

Henderson County Schools' Energy Management

Annual Report to BoE

Report Period: July 1, 2013 to June 30, 2014

February 16, 2015

6:00 PM CDT

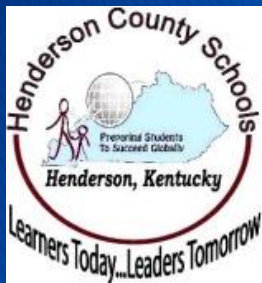
Duration: 10 minutes

HCS Professional Development Center

631 N. Green Street

Henderson, KY

Facilitator: Darrel Pfingston, PE, CEM



FY2014 District Billable Energy Use & Cost

<i>Utility</i>	<i>Use</i>	<i>Unit-of-Measure</i>	<i>Total Cost</i>	<i>Cost per UOM</i>	<i>% of Total Cost</i>
<i>Total</i>	<i>87,064,000</i>	<i>kBtu</i>	<i>\$1,398,221.70</i>	<i>1.61 cents/kBtu</i>	<i>100.0%</i>
<i>Propane</i>	<i>14,967</i>	<i>gallon</i>	<i>\$40,076.09</i>	<i>2.68 \$/gal</i>	<i>2.9%</i>
<i>Nat. Gas</i>	<i>319,229</i>	<i>ccf</i>	<i>\$242,477.49</i>	<i>76 cents/ccf</i>	<i>17.3%</i>
<i>Electricity</i>	<i>15,769,716</i>	<i>kWh</i>	<i>\$1,115,668.12</i>	<i>7.1 cents/kWh</i>	<i>79.8%</i>

Electrical cost is nominally 80% of total annual energy cost.
“Top down” review suggests that focus on electrical costs may be most effective.

FY2013 / FY 2014 Price Trends

<i>Utility</i>	<i>FY2013 Cost per UOM</i>	<i>FY2014 Cost per UOM</i>	<i>Annualized % Increase</i>
<i>Electricity</i>	<i>6.9 cents/kWh</i>	<i>7.1 cents/kWh</i>	<i>2.9%</i>
<i>Nat. Gas</i>	<i>68.8 cents/ccf</i>	<i>76 cents/ccf</i>	<i>10.5%</i>
<i>Propane</i>	<i>1.87 \$/gal</i>	<i>2.68 \$/gal</i>	<i>43.1%</i>

***“Bottom up” review suggests Propane cost be reviewed more closely—
at greater than 40% annualized increase.***

FY2014 District Calculated Savings When Compared to State Average

School District FY 2014	Average Daily Attendance [students]	Total Cost	Unit Price [\$ per student]	Increase over State Average
Kentucky– All	620,114	\$ 145.8 million	\$ 235.12	----
Henderson	6,730	\$ 1.398 million	\$207.72	-11.6%

EXPECTED = 6,730 STUDENTS X \$235.12/STUDENT = \$ 1.582 MILLION
ACTUAL = \$ 1.398 MILLION
SAVINGS, WHEN COMPARED TO KY AVE. = \$ 184,000

Annual Savings is nominally equal to 3.5 Full Time Equivalent Certified employees' wage benefit.

FY 2014 Noteworthy Improvements

- ▶ *Revision of Electrical Rate Schedule for East Heights Campus was revised. Revision will generate continuing, significant cost avoidance benefit.*
- ▶ *Successful collaboration between Henderson County Schools & City of Henderson will significantly reduce the expected annual cost of heating & cooking fuel for Cairo Campus.*

“FY 2014 Noteworthy Improvements” will yield energy cost savings in all years into the foreseeable future.

FY 2015 District Energy Team Goal & “Game Plan”

▶ ***Goal***

❖ ***2.5% year-over-year improvement for “Energy Cost per Student” when compared with state average.***

▶ ***“Game Plan” Strategy:***

- ❖ ***Exploit Cairo “propane-to-natural gas conversion- Annual cash savings of \$20K/year.***
- ❖ ***Exploit East Heights “KU electrical rate revision” –Annual cost avoidance of \$10K/year.***
- ❖ ***Install lighting efficiency improvements at campuses with rebate driven incentives.***
- ❖ ***Encourage District-wide habits to turn off unused lighting & set back air conditioning when campuses are unoccupied.***

Questions/Comments?

End of Presentation

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

1. *2014 EMR Henderson County School District.pdf.* (HCS submittal to State.)
2. *EMR Final Report for FY2013-14 12-01-2014.pdf.* (Aggregated report to LRC).