



## MEMORANDUM

**TO:** Members of the School Board

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

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

**DATE:** July 12, 2011

**Background Information:** The School District entered into an agreement with Energy Education, Inc. (EEI) on July 1, 2008. The Facilities and Operations 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 the Maintenance Manager at each of the sites. 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 July 2011 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the period February 2011 – April 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.

**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 school related expenses.

**Fiscal Impact:** During the period February 2011 – April 2011, the Energy Savings Program has resulted in cost avoidance for the School District of \$1,023,115.72. The current rate of energy savings significantly exceeds the projected performance of the program.

**Recommendation:** Acceptance of the Energy Conservation Program 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 and 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**  
**January 2011 – April 2011**

**EXECUTIVE SUMMARY**

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

- Cost Avoidance Summary by Site February 2011 – April 2011: The District realized cost avoidance for this period of \$1,023,115.72 or 41.53%.
- Cumulative Cost Savings: Our cost avoidance for this period reduced CO<sup>2</sup> by 4,750 metric tons.
- Overall Program Summary for cost avoidance: February 2011 – April 2011.
- Energy Consumption Summary: Summary for electricity, water & sewer, and irrigation for January 2011 – April 2011
- Monthly Summary for cost avoidance for February 2011 –April 2011: This reflects the monthly summary of cost avoidance for the period February 2011 – April 2011.
- Energy Consumption Summary: Summary for electricity, water & sewer, and irrigation for January – April 2011.
- Cost avoidance for the district July 2008 – April 2011: This reflects the total cost avoidance since the implementation of the program in the amount of \$10,718,344.21.

During the period of February 2011 – April 2011 there were 94 energy audits performed at District facilities. 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. At least 90% of our schools are on track to receive the Energy Star Award for 2011.

# 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	\$23,525.18	\$15,290.15	\$8,235.03	35.01%
BTH - Bartram High School	\$203,161.90	\$91,688.00	\$111,473.90	54.87%
CBS - CROOKSHANK BUS GARAGE	\$5,990.97	\$4,686.47	\$1,304.50	21.77%
CCS - Cunningham Creek Elementary School	\$55,881.95	\$33,040.48	\$22,841.47	40.87%
CES - Crookshank Elementary School	\$28,346.83	\$20,023.73	\$8,323.10	29.36%
CHS - Creekside High School	\$111,932.02	\$84,048.06	\$27,883.96	24.91%
DCE - Durbin Creek Elementary	\$134,100.09	\$54,633.90	\$79,466.19	59.26%
FCS - Fruit Cove Middle School	\$54,779.21	\$44,587.27	\$10,191.94	18.61%
GAS - Gaines Alternative School	\$13,981.30	\$7,935.63	\$6,045.67	43.24%
GRM - Gamble Rogers Middle School	\$58,518.00	\$32,876.91	\$25,641.09	43.82%
HCE - Hickory Creek Elementary School	\$61,657.22	\$41,224.94	\$20,432.28	33.14%
JCE - Julington Creek Elementary School	\$93,698.18	\$54,430.35	\$39,267.83	41.91%
KES - Ketterlinus Elementary School	\$25,302.86	\$14,892.63	\$10,410.23	41.14%
LMS - Alice B. Landrum Middle School	\$82,828.90	\$45,229.69	\$37,599.21	45.39%
LPA - Liberty Pines Academy k-8	\$94,163.34	\$59,720.07	\$34,443.27	36.58%
MCE - Mill Creek Elementary School	\$53,291.63	\$47,069.14	\$6,222.49	11.68%
MES - Otis Mason Elementary School	\$29,660.90	\$19,488.60	\$10,172.30	34.30%
MIT - FULLERWOOD	\$11,420.56	\$6,573.44	\$4,847.12	42.44%
MMS - RJ Murray Middle School	\$57,054.76	\$30,024.55	\$27,030.21	47.38%
MNT - Maintenance-Purchasing	\$3,097.24	\$2,247.66	\$849.58	27.43%
NHS - Allen D. Nease High School	\$104,757.99	\$61,163.93	\$43,594.06	41.61%
OCC - OCONNELL CENTER	\$1,989.28	\$1,628.06	\$361.22	18.16%
OES - Osceola Elementary School	\$56,612.65	\$23,623.42	\$32,989.23	58.27%
OPE - Ocean Palms Elementary School	\$61,961.04	\$32,949.39	\$29,011.65	46.82%
PBM - Pacetti Bay Middle School	\$86,622.65	\$44,525.73	\$42,096.92	48.60%
PMH - Pedro Menendez High School	\$139,707.42	\$87,786.48	\$51,920.94	37.16%
PVH - Ponte Vedra High School	\$105,023.64	\$83,770.26	\$21,253.38	20.24%
PVP - PV-PV Elementary School	\$36,296.30	\$21,819.12	\$14,477.18	39.89%
RBH - RB Hunt Elementary School	\$32,040.58	\$18,554.49	\$13,486.09	42.09%
RES - Rawlings Elementary School	\$39,481.13	\$27,267.12	\$12,214.01	30.94%
SAH - ST Augustine High School	\$85,864.95	\$62,757.39	\$23,107.56	26.91%
SJT - ST Johns Technical High School	\$12,094.13	\$11,104.68	\$989.45	8.18%
SMS - Sebastian Middle School	\$41,295.12	\$30,481.89	\$10,813.23	26.19%
SPM - Switzerland Point Middle School	\$72,485.86	\$35,554.96	\$36,930.90	50.95%
SWE - South Woods Elementary School	\$89,209.40	\$33,215.21	\$55,994.19	62.77%
TCE - Timberlin Creek Elementary School	\$105,344.47	\$56,346.15	\$48,998.32	46.51%
WCE - Wards Creek Elementary School	\$108,866.78	\$50,713.35	\$58,153.43	53.42%
WDH - WD Hartley Elementary School	\$46,563.85	\$25,200.18	\$21,363.67	45.88%
WSE - Webster School Elementary	\$34,845.05	\$22,166.14	\$12,678.91	36.39%
<b>Totals:</b>	<b>\$2,463,455.34</b>	<b>\$1,440,339.62</b>	<b>\$1,023,115.72</b>	<b>41.53%</b>

Filters: Billing Periods In Range From 201102 To 201104



**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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Building Code & Name	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
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*Filters: Billing Periods In Range From 201102 To 201104*

# St Johns County School District

Energy CAP

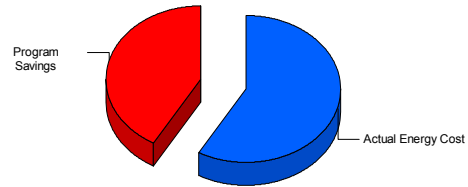
Cost Avoidance Program

## Energy Conservation Program

April 2011

### Cumulative Cost Savings

Expected Energy Costs	\$2,463,455
Actual Energy Cost	\$1,440,342
Program Savings	\$1,023,113
Savings Percent	41.53%
Special Savings	\$4,089
Total Savings	\$1,027,202



Expected Energy Costs	Actual Energy Costs	Program Savings
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 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%.
Special Savings	Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.	

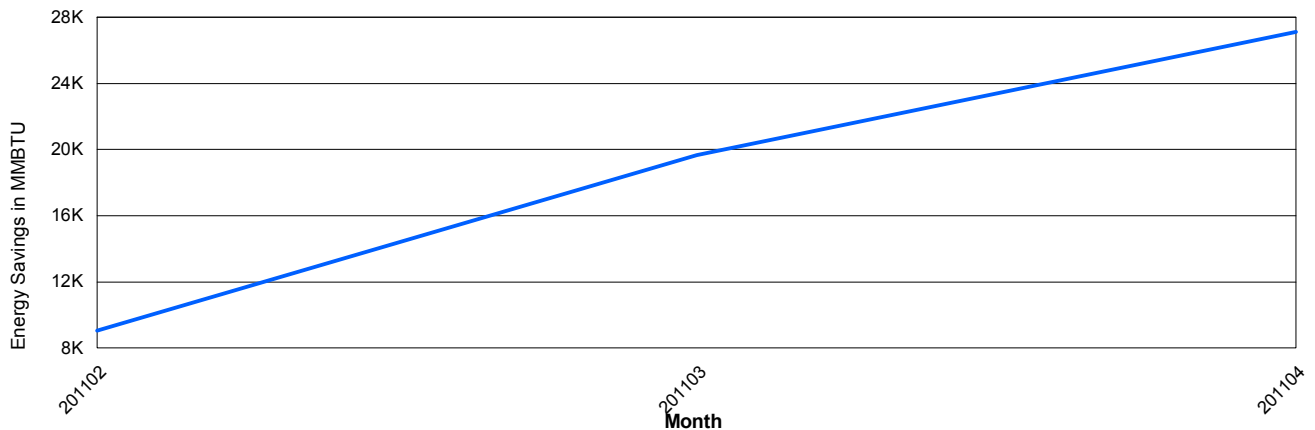
### Cumulative Greenhouse Gas Reduction

**Energy Reduction Impact:** 27,099 MMBTU 4,750 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	852
Tree seedlings grown for 10 years:	121,483

### 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 \$
Feb	354,396	43.1	304	354,700
Mar	398,724	47.0	0	398,724
Apr	269,993	34.0	3,785	273,778
Total	1,023,113	41.5	4,089	1,027,202

*Filters: Savings Periods In Range From 201102 To 201104*

# 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	18,680,993	10,741,141	7,939,852	42.5	2,258,795	1,295,302	963,493	42.7	3,400	966,893
Water & Sewe	15,298	10,862	4,436	29.0	192,552	133,169	59,383	30.8	689	60,072
Irrigation	3,221	3,370	-149	-4.6	12,108	11,871	237	2.0	0	237
<b>Total</b>					<b>2,463,455</b>	<b>1,440,342</b>	<b>1,023,113</b>	<b>41.5</b>	<b>4,089</b>	<b>1,027,202</b>

*Filters: Savings Periods In Range From 201102 To 201104*

# 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	424,813	45.7	4,584	429,397
Feb	354,396	43.1	304	354,700
Mar	398,724	47.0	0	398,724
Apr	269,993	34.0	3,785	273,778
Total	1,447,926	42.7	8,673	1,456,599

*Filters: Savings Periods In Range From 201101 To 201104*

# 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	25,614,162	14,434,435	11,179,727	43.6	3,126,825	1,752,629	1,374,196	43.9	4,862	1,379,058
Water & Sewe	20,250	14,736	5,514	27.2	252,464	179,293	73,171	29.0	3,811	76,982
Irrigation	3,712	3,371	341	9.2	13,048	12,489	559	4.3	0	559
Total					3,392,337	1,944,411	1,447,926	42.7	8,673	1,456,599

*Filters: Savings Periods In Range From 201101 To 201104*

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

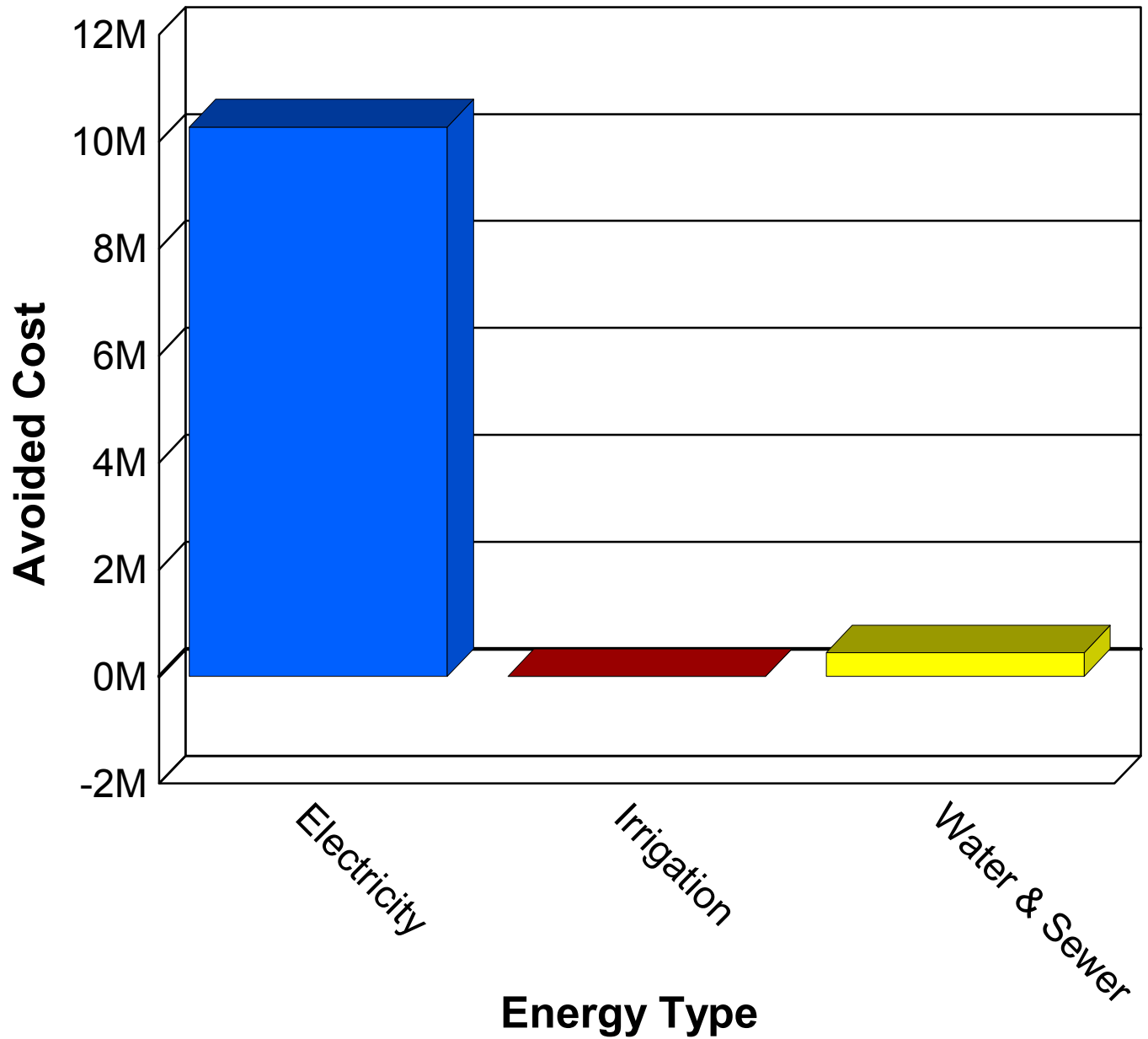
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$25,247,493.07	\$14,972,904.22	\$10,274,588.85	40.70%
Irrigation	\$75,228.44	\$75,708.99	(\$480.55)	(0.64%)
Water & Sewer	\$1,669,486.24	\$1,225,250.33	\$444,235.91	26.61%
<b>Totals:</b>	<b>\$26,992,207.75</b>	<b>\$16,273,863.54</b>	<b>\$10,718,344.21</b>	<b>39.71%</b>

*Filters: Billing Periods In Range From 200807 To 201104*

# 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 201104

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

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Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
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*Filters: Billing Periods In Range From 200807 To 201104*