



Agenda Item Details

Meeting	Jun 15, 2016 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report June 2016
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 June 2016 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period January 2016 – March 2016. 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 January 2016 – March 2016 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,288,332. 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 \$37,556,023.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report June 2016.

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

Sincerely,

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

[Energy Conservation Program Quarterly Status Report June 2016.pdf \(475 KB\)](#)

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
January 2016 – March 2016**

EXECUTIVE SUMMARY

The June 2016 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of January 2016 – March 2016 and is comprised of the following:

- Cost Avoidance Summary by Site (Jan 2016 – March 2016): The District realized a total cost avoidance for this quarterly period of \$1,288,332.00 (or a 47.9% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 5,343 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2016 – March 2016): This reflects the monthly summary of total cost avoidance for the period January 2016 – March 2016.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2016 – March 2016.
- Total cost avoidance for the district from program inception (July 2008 – March 2016): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$37,556,023.00.

During the period of January 2016 – March 2016 there were 115 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 received for 26 school sites for the 2015 year.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

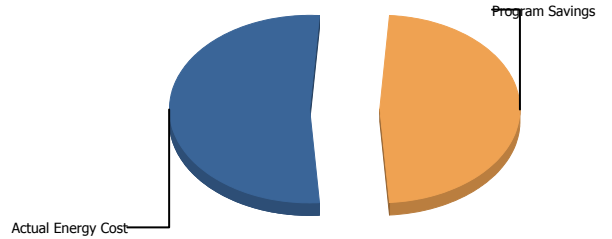
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$19,793	\$15,690	\$4,103	20.7
[BG] CROOKSHANK BUS GARAGE	\$5,362	\$3,816	\$1,546	28.8
[BH] Bartram High School	\$192,218	\$86,678	\$105,541	54.9
[CE] Cunningham Creek Elementary School	\$54,365	\$31,098	\$23,268	42.8
[CLN] CLINIC - RAY ROAD	\$882	\$827	\$55	6.3
[CM] CLINIC-SR206	\$1,001	\$787	\$214	21.3
[CRO] Crookshank Elementary School	\$25,143	\$18,590	\$6,554	26.1
[CS] Creekside High School	\$113,063	\$101,105	\$11,958	10.6
[DCE_1] Durbin Creek Elementary	\$174,314	\$45,778	\$128,535	73.7
[FCS_1] Fruit Cove Middle School	\$58,198	\$29,066	\$29,131	50.1
[FU] FULLERWOOD	\$9,532	\$5,395	\$4,137	43.4
[GAS_1] Gaines Alternative School	\$13,054	\$7,390	\$5,663	43.4
[GRM_1] Gamble Rogers Middle School	\$53,728	\$24,491	\$29,237	54.4
[HCE_1] Hickory Creek Elementary School	\$125,984	\$43,038	\$82,945	65.8
[JCE_1] Julington Creek Elementary School	\$96,916	\$53,957	\$42,958	44.3
[KES_1] Ketterlinus Elementary School	\$21,687	\$12,345	\$9,342	43.1
[LMS_1] Alice B. Landrum Middle School	\$77,883	\$41,835	\$36,048	46.3
[LPA_1] Liberty Pines Academy k-8	\$104,567	\$62,523	\$42,044	40.2
[LSO] Lewis Speedway Offices	\$2,253	\$2,253	\$0	0.0
[MCE_1] Mill Creek Elementary School	\$43,817	\$26,260	\$17,558	40.1
[MES_1] Otis Mason Elementary School	\$25,509	\$12,841	\$12,668	49.7
[MMS_1] RJ Murray Middle School	\$48,868	\$22,922	\$25,946	53.1
[MT] Maintenance	\$2,903	\$2,031	\$872	30.0
[NHS_1] Allen D. Nease High School	\$98,195	\$43,772	\$54,423	55.4
[OES_1] Osceola Elementary School	\$44,540	\$19,684	\$24,856	55.8
[OL] OCONNELL CENTER	\$2,137	\$1,325	\$813	38.0
[OPE_1] Ocean Palms Elementary School	\$60,939	\$29,902	\$31,036	50.9
[PBM_1] Pacetti Bay Middle School	\$92,257	\$43,420	\$48,837	52.9
[PES_1] PALENCIA ELEMENTARY	\$13,635	\$20,643	(\$7,008)	-51.4
[PMH_1] Pedro Menendez High School	\$132,160	\$58,749	\$73,411	55.5
[POA] PATRIOT OAKS ACADEMY	\$55,600	\$55,709	(\$110)	-0.2
[PVH_1] Ponte Vedra High School	\$120,659	\$90,057	\$30,602	25.4
[PVP_1] PV-PV Elementary	\$34,345	\$19,941	\$14,404	41.9
[RBH_1] RB Hunt Elementary School	\$30,858	\$15,174	\$15,684	50.8
[RES_1] Rawlings Elementary School	\$41,716	\$17,981	\$23,735	56.9
[SAH_1] ST Augustine High School	\$83,881	\$45,219	\$38,663	46.1
[SJT_1] ST Johns Technical High School	\$16,798	\$8,461	\$8,337	49.6
[SMS_1] Sebastian Middle School	\$36,719	\$20,601	\$16,118	43.9
[SPM_1] Switzerland Point Middle School	\$71,343	\$33,569	\$37,774	52.9
[SWE_1] South Woods Elementary School	\$102,011	\$31,769	\$70,243	68.9
[TCE_1] Timberlin Creek Elementary School	\$132,891	\$54,499	\$78,392	59.0
[VRA] VALLEY RIDGE ACADEMY	\$58,913	\$59,109	(\$196)	-0.3
[WCE_1] Wards Creek Elementary School	\$114,170	\$46,876	\$67,294	58.9
[WDH_1] WD Hartley Elementary School	\$42,813	\$21,686	\$21,127	49.3

Cost Avoidance Summary By Building CAP - 01B

[WSE_1] Webster School Elementary	\$33,574	\$13,998	\$19,575	58.3
Totals:	\$2,691,193	\$1,402,860	\$1,288,332	47.9

Cumulative Cost Savings

Expected Energy Cost	\$2,691,192
Actual Energy Cost	\$1,402,860
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Program Savings	\$1,288,332
Percent Savings	47.9%
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Other Savings	\$0
Total Savings	\$1,288,332



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.

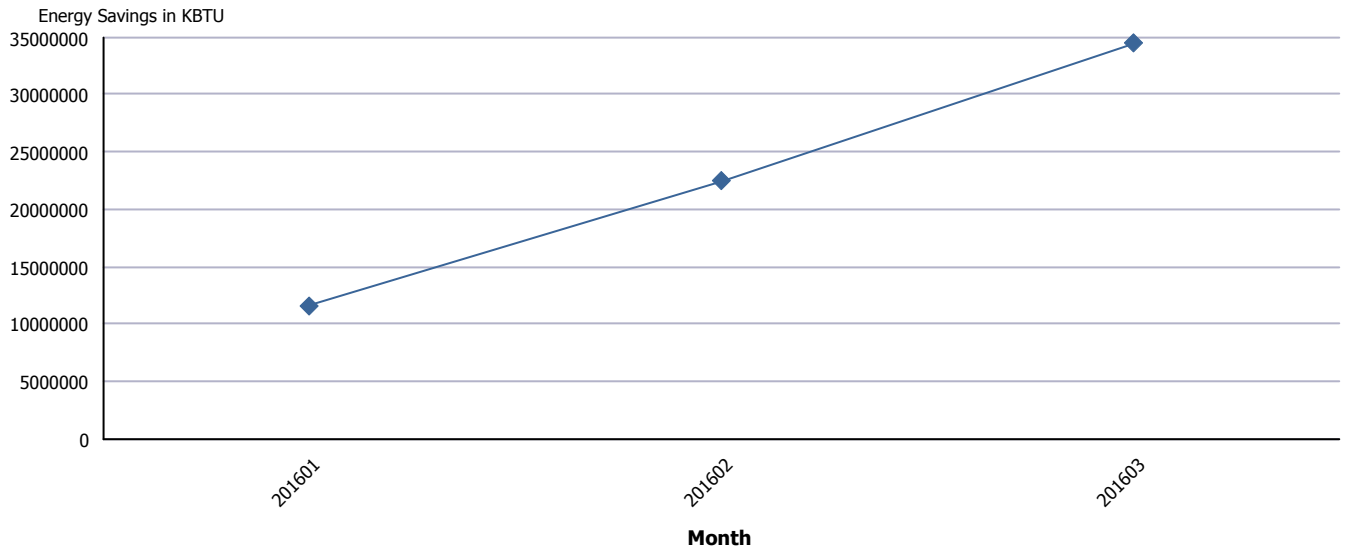
Other Savings

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: 34,470,046 KBTU 5,343 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,113
Tree seedlings grown for 10 years:	136,988

Requested by: acrutchfield

Version:

Report Version: 14

Filters: Billing Period Between 201601|201603;Bill Account is Active Equals 1;Bill is From a Vendor Equals 1

Monthly Summary

	2016		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	467,034	48.1	467,034
Feb	400,590	45.7	400,590
Mar	420,709	49.9	420,709
Total	1,288,332	47.9	1,288,332

* 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)	20,842,715	10,743,082	10,099,633	48.5	2,542,041	1,304,483	1,237,559	48.7	1,237,559
Water & Sewer (KGAL)	8,312	5,617	2,695	32.4	134,993	86,753	48,240	35.7	48,240
Irrigation (KGAL)	2,668	2,249	419	15.7	14,158	11,624	2,534	17.9	2,534
Total (MMBTU)	71,136,186	36,666,139	34,470,047	48.5	2,691,193	1,402,860	1,288,332	47.9	1,288,332

Requested by: acrutchfield

Version:

Report Version: 7

Filters: Billing Period Between Jan 2016 and Mar 2016; ; ; 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	\$75,719,673	639,368,035	\$40,056,243	342,929,830	\$35,663,430	47.1%	296,438,205	46.4%
Irrigation	Kgal	\$459,806	103,886	\$353,228	86,995	\$106,577	23.2%	16,891	16.3%
Water	Kgal	\$26,676	4,171	\$15,620	2,069	\$11,057	41.4%	2,102	50.4%
Water & Sewer	Kgal	\$5,587,008	431,646	\$3,812,049	304,610	\$1,774,959	31.8%	127,036	29.4%
Totals:		\$81,793,163		\$44,237,140		\$37,556,023	45.9%		

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