

Joseph G. Joyner, Ed.D.  
Superintendent



## MEMORANDUM

**TO:** Members of the School Board

**FROM:** Joseph G. Joyner, Ed.D., Superintendent of Schools

**SUBJECT:** Request for Acceptance of Quarterly Report on Status of Energy Program

**DATE:** March 12, 2013

**Background Information:** The School District entered into an agreement with Cenergistic - The Energy Conservation Company (previously known as Energy Education, Inc. (EEI)) on July 1, 2008. The Facilities Department then began the development of the Energy Conservation Program (ECP) for the District. The ECP was established following the hiring of an energy manager and initial training by Cenergistic and has included onsite training and assessments, Cenergistic specialists training, and monitoring of energy consumption by each site's Maintenance Manager. The training period ended December 2008 with performance evaluations beginning in January 2009. Quarterly Energy Program Status Reports have been presented to the School Board since April 2009.

The March 2013 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period October 2012 – December 2012. The report shows data on energy consumption of the District during this period. Also provided is data for each district facility. The information is presented to show actual energy consumed and cost avoidance to the District as a result of the energy conservation strategies.

**Strategic Plan Impact:** Supports the District's Mission by providing appropriate facilities to help inspire in all students good character and a passion for lifelong learning, creating educated and caring contributors to the world.

**Educational Impact:** The program is intended to reduce operational costs related to utilities, therefore increasing dollars available for other District related operational expenses.

**Fiscal Impact:** During the quarterly period October 2012 – December 2012 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,615,113.50. The current rate of energy savings significantly exceeds the projected performance of the program.

**Recommendation:** Acceptance of the Energy Conservation Program Quarterly Status Report.

**Action Required:** Approval of the Superintendent's recommendation.

**Drafted and submitted for approval by:** Al Crutchfield, Energy Manager

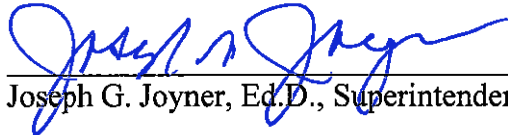
**Reviewed and submitted for approval by:** Paul Rose, Executive Director for Facilities & New Construction.

Respectfully Submitted,



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Tim Forson, Deputy Superintendent for Operations



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Joseph G. Joyner, Ed.D., Superintendent of Schools

## QUARTERLY ENERGY REPORT October 2012 – December 2012

### EXECUTIVE SUMMARY

The March 2013 Energy Program Status Report summarizes the performance results of the Energy Conservation Program during the quarterly period October 2012 – December 2012 and is comprised of the following:

- Cost Avoidance Summary by Site (October 2012 – December 2012): The District realized a total cost avoidance for this quarterly period of \$1,615,113.50 (or a 54.9% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO<sup>2</sup> by 7,065 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2012 – December 2012): This reflects the monthly summary of total cost avoidance for the period January 2012 – December 2012.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2012 – December 2012.
- Total cost avoidance for the district from program inception (July 2008 – December 2012): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$19,684,702.64.

During the period of October 2012 – December 2012 there were 50 energy audits performed at District facilities. The results of these audits demonstrate continued efforts by employees to reduce energy use.

Our district continues to show a high regard in reducing the overall energy consumption. This is evident in the everyday strategies being used at our sites. 96% of our schools have qualified to receive the Energy Star Award for 2012.

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Buildings

Sorted by Building

Building Code & Name	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
ADM - Administrative Complex	\$21,831.42	\$11,822.03	\$10,009.39	45.85%
BTH - Bartram High School	\$264,106.70	\$80,050.73	\$184,055.97	69.69%
CBS - CROOKSHANK BUS GARAGE	\$5,208.67	\$4,096.94	\$1,111.73	21.34%
CCS - Cunningham Creek Elementary School	\$55,779.29	\$29,574.28	\$26,205.01	46.98%
CES - Crookshank Elementary School	\$28,349.46	\$19,427.07	\$8,922.39	31.47%
CHS - Creekside High School	\$158,982.92	\$95,294.09	\$63,688.83	40.06%
CRR - CLINIC - RAY ROAD	\$1,643.80	\$1,173.60	\$470.20	28.60%
CSR - CLINIC-SR206	\$1,659.53	\$1,132.33	\$527.20	31.77%
DCE - Durbin Creek Elementary	\$244,531.12	\$54,129.40	\$190,401.72	77.86%
FCS - Fruit Cove Middle School	\$64,395.79	\$38,561.05	\$25,834.74	40.12%
GAS - Gaines Alternative School	\$12,990.39	\$6,392.62	\$6,597.77	50.79%
GRM - Gamble Rogers Middle School	\$59,721.29	\$26,842.05	\$32,879.24	55.05%
HCE - Hickory Creek Elementary School	\$132,418.24	\$42,688.44	\$89,729.80	67.76%
JCE - Julington Creek Elementary School	\$76,343.17	\$45,273.92	\$31,069.25	40.70%
KES - Ketterlinus Elementary School	\$26,728.74	\$14,620.45	\$12,108.29	45.30%
LMS - Alice B. Landrum Middle School	\$84,462.45	\$45,004.50	\$39,457.95	46.72%
LPA - Liberty Pines Academy k-8	\$144,364.31	\$58,835.20	\$85,529.11	59.25%
MCE - Mill Creek Elementary School	\$60,758.46	\$32,556.79	\$28,201.67	46.42%
MES - Otis Mason Elementary School	\$28,223.77	\$16,074.13	\$12,149.64	43.05%
MIT - FULLERWOOD	\$9,664.42	\$5,478.52	\$4,185.90	43.31%
MMS - RJ Murray Middle School	\$62,504.44	\$31,340.86	\$31,163.58	49.86%
MNT - Maintenance-Purchasing	\$3,737.53	\$2,212.77	\$1,524.76	40.80%
NHS - Allen D. Nease High School	\$114,752.90	\$40,862.85	\$73,890.05	64.39%
OCC - OCONNELL CENTER	\$2,027.77	\$1,509.97	\$517.80	25.54%
OES - Osceola Elementary School	\$56,872.12	\$23,980.98	\$32,891.14	57.83%
OPE - Ocean Palms Elementary School	\$67,282.01	\$32,710.58	\$34,571.43	51.38%
PBM - Pacetti Bay Middle School	\$97,407.35	\$42,955.51	\$54,451.84	55.90%
PMH - Pedro Menendez High School	\$180,691.72	\$77,618.01	\$103,073.71	57.04%
PVH - Ponte Vedra High School	\$136,175.16	\$87,406.56	\$48,768.60	35.81%
PVP - PV-PV Elementary School	\$36,770.56	\$23,108.10	\$13,662.46	37.16%
RBH - RB Hunt Elementary School	\$35,239.30	\$19,044.27	\$16,195.03	45.96%
RES - Rawlings Elementary School	\$37,285.13	\$23,938.31	\$13,346.82	35.80%
SAH - ST Augustine High School	\$90,456.85	\$50,325.23	\$40,131.62	44.37%
SJT - ST Johns Technical High School	\$20,959.34	\$8,587.78	\$12,371.56	59.03%
SMS - Sebastian Middle School	\$46,935.43	\$26,898.92	\$20,036.51	42.69%
SPM - Switzerland Point Middle School	\$60,720.34	\$34,907.33	\$25,813.01	42.51%
SWE - South Woods Elementary School	\$86,110.22	\$35,857.21	\$50,253.01	58.36%
TCE - Timberlin Creek Elementary School	\$143,014.54	\$48,213.51	\$94,801.03	66.29%
WCE - Wards Creek Elementary School	\$96,135.53	\$46,071.79	\$50,063.74	52.08%
WDH - WD Hartley Elementary School	\$44,750.08	\$22,097.57	\$22,652.51	50.62%
WSE - Webster School Elementary	\$39,776.47	\$17,978.97	\$21,797.50	54.80%

Filters: Billing Periods In Range From 201210 To 201212

**St Johns County School District**

Energy CAP

Cost Avoidance Program

**Cost Avoidance Summary - Buildings**

Sorted by Building

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**Cost Avoidance Summary - Buildings**

Sorted by Building

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<b>Building Code &amp; Name</b>	<b>Cost Without CAP</b>	<b>Actual Cost</b>	<b>Cost Avoidance \$</b>	<b>Cost Avoidance %</b>
<b>Totals:</b>	<b>\$2,941,768.72</b>	<b>\$1,326,655.22</b>	<b>\$1,615,113.50</b>	<b>54.90%</b>

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*Filters: Billing Periods In Range From 201210 To 201212*



# St Johns County School District

Energy CAP

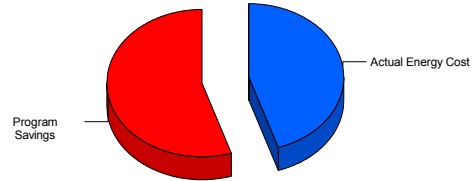
Cost Avoidance Program

## Energy Conservation Program

December 2012

### Cumulative Cost Savings

Expected Energy Costs	\$2,941,769
Actual Energy Cost	\$1,326,653
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Program Savings	\$1,615,116
Savings Percent	54.90%
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Special Savings	\$596
Total Savings	\$1,615,712



Expected Energy Costs	Actual Energy Costs	Program Savings
Amount you would have spent on energy without energy management program.	Actual utility costs for electricity, gas, water, sewer, etc obtained directly from bills.	The difference between Expected and Actual Costs, calculated in accordance with the International Performance Measurement & Verification Protocol. Does not include savings attributable to reduced equipment maintenance and replacement costs and other collateral benefits. These savings can increase the program savings up to 20%.
This is the base year usage adjusted for changes in weather, equipment, schedules, occupancy and prices		
Special Savings		
Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.		

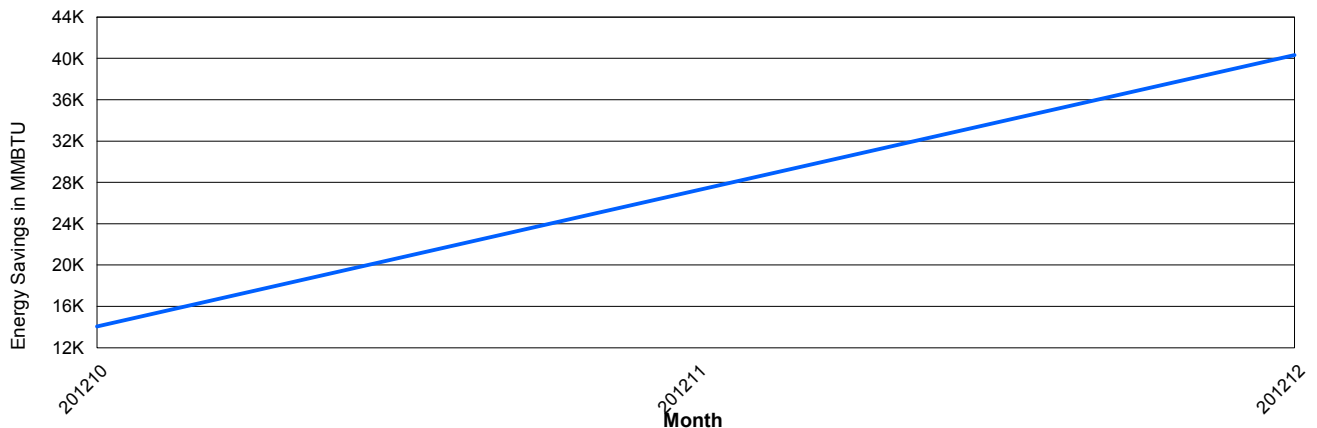
### Cumulative Greenhouse Gas Reduction

**Energy Reduction Impact:** 40,313 MMBTU 7,065 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,268
Tree seedlings grown for 10 years:	180,718

### Cumulative Energy Savings



# St Johns County School District

Energy CAP

Cost Avoidance Program

## Overall Program Summary

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### Monthly Summary

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	2012			
	Cost Avoid \$	Cost Avoid %	Spl Savings \$	Total \$
Jan	404,305	46.3	23	404,328
Feb	404,986	45.0	23	405,009
Mar	394,874	47.0	5,511	400,385
Apr	306,630	38.5	23	306,653
May	340,808	41.4	23	340,831
Jun	529,690	59.7	23	529,713
Jul	605,659	62.0	23	605,682
Aug	466,383	45.9	743	467,126
Sep	444,982	44.3	1,116	446,098
Oct	509,228	50.6	23	509,251
Nov	521,829	54.4	23	521,852
Dec	584,059	59.9	549	584,608
Total	5,513,433	49.9	8,106	5,521,539

*Filters: Savings Periods In Range From 201201 To 201212*



# St Johns County School District

Energy CAP

Cost Avoidance Program

## Overall Program Summary

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### Energy Summary

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	Use				Cost		
	w/o CAP	Actual	Avoid	Avoid %	w/o CAP	Actual	Avoid
Electricity	85,267,065	42,450,660	42,816,405	50.2	10,176,694	4,958,009	5,218,685
Water	0	0	0	0.0	0	0	0
Water & Sewe	59,277	39,982	19,295	32.6	808,614	531,580	277,034
Irrigation	15,834	12,364	3,470	21.9	73,275	55,561	17,714
Total					11,058,583	5,545,150	5,513,433

*Filters: Savings Periods In Range From 201201 To 201212*

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Cost		
Avoid %	Spl Savings	Total Savings
51.3	7,553	5,226,238
0.0	0	0
34.3	552	277,586
24.2	0	17,714
49.9	8,106	5,521,539

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

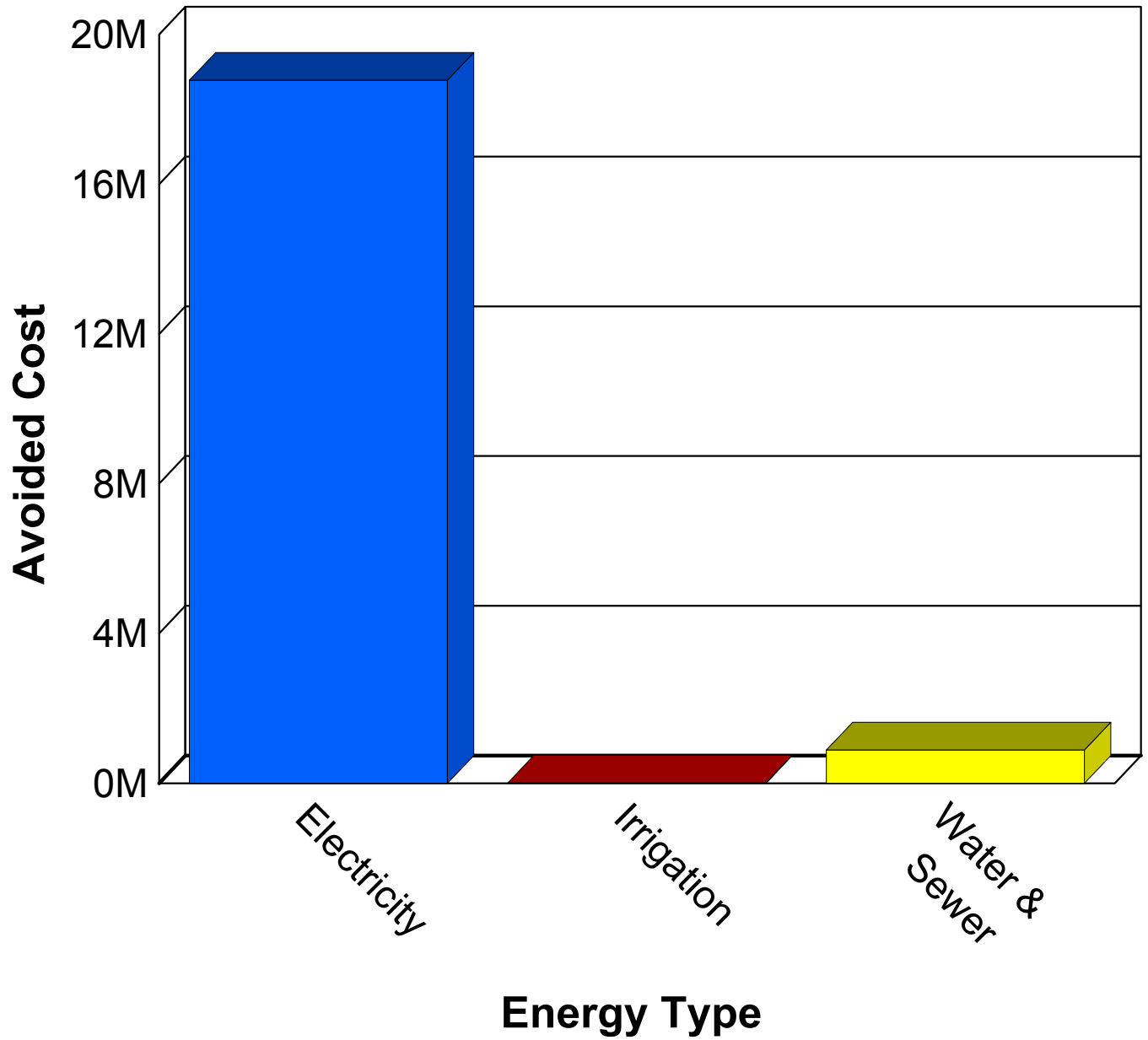
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$42,283,409.33	\$23,502,984.19	\$18,780,425.14	44.42%
Irrigation	\$190,917.38	\$175,209.76	\$15,707.62	8.23%
Water & Sewer	\$2,994,004.77	\$2,105,434.88	\$888,569.89	29.68%
<b>Totals:</b>	<b>\$45,468,331.47</b>	<b>\$25,783,628.83</b>	<b>\$19,684,702.64</b>	<b>43.29%</b>

*Filters: Billing Periods In Range From 200807 To 201212*

# Cost Avoidance Summary - Energy Types

Sorted by Energy Type

Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
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Filters: Billing Periods In Range From 200807 To 201212