



Agenda Item Details

Meeting	Sep 13, 2016 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report September 2016
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report September 2016
Goals	GO-3 Energy Consumption Strategies

Public Content

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 September 2016 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period April 2016 – June 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 April 2016 – June 2016 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,061,524. 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 \$38,648,827.

Recommendation:

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

Action Required:

Approval of the Superintendent's recommendation.

Drafted, reviewed and submitted by:

Al Crutchfield, Energy Manager

Paul Rose, Executive Director for Facilities & Operations

Sincerely,

Joseph G. Joyner, Ed.D.

Superintendent of Schools

Energy Conservation Program Quarterly Status Report September 2016.pdf (590 KB)

Administrative Content

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.

Workflow

Workflow

Aug 25, 2016 9:19 AM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
Aug 25, 2016 9:20 AM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
Aug 25, 2016 9:31 AM :: Approved by Paul Rose. Routed to Sharon Carcaba for approval.
Aug 25, 2016 11:57 AM :: Rejected by Sharon Carcaba
Aug 25, 2016 12:05 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
Aug 25, 2016 12:05 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
Aug 25, 2016 12:10 PM :: Approved by Paul Rose. Routed to Sharon Carcaba for approval.
Aug 25, 2016 12:13 PM :: Approved by Sharon Carcaba. Routed to Vicki Moody for approval.
Aug 26, 2016 8:43 AM :: Approved by Vicki Moody. Routed to Joseph Joyner for approval.
Sep 1, 2016 2:21 PM :: Final approval by Joseph Joyner

Last Modified by Joseph Joyner on September 1, 2016

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
April 2016 – June 2016**

EXECUTIVE SUMMARY

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

- Cost Avoidance Summary by Site (April 2016 – June 2016): The District realized a total cost avoidance for this quarterly period of \$1,061,524 (or a 47.4% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 5,252 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2016 – June 2016): This reflects the monthly summary of total cost avoidance for the period January 2016 – June 2016.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2016 – June 2016.
- Total cost avoidance for the district from program inception (July 2008 – June 2016): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$38,648,827.

During the period of April 2016 – June 2016 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. The Summer Operations Program for energy conservation reflects a high yield in cost avoidance for electrical consumption, due to the strategy of avoiding high peak demand between the hours of 3:00pm-6:00pm.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

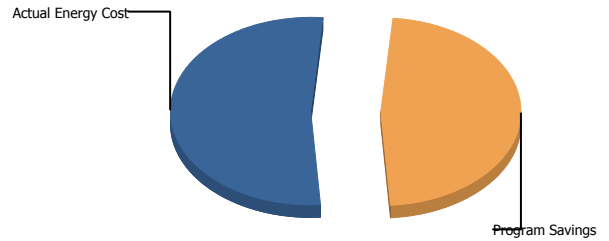
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$22,309	\$14,169	\$8,139	36.5
[BG] CROOKSHANK BUS GARAGE	\$5,660	\$4,047	\$1,613	28.5
[BH] Bartram High School	\$179,850	\$75,441	\$104,409	58.1
[CE] Cunningham Creek Elementary School	\$59,693	\$24,917	\$34,776	58.3
[CLN] CLINIC - RAY ROAD	\$924	\$851	\$73	7.9
[CM] CLINIC-SR206	\$932	\$655	\$277	29.7
[CRO] Crookshank Elementary School	\$22,339	\$18,003	\$4,335	19.4
[CS] Creekside High School	\$135,922	\$86,507	\$49,415	36.4
[DCE_1] Durbin Creek Elementary	\$121,497	\$37,374	\$84,123	69.2
[FCS_1] Fruit Cove Middle School	\$66,283	\$28,148	\$38,135	57.5
[FU] FULLERWOOD	\$9,878	\$5,846	\$4,032	40.8
[GAS_1] Gaines Alternative School	\$11,672	\$6,940	\$4,731	40.5
[GRM_1] Gamble Rogers Middle School	\$50,807	\$23,681	\$27,126	53.4
[HCE_1] Hickory Creek Elementary School	\$60,631	\$27,962	\$32,669	53.9
[JCE_1] Julington Creek Elementary School	\$84,310	\$39,207	\$45,104	53.5
[KES_1] Ketterlinus Elementary School	\$18,200	\$10,117	\$8,083	44.4
[LMS_1] Alice B. Landrum Middle School	\$85,180	\$41,299	\$43,881	51.5
[LPA_1] Liberty Pines Academy k-8	\$94,977	\$63,287	\$31,691	33.4
[LSO] Lewis Speedway Offices	\$2,638	\$2,638	\$0	0.0
[MCE_1] Mill Creek Elementary School	\$39,343	\$22,382	\$16,961	43.1
[MES_1] Otis Mason Elementary School	\$19,565	\$10,469	\$9,096	46.5
[MMS_1] RJ Murray Middle School	\$42,102	\$19,369	\$22,733	54.0
[MT] Maintenance	\$3,151	\$1,903	\$1,248	39.6
[NHS_1] Allen D. Nease High School	\$96,346	\$44,353	\$51,993	54.0
[OES_1] Osceola Elementary School	\$41,920	\$16,319	\$25,601	61.1
[OL] OCONNELL CENTER	\$2,285	\$1,326	\$959	42.0
[OPE_1] Ocean Palms Elementary School	\$58,914	\$28,918	\$29,996	50.9
[PBM_1] Pacetti Bay Middle School	\$53,168	\$35,142	\$18,027	33.9
[PES_1] PALENCIA ELEMENTARY	\$13,684	\$15,892	(\$2,209)	-16.1
[PMH_1] Pedro Menendez High School	\$127,432	\$39,996	\$87,436	68.6
[POA] PATRIOT OAKS ACADEMY	\$42,898	\$42,898	\$0	0.0
[PVH_1] Ponte Vedra High School	\$99,983	\$86,510	\$13,473	13.5
[PVP_1] PV-PV Elementary	\$37,445	\$14,176	\$23,269	62.1
[RBH_1] RB Hunt Elementary School	\$26,198	\$11,772	\$14,425	55.1
[RES_1] Rawlings Elementary School	\$39,439	\$23,778	\$15,661	39.7
[SAH_1] ST Augustine High School	\$63,797	\$36,828	\$26,969	42.3
[SJT_1] ST Johns Technical High School	\$9,249	\$9,044	\$204	2.2
[SMS_1] Sebastian Middle School	\$34,647	\$18,166	\$16,481	47.6
[SPM_1] Switzerland Point Middle School	\$51,251	\$27,688	\$23,563	46.0
[SWE_1] South Woods Elementary School	\$54,097	\$27,194	\$26,904	49.7
[TCE_1] Timberlin Creek Elementary School	\$73,369	\$32,998	\$40,371	55.0
[VRA] VALLEY RIDGE ACADEMY	\$46,115	\$46,115	\$0	0.0
[WCE_1] Wards Creek Elementary School	\$64,480	\$26,847	\$37,633	58.4
[WDH_1] WD Hartley Elementary School	\$31,115	\$15,758	\$15,358	49.4

Cost Avoidance Summary By Building CAP - 01B

[WSE_1] Webster School Elementary	\$34,946	\$12,186	\$22,760	65.1
Totals:	\$2,240,641	\$1,179,117	\$1,061,524	47.4

Cumulative Cost Savings

Expected Energy Cost	\$2,240,641
Actual Energy Cost	\$1,179,117
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Program Savings	\$1,061,524
Percent Savings	47.4%
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Other Savings	\$0
Total Savings	\$1,061,524



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.

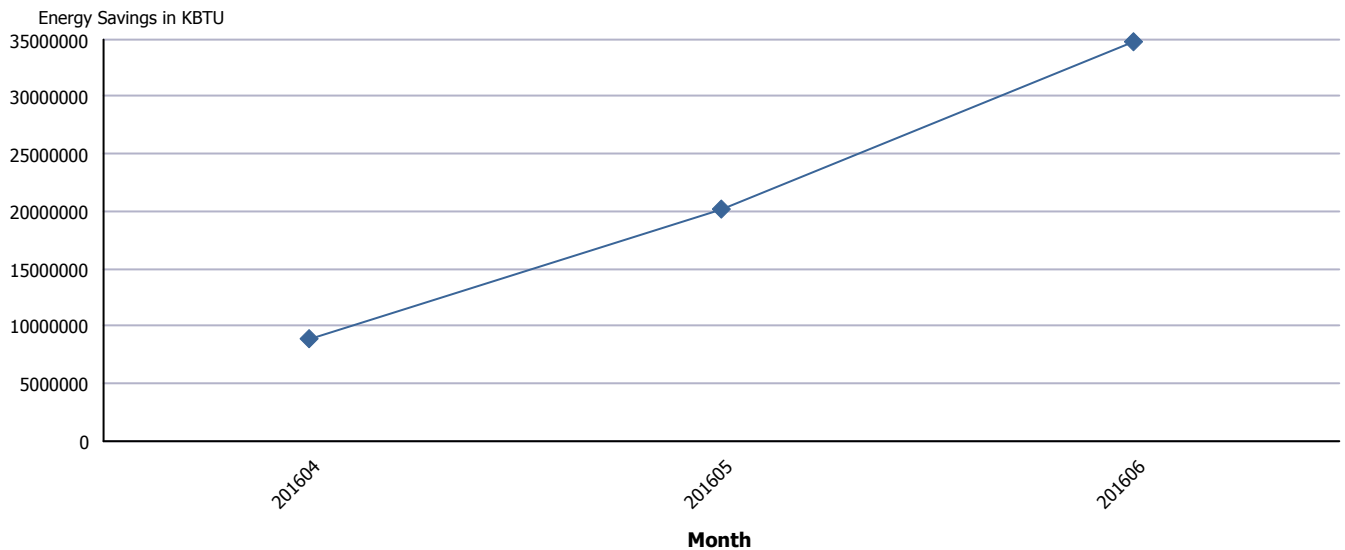
Other Savings

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: 34,738,613 KBTU 5,252 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,094
Tree seedlings grown for 10 years:	134,659

Requested by: acrutchfield

Version:

Report Version: 14

Filters: Billing Period Between 201604|201606;Bill Account is Active Equals 1;Bill is From a Vendor Equals 1

Monthly Summary

	2016		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	469,438	47.7	469,438
Feb	401,818	45.1	401,818
Mar	422,500	49.2	422,500
Apr	301,973	38.5	301,973
May	353,865	48.5	353,865
Jun	405,686	55.9	405,686
Total	2,355,280	47.4	2,355,280

* 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)	42,374,849	22,112,283	20,262,566	47.8	4,648,744	2,383,844	2,264,900	48.7	2,264,900
Water & Sewer (KGAL)	18,215	13,515	4,699	25.8	289,682	199,502	90,181	31.1	90,181
Irrigation (KGAL)	7,115	7,188	-73	-1.0	35,096	34,896	200	0.6	200
Total (MMBTU)	144,625,360	75,469,222	69,156,138	47.8	4,973,522	2,618,242	2,355,280	47.4	2,355,280

Requested by: acrutchfield**Version:****Report Version:** 7**Filters:** Billing Period Between Jan 2016 and Jun 2016; Commodity Code Greater than BIOMASS; ; ; ; 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	\$77,950,858	662,874,270	\$41,266,210	356,370,560	\$36,684,648	47.1%	306,503,710	46.2%
Irrigation	Kgal	\$480,744	108,333	\$376,501	91,934	\$104,243	21.7%	16,399	15.1%
Water	Kgal	\$26,676	4,171	\$15,620	2,069	\$11,057	41.4%	2,102	50.4%
Water & Sewer	Kgal	\$5,800,406	445,403	\$3,951,527	314,488	\$1,848,879	31.9%	130,915	29.4%
Totals:		\$84,258,685		\$45,609,858		\$38,648,827	45.9%		

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