



Agenda Item Details

Meeting	Sep 10, 2015 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report
Type	Action (Consent)
Goals	GO-3 Energy Consumption Strategies

Background Information:

The School District entered into an agreement with Cenergistic - The Energy Conservation Company (previously known as Energy Education, Inc.) 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 Cenergistic and has included onsite training and assessments, Cenergistic 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 District completed its five-year performance contract with Cenergistic effective June 30, 2013. Performance payments will no longer be made to Cenergistic, however, we will continue to receive their full support and services as part of the initial agreement and contract.

The September 2015 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period April 2015 – June 2015. 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 implementation of energy conservation strategies.

Educational Impact:

The program is intended to reduce operational costs related to utilities, therefore increasing dollars available for other District related operational expenses.

Strategic Plan Impact:

Supports the District's Mission by providing appropriate facilities to help inspire good character and a passion for lifelong learning in all students, creating educated and caring contributors to the world.

Fiscal Impact:

During the quarterly period April 2015 – June 2015 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,050,656.00. 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, reviewed and submitted by:

Al Crutchfield, Energy Manager

Paul Rose, Executive Director for Facilities & New Construction

Tim forson, Deputy Superintendent for Operations

Sincerely,**Joseph G. Joyner, Ed.D.****Superintendent of Schools**[Energy Conservation Program Quarterly Status Report Sept 2015.pdf \(649 KB\)](#)

Our adopted rules of Parliamentary Procedure, Robert's Rules, provide for a consent agenda listing several items for approval of the Board by a single motion. Most of the items listed under the consent agenda have gone through Board subcommittee review and recommendation. Documentation concerning these items has been provided to all Board members and the public in advance to assure an extensive and thorough review. Items may be removed from the consent agenda at the request of any board member.

QUARTERLY ENERGY REPORT April 2015 – June 2015

EXECUTIVE SUMMARY

The September 2015 Energy Program Status Report summarizes the performance results of the Energy Conservation Program during the quarterly period April 2015 – June 2015 and is comprised of the following:

- Cost Avoidance Summary by Site (April 2015 – June 2015): The District realized a total cost avoidance for this quarterly period of \$1,050,656.00 (or a 46.5% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 4,963 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2015 – June 2015): This reflects the monthly summary of total cost avoidance for the period January 2015 – June 2015.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2015 – June 2015.
- Total cost avoidance for the district from program inception (July 2008 – June 2015): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$33,504,216.00.

During the period of April 2015 – June 2015 there were 140 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. The Energy Star Label was awarded to all of our school sites for the 2014 year, and this year promises to be another successful year.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

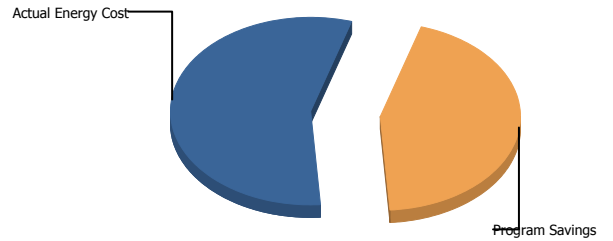
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$23,720	\$14,657	\$9,063	38.2
[BG] CROOKSHANK BUS GARAGE	\$6,133	\$4,441	\$1,692	27.6
[BH] Bartram High School	\$159,230	\$77,501	\$81,729	51.3
[CE] Cunningham Creek Elementary School	\$54,752	\$26,738	\$28,013	51.2
[CLN] CLINIC - RAY ROAD	\$784	\$792	(\$8)	-1.0
[CM] CLINIC-SR206	\$934	\$946	(\$12)	-1.3
[CRO] Crookshank Elementary School	\$25,402	\$15,564	\$9,838	38.7
[CS] Creekside High School	\$123,614	\$77,686	\$45,928	37.2
[DCE_1] Durbin Creek Elementary	\$122,070	\$43,522	\$78,548	64.3
[FCS_1] Fruit Cove Middle School	\$65,556	\$29,401	\$36,155	55.2
[FU] FULLERWOOD	\$10,119	\$6,465	\$3,654	36.1
[GAS_1] Gaines Alternative School	\$13,110	\$7,818	\$5,292	40.4
[GRM_1] Gamble Rogers Middle School	\$49,763	\$22,743	\$27,020	54.3
[HCE_1] Hickory Creek Elementary School	\$63,206	\$27,388	\$35,818	56.7
[JCE_1] Julington Creek Elementary School	\$80,706	\$42,045	\$38,661	47.9
[KES_1] Ketterlinus Elementary School	\$23,530	\$15,567	\$7,963	33.8
[LMS_1] Alice B. Landrum Middle School	\$93,487	\$50,731	\$42,756	45.7
[LPA_1] Liberty Pines Academy k-8	\$99,564	\$63,226	\$36,338	36.5
[MCE_1] Mill Creek Elementary School	\$40,529	\$24,145	\$16,384	40.4
[MES_1] Otis Mason Elementary School	\$24,176	\$13,864	\$10,313	42.7
[MMS_1] RJ Murray Middle School	\$48,297	\$23,490	\$24,807	51.4
[MT] Maintenance	\$3,379	\$2,209	\$1,170	34.6
[NHS_1] Allen D. Nease High School	\$92,712	\$35,946	\$56,765	61.2
[OES_1] Osceola Elementary School	\$49,388	\$18,791	\$30,597	62.0
[OL] OCONNELL CENTER	\$2,304	\$1,392	\$911	39.6
[OPE_1] Ocean Palms Elementary School	\$59,722	\$29,111	\$30,612	51.3
[PBM_1] Pacetti Bay Middle School	\$55,422	\$32,122	\$23,300	42.0
[PES_1] PALENCIA ELEMENTARY	\$14,126	\$14,289	(\$163)	-1.2
[PMH_1] Pedro Menendez High School	\$122,443	\$46,957	\$75,486	61.6
[POA] PATRIOT OAKS ACADEMY	\$39,557	\$39,557	\$0	0.0
[PVH_1] Ponte Vedra High School	\$78,681	\$60,167	\$18,514	23.5
[PVP_1] PV-PV Elementary School	\$39,385	\$16,218	\$23,167	58.8
[RBH_1] RB Hunt Elementary School	\$29,803	\$13,084	\$16,719	56.1
[RES_1] Rawlings Elementary School	\$40,828	\$26,033	\$14,795	36.2
[SAH_1] ST Augustine High School	\$79,871	\$48,340	\$31,531	39.5
[SJT_1] ST Johns Technical High School	\$11,220	\$10,986	\$234	2.1
[SMS_1] Sebastian Middle School	\$38,309	\$20,389	\$17,920	46.8
[SPM_1] Switzerland Point Middle School	\$43,879	\$26,796	\$17,083	38.9
[SWE_1] South Woods Elementary School	\$62,547	\$32,600	\$29,946	47.9
[TCE_1] Timberlin Creek Elementary School	\$72,931	\$37,291	\$35,640	48.9
[VRA] VALLEY RIDGE ACADEMY	\$39,546	\$39,546	\$0	0.0
[WCE_1] Wards Creek Elementary School	\$76,043	\$30,411	\$45,632	60.0
[WDH_1] WD Hartley Elementary School	\$38,425	\$20,667	\$17,758	46.2
[WSE_1] Webster School Elementary	\$38,489	\$15,404	\$23,085	60.0

Cost Avoidance Summary By Building CAP - 01B

Totals:	\$2,257,694	\$1,207,038	\$1,050,656	46.5
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Cumulative Cost Savings

Expected Energy Cost	\$2,419,648
Actual Energy Cost	\$1,352,513
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Program Savings	\$1,067,135
Percent Savings	44.1%
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Other Savings	\$0
Total Savings	\$1,067,135



Expected Energy Cost

Anticipated expense without energy management.

Base year usage after adjustments for such variables as changes in weather, equipment, schedules, occupancy and prices.

Actual Energy Cost

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

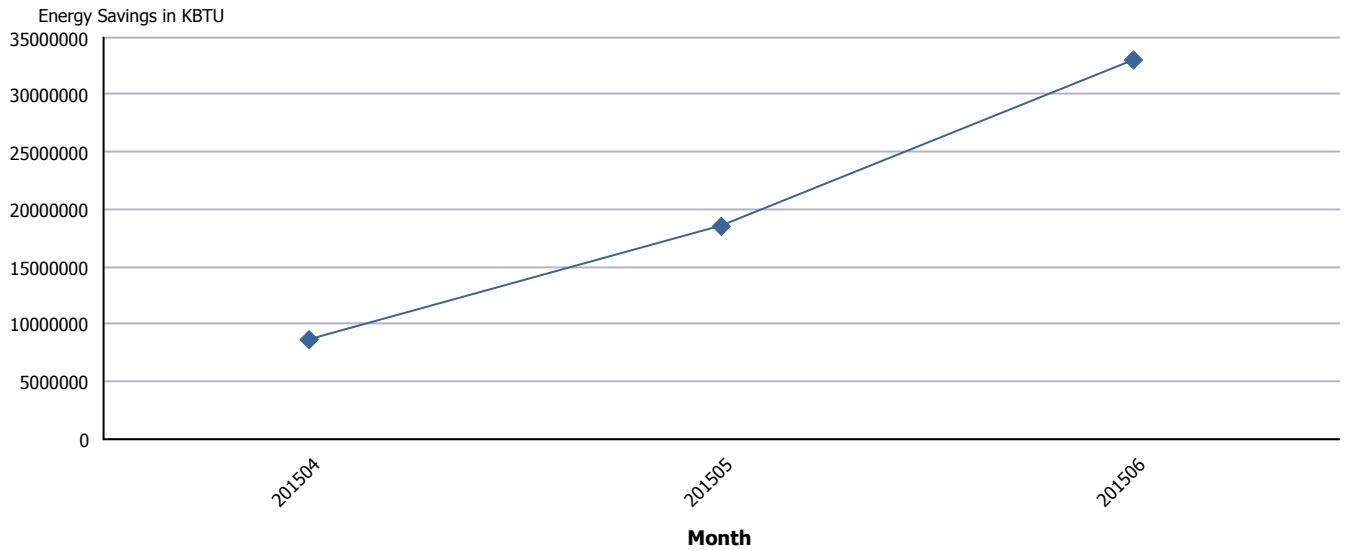
Other Savings

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

Program Savings

The difference between Expected and Actual Cost, 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%.

Cumulative Energy Savings



Cumulative Greenhouse Gas Reduction

Energy Reduction Impact: 32,984,583 KBTU 4,963 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,034
Tree seedlings grown for 10 years:	127,245

Requested by: acrutchfield

Version:

Report Version: 12

Filters: Billing Period Between Apr 2015 and Jun 2015; ; ; Bill Account is Active Equals 1; ; Bill is From a Vendor Equals 1

Monthly Summary

	2015		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	469,172	48.0	469,172
Feb	468,635	47.9	468,635
Mar	435,808	50.7	435,808
Apr	299,486	35.9	299,486
May	321,131	40.1	321,131
Jun	446,520	57.0	446,520
Total	2,440,752	46.6	2,440,752

* The Total \$ column is the sum of Cost Avoidance Savings and Other Savings.

Energy Summary

	Use				Cost				
	BATCC	Actual	Avoid	Avoid %	BATCC	Actual	Avoid	Avoid %	Total Savings \$
Electric (KWH)	41,668,736	21,795,861	19,872,875	47.7	4,836,777	2,506,460	2,330,317	48.2	2,330,317
Water (KGAL)	379	361	19	5.0	2,335	2,195	140	6.0	140
Water & Sewer (KGAL)	24,805	17,398	7,407	29.9	360,213	253,758	106,455	29.6	106,455
Irrigation (KGAL)	7,050	6,370	680	9.6	35,193	31,354	3,839	10.9	3,839
Total (MMBTU)	142,215,396	74,389,273	67,826,123	47.7	5,234,519	2,793,767	2,440,752	46.6	2,440,752

Requested by: acrutchfield

Version:

Report Version: 7

Filters: Billing Period Between Jan 2015 and Jun 2015; ; ; Bill Account is Active Equals 1; ; Bill is From a Vendor Equals 1

Commodity		BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance %	Use Avoidance	Use Avoidance %
Electric	kWh	\$67,705,188	569,844,005	\$35,956,863	307,021,273	\$31,748,325	46.9%	262,822,732	46.1%
Irrigation	Kgal	\$396,972	91,944	\$314,562	79,372	\$82,409	20.8%	12,572	13.7%
Water	Kgal	\$23,740	3,847	\$10,890	1,547	\$12,849	54.1%	2,300	59.8%
Water & Sewer	Kgal	\$5,129,173	399,601	\$3,468,541	280,236	\$1,660,632	32.4%	119,365	29.9%
Totals:		\$73,255,073		\$39,750,857		\$33,504,216	45.7%		

Commodity	BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance %	Use Avoidance	Use Avoidance %
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