

November 24, 2014

Rock Hill Schools

District Energy Update

For the period of January, 2014 – June, 2014

Kim Melander
Energy & Systems Manager



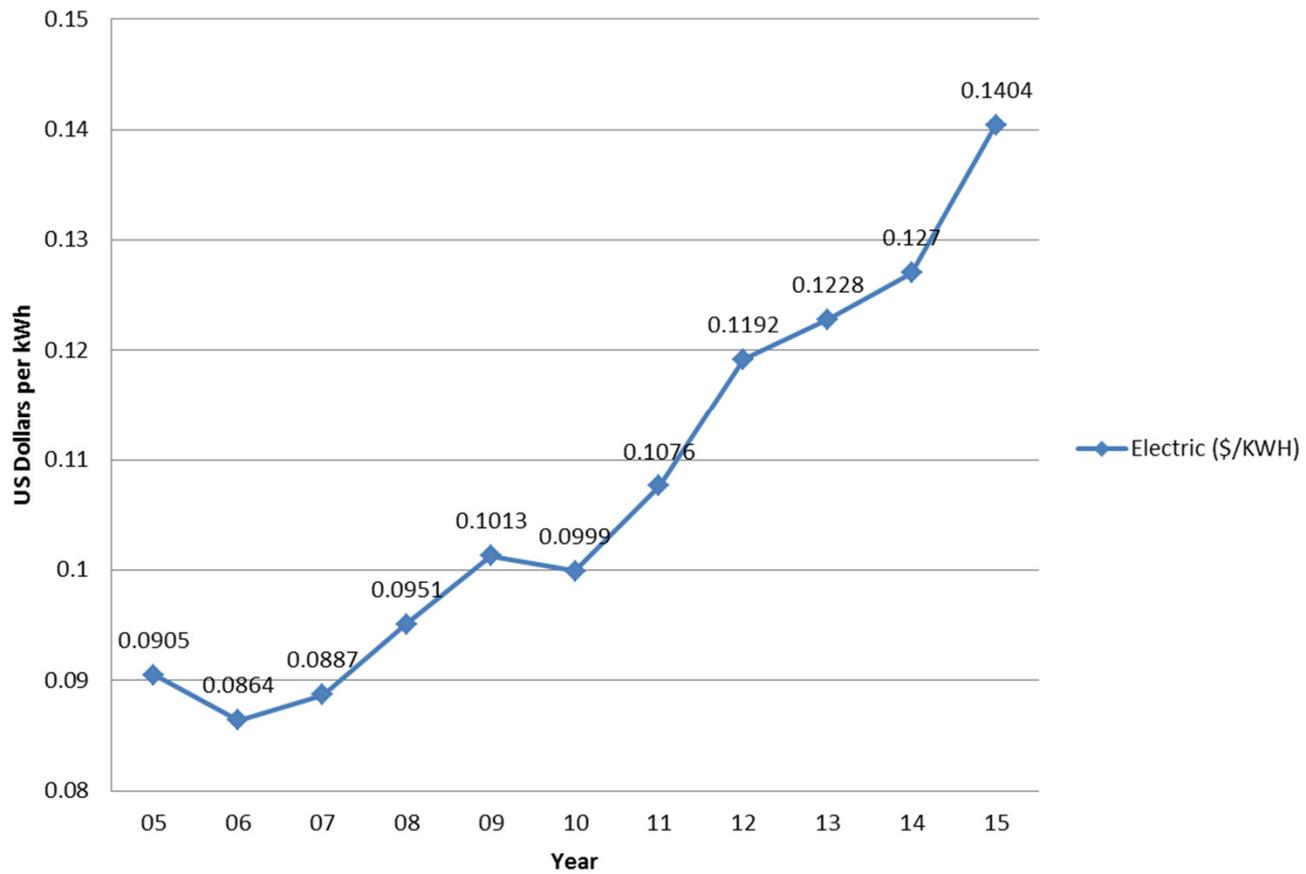
Benchmarking - Key Performance Indicators (KPI)

- 17,795 students (as of 11/20/2014)
- 3,404,323 Square Feet

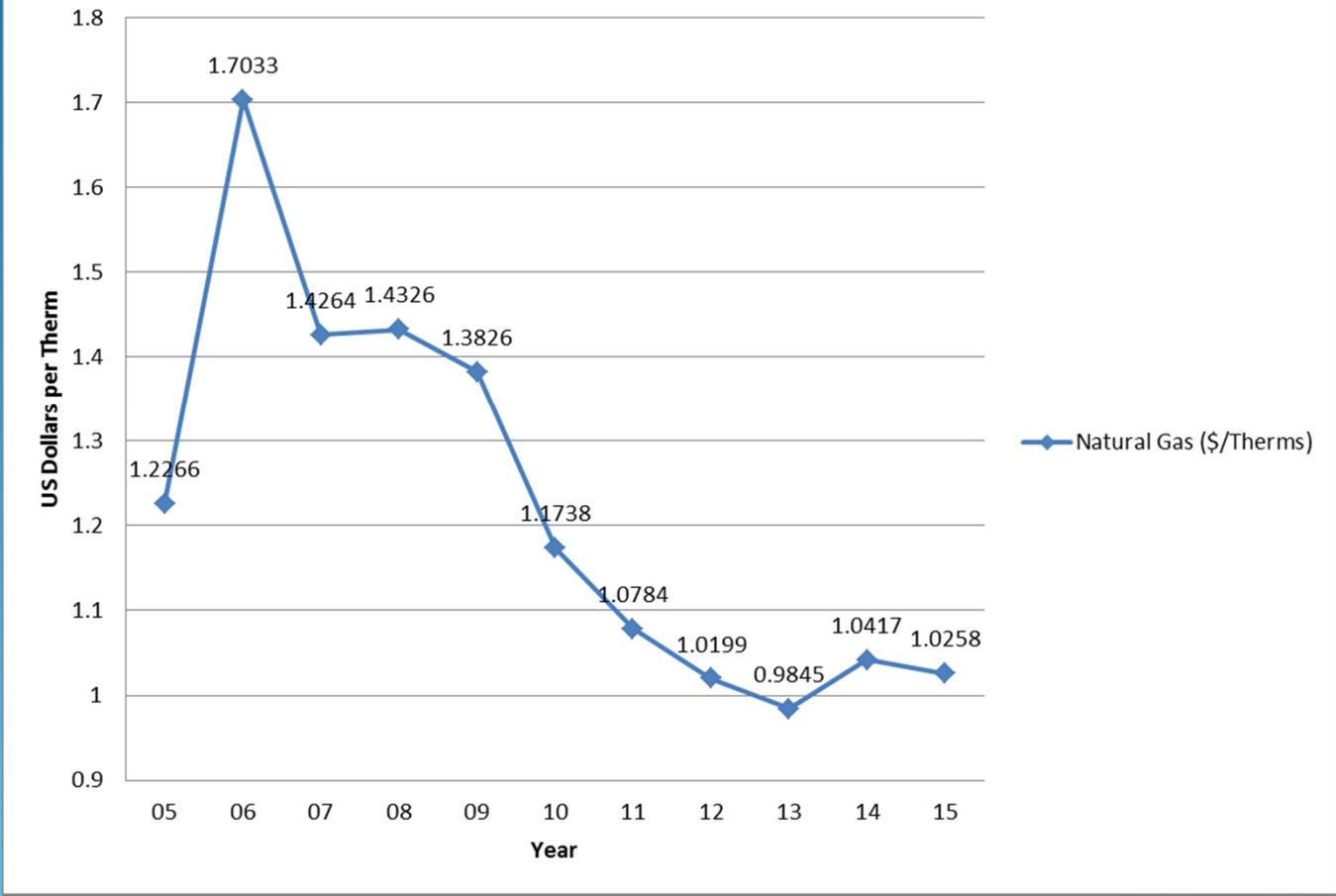
<u>KPI</u>	<u>2014 RHSD</u>	<u>2013 RHSD</u>	<u>2013 National Average</u>	<u>2013 State Average</u>
<i>EUI or Energy Usage Intensity (kBTU/Sq. Ft.)</i>	35 (+3%)	34 (+13%)	58 (-13%)	38 (+13%)
<i>Energy \$/Sq. Ft.</i>	1.07 (+6%)	1.01 (+9%)	1.24 (+2%)	1.08 (+2%)
<i>Energy \$/Student</i>	205 (+4%)	197 (+9%)	181	NA

Note: Values in parenthesis are percent change from previous period.

Electric Utility Cost for District



Natural Gas Utility Cost for District



Rock Hill Schools Energy Management Department
 Energy Savings and Avoidance Report
 For the period of January, 2014 through June, 2014

Section 1

Actual Use and Cost for Base Period (1/2009 through 6/2009)

<u>Energy Type</u>	<u>Base Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	<u>Energy Cost</u>
Electric	17,393,040	kWh	0.1046	\$1,819,806
Natural Gas	200,541	Therm	1.2704	\$254,771
Total Energy:	79,416,546	kBtu	Total Cost	\$2,074,577

Section 2

Actual Use and Cost With Energy Management Program (1/2014 through 6/2014)

<u>Energy Type</u>	<u>Current Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	
Electric	12,898,448	kWh	0.1288	\$1,660,689
Natural Gas	185,975	Therm	1.0458	\$194,489
Total Energy:	62,619,903	kBtu	Total Cost	\$1,855,178

Section 3

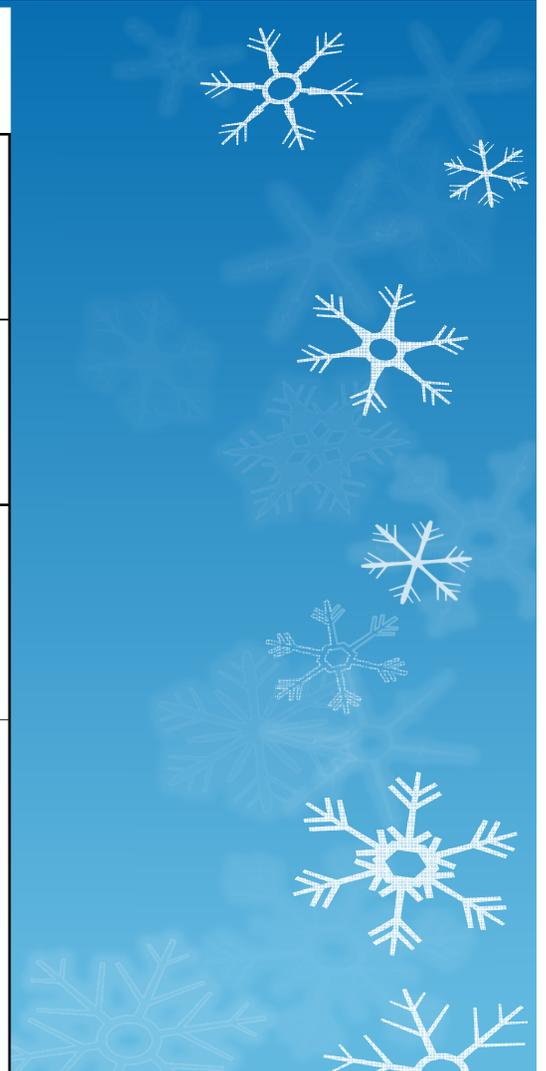
Energy Saved 2014 Compared to Base Period

<u>Energy Type</u>	<u>Base - Current</u>	<u>Units</u>	<u>Percent Saved</u>	<u>Total Cost</u>
Electricity	4,494,592	kWh	26%	\$159,117
Natural Gas	14,566	Therm	7%	\$60,282
Total Energy Saved:	16,796,642	kBtu	Gross Savings:	\$219,399 11%

Section 4

Cost Avoidance - Without Our Energy Program:

Rates: Base period consumption at current period rates would be an additional:	\$337,066
 "Load Creep": Additional equipment, operating hours and efficiency lost due to age would cost:	\$89,575
Adjustments for weather, bill period differences & other deviations.	\$8,071
Total Cost Avoidance:	\$654,111
Adjusted Savings:	27%



Notable Accomplishments



Energy Stars awarded to Belleview, Ebenezer, Old Pointe and Rosewood, Sullivan and Saluda Trail.

- 20 of 27 (74%) possible buildings labeled
- 6 awarded in 2014

Green Apple Energy Conservation Program.

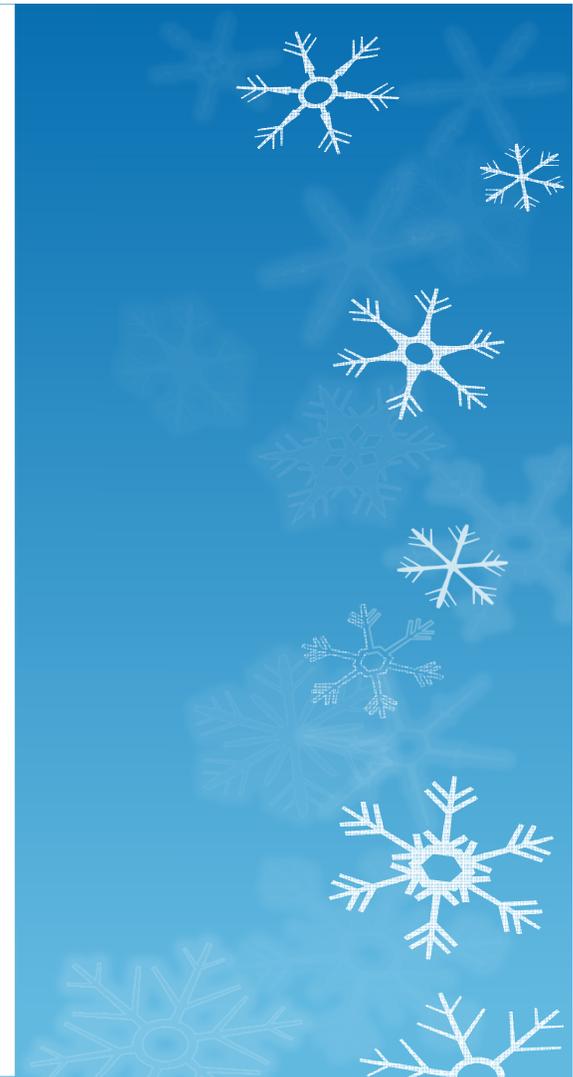
- 93% of spaces we visit are properly shut down according to our guidelines.

Rock Hill School District
 Energy Star Buildings
 11/24/2014

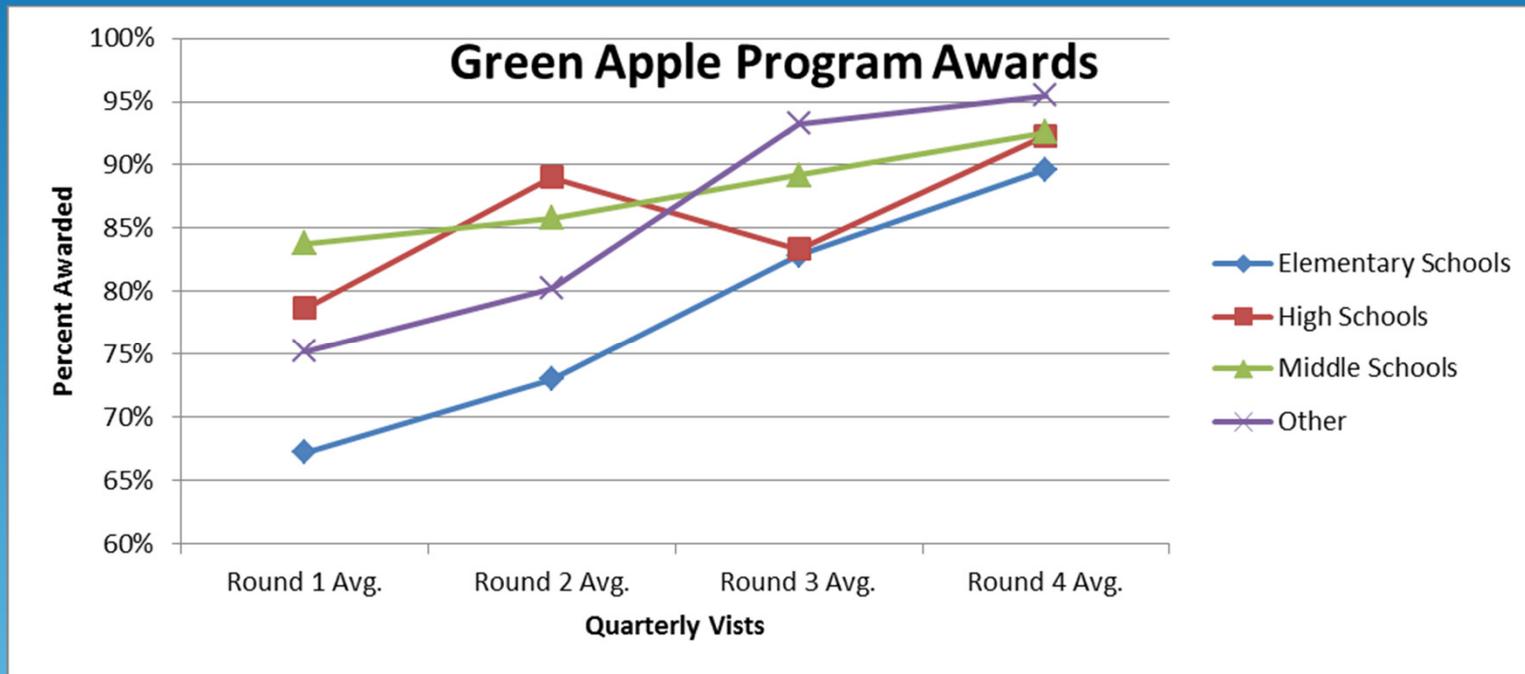
27 Possible Buildings
 20 Energy Stars
 6 Energy Stars in 2014
 74% of buildings have an Energy Star.



<i>Location</i>	<i>Energy Star Score (Award for 75 or better)</i>	<i>Status of Award</i>
<i>Elementary Schools</i>		
Applied Tech. Center	87	Waiting to Apply
Belleview ES	96	Awarded in 2014
Children's School at Sylvia Circle	96	Awarded in 2012
Ebenezer ES	98	Awarded in 2014
Ebinport ES	94	Awarded in 2010
Finley Road ES	94	Awarded in 2012
Independence ES	100	Waiting to Apply
India Hook ES	81	Awarded in 2012
Lesslie ES	95	Awarded in 2012
Mt. Gallant ES	97	Awarded in 2012
Mt. Holly ES	86	Awarded in 2012
Northside ES	93	Awarded in 2012
Oakdale ES	98	Awarded in 2012
Old Pointe ES	86	Awarded in 2014
Richmond Drive ES	90	Waiting to Apply
Rosewood ES	95	Awarded in 2014
Sunset Park ES	98	Awarded in 2012
York Road ES	100	Awarded in 2012
<i>Middle Schools</i>		
Castle Heights MS	68	Waiting to Apply
Dutchman Creek MS	71	Awarded in 2012
Rawlinson Road MS	78	Waiting to Apply
Saluda Trail MS	76	Awarded in 2014
Sullivan MS	89	Awarded in 2014
<i>High Schools</i>		
Northwestern HS	91	Waiting to Apply
Rock Hill HS	85	Waiting to Apply
South Pointe HS	88	Awarded in 2012
<i>Other Buildings</i>		
District Offices	84	Awarded in 2013



2013-2014 School Year



Goals

- Energy Star labels for remaining buildings
- Efficiency upgrade projects
 - Demand limiting program – in progress.
 - Control system upgrades and enhancements – ongoing.
 - Lighting upgrades – replace blown bulbs with LED
- Academic collaboration – Contact with IB coordinators at schools.
- Utility Reporting to Schools



• Questions?

Thank you.

Have a Happy Thanksgiving!

