

Rock Hill Schools

District Energy Update - Calendar year 2013

April 28, 2014

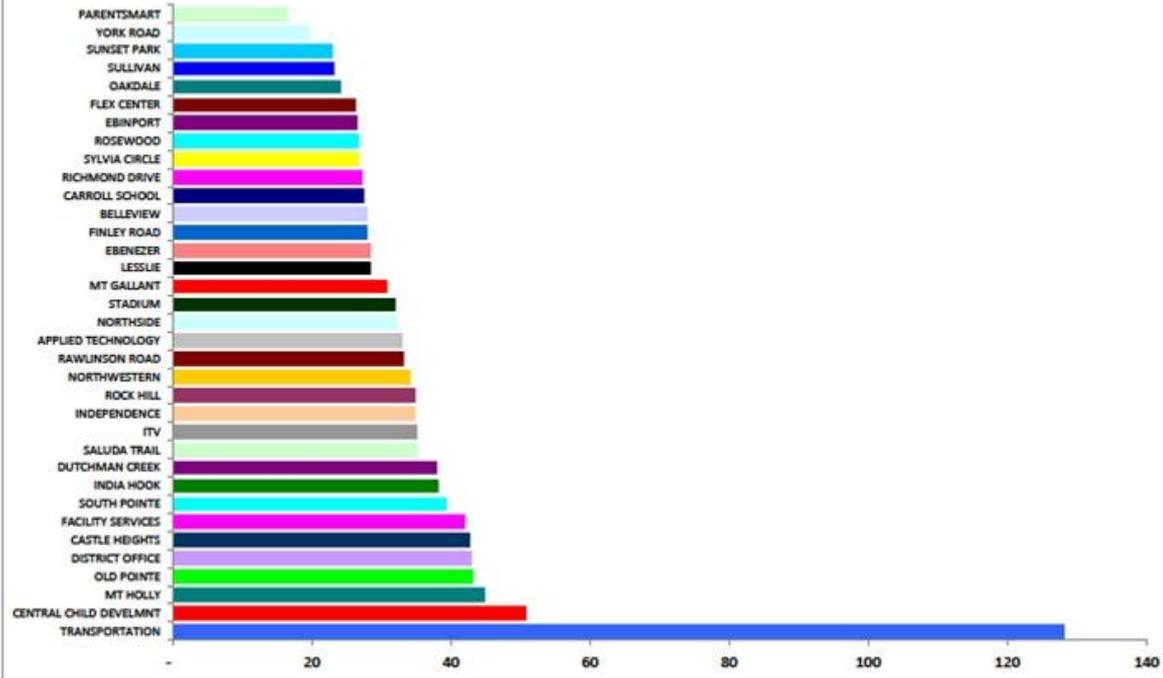
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Energy & Systems Manager

Key Performance Indicators (KPI)

- 17,400 students
- 3,404,323 Square Feet

<u>KPI</u>	<u>Cal. Yr. 2013</u>	<u>Cal. Yr. 2012</u>	<u>National Average</u>	<u>State Average</u>
<i>EUI (kBTU/Sq. Ft.)</i>	34	30	67	33
<i>\$/Sq. Ft.</i>	1.01	0.93	1.24	1.10
<i>\$/Student</i>	197	181	181	NA

Comparison of Actual Equiv-kBtu / Sq.Ft. for Selected Areas



Actual Use and Cost for Base Period Jan - Dec 2009

<u>Energy Type</u>	<u>Base Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	<u>Energy Cost</u>
Electric	34,508,427	kWh	0.1038	\$3,581,022.00
Natural Gas	338,109	Therm	1.2145	\$410,645.00
Total Energy:	151,588,161	kBtu	Total Cost	\$3,991,667.00

Actual Use and Cost With Energy Management Program Jan - Dec 2013

<u>Energy Type</u>	<u>Current Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	
Electric	26,078,359	kWh	0.1223	\$3,188,560.00
Natural Gas	256,605	Therm	0.9620	\$246,861.00
Total Energy:	114,665,939	kBtu	Total Cost	\$3,435,421.00

Energy Saved Jan - Dec 2013 Compared to Base Period

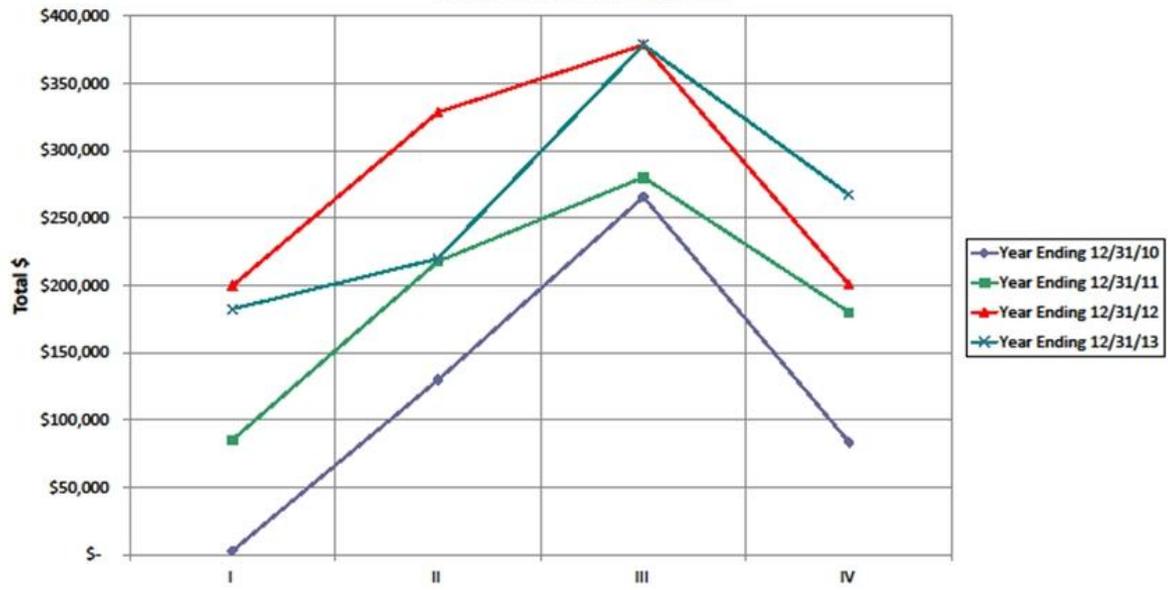
Energy Type	Base - Current	Units	Percent Saved	Total Cost
Electricity	8,430,068	kWh	24.4%	\$392,462.00
Natural Gas	81,504	Therm	24.1%	\$163,784.00
Total Energy Saved:	36,922,222	kBtu	Gross Account Savings:	\$556,246.00
				13.9%

Cost Avoidance - Without Our Energy Program:

Rates: Base period consumption at current period rates would be an additional:	\$552,894.00
"Load Creep": Additional equipment, operating hours and efficiency lost due to age would cost:	\$168,771.65
Weather adjustment:	(\$60,909.00)
TOTAL COST AVOIDANCE:	\$1,217,002.65
27.1%	



Cost Avoidance Yearly Comparison



Date	I	II	III	IV	Total
Year Ending 12/31/10	\$ 2,678	\$ 129,594	\$ 265,678	\$ 83,140	\$ 481,090
Year Ending 12/31/11	\$ 85,018	\$ 217,778	\$ 280,187	\$ 179,943	\$ 762,926
Year Ending 12/31/12	\$ 199,607	\$ 328,584	\$ 378,615	\$ 200,341	\$ 1,107,147
Year Ending 12/31/13	\$ 182,345	\$ 219,874	\$ 378,725	\$ 267,287	\$ 1,048,231
				\$	\$ 3,399,394

* These values are unadjusted for load creep and do not include water or sewer utilities.

Accomplishments

- Green Apple Energy Conservation Program
- Internal training programs
- Involvement in capital improvement projects
- Northwestern Group 4 IB Project

Future plans

- Energy Star labels for buildings
- Efficiency upgrade projects
 - Demand limiting program
 - Control system upgrades and enhancements
 - Lighting upgrades
- Academic collaboration

End of Presentation

- Questions?

Thank you.