



## 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:** April 10, 2012

**Background Information:** The School District entered into an agreement with 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 EEI and has included onsite training and assessments, EEI 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 April 2012 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the period November 2011 – December 2011. 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.

Note that this Quarterly Energy Program Report includes only two months (November and December). This is done to get our quarterly energy reporting on a more traditional schedule (January-March; April-June; July-September; and October-December). This revised quarterly schedule will also aid in the evaluation of our energy program on a fiscal and calendar year basis.

**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.

**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 period November 2011 – December 2011 the Energy Savings Program has resulted in cost avoidance for the School District of \$977,104.96. The current rate of energy savings significantly exceeds the projected performance of the program.

**Recommendation:** Acceptance of the Energy Conservation Program Status Quarterly 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 November 2011 – December 2011

### EXECUTIVE SUMMARY

The December 2011 Energy Program Status Report summarizes the performance results of the Energy Conservation Program during the period November 2011 – December 2011 and is comprised of the following:

- Cost Avoidance Summary by Site - November 2011 – December 2011: The District realized cost avoidance for this period of \$977,104.96 or 52.23%.
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this period reduced CO<sup>2</sup> by 4,267 metric tons.
- Monthly Summary for cost avoidance (Year to date) for January 2011 – December 2011: This reflects the monthly summary of cost avoidance for the period January 2011 – December 2011.
- Energy Consumption Summary (Year to date): Summary for electricity, water & sewer, and irrigation for January 2011 - December 2011.
- Cost avoidance for the district - July 2008 - December 2011: This reflects the total cost avoidance since the implementation of the program in the amount of \$14,257,856.20.

During the period of November 2011 - December 2011 there were 24 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. 100% of our schools have qualified to receive the Energy Star Award for 2011.

Note that this Quarterly Energy Program Report includes only two months (November and December). This is done to get our quarterly energy reporting on a more traditional schedule (January-March; April-June; July-September; and October-December). This revised quarterly schedule will also aid in the evaluation of our energy program on a fiscal and calendar year basis.

# 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	\$15,820.43	\$10,226.04	\$5,594.39	35.36%
BTH - Bartram High School	\$164,374.17	\$58,516.77	\$105,857.40	64.40%
CBS - CROOKSHANK BUS GARAGE	\$3,762.90	\$3,006.93	\$755.97	20.09%
CCS - Cunningham Creek Elementary School	\$36,880.51	\$21,503.46	\$15,377.05	41.69%
CES - Crookshank Elementary School	\$21,886.55	\$12,873.93	\$9,012.62	41.18%
CHS - Creekside High School	\$109,688.11	\$57,399.59	\$52,288.52	47.67%
CRR - CLINIC - RAY ROAD	\$1,078.71	\$795.27	\$283.44	26.28%
CSR - CLINIC-SR206	\$1,308.05	\$780.22	\$527.83	40.35%
DCE - Durbin Creek Elementary	\$133,133.65	\$45,889.69	\$87,243.96	65.53%
FCS - Fruit Cove Middle School	\$41,419.55	\$28,010.12	\$13,409.43	32.37%
GAS - Gaines Alternative School	\$8,922.67	\$4,668.41	\$4,254.26	47.68%
GRM - Gamble Rogers Middle School	\$38,732.80	\$18,832.09	\$19,900.71	51.38%
HCE - Hickory Creek Elementary School	\$90,420.19	\$22,870.62	\$67,549.57	74.71%
JCE - Julington Creek Elementary School	\$54,556.95	\$38,235.38	\$16,321.57	29.92%
KES - Ketterlinus Elementary School	\$16,333.89	\$8,300.44	\$8,033.45	49.18%
LMS - Alice B. Landrum Middle School	\$53,452.44	\$28,612.44	\$24,840.00	46.47%
LPA - Liberty Pines Academy k-8	\$98,312.34	\$45,879.02	\$52,433.32	53.33%
MCE - Mill Creek Elementary School	\$42,475.90	\$25,939.94	\$16,535.96	38.93%
MES - Otis Mason Elementary School	\$17,266.79	\$11,127.20	\$6,139.59	35.56%
MIT - FULLERWOOD	\$7,778.26	\$4,208.75	\$3,569.51	45.89%
MMS - RJ Murray Middle School	\$40,949.67	\$16,189.02	\$24,760.65	60.47%
MNT - Maintenance-Purchasing	\$2,557.92	\$1,393.63	\$1,164.29	45.52%
NHS - Allen D. Nease High School	\$59,709.01	\$32,539.68	\$27,169.33	45.50%
OCC - OCONNELL CENTER	\$2,013.49	\$1,051.58	\$961.91	47.77%
OES - Osceola Elementary School	\$40,282.21	\$16,438.35	\$23,843.86	59.19%
OPE - Ocean Palms Elementary School	\$43,324.90	\$18,521.73	\$24,803.17	57.25%
PBM - Pacetti Bay Middle School	\$65,534.41	\$23,822.36	\$41,712.05	63.65%
PMH - Pedro Menendez High School	\$106,189.76	\$49,261.44	\$56,928.32	53.61%
PVH - Ponte Vedra High School	\$81,010.36	\$55,927.24	\$25,083.12	30.96%
PVP - PV-PV Elementary School	\$21,987.63	\$12,302.90	\$9,684.73	44.05%
RBH - RB Hunt Elementary School	\$20,833.57	\$10,885.08	\$9,948.49	47.75%
RES - Rawlings Elementary School	\$22,590.82	\$14,733.86	\$7,856.96	34.78%
SAH - ST Augustine High School	\$56,613.44	\$38,647.61	\$17,965.83	31.73%
SJT - ST Johns Technical High School	\$12,163.72	\$6,592.73	\$5,570.99	45.80%
SMS - Sebastian Middle School	\$27,521.47	\$17,206.50	\$10,314.97	37.48%
SPM - Switzerland Point Middle School	\$38,846.01	\$21,167.11	\$17,678.90	45.51%
SWE - South Woods Elementary School	\$55,409.48	\$21,570.96	\$33,838.52	61.07%
TCE - Timberlin Creek Elementary School	\$96,388.83	\$33,232.52	\$63,156.31	65.52%
WCE - Wards Creek Elementary School	\$65,842.31	\$27,211.98	\$38,630.33	58.67%
WDH - WD Hartley Elementary School	\$25,411.74	\$11,469.54	\$13,942.20	54.87%
WSE - Webster School Elementary	\$28,158.62	\$15,997.14	\$12,161.48	43.19%

Filters: Billing Periods In Range From 201111 To 201112

**St Johns County School District**

Energy CAP

Cost Avoidance Program

**Cost Avoidance Summary - Buildings**

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Sorted by Building

**Cost Avoidance Summary - Buildings**

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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>\$1,870,944.23</b>	<b>\$893,839.27</b>	<b>\$977,104.96</b>	<b>52.23%</b>

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*Filters: Billing Periods In Range From 201111 To 201112*



# St Johns County School District

Energy CAP

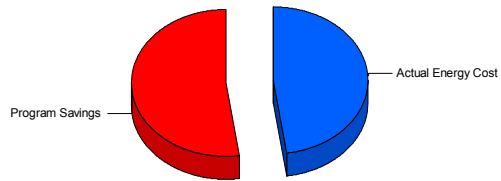
Cost Avoidance Program

## Energy Conservation Program

December 2011

### Cumulative Cost Savings

Expected Energy Costs	\$1,870,944
Actual Energy Cost	\$893,839
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Program Savings	\$977,105
Savings Percent	52.23%
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Special Savings	\$47
Total Savings	\$977,152



#### Expected Energy Costs

Amount you would have spent on energy without energy management program.

This is the base year usage adjusted for changes in weather, equipment, schedules, occupancy and prices

#### Actual Energy Costs

Actual utility costs for electricity, gas, water, sewer, etc obtained directly from bills.

#### Program Savings

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%.

#### Special Savings

Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.

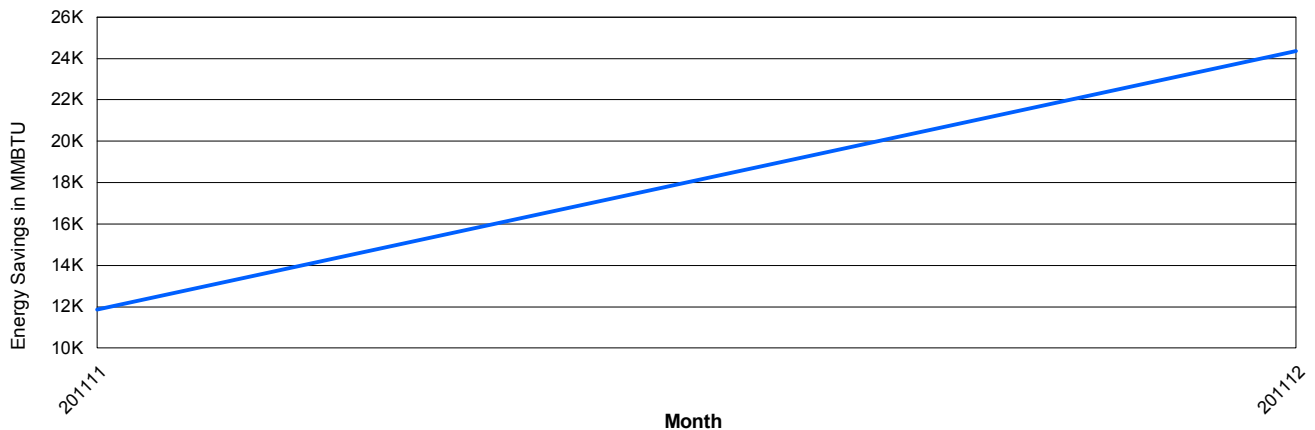
### Cumulative Greenhouse Gas Reduction

**Energy Reduction Impact:** 24,347 MMBTU 4,267 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	766
Tree seedlings grown for 10 years:	109,149

### 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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	2011			
	Cost Avoid \$	Cost Avoid %	Spl Savings \$	Total \$
Jan	435,807	46.4	4,584	440,391
Feb	356,286	43.2	304	356,590
Mar	399,836	46.9	0	399,836
Apr	275,458	34.4	3,785	279,243
May	274,525	34.2	23	274,548
Jun	429,193	51.0	1,363	430,556
Jul	523,634	56.7	288	523,922
Aug	429,375	40.6	23	429,398
Sep	437,377	42.5	23	437,400
Oct	453,624	47.3	260	453,884
Nov	448,850	48.9	23	448,873
Dec	528,255	55.4	23	528,278
Total	4,992,220	45.8	10,700	5,002,920

*Filters: Savings Periods In Range From 201101 To 201112*



# St Johns County School District

Energy CAP

Cost Avoidance Program

## Overall Program Summary

### Energy Summary

	Use				Cost					
	w/o CAP	Actual	Avoid	Avoid %	w/o CAP	Actual	Avoid	Avoid %	Spl Savings	Total Savings
Electricity	85,236,983	45,554,833	39,682,150	46.6	10,090,885	5,324,620	4,766,265	47.2	5,550	4,771,815
Water & Sewe	59,407	41,554	17,853	30.1	754,081	527,162	226,919	30.1	5,150	232,069
Irrigation	15,709	16,017	-308	-2.0	55,463	56,427	-964	-1.7	0	-964
<b>Total</b>					<b>10,900,429</b>	<b>5,908,209</b>	<b>4,992,220</b>	<b>45.8</b>	<b>10,700</b>	<b>5,002,920</b>

*Filters: Savings Periods In Range From 201101 To 201112*

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

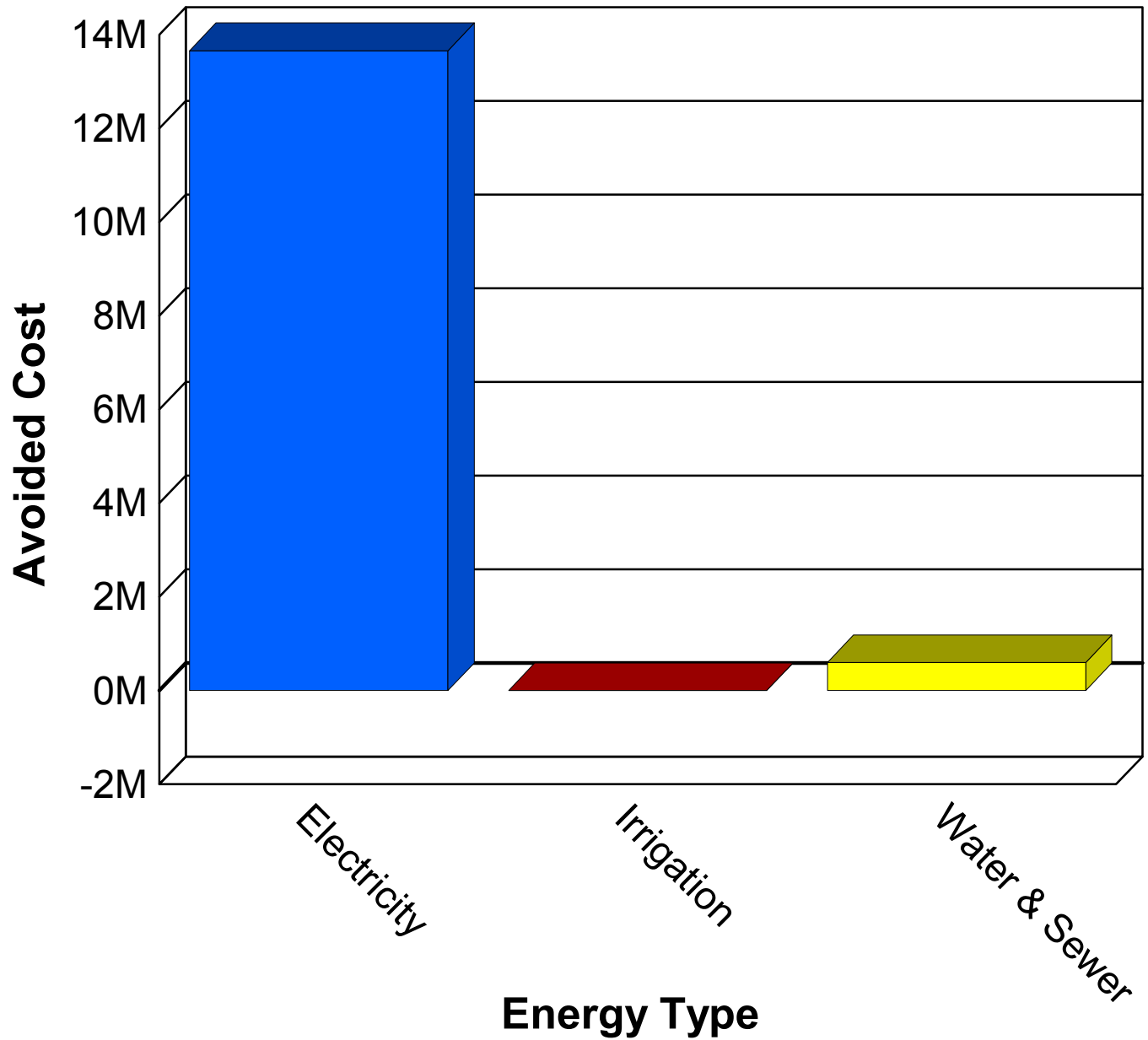
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$32,192,516.17	\$18,532,877.37	\$13,659,638.80	42.43%
Irrigation	\$117,642.76	\$119,647.04	(\$2,004.28)	(1.70%)
Water & Sewer	\$2,173,341.91	\$1,573,120.23	\$600,221.68	27.62%
<b>Totals:</b>	<b>\$34,483,500.84</b>	<b>\$20,225,644.64</b>	<b>\$14,257,856.20</b>	<b>41.35%</b>

*Filters: Billing Periods In Range From 200807 To 201112*

# 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 201112