9	62.9	Powell	97.0	82.8
Meade	54.0	48.9	Silver Grove	69.2	54.6	Eminence	85.3	63.2	Green	88.2	87.6
Martin	43.6	49.1	Lincoln	70.7	55.0	Lewis	60.7	63.3	McCracken	62.7	88.3
Floyd	52.0	49.1	Carter	59.3	55.2	Knott	64.0	64.0	McCreary	94.8	89.0
Pendleton	55.9	49.2	Logan	54.5	55.2	Graves	60.2	64.2	East Bernstadt	88.7	89.7
Shelby	71.6	49.2	Christian	70.1	55.4	Elizabethtown	72.9	64.3	Breathitt	64.7	105.2
Hancock	85.3	49.5	Knox	57.0	55.8	Adair	71.1	64.7	Jackson Ind	117.6	118.6
Daviess	53.9	49.5	Calloway	56.2	56.4	Letcher	62.9	64.9			
Newport	44.5	49.9	Rockcastle	59.9	56.7	Johnson	78.2	65.5			

# Kentucky K-12

## ENERGY STAR Schools

<b>Anderson County Schools</b>	<b>Score</b>	<b>Built</b>	<b>Burgin Independent Schools</b>	<b>Score</b>	<b>Built</b>
Anderson County High School	76	1965	Burgin Independent School	79	1985
Emma B. Ward Elementary School	95	2008			
Saffell Street Elementary School	93	1960	<b>Calloway County Schools</b>		
Turner Elementary School	89	2000	Calloway County Middle School	76	1969
<b>Barren County Schools</b>			<b>Campbell County Schools</b>		
Austin Tracy Elementary	97	1949	Campbell Ridge Elementary	77	2005
Barren County Middle School	79	1993	Crossroads Elementary	82	2007
Eastern Elementary	93	2007	Grant's Lick Elementary	99	2035
Hiseville Elementary	85	1994			
Park City Elementary	81	2003	<b>Carroll County Schools</b>		
Red Cross Elementary	82	1999	Richard B. Cartmell Elem. School	87	2011
Temple Hill Elementary	75	2005			
			<b>Casey County Schools</b>		
<b>Bellevue Independent Schools</b>			Walnut Hill Elementary School	75	2007
Grandview Elementary	85	1958			
			<b>Christian County Public Schools</b>		
<b>Boone County School District</b>			Belmont Elementary	80	1959
Burlington Elementary School	79	1938	Crofton Elementary	78	2001
Charles H. Kelly Elementary School	83	1984	Indian Hills Elementary	84	1961
Cooper High School	75	2009	Lacy Elementary	76	1950
Florence Elementary School	82	1931	Millbrooke Elementary	84	1964
Longbranch Elementary School	79	2009	North Drive Middle School	79	1988
Stephens Elementary	85	1991	Pembroke Elementary	75	1972
			South Christian Elementary	75	1995
<b>Bowling Green Independent Schools</b>					
Parker Bennett Curry Elementary	75	2005	<b>Corbin Independent Schools</b>		
TC Cherry Elementary	76	2008	Corbin Educational Center	75	1960
			Corbin Elementary School	90	1960
<b>Boyle County Schools</b>			Corbin High School	81	1974
Boyle County High School	79	1962	Corbin Intermediate School	93	1964
			Corbin Middle School	95	1931
<b>Bracken County Schools</b>			Corbin Primary School	85	2008
Bracken County Middle School	76	1987			
			<b>Danville Independent Schools</b>		
<b>Bullitt County Public Schools</b>			Danville High School	75	1968
Brooks Elementary School	93	2010	Hogsett Elementary School	81	1958
Bullitt Lick Middle School	85	1980			
Cedar Grove Elementary	84	1963	<b>Daviess County Public Schools</b>		
Crossroads Elementary School	95	2010	Audubon Elementary	82	1992
Eastside Middle School	80	2005	Burns Elementary	93	1974
Freedom Elementary School	89	2002	College View Middle School	82	1995
Lebanon Junction Elementary	89	1962	Country Heights Elementary School	87	1988
Maryville Elementary School	91	1972	Daviess County Middle School	78	1931
Mt. Washington Middle School	86	1948	Deer Park Elementary School	85	1997
Nichols Elementary School	83	1959	East View Elementary	87	1997
North Bullitt High School	79	1976	Highland Elementary	88	1966
Overdale Elementary School	96	2009	Meadow Lands Elementary	78	2005
Pleasant Grove Elementary School	88	1997	Sorgho Elementary	90	1997
Roby Elementary School	85	2009	Southern Oaks Elementary	94	2008
Shepherdsville Elementary	84	2005	Tamarack Elementary School	93	1962
Zoneton Middle School	88	2005	West Louisville Elementary	99	2011
			Whiteside Elementary	88	1993
<b>Butler County Schools</b>					
Butler County High School	92	1952	<b>Fayette County Public Schools</b>		
Butler County Middle School	89	1980	Arlington Elementary School	76	1927
Morgantown Elementary School	87	1980	Athens-Chilesburg Elementary School	77	2006
North Butler County Elementary	86	2004	Bryan Station Middle School	88	1976

<b>Fayette County Public Schools (Cont)</b>	<b>Score</b>	<b>Built</b>
Harrison Elementary School	75	1972
James Lane Allen Elementary School	90	1958
Jessie M. Clark Middle School	90	1963
Leestown Middle School	87	1958
Meadowthorpe Elementary School	75	1960
Rosa Parks Elementary	90	1998
Russell Cave Elementary School	80	1926
Wellington Elementary School	76	2010
William Wells Brown Elem. School	77	2008
Yates Elementary School	88	1954

#### **Floyd County Schools**

Allen Central High	75	1972
Stumbo Elementary	91	1962
Adams Middle School	80	1990
Allen Elementary School	76	1991
Betsy Layne High School	90	1980
Prestonsburg Elementary School	81	2007

#### **Frankfort Independent Schools**

Frankfort High School	87	1950
Second Street Elementary School	94	1930

#### **Franklin County Schools**

Hearn Elementary School	90	2008
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#### **Gallatin County Schools**

Gallatin Upper Elem. & Middle	83	2007
Gallatin Lower Elementary	88	2010

#### **Grant County Schools**

Sherman Elementary School	84	2007
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#### **Grayson County Schools**

Clarkson Elementary School	91	2010
Caneyville Elementary School	77	2001
Lawler Elementary School	82	1989
Wilkey Elementary School	94	1974

#### **Hardin County Schools**

North Middle School	84	2009
Creekside Elementary	85	2005
Heartland Elementary	82	2008
New Highland Elementary	89	1981
North Park Elementary	89	1971
Parkway Elementary School	81	1972
Rineyville Elementary	86	2007
Woodland Elementary	82	1997

#### **Henry County Schools**

Henry County High School	86	1950
New Castle Elementary	78	1964

#### **Jefferson County Public Schools**

Ballard High School	84	1968
Cane Run Elementary School	92	1972
Conway Middle School	84	1971
Farmer Elementary	91	2007
Hawthorne Elementary	95	1954
Iroquois High School	90	1955
Isaac Shelby Elementary	75	2001
Jeffersontown Elementary	89	1973
Kammerer Middle	93	1972
Myers Middle School	76	1971
Ramsey Middle School	95	2008

<b>Jefferson County Public Schools (Cont)</b>	<b>Score</b>	<b>Built</b>
Stopher Elementary	79	2007
TT Knight Middle	95	1973

#### **Jessamine County**

Brookside Elementary	83	2005
East Jessamine Middle School	90	2009

#### **Kenton County School District**

James A. Caywood Elementary	96	2005
Kenton Elementary	86	1950
Piner Elementary School	92	1962
R.C. Hinsdale Elementary	82	1972
Ryland Heights Elementary	84	1960
Simon Kenton High School	90	1972
Summit View Elem. Middle	75	1937
Taylor Mill Elem	82	1953
Turkey Foot Middle School	100	2010
Twenhofel Middle School	97	2005
White's Tower Elementary	93	1964

#### **Laurel County Public Schools**

Bush Elementary School	78	1997
Campground Elementary	76	1962
Laurel County Day Treatment	87	1929
Wyan-Pine Grove Elementary School	76	2007

#### **Lincoln County School District**

Crab Orchard Elementary School	77	1967
Hustonville Elementary School	87	1963
Lloyd McGuffey 6th Grade Center	81	2006
Waynesburg Elementary School	92	1955

#### **Madison County Public Schools**

B. Michael Caudill Middle School	75	2008
Farristown Middle School	76	2011
Kingston Elementary School	84	2005

#### **Magoffin County Public Schools**

North Magoffin Elementary School	75	2008
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#### **Marion County Public Schools**

Calvary Elementary School	76	1960
Glasscock Elementary School	78	1958
St. Charles Middle School	76	1952

#### **Marshall County Public Schools**

Jonathan Elementary School	78	1969
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#### **Mayfield Independent Schools**

Mayfield Elementary School	80	2005
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#### **Meade County Schools**

Brandenburg Primary	93	2007
Ekron Elementary School	78	2009
Flaherty Primary School	100	2010
Payneville Elementary School	86	1956

#### **Mercer County Schools**

Evan Harlow Early Learning Center	81	1969
Mercer County Senior High School	79	2008

#### **Murray Independent Schools**

Murray Elementary School	97	1961
Murray High School	81	1972

<b>Nelson County Schools</b>	<b>Score</b>	<b>Built</b>
Foster Heights Elementary	98	2009
Thomas Nelson High School	99	2011

<b>Ohio County Schools</b>		
Beaver Dam Elementary School	84	2009

<b>Oldham County Schools</b>		
Crestwood Elementary	100	2009
East Oldham Middle School	92	2005
Goshen Elementary	87	2002
Harmony Elementary	96	2005
Kenwood Station Elementary School	75	2004
Locust Grove Elementary School	99	2009
North Oldham High School	85	1996
North Oldham Middle School	85	1979
Oldham County High School	91	1966
South Oldham H.S.Camden Elem.	92	1989

<b>Owen County Schools</b>		
Maurice Bowling Middle School	91	2010
Owen County Primary School	78	1991
Owen County Upper Elem School	98	2012

<b>Pendleton County Schools</b>		
Northern Elementary	91	1972
Pendleton County High School	91	1985
Phillip A. Sharp Middle School	88	1997
Southern Elementary	80	1972

<b>Rockcastle County Schools</b>		
Brodhead Elementary School	78	2001
Roundstone Elementary School	89	2007

<b>Rowan County Schools</b>		
Tilden Hogge Elementary	82	1964
Rowan County Senior High School	77	1983

<b>Scott County Schools</b>		
Anne Mason Elementary	80	2003
Eastern Elementary School	91	1955
Elkhorn Crossing School	93	2010
Garth Elementary School	90	1927
Georgetown Middle School	90	1958
Northern Elementary	84	1989
Royal Spring Middle School	92	2006
SCHS/9th Grade/SCMS Campus	80	1955
Southern Elementary School	88	1968
Stamping Ground Elementary School	94	2000

<b>Shelby County Schools</b>		
Martha Layne Collins High School	79	2010
Shelby County East Middle School	98	1968

<b>Simpson County Schools</b>		
Franklin Elementary School	78	2007

<b>Southgate Independent Schools</b>		
Southgate Public School	84	1903

<b>Trimble County Schools</b>		
Milton Elementary	100	2008

<b>Walton Verona Independent Schools</b>	<b>Score</b>	<b>Built</b>
Walton Verona Elementary School	75	1971
Walton Verona High/Middle School	84	1971

<b>Warren County Public Schools</b>		
Alvaton Elementary	84	2006
Briarwood Elementary School	80	2000
Bristow Elementary School	100	2010
Cumberland Trace Elementary School	99	1969
Drakes Creek Middle School	90	1987
Greenwood High School	84	1990
Henry F. Moss Middle School	92	1987
Jackson Middle/High School	85	2000
Natcher Elementary School	92	1990
New Richardsville Elementary School	100	2010
North Warren Elementary School	94	1941
Oakland Elementary School	95	1978
Plano Elementary School	99	2007
Rich Pond Elementary School	82	1952
Rockfield Elementary School	84	1974
Warren Central High School	79	1949
Warren East High School	80	1969
Warren East Middle School	100	1987
Warren Elementary School	84	1974

<b>Williamstown Independent Schools</b>		
Williamstown Independent Schools	79	1990

<b>Woodford County Schools</b>		
Huntertown Elementary School	81	1980

# Kentucky Public School Districts

## District Energy Use Intensity

(174 Districts Available; 160 Reporting)

Rank	District	EUI	
		FY 2010	FY 2013
1	Butler	42.8	35.2
2	Corbin	51.6	36.3
3	Walton-Verona	44.6	39.7
4	Robertson	114.5	40.2
5	Casey	49.5	40.3
6	Anderson	52.3	40.8
7	Owen	62.5	41.3
8	Scott	53.3	42.1
9	Murray	47.2	42.2
10	Oldham	45.7	42.3
11	Monticello	58.0	43.0
12	Hardin	54.3	43.7
13	Bullitt	53.7	43.7
14	Warren	50.7	44.0
15	Burgin	60.5	44.5
16	Grayson	60.0	44.6
17	Nicholas	80.7	45.0
18	Taylor	64.7	45.5
19	Wolfe	DNR	45.6
20	Jessamine	50.3	45.9
21	Gallatin	60.0	46.1
22	Trimble	52.3	46.2
23	Dawson Springs	61.0	46.7
24	Clinton	53.5	46.8
25	Fleming	69.8	47.0
26	Wayne	64.2	47.1
27	Erlanger	56.9	47.1
28	Science Hill	56.5	48.1
29	Jackson Co	57.4	48.3
30	McLean	45.9	48.4
31	Crittenden	57.1	48.5
32	Williamstown	63.3	48.6
33	Lyon	53.7	48.6
34	Meade	48.7	48.9
35	Martin	DNR	49.1
36	Floyd	52.0	49.1
37	Pendleton	55.9	49.2
38	Shelby	71.6	49.2
39	Hancock	57.8	49.5
40	Daviess	53.9	49.5

Rank	District	EUI	
		FY 2010	FY 2013
41	Newport	44.5	49.9
42	Carlisle	46.9	49.9
43	Allen	57.1	50.0
44	Magoffin	64.0	50.1
45	Barren	49.8	50.1
46	Trigg	60.2	50.2
47	Russellville	52.5	50.3
48	Southgate	47.2	50.6
49	Glasgow	62.6	50.7
50	Estill	53.4	51.1
51	Paintsville	53.3	51.1
52	Russell	70.3	51.1
53	Augusta	55.6	51.5
54	Frankfort	80.7	51.5
55	Garrard	51.5	51.8
56	Lawrence	68.6	52.0
57	Paris	59.6	52.3
58	Pulaski	52.4	52.4
59	Spencer	DNR	52.5
60	Marion	60.3	52.5
61	Boyd	81.2	52.5
62	Campbellsville	76.4	52.6
63	Caldwell	60.7	52.8
64	Metcalfe	60.9	52.8
65	Nelson	53.0	53.0
66	Bracken	55.0	53.1
67	Edmonson	58.7	53.3
68	Russell	80.5	53.4
69	Cumberland	71.1	53.5
70	Whitley	57.7	53.6
71	Lee	78.3	53.8
72	Kenton	64.9	54.2
73	Livingston	56.9	54.2
74	Williamsburg	54.9	54.5
75	Silver Grove	69.2	54.6
76	Lincoln	70.7	55.0
77	Carter	59.3	55.2
78	Logan	54.5	55.2
79	Christian	70.1	55.4
80	Knox	57.0	55.8

Rank	District	EUI	
		FY 2010	FY 2013
81	Calloway	56.2	56.4
82	Rockcastle	59.9	56.7
83	Boyle	65.9	57.1
84	Raceland-Worthington	67.0	57.3
85	Rowan	72.3	57.3
86	Pineville	54.7	57.4
87	Woodford	63.5	57.5
88	Madison	56.4	57.9
89	Cloverport	72.7	58.0
90	Clark	74.7	58.3
91	Monroe	48.6	58.3
92	Webster	75.5	58.6
93	Harrison	61.9	59.1
94	Clay	65.4	59.2
95	Elliott	DNR	59.6
96	Menifee	90.4	60.0
97	Jenkins	0.0	60.1
98	Owensboro	70.1	60.4
99	Henry	67.7	60.4
100	Mercer	78.3	60.5
101	West Point	DNR	60.5
102	Hazard	87.2	60.6
103	Breckinridge	71.2	60.8
104	Bardstown	62.8	60.9
105	LaRue	55.1	61.7
106	Bourbon	65.0	61.8
107	Bowling Green	73.6	61.8
108	Franklin	87.3	62.3
109	Grant	70.7	62.3
110	Mason	57.9	62.5
111	Ashland	75.1	62.6
112	Jefferson	68.2	62.6
113	Dayton	67.4	62.8
114	Mayfield	60.9	62.9
115	Eminence	85.3	63.2
116	Lewis	60.7	63.3
117	Knott	DNR	64.0
118	Graves	DNR	64.2
119	Elizabethtown	72.9	64.3
120	Adair	71.1	64.7

Rank	District	EUI	
		FY 2010	FY 2013
121	Letcher	62.9	64.9
122	Johnson	78.2	65.5
123	Caverna	84.2	65.9
124	Ballard	80.1	66.3
125	Washington	83.5	66.4
126	Marshall	70.9	66.5
127	Hickman	67.6	67.0
128	Laurel	DNR	67.0
129	Carroll	82.9	67.2
130	Union	69.1	67.2
131	Boone	74.0	67.3
132	Montgomery	70.2	67.7
133	Berea	75.7	67.8
134	Campbell	70.2	67.9
135	Bell	104.3	68.5
136	Danville	64.6	68.8
137	Muhlenberg	68.5	68.9
138	McCracken	62.7	69.4
139	Morgan	116.8	69.9
140	Pikeville	81.9	70.6
141	Simpson	73.6	71.4
142	Anchorage	73.8	71.5
143	Hopkins	71.7	71.8
144	Bellevue	68.4	72.0
145	Henderson	74.1	72.2
146	Covington Ind.	80.5	72.5
147	Beechwood	62.6	73.2
148	Hart	73.5	73.2
149	Fayette	78.2	73.9
150	Barbourville	76.8	74.7
151	Bath	71.8	74.9
152	Middlesboro	DNR	76.7
153	Somerset	89.8	77.1
154	Ft. Thomas	72.2	77.7
155	Breathitt	64.0	79.6
156	Powell	97.0	82.8
157	Green	88.2	87.6
158	McCreary	94.8	89.0
159	East Bernstadt	DNR	89.7
160	Jackson Ind	117.6	118.6

# **Henderson County Schools' Energy Management**

## **Energy Use & Cost Data Information Flow Models' Review**

May 3, 2013

1:30 PM CDT

Duration: 20 minutes

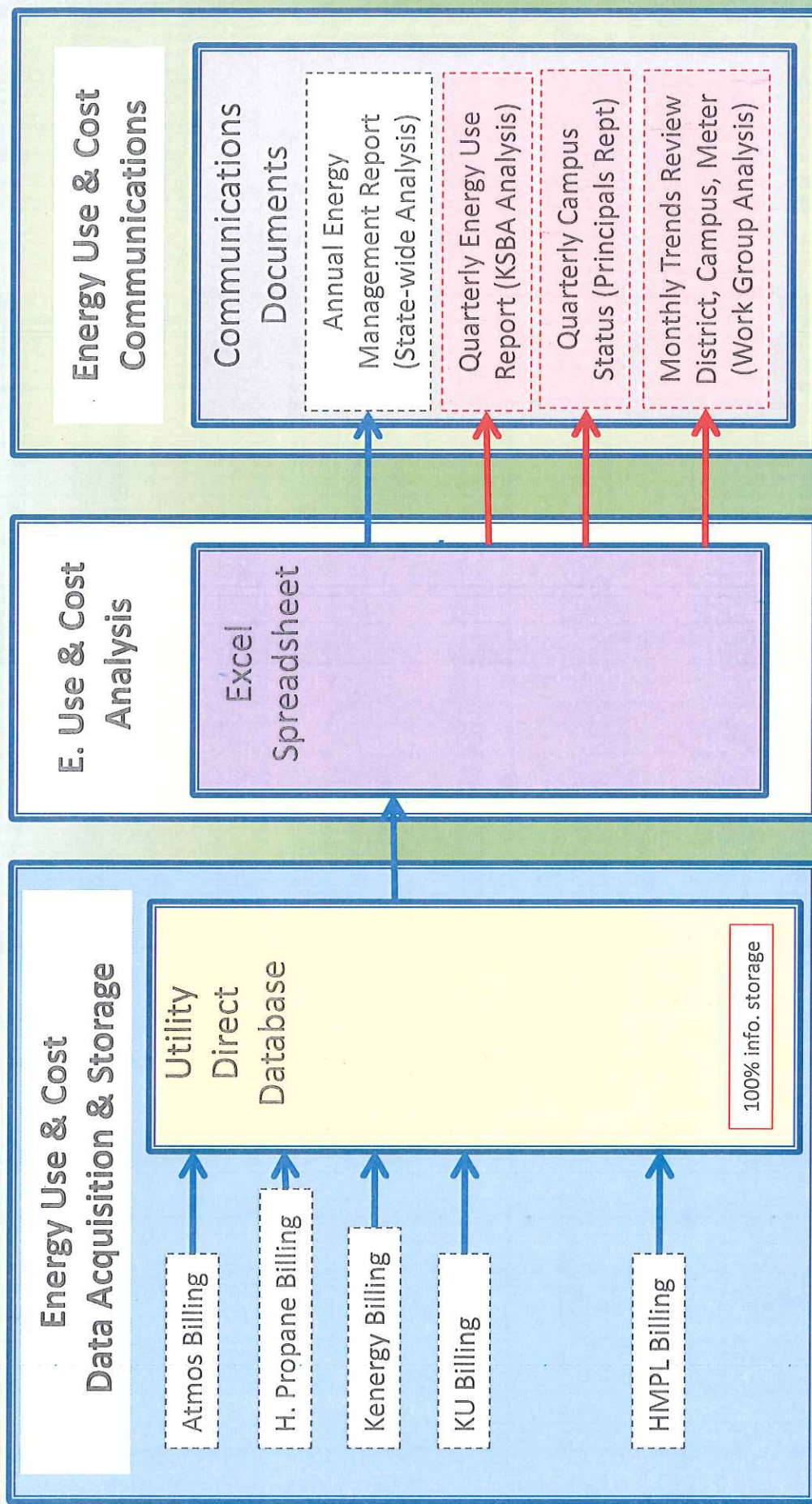
5704 Airline Rd.

Henderson, KY

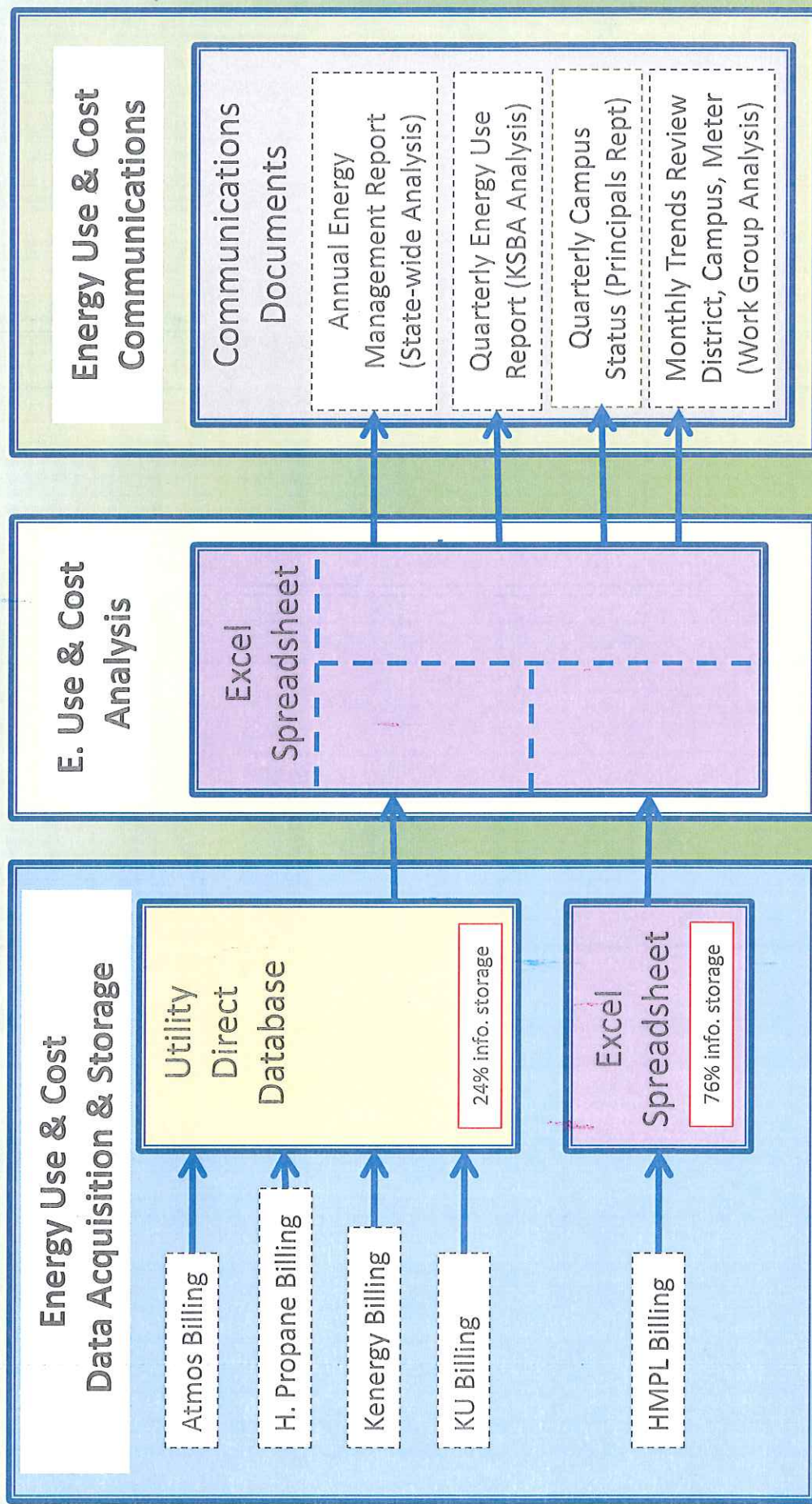
Facilitator: Darrel Pfingston, PE, CEM



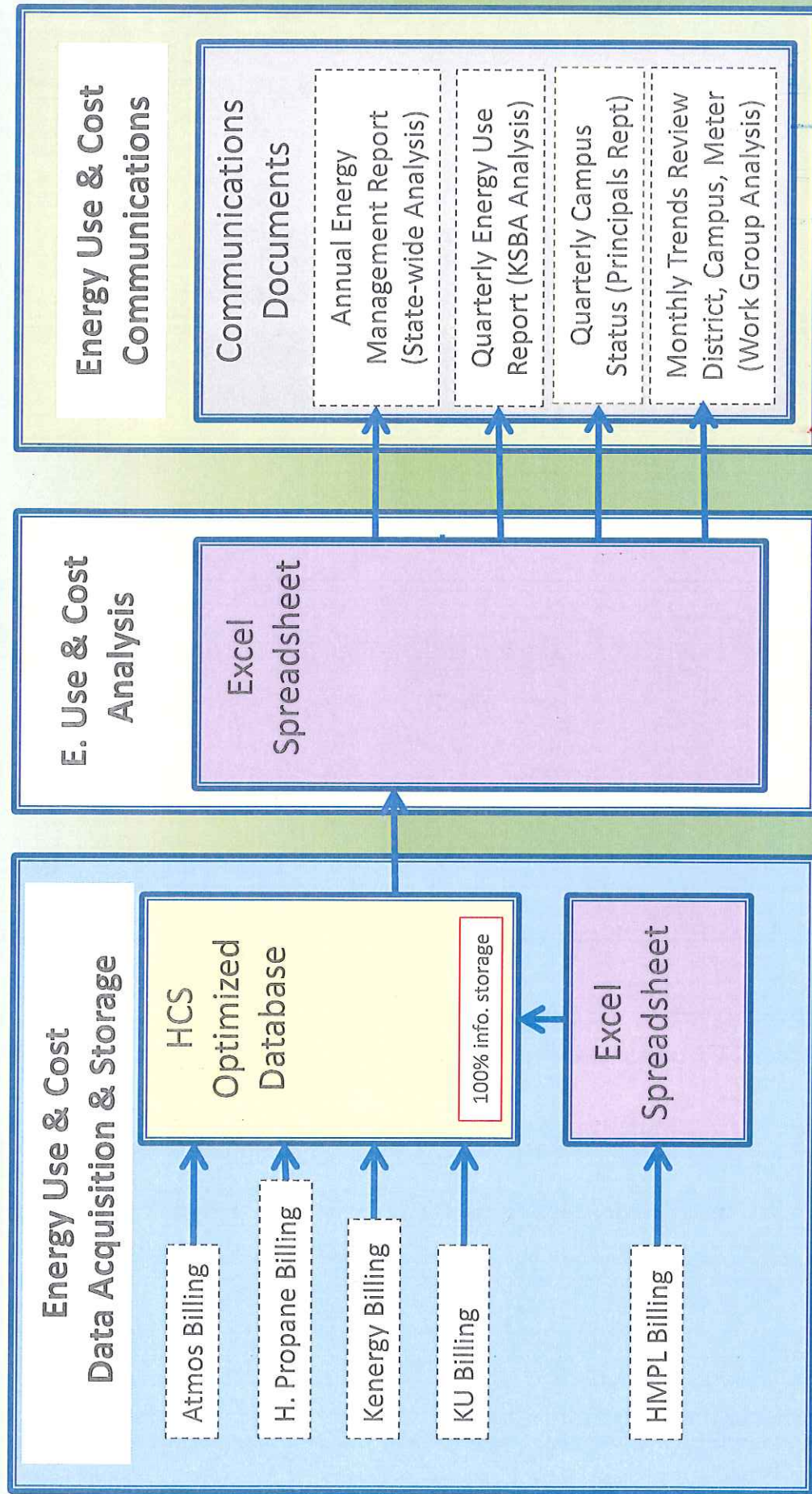
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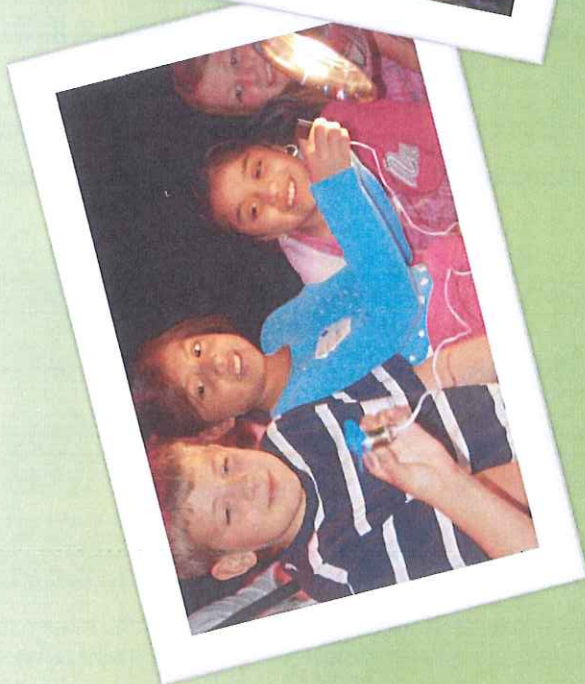
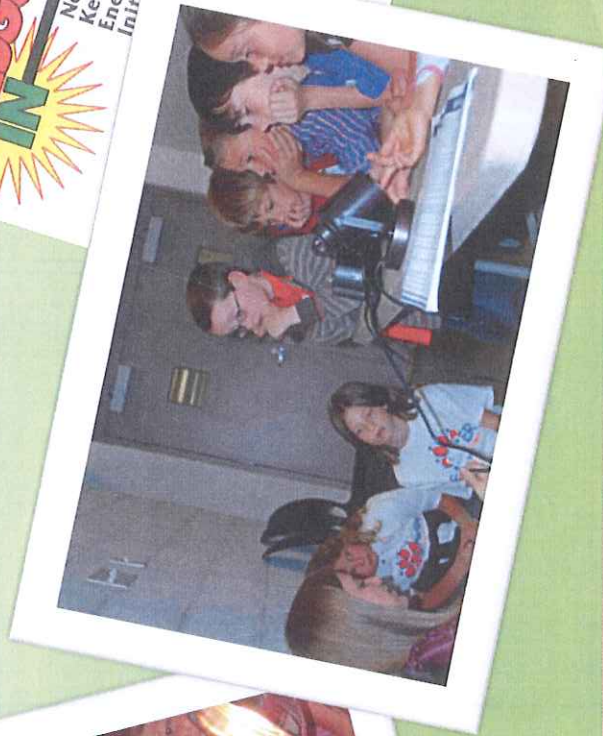
# Energy Use & Cost Data-- Information Flow (interim)



# Energy Use & Cost Data-- Information Flow (vision)



**End of Presentation**



**Questions/Comments?**

# Year-to-Date Costs

by  
Account

Latest Data Month September, 2013

#	Account	Service [E,G,P]	Provider	Service Location	YTD Cost		YTD Delta	
					FY2013	FY2014	\$	%
1	131628300	E	HMPL	631 N. Green St/TBJELC	\$ 7,730.28	\$ 7,512.47	\$ 217.81	3%
2	135391800	E	HMPL	2424 Zion Road/Security Bldg	\$ 41.73	\$ 41.73	\$ -	0%
3	135392000	E	HMPL	2424 Zion Road/HCHS	\$ 68,252.80	\$ 65,105.41	\$ 3,147.39	5%
4	135396000	E	HMPL	2424 Zion Road/CTE	\$ 6,976.88	\$ 6,890.79	\$ 86.09	1%
5	135398000	E	HMPL	1707 2nd St/NMS/Softball	\$ 442.51	\$ 400.49	\$ 42.02	9%
6	135398600	E	HMPL	----/Baseball Batting	\$ 124.32	\$ 235.44	\$ (111.12)	-89%
7	135398800	E	HMPL	2424 Zion Road/Soccer Field	\$ 492.45	\$ 490.45	\$ 2.00	0%
8	135398900	E	HMPL	2424 Zion Road/Soccer Practice Field	\$ 41.77	\$ 41.73	\$ 0.04	0%
9	135399000	E	HMPL	2424 Zion Road/HCHS Football Stadium	\$ 3,902.75	\$ 3,545.95	\$ 356.80	9%
10	135399400	E	HMPL	2424 Zion Road/HCHS Baseball Press Box	\$ 585.09	\$ 503.03	\$ 82.06	14%
11	135399500	E	HMPL	2424 Zion Road/HCHS Baseball Field	\$ 567.67	\$ 517.53	\$ 50.14	9%
12	135424000	E	HMPL	----/Administration	\$ 1,252.49	\$ 959.89	\$ 292.60	23%
13	135432000	E	HMPL	1707 2nd St/NMS/Private Lighting	\$ 27.99	\$ 27.99	\$ -	0%
14	135436000	E	HMPL	1707 2nd St/NMS	\$ 31,126.05	\$ 29,407.64	\$ 1,718.41	6%
15	135437000	E	HMPL	----/Administration	\$ 5,001.33	\$ 4,552.66	\$ 448.67	9%
16	135443000	E	HMPL	1805 2nd St/BoE Center For Support Services	\$ 159.84	\$ 130.22	\$ 29.62	19%
17	136300000	E	HMPL	851 Center Street/Central Academy School	\$ 11,220.37	\$ 10,012.94	\$ 1,207.43	11%
18	137368000	E	HMPL	1199 Madison St/ South Heights Elementary	\$ 19,204.23	\$ 15,831.15	\$ 3,373.08	18%
19	137369200	E	HMPL	1199 Madison St/ South Heights Head Start	\$ 811.53	\$ 622.50	\$ 189.03	23%
20	137369500	E	HMPL	1199 Madison St/ South Heights Security Lights	\$ 48.53	\$ 48.80	\$ (0.27)	-1%
21	137369600	E	HMPL	1199 Madison St/ South Heights Mobile	\$ 599.57	\$ 258.43	\$ 341.14	57%
22	138220000	E	HMPL	315/Jackson St/Jefferson Elementary	\$ 15,616.71	\$ 15,434.48	\$ 182.23	1%
23	138220500	E	HMPL	315/Jackson St/Jefferson Elementary Mobile	\$ 421.73	\$ 332.22	\$ 89.51	21%
24	138587500	E	HMPL	800 S. Alves St/SMS	\$ 698.04	\$ 698.29	\$ (0.25)	0%
25	138588000	E	HMPL	800 S. Alves St/SMS	\$ 30,934.37	\$ 25,878.19	\$ 5,056.18	16%
26	138589500	E	HMPL	800 S. Alves St/SMS	\$ 280.48	\$ 409.31	\$ (128.83)	-46%
27	140736000	E	HMPL	920 Bend Gate Road/Bend Gate Elementary	\$ 18,193.85	\$ 16,379.36	\$ 1,814.49	10%
28	7-408-98-018-02-9-E-Shop	E	Kenergy	AB Chandler Shop	\$ 86.45	\$ 93.03	\$ (6.58)	-8%
29	7-408-98-025-01-6-E	E	Kenergy	AB Chandler Elementary School	\$ 14,926.57	\$ 18,983.92	\$ (4,057.35)	-27%
30	7-415-02-004-00-9-E	E	Kenergy	Cairo Elementary	\$ 13,987.23	\$ 17,294.16	\$ (3,306.93)	-24%
31	7-415-19-040-00-4-E	E	Kenergy	Niagara Elementary	\$ 15,769.42	\$ 19,223.23	\$ (3,453.81)	-22%
32	7-410-14-097-00-4-E	E	Kenergy	Spottsville Elementary	\$ 15,121.53	\$ 20,912.25	\$ (5,790.72)	-38%
33	7-410-14-100-00-6-E	E	Kenergy	Spottsville Elementary-Portable Building	\$ 361.30	\$ 403.91	\$ (42.61)	-12%
34	3000-0001-9459E	E	KU	Bus Garage Bus Heaters	\$ 215.97	\$ 252.93	\$ (36.96)	-17%
35	3000-0059-5573	E	KU	Building & Grounds	\$ 3,239.56	\$ 3,444.06	\$ (204.50)	-6%
36	3000-0188-2558	E	KU	Building & Grounds	\$ 265.33	\$ 306.53	\$ (41.20)	-16%
37	3000-0385-0199	E	KU	East Heights Elementary	\$ 26,457.31	\$ 28,267.07	\$ (1,809.76)	-7%
38	3000-0639-0284	E	KU	Bus Garage	\$ 3,467.36	\$ 3,946.07	\$ (478.71)	-14%
39	3000-0779-0136E	E	KU	Archery Bldg	\$ 1,543.19	\$ 1,852.10	\$ (308.91)	-20%
40	3000-2106-8030	E	KU	Archery Bldg II	\$ 218.20	\$ 469.19	\$ (250.99)	-115%
41	131628300	G	HMPL	631 N. Green St/TBJELC	\$ 269.00	\$ 376.12	\$ (107.12)	-40%
42	135358300	G	HMPL	5704 AIRLINE RD #2/Bldgs & Grounds-Maint.	\$ 47.45	\$ 48.46	\$ (1.01)	-2%
43	135358500	G	HMPL	5704 AIRLINE RD/Bldgs & Grounds-Office	\$ 88.20	\$ 92.98	\$ (4.78)	-5%
44	135392000	G	HMPL	2424 ZION RD /HCHS	\$ 1,648.58	\$ 3,852.94	\$ (2,204.36)	-134%
45	135396000	G	HMPL	2440 ZION RD/CTE	\$ 176.01	\$ 246.90	\$ (70.89)	-40%
46	135399000	G	HMPL	2424 ZION RD/HCHS Football Stadium	\$ 116.60	\$ 136.36	\$ (19.76)	-17%
47	135408000	G	HMPL	1776 ADAMS LN/East Heights Elementary	\$ 645.54	\$ 671.77	\$ (26.23)	-4%
48	135410700	G	HMPL	377 GARDEN MILE RD/Archery	\$ 46.35	\$ 46.35	\$ -	0%
49	135432000	G	HMPL	1805 SECOND ST / NMS	\$ 513.93	\$ 735.66	\$ (221.73)	-43%
50	135440000	G	HMPL	1805 SECOND ST/BoE Administration	\$ 78.63	\$ 70.35	\$ 8.28	11%
51	135441000	G	HMPL	1805 SECOND ST/BoE Administration	\$ 130.25	\$ 162.10	\$ (31.85)	-24%
52	136300000	G	HMPL	851 CENTER ST/ Central Learning Center	\$ 108.73	\$ 109.48	\$ (0.75)	-1%
53	137368000	G	HMPL	1199 MADISON ST /South Heights Elementary	\$ 357.71	\$ 344.22	\$ 13.49	4%
54	138220000	G	HMPL	315 JACKSON ST / Jefferson Elementary	\$ 739.52	\$ 839.33	\$ (99.81)	-13%
55	138588000	G	HMPL	800 S ALVES ST / SMS	\$ 683.45	\$ 751.40	\$ (67.95)	-10%
56	140736000	G	HMPL	920 BEND GATE RD/ Bend Gate Elementary	\$ 234.83	\$ 291.82	\$ (56.99)	-24%
57	416188000	G	HMPL	W US 60/ ABC Elementary	\$ 357.70	\$ 629.42	\$ (271.72)	-76%
58	3007604905	G	Atmos	Niagara Elementary School	\$ 614.92	\$ 695.05	\$ (80.13)	-13%
59	3007560168	G	Atmos	School Bus Garage	\$ 48.39	\$ 147.69	\$ (99.30)	-205%
60	3010349499	G	Atmos	Spottsville Elementary	\$ 630.00	\$ 429.01	\$ 200.99	32%
61	N/A	P	H'son Prop.	Cairo Elementary	\$ 4,320.00	\$ 5,200.00	\$ (880.00)	-20%
-	District Total				\$ 332,270.57	\$ 337,594.95	\$ (5,324.38)	-1.6%

**Year-to- Date Energy Usage**  
by  
**Account**

Latest Data Month	September, 2013
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#	Account	Service [E,G,P]	Provider	Service Location	YTD Energy Use [kBtu]		YTD Delta	
					FY2013	FY2014	[kBtu]	%
1	131628300	E	HMPL	631 N. Green St/TBJELC	415,582	411,487	4,094	1%
2	135391800	E	HMPL	2424 Zion Road/Security Bldg	10	3	7	67%
3	135392000	E	HMPL	2424 Zion Road/HCHS	3,667,218	3,560,763	106,454	3%
4	135396000	E	HMPL	2424 Zion Road/CTE	376,139	377,504	(1,365)	0%
5	135398000	E	HMPL	1707 2nd St/NMS/Softball	22,110	20,813	1,297	6%
6	135398600	E	HMPL	----/Baseball Batting	5,596	11,942	(6,346)	-113%
7	135398800	E	HMPL	2424 Zion Road/Soccer Field	5,050	3,821	1,228	24%
8	135398900	E	HMPL	2424 Zion Road/Soccer Practice Field	10	3	7	67%
9	135399000	E	HMPL	2424 Zion Road/HCHS Football Stadium	209,633	193,802	15,832	8%
10	135399400	E	HMPL	2424 Zion Road/HCHS Baseball Press Box	30,367	26,579	3,787	12%
11	135399500	E	HMPL	2424 Zion Road/HCHS Baseball Field	19,653	12,283	7,370	38%
12	135424000	E	HMPL	...../Administration	55,994	43,097	12,897	23%
13	135432000	E	HMPL	1707 2nd St/NMS/Private Lighting	10	3	7	67%
14	135436000	E	HMPL	1707 2nd St/NMS	1,674,483	1,607,601	66,882	4%
15	135437000	E	HMPL	...../Administration	267,528	249,288	18,241	7%
16	135443000	E	HMPL	1805 2nd St/BoE Center For Support Services	7,472	6,107	1,365	18%
17	136300000	E	HMPL	851 Center Street/Central Academy School	588,502	543,736	44,765	8%
18	137368000	E	HMPL	1199 Madison St/ South Heights Elementary	1,020,870	857,094	163,776	16%
19	137369200	E	HMPL	1199 Madison St/ South Heights Head Start	34,939	26,750	8,189	23%
20	137369500	E	HMPL	1199 Madison St/ South Heights Security Lights	1,262	1,433	(171)	-14%
21	137369600	E	HMPL	1199 Madison St/ South Heights Mobile	31,148	13,010	18,138	58%
22	138220000	E	HMPL	315/Jackson St/Jefferson Elementary	840,717	847,268	(6,551)	-1%
23	138220500	E	HMPL	315/Jackson St/Jefferson Elementary Mobile	21,479	17,254	4,224	20%
24	138587500	E	HMPL	800 S. Alves St/SMS	5,459	6,278	(819)	-15%
25	138588000	E	HMPL	800 S. Alves St/SMS	1,649,224	1,410,111	239,113	14%
26	138589500	E	HMPL	800 S. Alves St/SMS	7,370	14,467	(7,097)	-96%
27	140736000	E	HMPL	920 Bend Gate Road/Bend Gate Elementary	979,380	898,038	81,342	8%
28	7-408-98-018-02-9-E-Shop	E	Kenergy	AB Chandler Shop	1,583	1,665	(82)	-5%
29	7-408-98-025-01-6-E	E	Kenergy	AB Chandler Elementary School	729,131	729,499	(368)	0%
30	7-415-02-004-00-9-E	E	Kenergy	Cairo Elementary	674,211	690,589	(16,378)	-2%
31	7-415-19-040-00-4-E	E	Kenergy	Niagara Elementary	801,820	746,887	54,933	7%
32	7-410-14-097-00-4-E	E	Kenergy	Spottsville Elementary	868,559	901,314	(32,755)	-4%
33	7-410-14-100-00-6-E	E	Kenergy	Spottsville Elementary-Portable Building	17,452	17,838	(386)	-2%
34	3000-0001-9459E	E	KU	Bus Garage-Bus Heaters	7,742	8,390	(648)	-8%
35	3000-0059-5573	E	KU	Building & Grounds	74,300	71,744	2,556	3%
36	3000-0188-2558	E	KU	Building & Grounds	7,970	8,499	(529)	-7%
37	3000-0385-0199	E	KU	East Heights Elementary	1,121,156	1,131,696	(10,540)	-1%
38	3000-0639-0284	E	KU	Bus Garage	105,499	127,882	(22,383)	-21%
39	3000-0779-0136E	E	KU	Archery Bldg	54,647	60,536	(5,889)	-11%
40	3000-2106-8030	E	KU	Archery Bldg II	4,391	13,590	(9,199)	-209%
41	131628300	G	HMPL	631 N. Green St/TBJELC	29,177	41,446	(12,269)	-42%
42	135358300	G	HMPL	5704 AIRLINE RD #2/Bldgs & Grounds-Maint.	206	309	(103)	-50%
43	135358500	G	HMPL	5704 AIRLINE RD/Bldgs & Grounds-Office	7,629	7,217	412	5%
44	135392000	G	HMPL	2424 ZION RD /HCHS	280,432	580,453	(300,021)	-107%
45	135396000	G	HMPL	2440 ZION RD/CTE	12,372	21,445	(9,073)	-73%
46	135399000	G	HMPL	2424 ZION RD/HCHS Football Stadium	1,547	4,227	(2,681)	-173%
47	135408000	G	HMPL	1776 ADAMS LN/East Heights Elementary	97,945	87,635	10,310	11%
48	135410700	G	HMPL	377 GARDEN MILE RD/Archery	103	103	0	0%
49	135432000	G	HMPL	1805 SECOND ST / NMS	74,232	97,945	(23,713)	-32%
50	135440000	G	HMPL	1805 SECOND ST/BoE Administration	5,877	3,712	2,165	37%
51	135441000	G	HMPL	1805 SECOND ST/BoE Administration	4,021	8,351	(4,330)	-108%
52	136300000	G	HMPL	851 CENTER ST/ Central Learning Center	103	206	(103)	-100%
53	137368000	G	HMPL	1199 MADISON ST /South Heights Elementary	45,364	37,116	8,248	18%
54	138220000	G	HMPL	315 JACKSON ST / Jefferson Elementary	115,266	113,513	1,753	2%
55	138588000	G	HMPL	800 S ALVES ST / SMS	105,162	100,007	5,155	5%
56	140736000	G	HMPL	920 BEND GATE RD/ Bend Gate Elementary	23,094	28,765	(5,671)	-25%
57	416188000	G	HMPL	W US 60/ ABC Elementary	45,776	82,480	(36,704)	-80%
58	3007604905	G	Atmos	Niagara Elementary School	63,398	85,332	(21,933)	-35%
59	3007560168	G	Atmos	School Bus Garage	4,989	5,462	(473)	-9%
60	3010349499	G	Atmos	Spottsville Elementary	64,953	46,807	18,146	28%
61	N/A	P	H'son Prop.	Cairo Elementary	219,840	274,800	(54,960)	-25%
<b>District Total</b>					<b>17,607,153</b>	<b>17,297,999</b>	<b>309,155</b>	<b>1.8%</b>

Henderson County Schools  
Buildings' Energy Use  
Pro Forma Evaluation Baseline

					Latest Data Month		September, 2013		
Campus	Service [E,G,P]	Provider	Service Location	Year-to-Date Average Unit Price		FY2013 Energy Use Intensity [kBtu/sf/yr]	FY2013 Cost per Sq Foot per Year		
				Unit Price	UOM				
HCHS	E	HMPL	2424 Zion Road/Security Bldg	41.73	\$/kWh	69	\$1.00		
			2424 Zion Road/HCHS	0.06					
			2424 Zion Road/CTE	0.06					
			----/Baseball Batting	0.07					
			2424 Zion Road/Soccer Field	0.44					
			2424 Zion Road/Soccer Practice Field	41.73					
			2424 Zion Road/HCHS Football Stadium	0.06					
			2424 Zion Road/HCHS Baseball Press Box	0.06					
	KU	2424 Zion Road/HCHS Baseball Field	0.14	\$/kWh					
		Archery Bldg	0.10						
G	HMPL	Archery Bldg II	0.12	\$/ccf					
		2424 ZION RD /HCHS	0.68						
		2440 ZION RD/CTE	1.19						
		2424 ZION RD/HCHS Football Stadium	3.33						
		377 GARDEN MILE RD/Archery	46.35						
NMS	E	HMPL	1707 2nd St/NMS/Softball	0.07	\$/kWh	81	\$1.27		
			1707 2nd St/NMS/Private Lighting	27.99					
			1707 2nd St/NMS	0.06					
G	HMPL	1805 SECOND ST / NMS	0.77	\$/ccf					
SMS	E	HMPL	800 S. Alves St/SMS	0.38	\$/kWh	68	\$1.06		
			800 S. Alves St/SMS	0.06					
			800 S. Alves St/SMS	0.10					
G	HMPL	800 S ALVES ST / SMS	0.77	\$/ccf					
ABC	E	Kenergy	AB Chandler Shop	0.19	\$/kWh	64	\$1.06		
			AB Chandler Elementary School	0.09					
G	HMPL	W US 60/ ABC Elementary	0.79	\$/ccf					
Bend Gate	E	HMPL	920 Bend Gate Road/Bend Gate Elementary	0.06	\$/kWh	62	\$0.96		
			920 BEND GATE RD/ Bend Gate Elementary	1.05	\$/ccf				
Cairo	E	Kenergy	Cairo Elementary	0.09	\$/kWh	83	\$1.78		
			Cairo Elementary	1.70	\$/gallon				
East Heights	E	KU	East Heights Elementary	0.09	\$/kWh	81	\$1.47		
			G	HMPL	1776 ADAMS LN/East Heights Elementary			0.79	\$/ccf
Jefferson	E	HMPL	315/Jackson St/Jefferson Elementary	0.06	\$/kWh	91	\$1.28		
			315/Jackson St/Jefferson Elementary Mobile	0.07					
			G	HMPL	315 JACKSON ST / Jefferson Elementary			0.76	\$/ccf
Niagara	E	Kenergy	Niagara Elementary	0.09	\$/kWh	92	\$1.48		
			G	Atmos	Niagara Elementary School			0.84	\$/ccf
South Heights	E	HMPL	1199 Madison St/ South Heights Elementary	0.06	\$/kWh	78	\$1.21		
			1199 Madison St/ South Heights Head Start	0.08					
			1199 Madison St/ South Heights Security Lights	0.12					
			1199 Madison St/ South Heights Mobile	0.07					
Spottsville	E	Kenergy	1199 MADISON ST /South Heights Elementary	0.96	\$/ccf	83	\$1.24		
			Spottsville Elementary	0.08					
			G	Atmos	Spottsville Elementary			0.94	\$/ccf
TBJELC	E	HMPL	631 N. Green St/TBJELC	0.06	\$/kWh	37	\$0.64		
			G	HMPL	631 N. Green St/TBJELC			0.94	\$/ccf
Bus Garage	E	KU	Bus Garage Bus Heaters	0.10	\$/kWh	N/A	N/A		
			G	Atmos	Bus Garage			0.11	
Central Academy	E	HMPL	School Bus Garage	2.79	\$/ccf	73	\$1.11		
			G	HMPL	851 Center Street/Central Academy School			0.06	\$/kWh
Central Office	E	HMPL	851 CENTER ST/ Central Learning Center	54.74	\$/ccf	N/A	N/A		
			...../Administration	0.08					
			...../Administration	0.06					
	G	HMPL	1805 2nd St/BoE Center For Support Services	0.07	\$/ccf				
District Maint.	E	KU	1805 SECOND ST/BoE Administration	1.95	N/A	N/A			
			1805 SECOND ST/BoE Administration	2.00					
			G	HMPL			Building & Grounds	0.17	\$/kWh
			G	HMPL			Building & Grounds	0.12	\$/ccf
District FY2013	E	All	All	0.07	\$/kWh	73	\$1.15		
	G	All	All	0.69	\$/ccf				
	P	All	All	1.70	\$/gallon				
State FY2013	E	All	All	0.09	\$/kWh	59	\$1.24		
	G	All	All	0.77	\$/ccf				
	P	All	All	1.59	\$/gallon				

## 2013 Kentucky Schools Energy Management Report (Pursuant to Board Policy 5.23)

This report is for fiscal year FY 2013 which covers the school year (billing period) July 1 2012 through June 30 2013. If this report template is used to submit/revise information for a fiscal year other than FY 2013; then, "mark & initial" the appropriate fiscal year over the title of submittal. Completed form to be submitted to the Kentucky Energy and Environment Cabinet, [kyenergy@ky.gov](mailto:kyenergy@ky.gov).

Date: September 27, 2013		District Name: Henderson County Schools	
1	Name of person completing report	Darrel Pfingston	
2	Title of person completing report	Energy Manager	
3	E-mail of person completing report	<a href="mailto:darrel.pfingston@henderson.kyschools.us">darrel.pfingston@henderson.kyschools.us</a>	
4	Daytime telephone number of person completing report	270 831-8757	
5	Is anyone from District a member of KSPMA, Kentucky School Plant Managers Association?	Yes	
6	Is anyone from District a member of KEEMA, Kentucky Education Energy Management Association?	Yes	
7	Name of person responsible for energy management	Darrel Pfingston	
8	Title of person responsible for energy management	Energy Manager	
9	E-mail of person responsible for energy management	<a href="mailto:darrel.pfingston@henderson.kyschools.us">darrel.pfingston@henderson.kyschools.us</a>	
10	Does District have an Energy Committee?	Yes	
11	How often does Energy Committee meet?	4 times per year	
12	Does District have a formally-approved Energy Policy, BoE Policy 5.23?	Yes	
13	Does District routinely review utility bills for incorrect rate application, vacant accounts, demand minimums and estimated meter readings?	Yes	
14	How does the district track energy usage and costs? (Examples: KEEPS Utility Tracker, School Dude Utility Direct, Excel Spreadsheet, Database or Other program (Specify name))	School Dude Utility Direct	
15	Does District have an Energy Management Plan?	Yes	
16	Aggregate Gross Square Footage (GSF) for heated and/or conditioned buildings in District	1,117,636 GSF	
17	Source of GSF Data (e.g., measurement, drawings, insurable property list, estimate)	Measurement, & Facilities Director Property List	
18	Adjusted Average Daily Attendance of District Students. Please refer to the Superintendent's Annual Attendance Report (SAAR) available at the Kentucky Department of Education's website	6730; Note, summation of KD AADA & UPPER AADA.	



Template Developer: Kentucky Education Energy Management Association  
Revision Date: August 1, 2013

## 2013 Kentucky Schools Energy Management Report (Pursuant to Board Policy 5.23)

This report is for fiscal year FY 2013 which covers the school year (billing period) July 1 2012 through June 30 2013. If this report template is used to submit/revise information for a fiscal year other than FY 2013; then, "mark & initial" the appropriate fiscal year over the title of submittal. Completed form to be submitted to the Kentucky Energy and Environment Cabinet, kyenergy@ky.gov.

Date: September 27, 2013		District Name: Henderson County Schools	
19	List all providers that supply billable energy to District-owned buildings/campuses/facilities	Henderson Municipal Power & Light, Kentucky Utilities, Kenergy, Atmos, Henderson Bottle Gas	
20	District's annual consumption of electricity in kWh (including unmetered loads-e.g., parking lot lights)	15,604,688.0	
21	District's annual cost for electricity	\$1,074,858.71	
22	District's annual consumption of natural gas	261,095.0	
23	Identify appropriate unit of measurement	CCF	
24	District's annual cost for natural gas	\$179,698.57	
25	District's annual consumption of propane	14,366.4	
26	Identify appropriate unit of measurement	gallons	
27	District's annual cost for propane	\$26,896.50	
28	District's annual consumption of coal	Zero	
29	Identify appropriate unit of measurement	Not Applicable	
30	District's annual cost for coal	Zero Dollars	
31	District's annual consumption of heating fuel oil in gallons	Zero	
32	District's annual cost of fuel oil used for heating	Zero Dollars	
33	District's aggregate annual cost for building/campus/facility energy (should equal sum of all annual individual energy costs)	\$1,281,453.78	
34	Does the district use any renewable energy sources? (Example: Solar)	No	
35	If YES to Question 36; describe the type(s) of renewable energy and provide the total quantity generated or consumed in the fiscal year. Identify the quantity as either an estimate or a measurement.	Not Applicable	
36	Does the district use any sources of FREE ENERGY? (Example: Used motor oil for heating)	Yes	
38	If YES to Question 38; describe the type of FREE ENERGY and provide the total quantity consumed in the fiscal year.	Used Motor Oil for Heating Bus Garage; Estimated Consumption = 1400 gallons.	

