



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: October 11, 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 October 2011 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the period May 2011 – July 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 May 2011 – July 2011, the Energy Savings Program has resulted in cost avoidance for the School District of \$1,210,572.32. 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,



Tim Forson, Deputy Superintendent for Operations

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

QUARTERLY ENERGY REPORT
May 2011 – July 2011

EXECUTIVE SUMMARY

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

- **Cost Avoidance Summary by Site May 2011 – July 2011:** The District realized cost avoidance for this period of \$1,210,572.32 or 47.58%.
- **Cost Avoidance Summary by Site June – July 2011:** This represents a cost avoidance of \$941,701.41 or 53.74% for the Summer Consolidation Program.
- **Greenhouse Gas Reduction:** Greenhouse Gas Reduction for this period reduced CO² by 5,948 metric tons.
- **Monthly Summary for cost avoidance for January 2011 – July 2011:** This reflects the monthly summary of cost avoidance for the period January 2011 – July 2011.
- **Energy Consumption Summary:** Summary for electricity, water & sewer, and irrigation for January – July 2011.
- **Cost avoidance for the district July 2008 – July 2011:** This reflects the total cost avoidance since the implementation of the program in the amount of \$11,896,624.41.

During the period of May 2011 – July 2011 there were 71 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. 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	\$31,520.88	\$17,155.82	\$14,365.06	45.57%
BTH - Bartram High School	\$223,474.46	\$76,513.77	\$146,960.69	65.76%
CBS - CROOKSHANK BUS GARAGE	\$7,638.12	\$5,134.87	\$2,503.25	32.77%
CCS - Cunningham Creek Elementary School	\$74,387.57	\$29,005.39	\$45,382.18	61.01%
CES - Crookshank Elementary School	\$40,857.45	\$18,079.29	\$22,778.16	55.75%
CHS - Creekside High School	\$134,207.29	\$81,283.64	\$52,923.65	39.43%
DCE - Durbin Creek Elementary	\$158,360.20	\$45,640.34	\$112,719.86	71.18%
FCS - Fruit Cove Middle School	\$65,469.37	\$52,973.40	\$12,495.97	19.09%
GAS - Gaines Alternative School	\$16,360.88	\$8,822.51	\$7,538.37	46.08%
GRM - Gamble Rogers Middle School	\$68,095.60	\$30,050.49	\$38,045.11	55.87%
HCE - Hickory Creek Elementary School	\$69,016.91	\$31,980.80	\$37,036.11	53.66%
JCE - Julington Creek Elementary School	\$76,034.24	\$46,183.99	\$29,850.25	39.26%
KES - Ketterlinus Elementary School	\$26,681.03	\$12,083.35	\$14,597.68	54.71%
LMS - Alice B. Landrum Middle School	\$97,635.90	\$45,816.21	\$51,819.69	53.07%
LPA - Liberty Pines Academy k-8	\$99,813.43	\$73,231.50	\$26,581.93	26.63%
MCE - Mill Creek Elementary School	\$62,259.49	\$35,658.53	\$26,600.96	42.73%
MES - Otis Mason Elementary School	\$40,330.25	\$18,255.72	\$22,074.53	54.73%
MIT - FULLERWOOD	\$11,293.60	\$9,050.65	\$2,242.95	19.86%
MMS - RJ Murray Middle School	\$73,662.40	\$31,974.82	\$41,687.58	56.59%
MNT - Maintenance-Purchasing	\$4,774.06	\$2,840.25	\$1,933.81	40.51%
NHS - Allen D. Nease High School	\$88,198.38	\$56,408.02	\$31,790.36	36.04%
OCC - OCONNELL CENTER	\$3,077.09	\$2,068.32	\$1,008.77	32.78%
OES - Osceola Elementary School	\$66,887.50	\$28,433.47	\$38,454.03	57.49%
OPE - Ocean Palms Elementary School	\$70,243.37	\$31,693.26	\$38,550.11	54.88%
PBM - Pacetti Bay Middle School	\$59,508.66	\$29,001.37	\$30,507.29	51.27%
PMH - Pedro Menendez High School	\$137,889.36	\$77,536.39	\$60,352.97	43.77%
PVH - Ponte Vedra High School	\$99,255.95	\$94,263.50	\$4,992.45	5.03%
PVP - PV-PV Elementary School	\$45,748.03	\$21,401.52	\$24,346.51	53.22%
RBH - RB Hunt Elementary School	\$46,272.67	\$17,726.36	\$28,546.31	61.69%
RES - Rawlings Elementary School	\$43,911.25	\$29,325.38	\$14,585.87	33.22%
SAH - ST Augustine High School	\$87,279.23	\$53,615.62	\$33,663.61	38.57%
SJT - ST Johns Technical High School	\$11,040.48	\$10,546.16	\$494.32	4.48%
SMS - Sebastian Middle School	\$44,620.90	\$25,820.56	\$18,800.34	42.13%
SPM - Switzerland Point Middle School	\$49,563.30	\$31,463.11	\$18,100.19	36.52%
SWE - South Woods Elementary School	\$59,785.64	\$29,727.91	\$30,057.73	50.28%
TCE - Timberlin Creek Elementary School	\$77,971.07	\$43,457.35	\$34,513.72	44.26%
WCE - Wards Creek Elementary School	\$70,424.36	\$29,469.43	\$40,954.93	58.15%
WDH - WD Hartley Elementary School	\$47,730.62	\$27,647.74	\$20,082.88	42.08%
WSE - Webster School Elementary	\$52,997.77	\$22,365.59	\$30,632.18	57.80%
Totals:	\$2,544,278.72	\$1,333,706.40	\$1,210,572.32	47.58%

Filters: Billing Periods In Range From 201105 To 201107

St Johns County School District

Energy CAP

Cost Avoidance Program

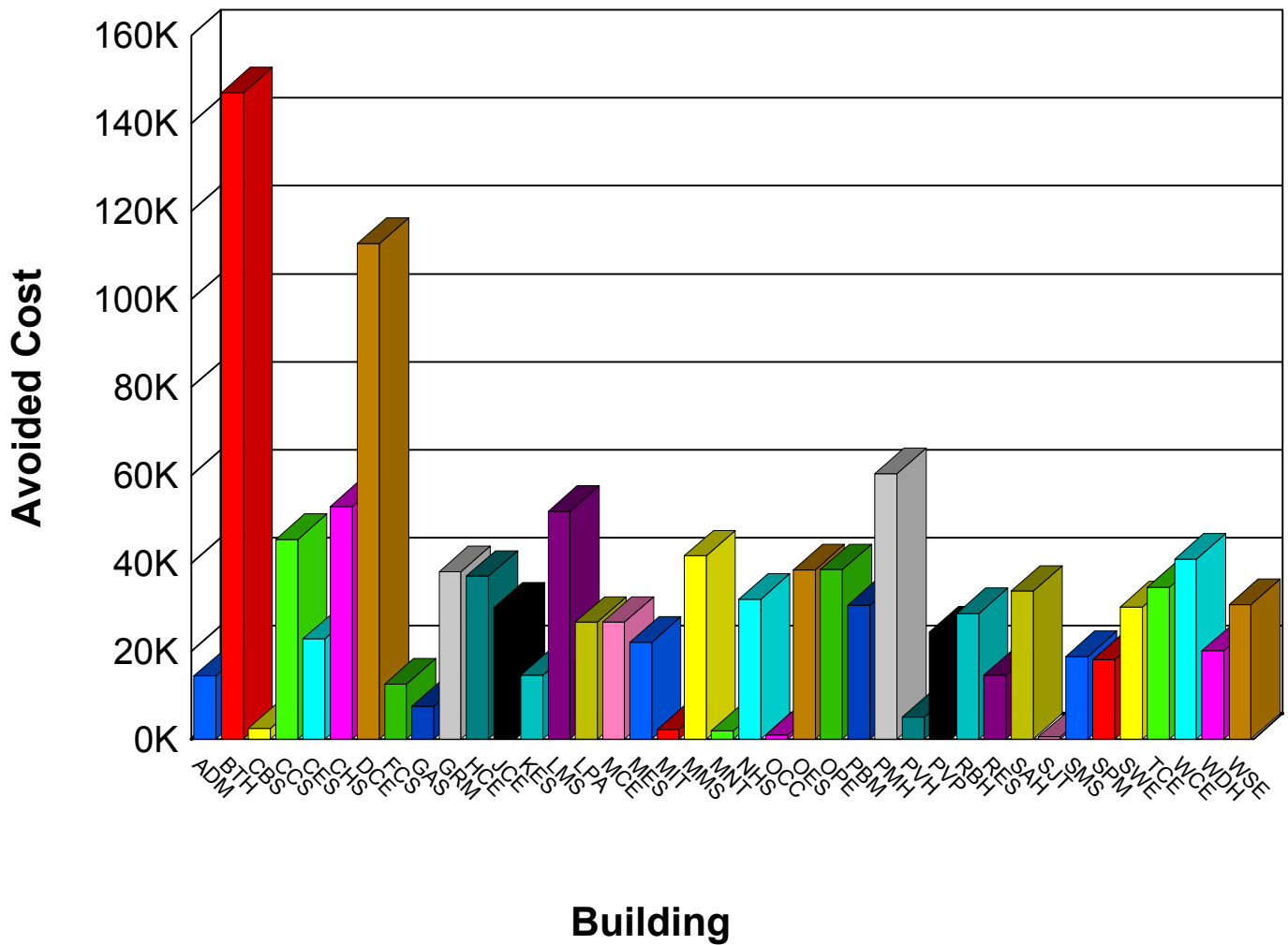
Cost Avoidance Summary - Buildings

Sorted by Building

Cost Avoidance Summary - Buildings

Sorted by Building

Building Code & Name	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
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Filters: Billing Periods In Range From 201105 To 201107

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	\$23,381.49	\$11,977.76	\$11,403.73	48.77%
BTH - Bartram High School	\$161,454.68	\$47,828.90	\$113,625.78	70.38%
CBS - CROOKSHANK BUS GARAGE	\$5,526.27	\$3,366.89	\$2,159.38	39.07%
CCS - Cunningham Creek Elementary School	\$51,166.56	\$14,986.98	\$36,179.58	70.71%
CES - Crookshank Elementary School	\$30,319.62	\$9,322.83	\$20,996.79	69.25%
CHS - Creekside High School	\$90,183.05	\$50,404.25	\$39,778.80	44.11%
DCE - Durbin Creek Elementary	\$110,145.77	\$25,123.70	\$85,022.07	77.19%
FCS - Fruit Cove Middle School	\$44,185.24	\$32,381.14	\$11,804.10	26.72%
GAS - Gaines Alternative School	\$11,913.97	\$5,879.01	\$6,034.96	50.65%
GRM - Gamble Rogers Middle School	\$48,948.31	\$18,774.48	\$30,173.83	61.64%
HCE - Hickory Creek Elementary School	\$53,682.18	\$21,064.42	\$32,617.76	60.76%
JCE - Julington Creek Elementary School	\$41,120.38	\$25,926.73	\$15,193.65	36.95%
KES - Ketterlinus Elementary School	\$17,958.24	\$6,262.89	\$11,695.35	65.13%
LMS - Alice B. Landrum Middle School	\$69,573.09	\$28,130.54	\$41,442.55	59.57%
LPA - Liberty Pines Academy k-8	\$64,811.19	\$42,972.88	\$21,838.31	33.70%
MCE - Mill Creek Elementary School	\$43,014.51	\$18,280.02	\$24,734.49	57.50%
MES - Otis Mason Elementary School	\$29,323.35	\$10,289.66	\$19,033.69	64.91%
MIT - FULLERWOOD	\$7,388.87	\$6,271.44	\$1,117.43	15.12%
MMS - RJ Murray Middle School	\$55,772.40	\$22,394.12	\$33,378.28	59.85%
MNT - Maintenance-Purchasing	\$3,660.17	\$1,986.68	\$1,673.49	45.72%
NHS - Allen D. Nease High School	\$57,104.85	\$36,007.84	\$21,097.01	36.94%
OCC - OCONNELL CENTER	\$2,278.89	\$1,448.14	\$830.75	36.45%
OES - Osceola Elementary School	\$45,132.72	\$18,237.66	\$26,895.06	59.59%
OPE - Ocean Palms Elementary School	\$48,287.13	\$18,667.40	\$29,619.73	61.34%
PBM - Pacetti Bay Middle School	\$45,019.72	\$20,227.18	\$24,792.54	55.07%
PMH - Pedro Menendez High School	\$95,728.22	\$46,739.48	\$48,988.74	51.17%
PVH - Ponte Vedra High School	\$62,388.74	\$59,595.16	\$2,793.58	4.48%
PVP - PV-PV Elementary School	\$30,441.84	\$12,456.13	\$17,985.71	59.08%
RBH - RB Hunt Elementary School	\$35,383.57	\$10,636.34	\$24,747.23	69.94%
RES - Rawlings Elementary School	\$29,459.48	\$17,362.42	\$12,097.06	41.06%
SAH - ST Augustine High School	\$59,549.67	\$32,029.90	\$27,519.77	46.21%
SJT - ST Johns Technical High School	\$7,166.21	\$6,842.15	\$324.06	4.52%
SMS - Sebastian Middle School	\$34,605.24	\$14,867.01	\$19,738.23	57.04%
SPM - Switzerland Point Middle School	\$31,950.64	\$20,005.37	\$11,945.27	37.39%
SWE - South Woods Elementary School	\$40,024.38	\$16,586.30	\$23,438.08	58.56%
TCE - Timberlin Creek Elementary School	\$43,375.90	\$23,695.47	\$19,680.43	45.37%
WCE - Wards Creek Elementary School	\$47,034.31	\$21,407.78	\$25,626.53	54.48%
WDH - WD Hartley Elementary School	\$34,944.15	\$17,058.70	\$17,885.45	51.18%
WSE - Webster School Elementary	\$39,066.34	\$13,274.19	\$25,792.15	66.02%
Totals:	\$1,752,471.35	\$810,769.94	\$941,701.41	53.74%

Filters: Billing Periods In Range From 201106 To 201107

St Johns County School District

Energy CAP

Cost Avoidance Program

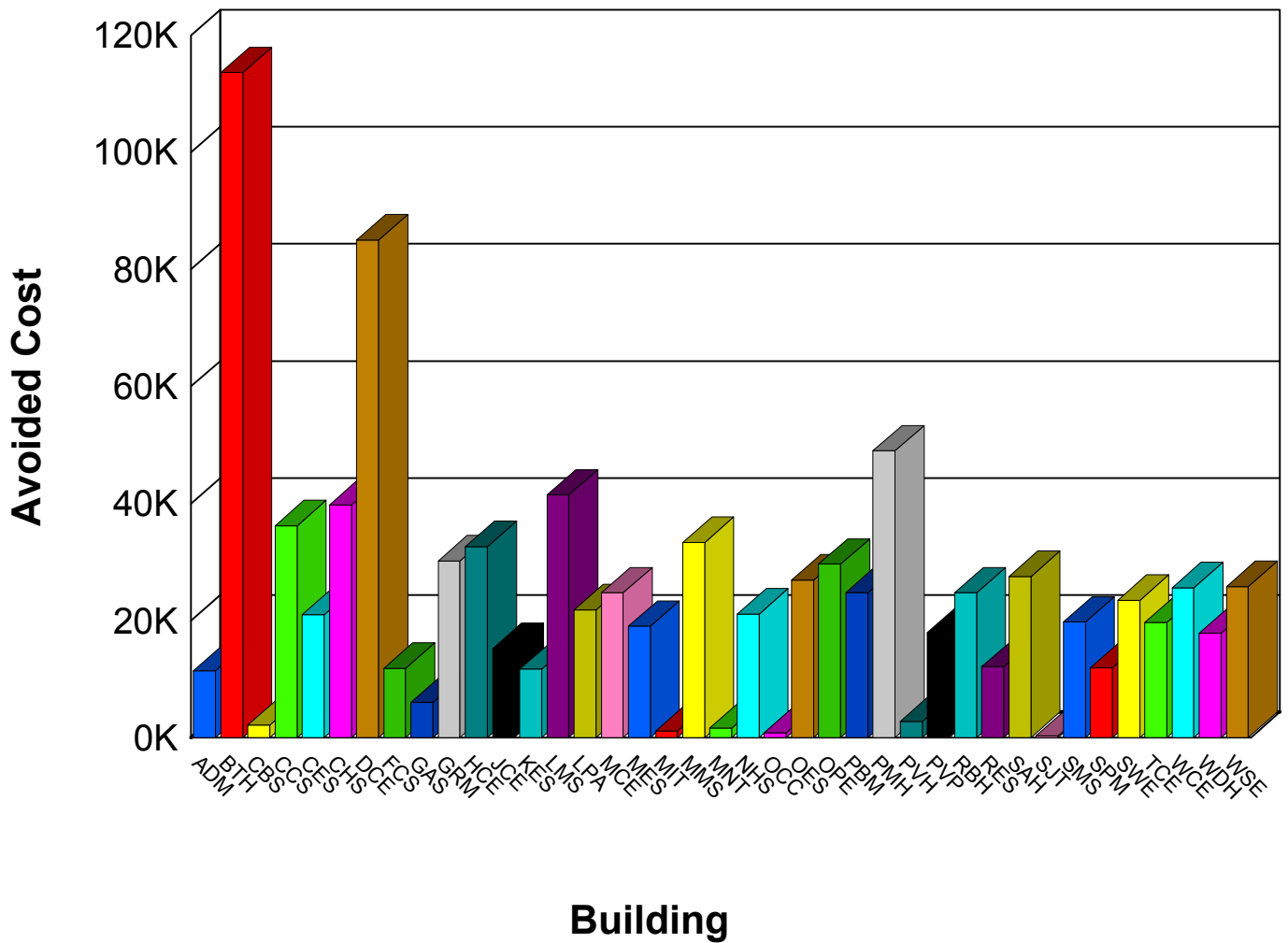
Cost Avoidance Summary - Buildings

Sorted by Building

Cost Avoidance Summary - Buildings

Sorted by Building

Building Code & Name	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
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Filters: Billing Periods In Range From 201106 To 201107

St Johns County School District

Energy CAP

Cost Avoidance Program

Energy Conservation Program

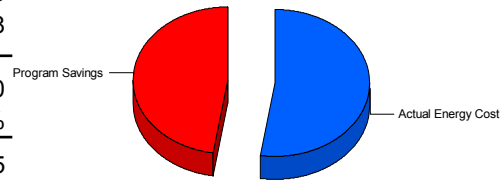
July 2011

Cumulative Cost Savings

Expected Energy Costs	\$2,544,278
Actual Energy Cost	\$1,333,708

Program Savings	\$1,210,570
Savings Percent	47.58%

Special Savings	\$1,675
Total Savings	\$1,212,245



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.

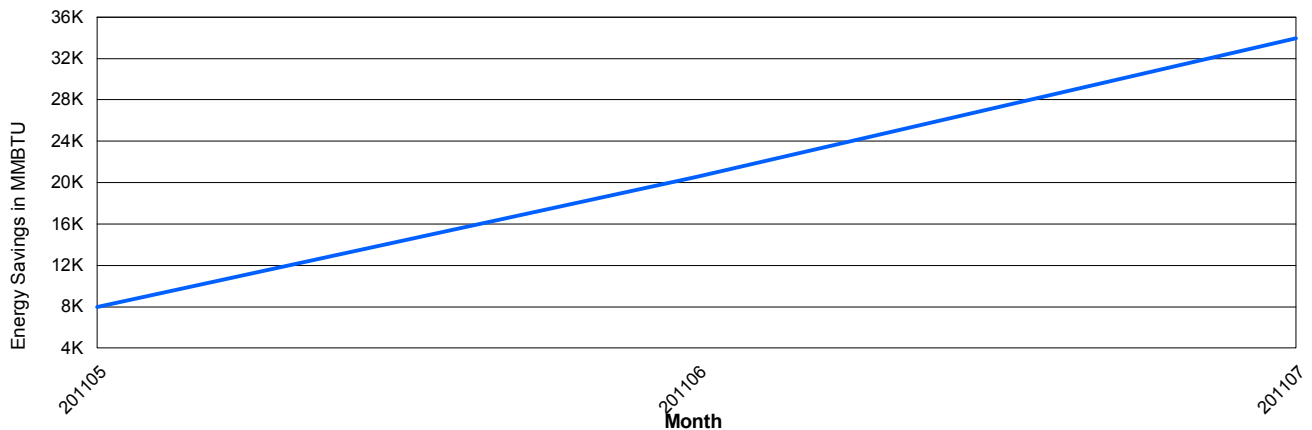
Cumulative Greenhouse Gas Reduction

Energy Reduction Impact: 33,936 MMBTU 5,948 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,068
Tree seedlings grown for 10 years:	152,131

Cumulative Energy Savings



St Johns County School District

Energy CAP

Cost Avoidance Program

Overall Program Summary

Monthly Summary

	2011			
	Cost Avoid \$	Cost Avoid %	Spl Savings \$	Total \$
Jan	423,089	45.6	4,584	427,673
Feb	352,488	43.0	304	352,792
Mar	396,700	46.9	0	396,700
Apr	268,169	33.8	3,785	271,954
May	267,547	33.7	23	267,570
Jun	424,385	50.9	1,363	425,748
Jul	518,638	56.5	288	518,926
Total	2,651,016	44.7	10,347	2,661,363

Filters: Savings Periods In Range From 201101 To 201107

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	46,142,825	25,092,563	21,050,262	45.6	5,496,854	2,950,610	2,546,244	46.3	5,197	2,551,441
Water & Sewe	32,420	22,854	9,566	29.5	403,914	292,413	111,501	27.6	5,150	116,651
Irrigation	8,883	10,806	-1,923	-21.6	29,745	36,474	-6,729	-22.6	0	-6,729
Total					5,930,513	3,279,497	2,651,016	44.7	10,347	2,661,363

Filters: Savings Periods In Range From 201101 To 201107

St Johns County School District

Energy CAP

Cost Avoidance Program

Cost Avoidance Summary - Energy Types

Sorted by Energy Type

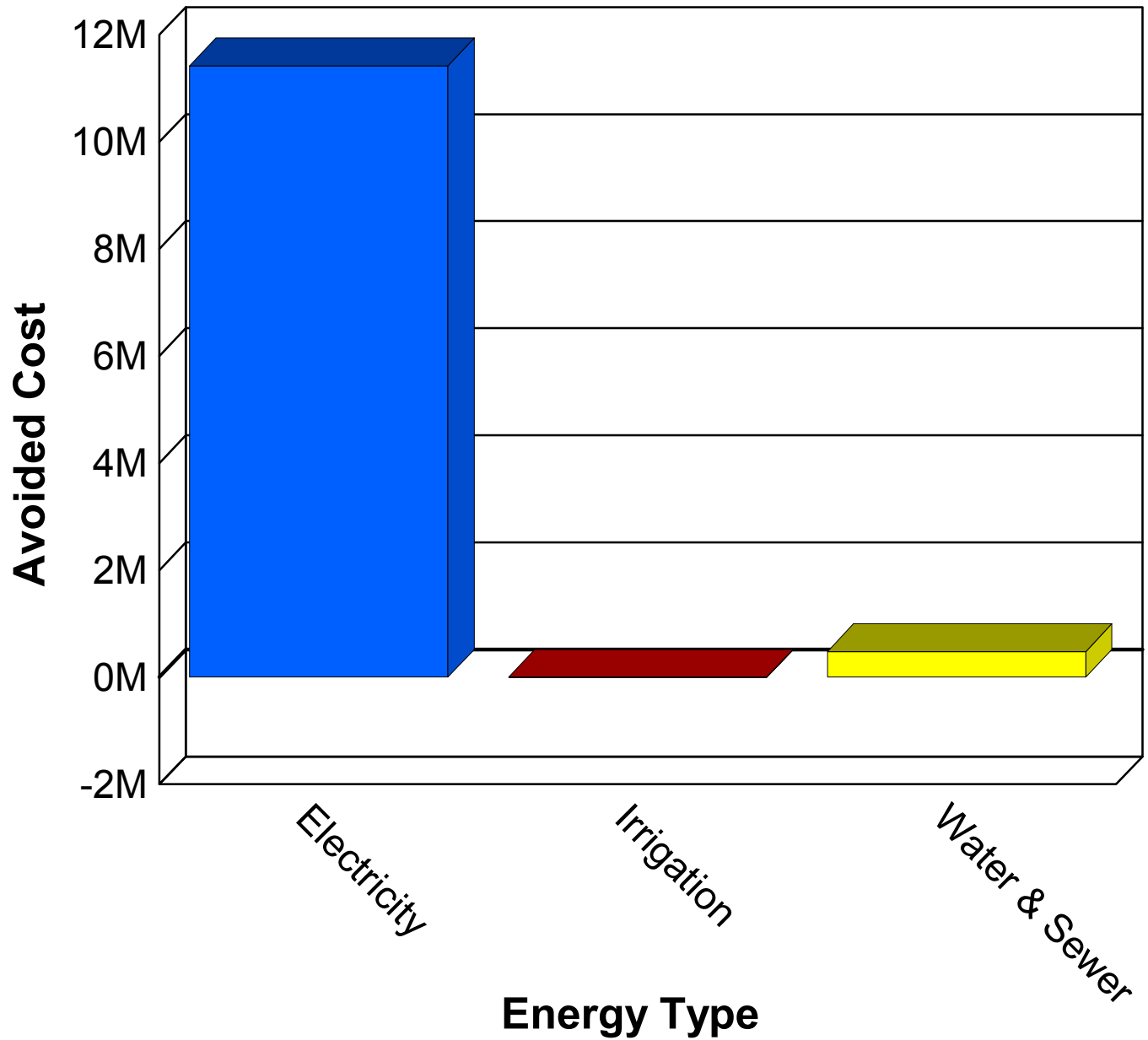
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$27,593,580.34	\$16,170,884.99	\$11,422,695.35	41.40%
Irrigation	\$91,925.38	\$99,692.92	(\$7,767.54)	(8.45%)
Water & Sewer	\$1,820,067.78	\$1,338,371.18	\$481,696.60	26.47%
Totals:	\$29,505,573.50	\$17,608,949.09	\$11,896,624.41	40.32%

Filters: Billing Periods In Range From 200807 To 201107

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 201107