

**St. Johns County School District**  
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St. Augustine, Florida 32084  
(904) 547-7500  
www.stjohns.k12.fl.us

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:** June 12, 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 June 2012 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period January 2012 – March 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.

**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 January 2012 – March 2012 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,236,181.85. 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.

*The St. Johns County School District will inspire in all students a passion for lifelong learning, creating educated and caring contributors to the world.*

School Board

Beverly Slough  
District 1

Tommy Allen  
District 2

Bill Mignon  
District 3

Bill Fehling  
District 4

Carla Wright  
District 5

**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 2012 – March 2012**

#### **EXECUTIVE SUMMARY**

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

- **Cost Avoidance Summary by Site (January 2012 – March 2012):** The District realized a total cost avoidance for this quarterly period of \$1,236,181.85 (or a 46.7% cost avoidance from the baseline period).
- **Greenhouse Gas Reduction:** Greenhouse Gas Reduction for this quarterly period reduced CO<sup>2</sup> by 5,654 metric tons.
- **Year to Date Monthly Cost Avoidance Summary (January 2012 – March 2012):** This reflects the monthly summary of cost avoidance for the period January 2012 – March 2012.
- **Energy Consumption Summary (Cumulative Year to Date):** Summary for electricity, water & sewer, and irrigation for January 2012 – March 2012.
- **Total Cost Avoidance for the District from Program Inception (July 2008 – March 2012):** This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance: \$15,493,205.31.

During the period of January 2012 – March 2012 there were 33 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.

# 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	\$22,446.78	\$13,191.37	\$9,255.41	41.23%
BTH - Bartram High School	\$217,407.12	\$86,981.61	\$130,425.51	59.99%
CBS - CROOKSHANK BUS GARAGE	\$5,803.61	\$4,135.00	\$1,668.61	28.75%
CCS - Cunningham Creek Elementary School	\$55,043.33	\$32,375.58	\$22,667.75	41.18%
CES - Crookshank Elementary School	\$30,639.45	\$19,831.55	\$10,807.90	35.27%
CHS - Creekside High School	\$121,618.31	\$94,706.00	\$26,912.31	22.13%
CRR - CLINIC - RAY ROAD	\$1,709.66	\$1,133.14	\$576.52	33.72%
CSR - CLINIC-SR206	\$1,246.82	\$1,038.45	\$208.37	16.71%
DCE - Durbin Creek Elementary	\$188,974.72	\$69,461.19	\$119,513.53	63.24%
FCS - Fruit Cove Middle School	\$60,880.33	\$44,701.89	\$16,178.44	26.57%
GAS - Gaines Alternative School	\$14,061.89	\$7,463.95	\$6,597.94	46.92%
GRM - Gamble Rogers Middle School	\$54,498.67	\$29,181.78	\$25,316.89	46.45%
HCE - Hickory Creek Elementary School	\$92,876.33	\$39,399.57	\$53,476.76	57.58%
JCE - Julington Creek Elementary School	\$97,786.95	\$54,862.34	\$42,924.61	43.90%
KES - Ketterlinus Elementary School	\$24,808.12	\$13,278.67	\$11,529.45	46.47%
LMS - Alice B. Landrum Middle School	\$83,662.31	\$47,644.79	\$36,017.52	43.05%
LPA - Liberty Pines Academy k-8	\$96,075.77	\$69,620.75	\$26,455.02	27.54%
MCE - Mill Creek Elementary School	\$55,237.57	\$42,703.31	\$12,534.26	22.69%
MES - Otis Mason Elementary School	\$27,185.12	\$18,036.01	\$9,149.11	33.65%
MIT - FULLERWOOD	\$10,576.69	\$6,434.65	\$4,142.04	39.16%
MMS - RJ Murray Middle School	\$52,430.85	\$26,510.47	\$25,920.38	49.44%
MNT - Maintenance-Purchasing	\$3,099.70	\$2,142.91	\$956.79	30.87%
NHS - Allen D. Nease High School	\$94,829.48	\$54,584.77	\$40,244.71	42.44%
OCC - OCONNELL CENTER	\$2,721.14	\$1,547.75	\$1,173.39	43.12%
OES - Osceola Elementary School	\$58,163.60	\$26,710.77	\$31,452.83	54.08%
OPE - Ocean Palms Elementary School	\$65,590.88	\$32,811.36	\$32,779.52	49.98%
PBM - Pacetti Bay Middle School	\$91,965.69	\$40,759.27	\$51,206.42	55.68%
PMH - Pedro Menendez High School	\$159,219.75	\$76,337.76	\$82,881.99	52.06%
PVH - Ponte Vedra High School	\$114,083.73	\$84,523.93	\$29,559.80	25.91%
PVP - PV-PV Elementary School	\$32,783.46	\$21,735.58	\$11,047.88	33.70%
RBH - RB Hunt Elementary School	\$43,097.94	\$19,616.75	\$23,481.19	54.48%
RES - Rawlings Elementary School	\$39,952.38	\$23,456.47	\$16,495.91	41.29%
SAH - ST Augustine High School	\$88,546.80	\$55,511.14	\$33,035.66	37.31%
SJT - ST Johns Technical High School	\$16,562.43	\$8,574.85	\$7,987.58	48.23%
SMS - Sebastian Middle School	\$38,707.39	\$25,398.06	\$13,309.33	34.38%
SPM - Switzerland Point Middle School	\$53,414.93	\$31,433.59	\$21,981.34	41.15%
SWE - South Woods Elementary School	\$96,650.48	\$33,825.68	\$62,824.80	65.00%
TCE - Timberlin Creek Elementary School	\$125,614.73	\$52,557.71	\$73,057.02	58.16%
WCE - Wards Creek Elementary School	\$125,277.60	\$53,275.08	\$72,002.52	57.47%
WDH - WD Hartley Elementary School	\$39,832.07	\$19,918.81	\$19,913.26	49.99%
WSE - Webster School Elementary	\$39,248.68	\$20,737.08	\$18,511.60	47.16%

Filters: Billing Periods In Range From 201201 To 201203

**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 %
Totals:	\$2,644,333.24	\$1,408,151.39	\$1,236,181.85	46.75%

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*Filters: Billing Periods In Range From 201201 To 201203*

# St Johns County School District

Energy CAP

Cost Avoidance Program

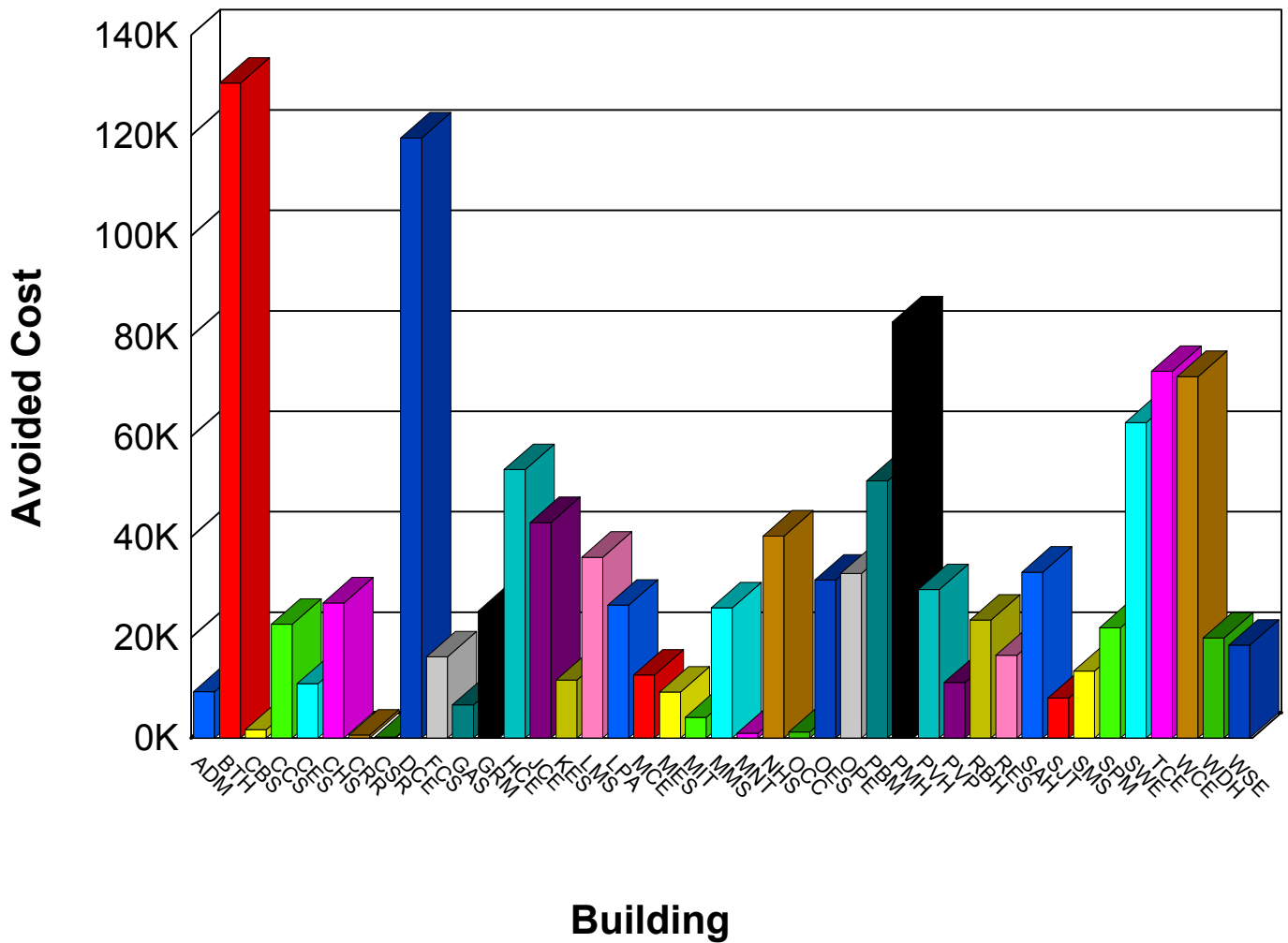
## Cost Avoidance Summary - Buildings

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 201201 To 201203

# St Johns County School District

Energy CAP

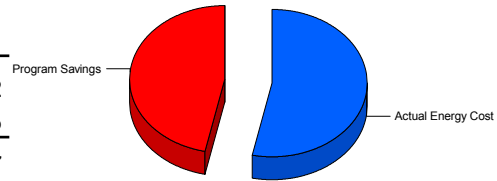
Cost Avoidance Program

## Energy Conservation Program

March 2012

### Cumulative Cost Savings

Expected Energy Costs	\$2,644,333
Actual Energy Cost	\$1,408,151
Program Savings	\$1,236,182
Savings Percent	46.75%
Special Savings	\$5,557
Total Savings	\$1,241,739



#### 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.

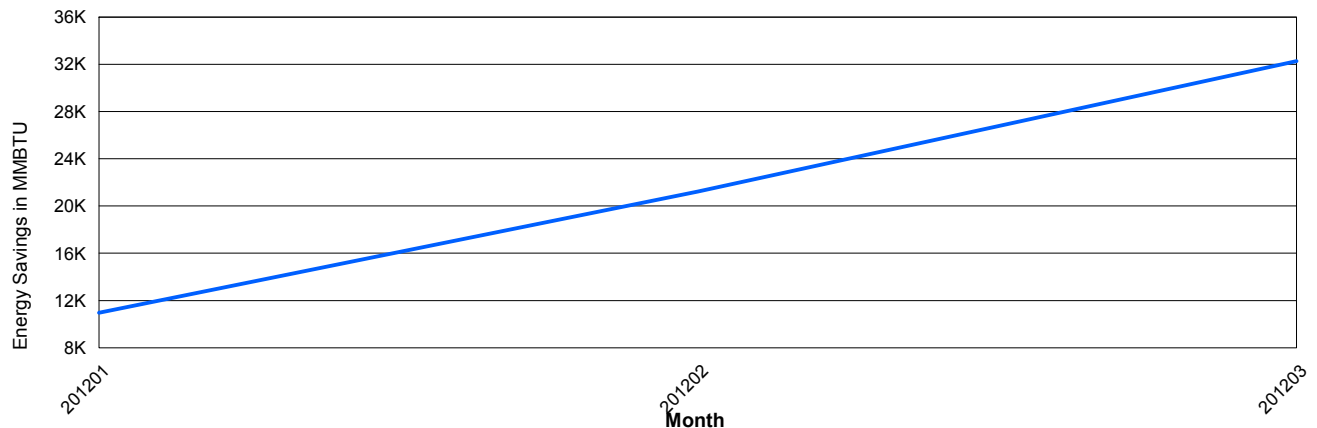
### Cumulative Greenhouse Gas Reduction

**Energy Reduction Impact:** 32,258 MMBTU 5,654 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,015
Tree seedlings grown for 10 years:	144,609

### 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	426,082	47.6	23	426,105
Feb	410,089	45.3	23	410,112
Mar	400,011	47.4	5,511	405,522
Total	1,236,182	46.7	5,557	1,241,739

*Filters: Savings Periods In Range From 201201 To 201203*



# 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	19,835,212	10,383,876	9,451,336	47.6	2,427,421	1,264,164	1,163,257	47.9	5,005	1,168,262
Water & Sewe	15,286	10,491	4,795	31.4	205,375	132,353	73,022	35.6	552	73,574
Irrigation	2,566	2,613	-47	-1.8	11,537	11,634	-97	-0.8	0	-97
Total					2,644,333	1,408,151	1,236,182	46.7	5,557	1,241,739

*Filters: Savings Periods In Range From 201201 To 201203*

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

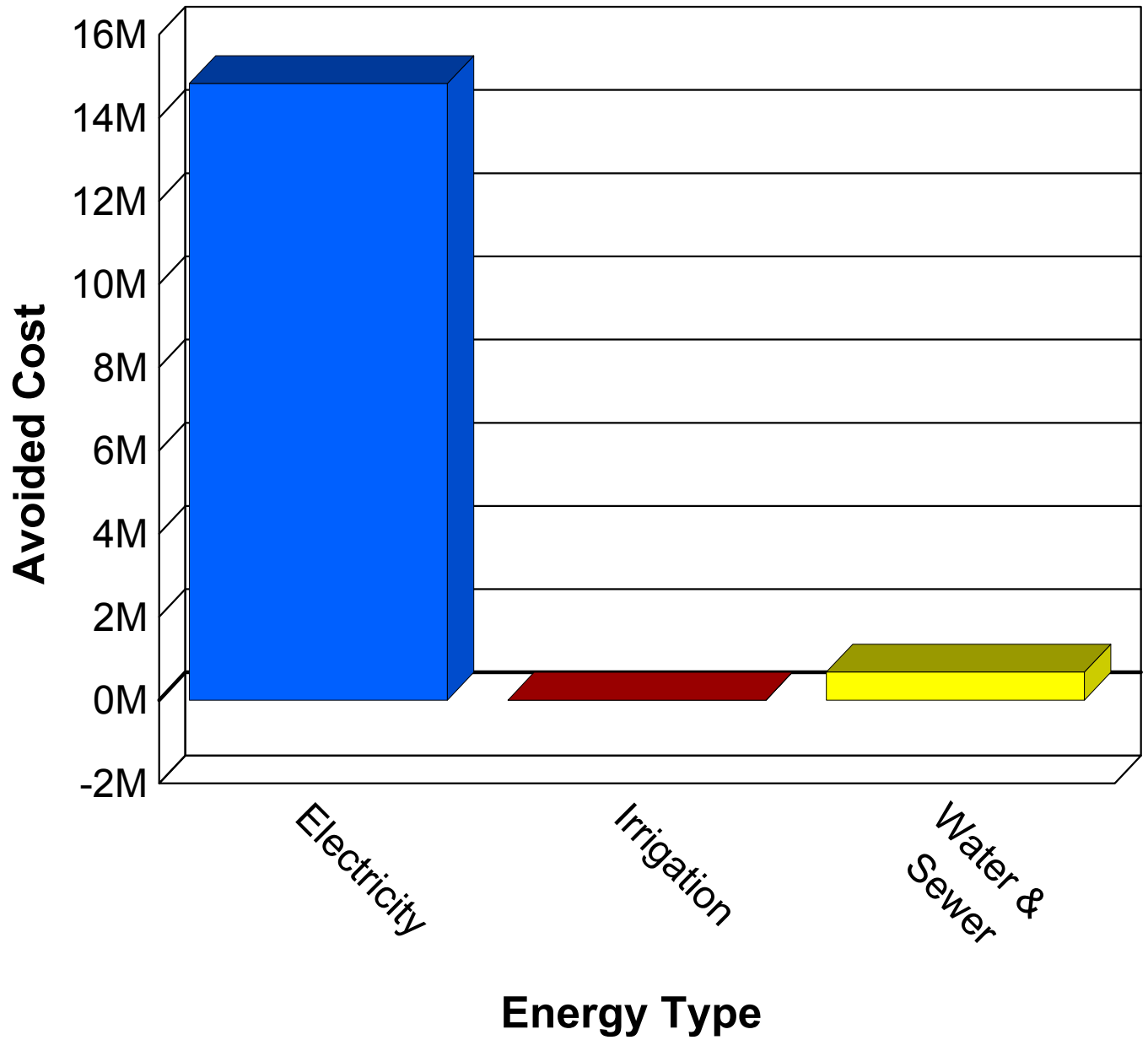
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$34,619,139.82	\$19,797,032.51	\$14,822,107.31	42.81%
Irrigation	\$129,179.94	\$131,280.96	(\$2,101.02)	(1.63%)
Water & Sewer	\$2,378,717.34	\$1,705,473.32	\$673,244.02	28.30%
<b>Totals:</b>	<b>\$37,127,037.10</b>	<b>\$21,633,786.79</b>	<b>\$15,493,250.31</b>	<b>41.73%</b>

*Filters: Billing Periods In Range From 200807 To 201203*

# 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 201203