



## 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:** September 11, 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 September 2012 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period April 2012 – June 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 April 2012 – June 2012 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,185,250.12. 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 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**  
**April 2012 – June 2012**

**EXECUTIVE SUMMARY**

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

- Cost Avoidance Summary by Site (April 2012 – June 2012): The District realized a total cost avoidance for this quarterly period of \$1,185,250.12 (or a 47.2% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO<sup>2</sup> by 5,638 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2012 – June 2012): This reflects the monthly summary of total cost avoidance for the period January 2012 – June 2012.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2012 – June 2012.
- Total cost avoidance for the district from program inception (July 2008 – June 2012): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$16,678,578.25.

During the period of April 2012 – June 2012 there were 53 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	\$26,625.43	\$13,796.19	\$12,829.24	48.18%
BTH - Bartram High School	\$212,205.97	\$85,244.70	\$126,961.27	59.83%
CBS - CROOKSHANK BUS GARAGE	\$6,366.16	\$4,480.89	\$1,885.27	29.61%
CCS - Cunningham Creek Elementary School	\$62,720.78	\$33,656.14	\$29,064.64	46.34%
CES - Crookshank Elementary School	\$27,933.69	\$17,114.90	\$10,818.79	38.73%
CHS - Creekside High School	\$134,117.00	\$90,555.20	\$43,561.80	32.48%
CRR - CLINIC - RAY ROAD	\$860.53	\$956.87	(\$96.34)	(11.19%)
CSR - CLINIC-SR206	\$690.50	\$803.31	(\$112.81)	(16.34%)
DCE - Durbin Creek Elementary	\$177,518.85	\$63,801.66	\$113,717.19	64.06%
FCS - Fruit Cove Middle School	\$76,280.75	\$45,513.86	\$30,766.89	40.33%
GAS - Gaines Alternative School	\$14,075.76	\$7,601.37	\$6,474.39	46.00%
GRM - Gamble Rogers Middle School	\$61,170.11	\$27,504.19	\$33,665.92	55.04%
HCE - Hickory Creek Elementary School	\$74,668.66	\$37,297.20	\$37,371.46	50.05%
JCE - Julington Creek Elementary School	\$92,525.18	\$45,511.47	\$47,013.71	50.81%
KES - Ketterlinus Elementary School	\$25,518.55	\$14,012.83	\$11,505.72	45.09%
LMS - Alice B. Landrum Middle School	\$93,868.01	\$49,962.22	\$43,905.79	46.77%
LPA - Liberty Pines Academy k-8	\$99,229.68	\$65,384.89	\$33,844.79	34.11%
MCE - Mill Creek Elementary School	\$53,906.45	\$37,483.64	\$16,422.81	30.47%
MES - Otis Mason Elementary School	\$32,683.27	\$18,407.25	\$14,276.02	43.68%
MIT - FULLERWOOD	\$11,217.12	\$8,000.65	\$3,216.47	28.67%
MMS - RJ Murray Middle School	\$59,436.45	\$25,415.92	\$34,020.53	57.24%
MNT - Maintenance-Purchasing	\$3,575.74	\$2,720.02	\$855.72	23.93%
NHS - Allen D. Nease High School	\$86,388.26	\$49,940.14	\$36,448.12	42.19%
OCC - OCONNELL CENTER	\$2,434.98	\$1,801.72	\$633.26	26.01%
OES - Osceola Elementary School	\$61,791.64	\$26,013.28	\$35,778.36	57.90%
OPE - Ocean Palms Elementary School	\$67,773.06	\$31,551.84	\$36,221.22	53.44%
PBM - Pacetti Bay Middle School	\$60,980.94	\$27,400.24	\$33,580.70	55.07%
PMH - Pedro Menendez High School	\$131,983.10	\$68,083.52	\$63,899.58	48.41%
PVH - Ponte Vedra High School	\$116,557.50	\$86,430.97	\$30,126.53	25.85%
PVP - PV-PV Elementary School	\$43,282.99	\$22,021.26	\$21,261.73	49.12%
RBH - RB Hunt Elementary School	\$36,790.72	\$15,870.51	\$20,920.21	56.86%
RES - Rawlings Elementary School	\$41,928.82	\$26,801.18	\$15,127.64	36.08%
SAH - ST Augustine High School	\$85,488.36	\$58,279.09	\$27,209.27	31.83%
SJT - ST Johns Technical High School	\$11,926.86	\$9,715.38	\$2,211.48	18.54%
SMS - Sebastian Middle School	\$44,589.84	\$29,193.81	\$15,396.03	34.53%
SPM - Switzerland Point Middle School	\$50,202.22	\$29,179.79	\$21,022.43	41.88%
SWE - South Woods Elementary School	\$66,738.44	\$32,647.43	\$34,091.01	51.08%
TCE - Timberlin Creek Elementary School	\$83,044.36	\$42,051.61	\$40,992.75	49.36%
WCE - Wards Creek Elementary School	\$75,883.40	\$30,821.50	\$45,061.90	59.38%
WDH - WD Hartley Elementary School	\$46,863.34	\$21,148.61	\$25,714.73	54.87%
WSE - Webster School Elementary	\$49,011.64	\$21,427.71	\$27,583.93	56.28%

Filters: Billing Periods In Range From 201204 To 201206

**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 %
Totals:	\$2,510,855.08	\$1,325,604.96	\$1,185,250.12	47.21%

*Filters: Billing Periods In Range From 201204 To 201206*

# St Johns County School District

Energy CAP

Cost Avoidance Program

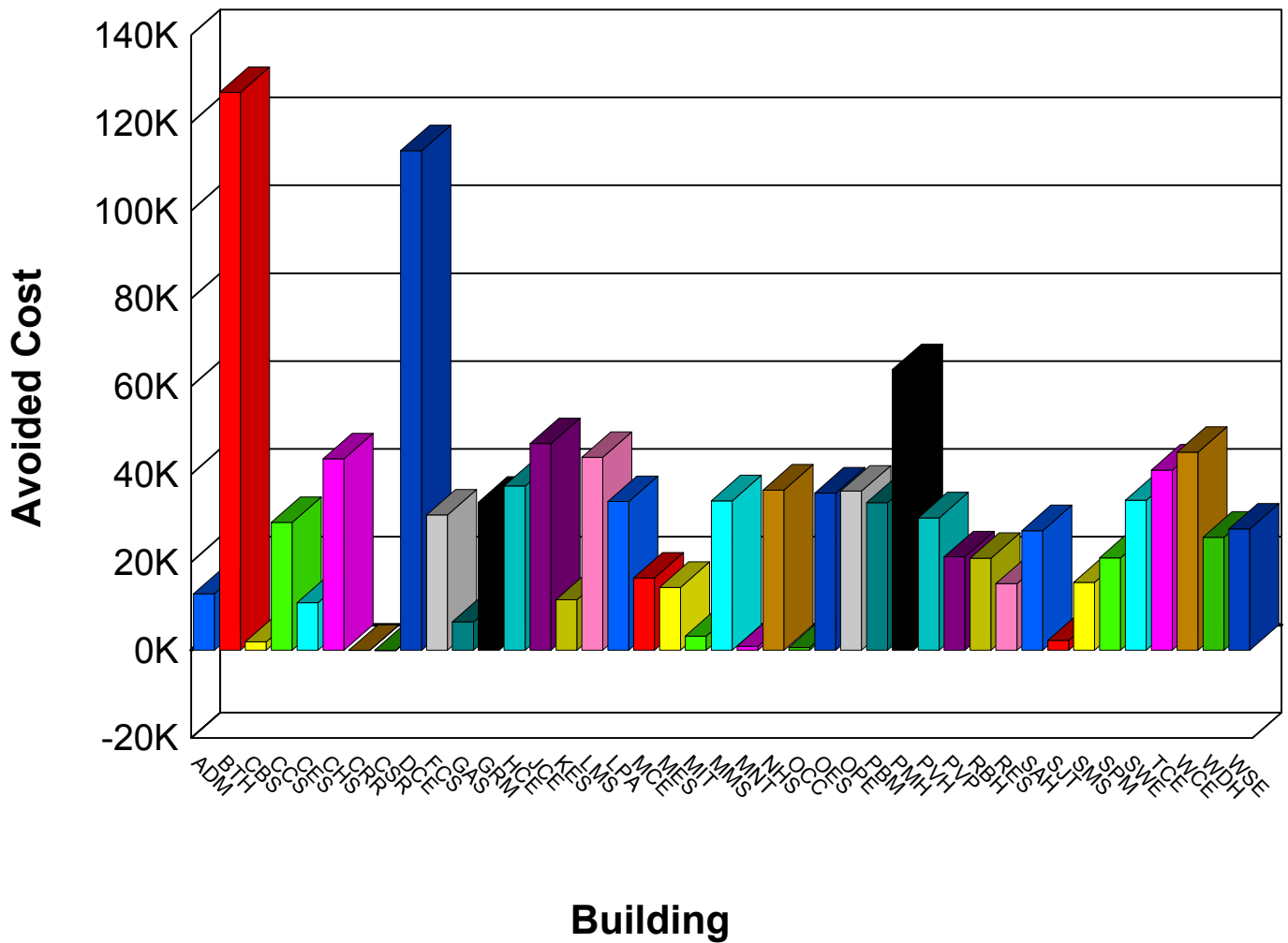
## Cost Avoidance Summary - Buildings

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 201204 To 201206

# St Johns County School District

Energy CAP

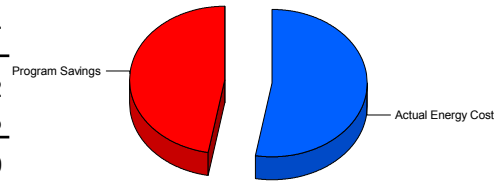
Cost Avoidance Program

## Energy Conservation Program

June 2012

### Cumulative Cost Savings

Expected Energy Costs	\$2,510,856
Actual Energy Cost	\$1,325,604
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Program Savings	\$1,185,252
Savings Percent	47.21%
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Special Savings	\$70
Total Savings	\$1,185,322



#### 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.

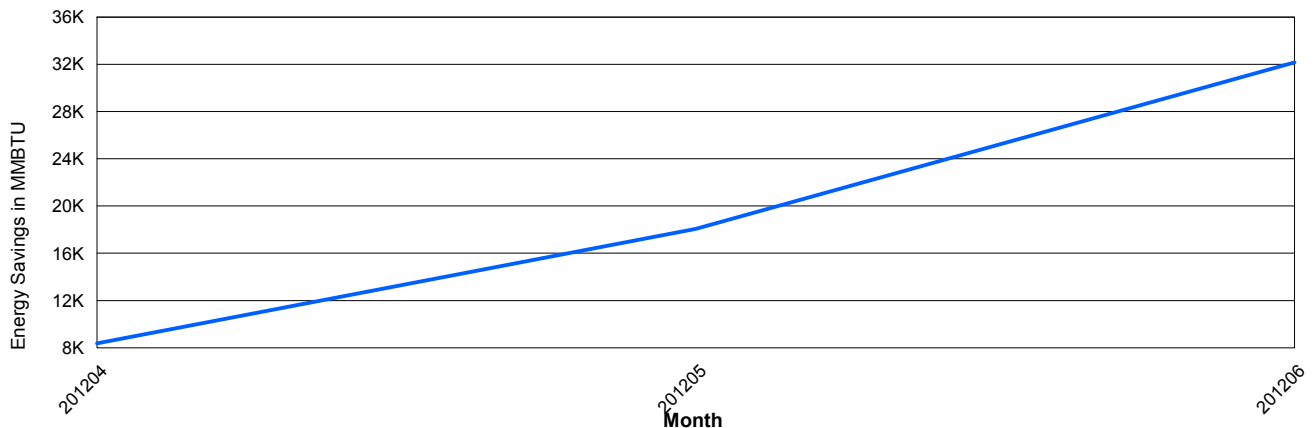
### Cumulative Greenhouse Gas Reduction

**Energy Reduction Impact:** 32,168 MMBTU 5,638 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,012
Tree seedlings grown for 10 years:	144,207

### Cumulative Energy Savings



All Energy Types

# 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	409,396	46.6	23	409,419
Feb	410,519	45.4	23	410,542
Mar	399,544	47.3	5,511	405,055
Apr	310,228	38.8	23	310,251
May	343,248	41.6	23	343,271
Jun	531,776	60.0	23	531,799
Total	2,404,711	46.8	5,627	2,410,338

*Filters: Savings Periods In Range From 201201 To 201206*



# 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	39,828,245	21,079,375	18,748,870	47.1	4,725,314	2,453,233	2,272,081	48.1	5,075	2,277,156
Water	0	0	0	0.0	0	0	0	0.0	0	0
Water & Sewe	28,189	18,911	9,278	32.9	382,904	250,971	131,933	34.5	552	132,485
Irrigation	7,106	7,013	93	1.3	30,630	29,933	697	2.3	0	697
Total					5,138,848	2,734,137	2,404,711	46.8	5,627	2,410,338

*Filters: Savings Periods In Range From 201201 To 201206*

# St Johns County School District

Energy CAP

Cost Avoidance Program

## Cost Avoidance Summary - Energy Types

Sorted by Energy Type

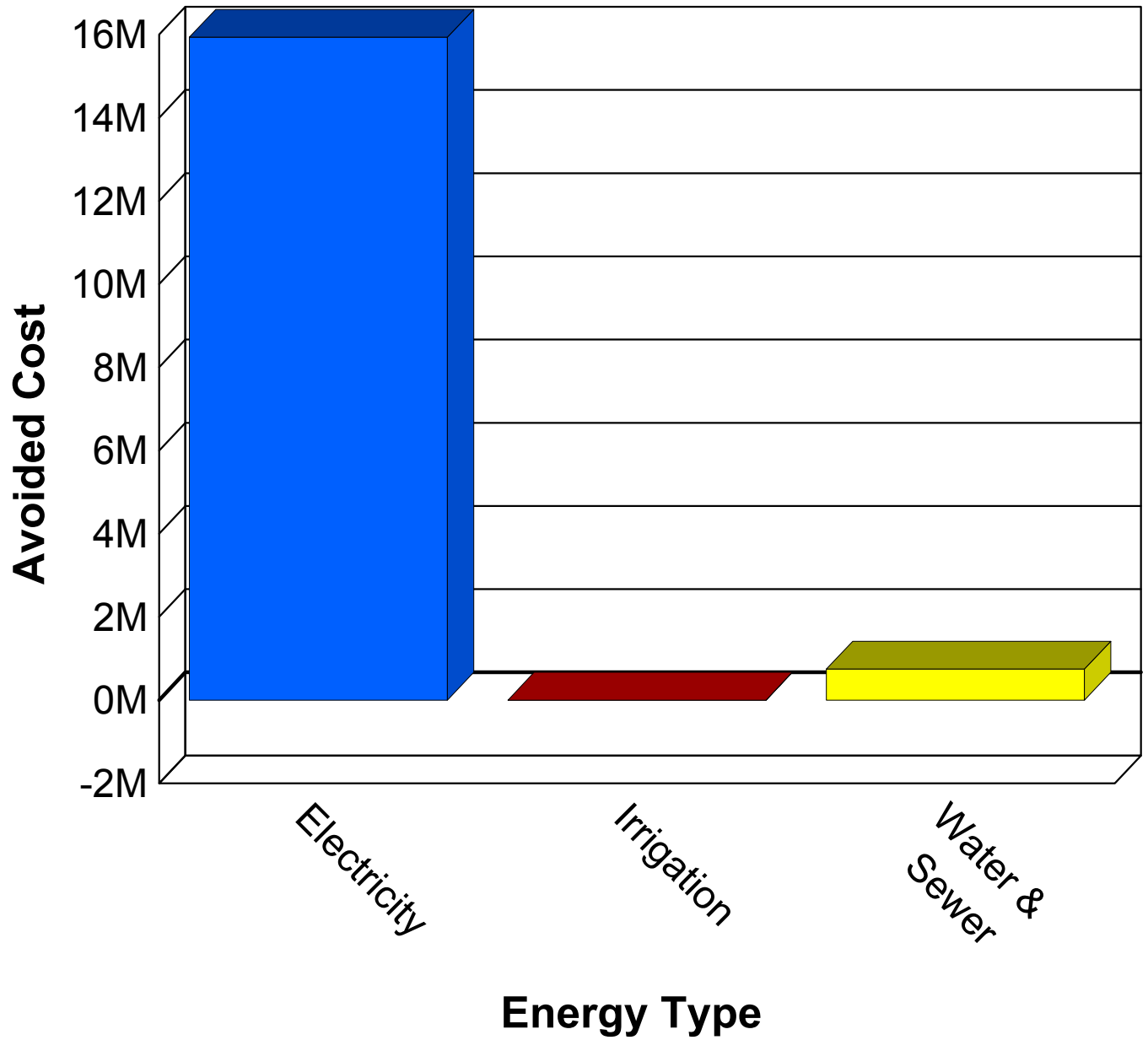
Energy Type	Cost Without CAP	Actual Cost	Cost Avoidance \$	Cost Avoidance %
Electricity	\$36,934,973.71	\$20,998,557.26	\$15,936,416.45	43.15%
Irrigation	\$148,273.19	\$149,580.40	(\$1,307.21)	(0.88%)
Water & Sewer	\$2,568,294.55	\$1,824,825.53	\$743,469.02	28.95%
<b>Totals:</b>	<b>\$39,651,541.44</b>	<b>\$22,972,963.19</b>	<b>\$16,678,578.25</b>	<b>42.06%</b>

*Filters: Billing Periods In Range From 200807 To 201206*

# 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 201206