



Agenda Item Details

Meeting	Dec 08, 2015 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report December 2015
Type	Action (Consent)
Goals	GO-3 Energy Consumption Strategies

Background Information:

The School District, through an agreement with Cenergistic – The Energy Conservation Company, implemented an Energy Conservation Program in 2008. Principals, Maintenance Coordinators, and the District Energy Manager work together to monitor and conserve energy consumption at each school site and facility. Quarterly Energy Program Status Reports have been presented to the School Board since April 2009.

The December 2015 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period July 2015 – September 2015. The report reveals data on energy consumption by the District during this period. Also provided is cost avoidance 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 July 2015 – September 2015 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,324,396. The current rate of energy savings significantly exceeds the projected performance of the program. Since inception, the district has realized a total cumulative cost avoidance of \$34,837,976.

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 and New Construction

Tim Forson, Deputy Superintendent for Operations

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

[Energy Conservation Program Quarterly Status Report December 2015.pdf \(711 KB\)](#)

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.

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
July 2015 – September 2015**

EXECUTIVE SUMMARY

The December 2015 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of July 2015 – September 2015 and is comprised of the following:

- Cost Avoidance Summary by Site (July 2015 – September 2015): The District realized a total cost avoidance for this quarterly period of \$1,324,396.00 (or a 46.3% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 6,166 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2015 – September 2015): This reflects the monthly summary of total cost avoidance for the period January 2015 – September 2015.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2015 – September 2015.
- Total cost avoidance for the district from program inception (July 2008 – September 2015): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$34,837,976.00.

During the period of July 2015 – September 2015 there were 125 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 application review process is underway for all of our school sites for the 2015 year, and we anticipate to continue to achieve great results.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

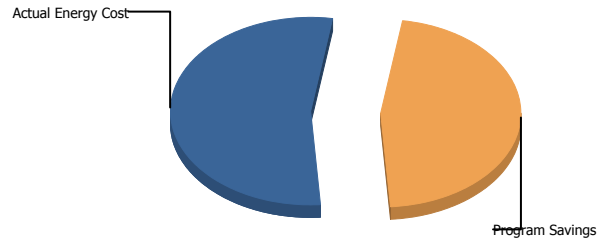
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$29,769	\$16,838	\$12,931	43.4
[BG] CROOKSHANK BUS GARAGE	\$4,916	\$3,143	\$1,774	36.1
[BH] Bartram High School	\$260,102	\$100,820	\$159,282	61.2
[CE] Cunningham Creek Elementary School	\$60,574	\$33,199	\$27,375	45.2
[CLN] CLINIC - RAY ROAD	\$1,068	\$918	\$150	14.0
[CM] CLINIC-SR206	\$165	\$292	(\$127)	-77.3
[CRO] Crookshank Elementary School	\$39,734	\$20,799	\$18,935	47.7
[CS] Creekside High School	\$146,935	\$96,829	\$50,106	34.1
[DCE_1] Durbin Creek Elementary	\$131,906	\$51,231	\$80,675	61.2
[FCS_1] Fruit Cove Middle School	\$69,262	\$32,584	\$36,679	53.0
[FU] FULLERWOOD	\$10,177	\$7,305	\$2,872	28.2
[GAS_1] Gaines Alternative School	\$17,099	\$9,832	\$7,267	42.5
[GRM_1] Gamble Rogers Middle School	\$58,576	\$31,983	\$26,593	45.4
[HCE_1] Hickory Creek Elementary School	\$92,754	\$39,014	\$53,740	57.9
[JCE_1] Julington Creek Elementary School	\$65,928	\$48,344	\$17,585	26.7
[KES_1] Ketterlinus Elementary School	\$30,975	\$17,334	\$13,641	44.0
[LMS_1] Alice B. Landrum Middle School	\$112,324	\$50,896	\$61,429	54.7
[LPA_1] Liberty Pines Academy k-8	\$77,399	\$65,833	\$11,566	14.9
[MCE_1] Mill Creek Elementary School	\$61,189	\$36,643	\$24,546	40.1
[MES_1] Otis Mason Elementary School	\$33,009	\$19,996	\$13,013	39.4
[MMS_1] RJ Murray Middle School	\$56,479	\$30,228	\$26,251	46.5
[MT] Maintenance	\$4,787	\$2,475	\$2,311	48.3
[NHS_1] Allen D. Nease High School	\$114,192	\$38,251	\$75,942	66.5
[OES_1] Osceola Elementary School	\$64,553	\$26,989	\$37,563	58.2
[OL] OCONNELL CENTER	\$3,015	\$1,752	\$1,263	41.9
[OPE_1] Ocean Palms Elementary School	\$69,584	\$36,087	\$33,497	48.1
[PBM_1] Pacetti Bay Middle School	\$66,210	\$48,139	\$18,071	27.3
[PES_1] PALENCIA ELEMENTARY	\$19,769	\$16,537	\$3,232	16.4
[PMH_1] Pedro Menendez High School	\$173,441	\$74,302	\$99,140	57.2
[POA] PATRIOT OAKS ACADEMY	\$48,353	\$49,130	(\$777)	-1.6
[PVH_1] Ponte Vedra High School	\$156,520	\$102,112	\$54,407	34.8
[PVP_1] PV-PV Elementary School	\$47,980	\$21,851	\$26,129	54.5
[RBH_1] RB Hunt Elementary School	\$50,114	\$16,753	\$33,361	66.6
[RES_1] Rawlings Elementary School	\$48,632	\$29,030	\$19,602	40.3
[SAH_1] ST Augustine High School	\$120,292	\$63,308	\$56,983	47.4
[SJT_1] ST Johns Technical High School	\$15,880	\$13,220	\$2,660	16.8
[SMS_1] Sebastian Middle School	\$53,161	\$27,670	\$25,491	48.0
[SPM_1] Switzerland Point Middle School	\$62,914	\$39,648	\$23,266	37.0
[SWE_1] South Woods Elementary School	\$54,395	\$26,836	\$27,559	50.7
[TCE_1] Timberlin Creek Elementary School	\$100,115	\$47,547	\$52,568	52.5
[VRA] VALLEY RIDGE ACADEMY	\$48,147	\$49,037	(\$890)	-1.8
[WCE_1] Wards Creek Elementary School	\$66,299	\$36,763	\$29,537	44.6
[WDH_1] WD Hartley Elementary School	\$56,145	\$30,547	\$25,599	45.6
[WSE_1] Webster School Elementary	\$54,151	\$22,551	\$31,601	58.4

Cost Avoidance Summary By Building CAP - 01B

Totals:	\$2,858,991	\$1,534,595	\$1,324,396	46.3
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Cumulative Cost Savings

Expected Energy Cost	\$2,858,992
Actual Energy Cost	\$1,534,595
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Program Savings	\$1,324,397
Percent Savings	46.3%
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Other Savings	\$0
Total Savings	\$1,324,397



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.

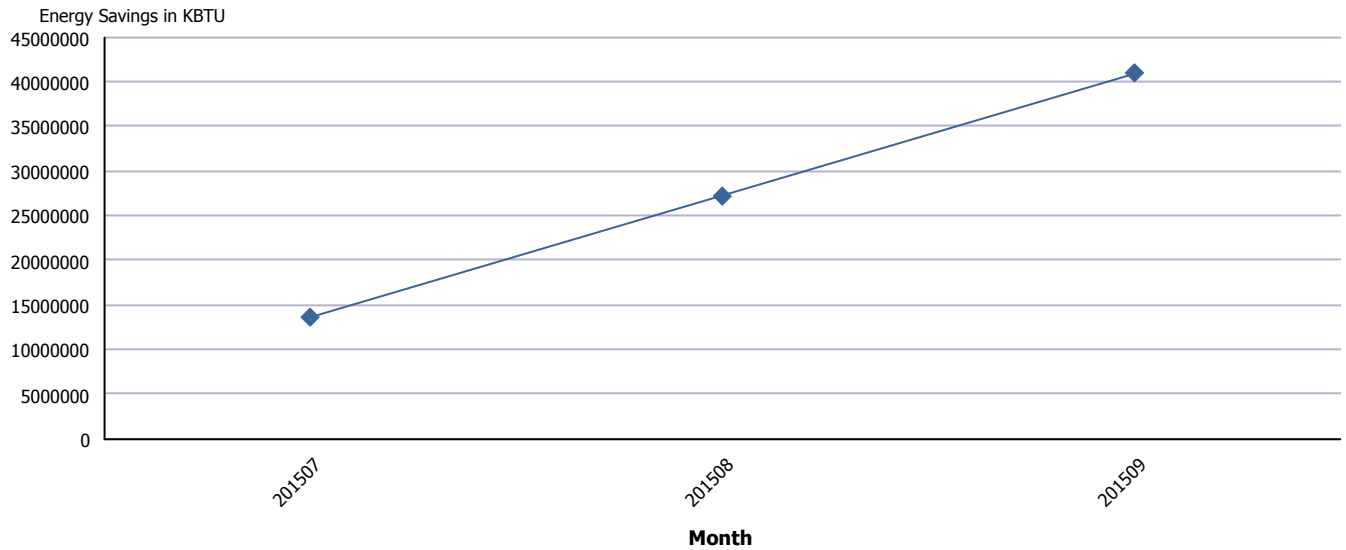
Other Savings

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: 40,960,476 KBTU 6,166 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,285
Tree seedlings grown for 10 years:	158,104

Requested by: acrutchfield

Version:

Report Version: 14

Filters: Billing Period Between 201507|201509;Bill Account is Active Equals 1;Bill is From a Vendor Equals 1

Monthly Summary

	2015		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	469,135	48.0	469,135
Feb	468,324	47.8	468,324
Mar	436,727	50.5	436,727
Apr	300,819	35.7	300,819
May	325,172	39.8	325,172
Jun	447,553	56.3	447,553
Jul	459,392	50.9	459,392
Aug	434,623	41.6	434,623
Sep	430,382	47.1	430,382
Total	3,772,126	46.4	3,772,126

* 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)	67,442,114	35,550,176	31,891,938	47.3	7,558,149	3,933,627	3,624,522	48.0	3,624,522
Water (KGAL)	379	361	19	5.0	2,335	2,195	140	6.0	140
Water & Sewer (KGAL)	37,140	27,316	9,825	26.5	512,028	386,446	125,582	24.5	125,582
Irrigation (KGAL)	12,009	8,169	3,840	32.0	62,912	41,030	21,881	34.8	21,881
Total (MMBTU)	230,179,935	121,332,752	108,847,183	47.3	8,135,424	4,363,298	3,772,126	46.4	3,772,126

Requested by: acrutchfield
Version:**Report Version:** 7**Filters:** Billing Period Between Jan 2015 and Sep 2015; ; ; Bill Account is Active Equals 1; ; Bill is From a Vendor Equals 1

11/10/2015 12:16:08PM

Commodity		BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance %	Use Avoidance	Use Avoidance %
Electric	kWh	\$70,426,838	595,619,939	\$37,384,300	320,778,110	\$33,042,538	46.9%	274,841,829	46.1%
Irrigation	Kgal	\$424,690	96,903	\$324,238	81,171	\$100,452	23.7%	15,732	16.2%
Water	Kgal	\$23,740	3,847	\$10,890	1,547	\$12,849	54.1%	2,300	59.8%
Water & Sewer	Kgal	\$5,283,365	412,018	\$3,601,229	290,410	\$1,682,137	31.8%	121,608	29.5%
Totals:		\$76,158,633		\$41,320,657		\$34,837,976	45.7%		

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