

November 23, 2015

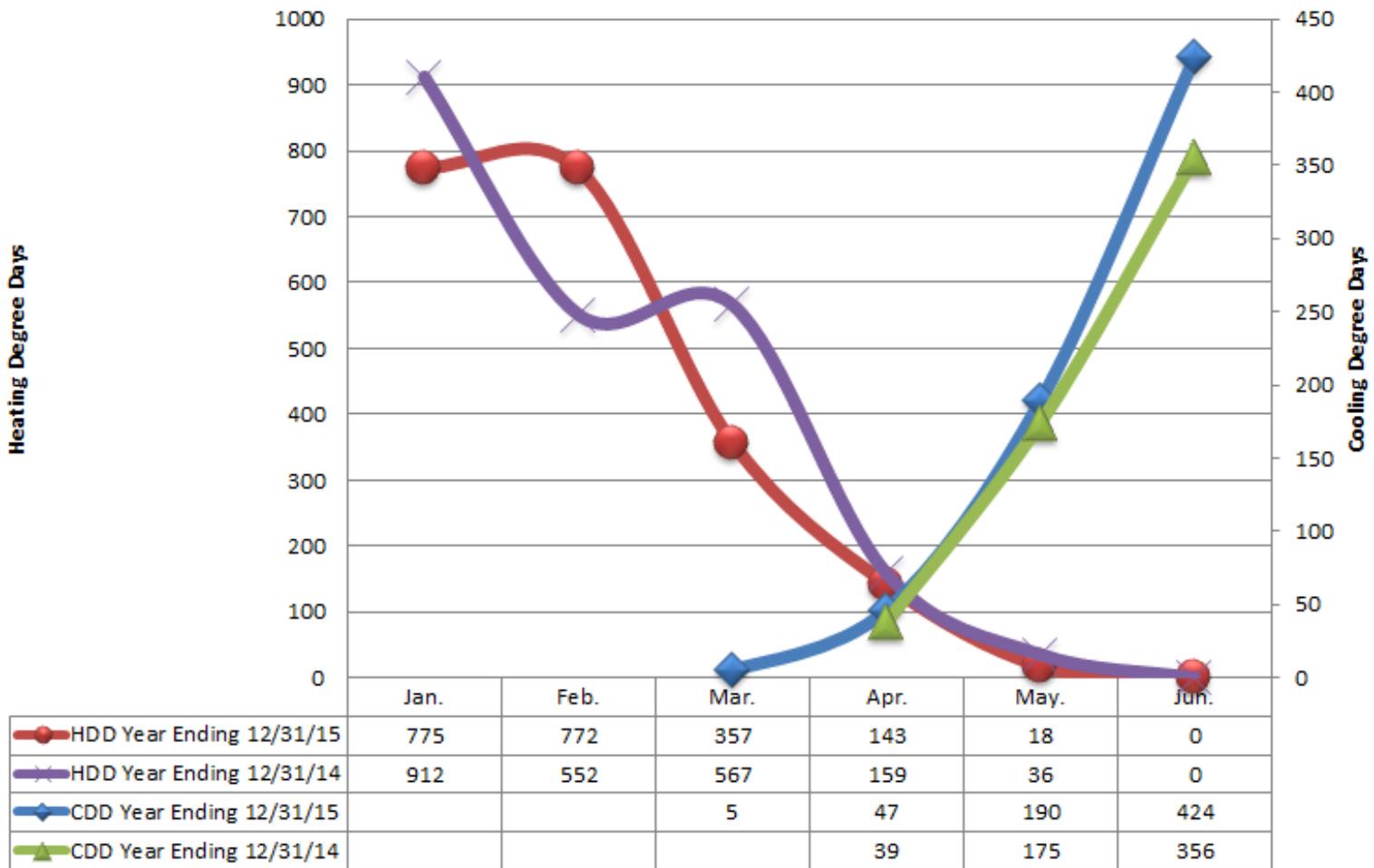
Rock Hill Schools

District Energy Update

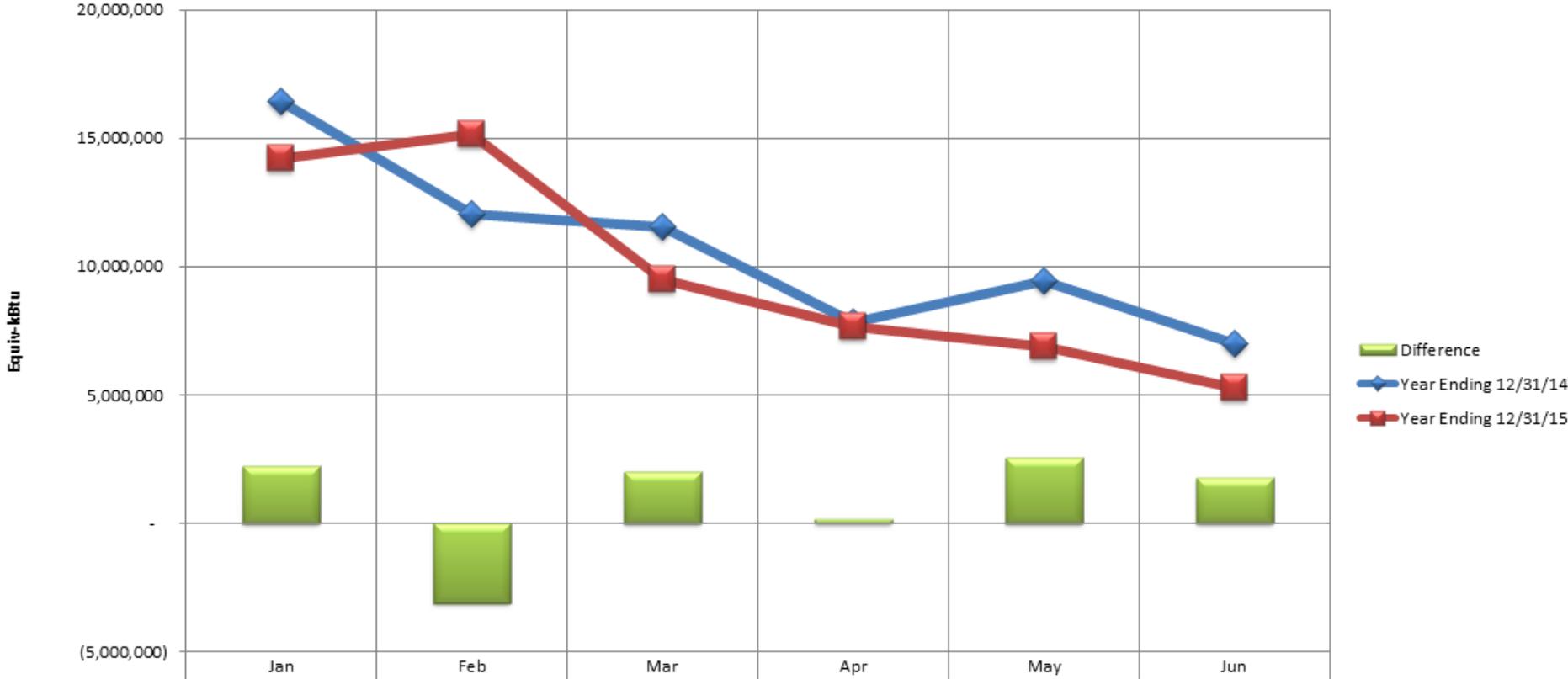
For the period of January 1, 2015 – June 30,
2015

Kim Melander
Energy & Systems Manager

Heating and Cooling Degree Day Comparison



Equivalent kBTU for Rock Hill School District



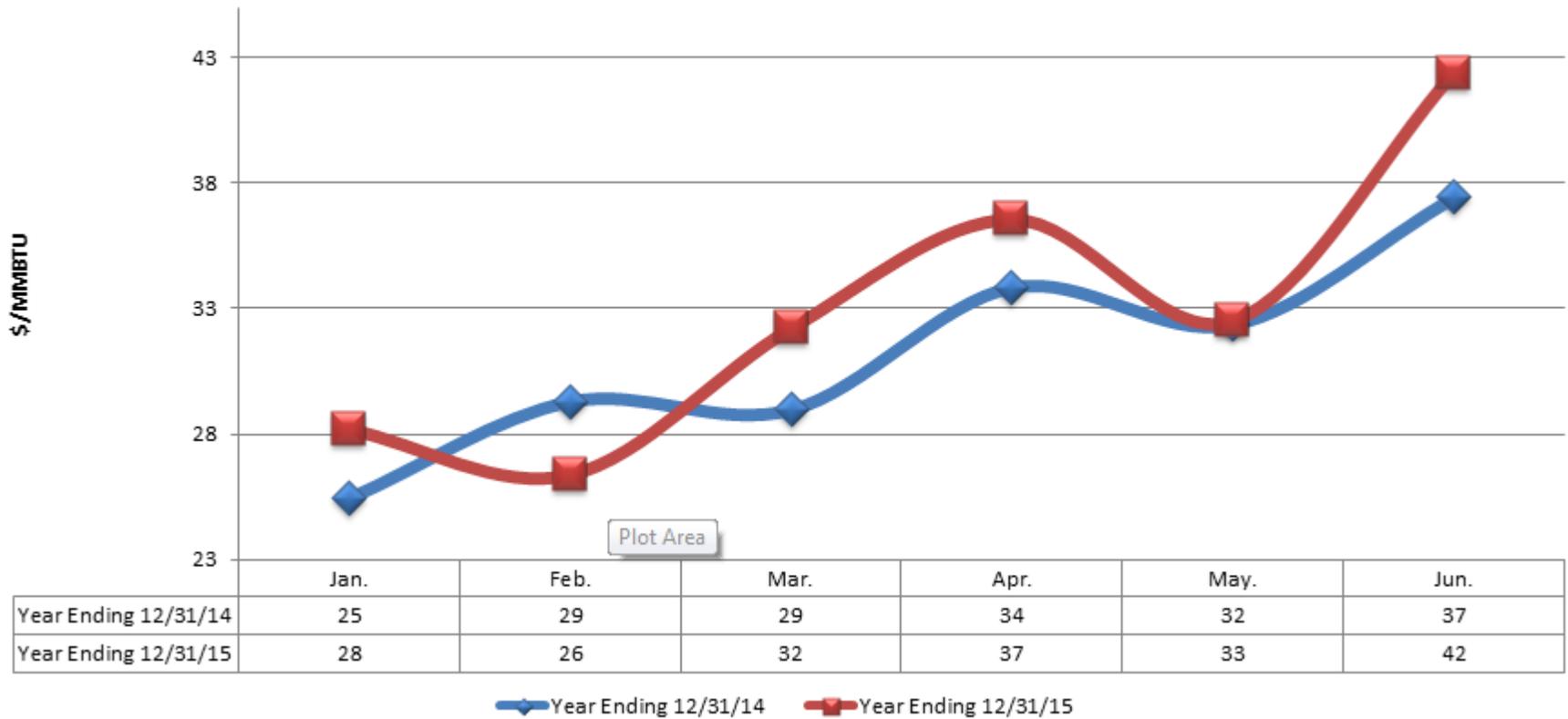
	Jan	Feb	Mar	Apr	May	Jun
Difference	2,230,773	(3,085,582)	2,014,170	179,458	2,534,334	1,763,177
Year Ending 12/31/14	16,411,520	12,061,625	11,525,455	7,840,249	9,409,306	7,015,641
Year Ending 12/31/15	14,180,747	15,147,206	9,511,285	7,660,791	6,874,972	5,252,464

Total Energy \$ for Rock Hill Schools



	Jan	Feb	Mar	Apr	May	Jun
Difference	\$17,695	\$(51,363)	\$27,512	\$(14,105)	\$20,746	\$24,179
Year Ending 12/31/14	\$417,361	\$353,229	\$333,759	\$265,255	\$304,403	\$262,518
Year Ending 12/31/15	\$399,666	\$404,591	\$306,247	\$279,360	\$283,657	\$238,340

Combined Energy Cost/Unit for Rock Hill Schools



Rock Hill Schools Energy Management Department
 Energy Savings and Avoidance Report
 January 1, 2015 through June 30, 2015

Section 1

<i>Actual Use and Cost for Base Period (1/2009 through 6/2009)</i>				
<u>Energy Type</u>	<u>Base Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	<u>Energy Cost</u>
Electric	17,180,855	kWh	0.1043	\$1,792,325
Natural Gas	192,152	Therm	1.2626	\$242,618
Total Energy:	77,853,458	kBtu	Total Cost	\$2,034,943

Section 2

<i>Actual Use and Cost With Energy Management Program (1/2015 through 6/2015)</i>				
<u>Energy Type</u>	<u>Current Use Recorded</u>	<u>Units</u>	<u>Avg Unit Cost</u>	
Electric	12,422,408	kWh	0.1406	\$1,746,447
Natural Gas	162,298	Therm	1.0192	\$165,413
Total Energy:	58,627,479	kBtu	Total Cost	\$1,911,860

Section 3

<i>Energy Saved 2014 Compared to Base Period</i>				
<u>Energy Type</u>	<u>Base - Current</u>	<u>Units</u>	<u>Percent Saved</u>	<u>Savings</u>
Electricity	4,758,447	kWh	28%	\$45,878
Natural Gas	29,854	Therm	16%	\$77,205
Total Energy Saved:	19,225,980	kBtu	Gross Savings:	\$123,083
Percent Saved:	25%			6%

Section 4

<u>Cost Avoidance - Without Our Energy Program:</u>	
Rates: Base period consumption at current period rates would be an additional:	\$576,327
"Load Creep": Additional equipment, operating hours and efficiency lost due to age would cost:	\$48,309
Adjustments for weather, bill period differences & other deviations.	\$373,242
Total Cost Avoidance:	\$1,120,960
Adjusted Savings:	38%



Utilities Budget Update

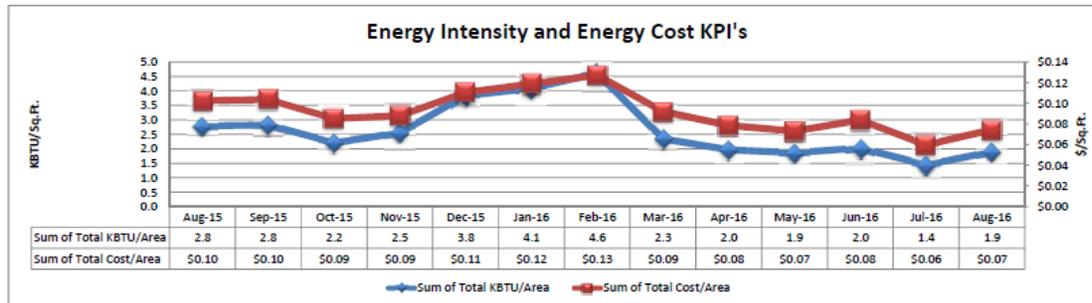
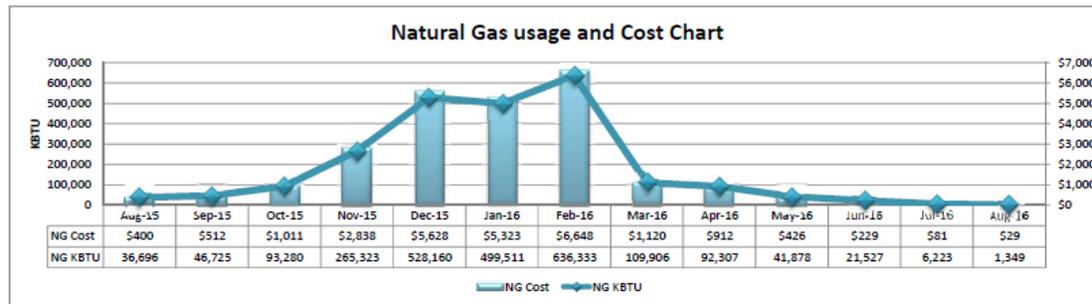
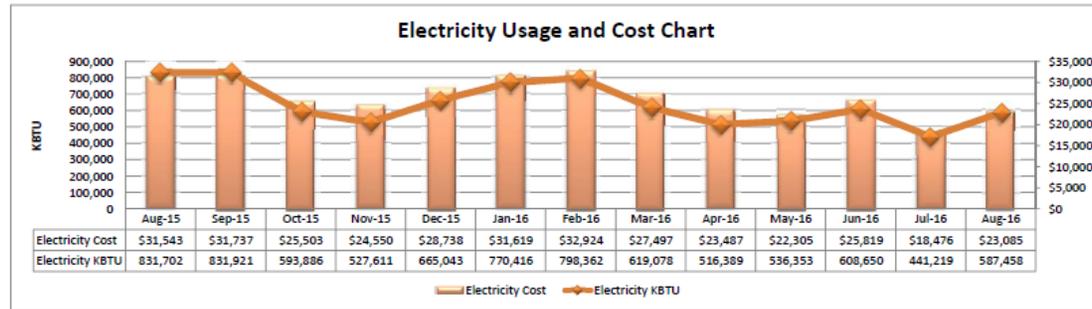
<u>Budget</u>	<u>YTD</u>	<u>Balance</u>	<u>% Complete</u>
\$3,700,000	\$759,481	\$2,940,519	21%

2015-2016 Goals

- New energy conservation initiative.
 - Challenge schools to improve - purpose
 - Provide monthly energy reporting - tool
 - Provide energy dashboards – tool

Rock Hill School District
 Utilities Budget Report
 Report Period: 7/1/2015 through 10/30/2015
 Date: 11/18/2015
 By: Kim Melander

<u>ACCOUNT</u>	<u>School</u>	<u>Budget</u>	<u>YTD</u> <u>Expenditure</u>	<u>BALANCE</u>	<u>PCT Cmpl.</u>
100-254-0321-000-002	BES	\$87,249	\$14,821	\$72,428	17%
100-254-0321-000-004	CHMS	\$184,135	\$58,155	\$125,980	32%
100-254-0321-000-005	CCD	\$48,039	\$7,294	\$40,745	15%
100-254-0321-000-006	EZES	\$62,243	\$14,321	\$47,922	23%
100-254-0321-000-007	DCMS	\$218,339	\$59,679	\$158,660	27%



PX:Connect



10:07 AM

Current Conditions
58.0 °F
Overcast

OA Humidity 84.0 %
OA WB Temp 55.2 °F
Barometric Press 30.2 in Hg
Wind Direction Variable
Wind Speed 3.5 mph

Today Forecast
68.0 °F/64.0 °F
Rain
Precip: 81 %

Tomorrow Forecast
73.0 °F/44.0 °F
Thunderstorms
Precip: 23 %

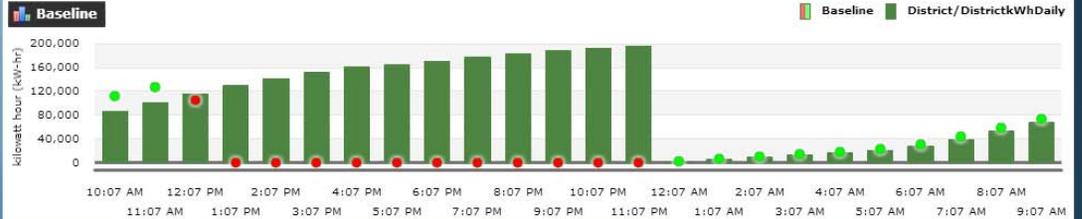


PX:Connect

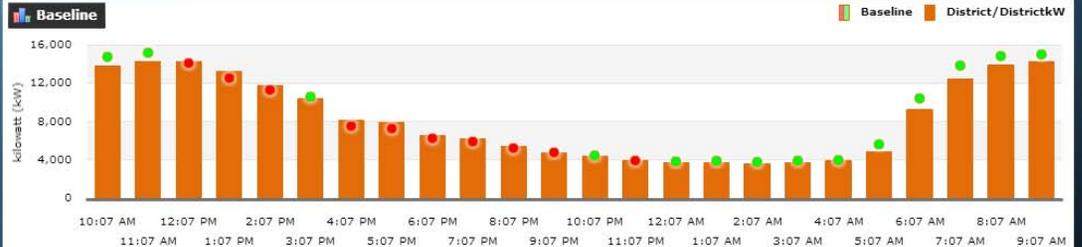
10:00 EST
11/18/15
15:00 UTC
11/18/15
6 / 6
Max reflectivity 38 dbZ
Vol. cov. pattern 21
5 dBZ
LIGHT
10
15
20
25
MODERATE
30
35
40
45
HEAVY
50
55
60
65
EXTREME
70
75



Baseline Comparison



Baseline Comparison



2015-2016 Goals

- Academic collaboration – Kiosk energy dashboard.
- Energy Star labels for remaining buildings.
- Efficiency upgrade projects
 - Control system upgrades and enhancements – ongoing.
 - Lighting upgrades – replace blown bulbs with LED
 - Energy and sustainability integrated into Capital improvement projects.

Questions?

Thank you for your support!

Have a safe and happy
Thanksgiving Holiday!