



Agenda Item Details

Meeting	Jun 13, 2017 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report June 2017
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report June 2017
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 June 2017 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period January 2017 – March 2017. 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 2017 – March 2017 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,109,416. 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 \$42,371,048.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report June 2017.

Action Required:

Approval of the Superintendent's recommendation.

Drafted, reviewed and submitted by:

Al Crutchfield, Energy Manager

Paul Rose, Executive Director for Facilities & Operations

Cathy Mittelstadt, Deputy Superintendent for Operations

Sincerely,

Tim Forson

Superintendent of Schools

Energy Conservation Program Quarterly Status Report June 2017.pdf (557 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

May 25, 2017 9:22 AM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.

May 25, 2017 9:25 AM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.

May 25, 2017 12:16 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.

May 26, 2017 10:21 AM :: Approved by Vicki Davenport. Routed to Cathy Mittelstadt for approval.

May 26, 2017 12:39 PM :: Approved by Cathy Mittelstadt. Routed to Vicki Moody for approval.

May 30, 2017 10:18 AM :: Approved by Vicki Moody. Routed to Tim Forson for approval.

Jun 6, 2017 9:55 AM :: Final approval by Tim Forson

Last Modified by Tim Forson on June 6, 2017

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
January 2017 – March 2017**

EXECUTIVE SUMMARY

The June 2017 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of January 2017 – March 2017 and is comprised of the following:

- Cost Avoidance Summary by Site (January 2017 – March 2017): The District realized a total cost avoidance for this quarterly period of \$1,109,416 (or a 45.1% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 4,847 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2017 – March 2017): This reflects the monthly summary of total cost avoidance for the period January 2017 – March 2017.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2017 – March 2017.
- Total cost avoidance for the district from program inception (July 2008 – March 2017): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$42,371,048.

During the period of January 2017 – March 2017 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. Many thanks to facilities staff district-wide for a very successful school year for the Energy Conservation Program.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$23,451	\$14,595	\$8,856	37.8
[BG] CROOKSHANK BUS GARAGE	\$3,953	\$2,367	\$1,586	40.1
[BH] Bartram High School	\$191,387	\$92,298	\$99,089	51.8
[CE] Cunningham Creek Elementary School	\$43,092	\$22,289	\$20,802	48.3
[CLN] CLINIC - RAY ROAD	\$1,309	\$1,155	\$154	11.7
[CRO] Crookshank Elementary School	\$22,285	\$18,515	\$3,770	16.9
[CS] Creekside High School	\$89,203	\$85,584	\$3,619	4.1
[DCE_1] Durbin Creek Elementary	\$137,257	\$42,033	\$95,224	69.4
[FCS_1] Fruit Cove Middle School	\$52,607	\$18,225	\$34,382	65.4
[FIRSTCOASTTECHCOLLEGE] First Coast Tech College	\$40,640	\$36,819	\$3,821	9.4
[FU] FULLERWOOD	\$9,739	\$5,109	\$4,630	47.5
[GAS_1] Gaines Alternative School	\$12,117	\$5,971	\$6,146	50.7
[GRM_1] Gamble Rogers Middle School	\$52,357	\$24,753	\$27,604	52.7
[HCE_1] Hickory Creek Elementary School	\$85,750	\$37,459	\$48,291	56.3
[JCE_1] Julington Creek Elementary School	\$78,447	\$40,229	\$38,218	48.7
[KES_1] Ketterlinus Elementary School	\$23,300	\$14,027	\$9,273	39.8
[LMS_1] Alice B. Landrum Middle School	\$76,745	\$36,750	\$39,994	52.1
[LPA_1] Liberty Pines Academy k-8	\$76,646	\$53,563	\$23,084	30.1
[MCE_1] Mill Creek Elementary School	\$45,445	\$30,824	\$14,621	32.2
[MES_1] Otis Mason Elementary School	\$26,613	\$13,764	\$12,850	48.3
[MMS_1] RJ Murray Middle School	\$47,406	\$24,432	\$22,974	48.5
[MT] Maintenance	\$3,012	\$1,762	\$1,249	41.5
[NHS_1] Allen D. Nease High School	\$108,278	\$50,702	\$57,576	53.2
[OES_1] Osceola Elementary School	\$47,917	\$17,996	\$29,922	62.4
[OL] OCONNELL CENTER	\$2,372	\$1,509	\$863	36.4
[OPE_1] Ocean Palms Elementary School	\$55,623	\$29,201	\$26,422	47.5
[PBM_1] Pacetti Bay Middle School	\$76,050	\$56,719	\$19,331	25.4
[PES_1] PALENCIA ELEMENTARY	\$14,804	\$19,560	(\$4,756)	-32.1
[PMH_1] Pedro Menendez High School	\$137,459	\$62,053	\$75,406	54.9
[POA] PATRIOT OAKS ACADEMY	\$37,363	\$49,197	(\$11,834)	-31.7
[PVH_1] Ponte Vedra High School	\$81,191	\$80,583	\$608	0.7
[PVP_1] PV-PV Elementary	\$26,345	\$12,378	\$13,967	53.0
[RBH_1] RB Hunt Elementary School	\$32,082	\$13,289	\$18,792	58.6
[RES_1] Rawlings Elementary School	\$39,582	\$19,501	\$20,081	50.7
[SAH_1] ST Augustine High School	\$84,116	\$47,703	\$36,413	43.3
[SJT_1] ST Johns Technical High School	\$14,119	\$9,973	\$4,146	29.4
[SMS_1] Sebastian Middle School	\$35,482	\$19,940	\$15,542	43.8
[SPM_1] Switzerland Point Middle School	\$54,358	\$26,554	\$27,804	51.1
[SWE_1] South Woods Elementary School	\$108,760	\$33,266	\$75,493	69.4
[TCE_1] Timberlin Creek Elementary School	\$124,020	\$48,478	\$75,543	60.9
[VRA] VALLEY RIDGE ACADEMY	\$41,579	\$44,984	(\$3,405)	-8.2
[WCE_1] Wards Creek Elementary School	\$119,721	\$48,517	\$71,204	59.5
[WDH_1] WD Hartley Elementary School	\$46,642	\$24,252	\$22,390	48.0
[WSE_1] Webster School Elementary	\$31,589	\$13,918	\$17,670	55.9

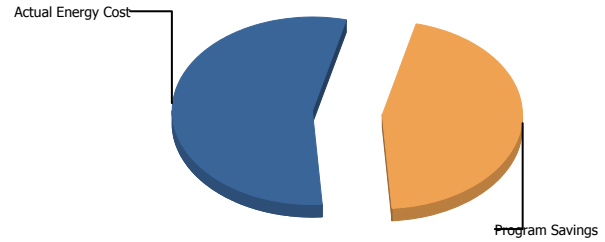
Cost Avoidance Summary By Building CAP - 01B

Totals:	\$2,462,210	\$1,352,794	\$1,109,416	45.1
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Cumulative Cost Savings

March 2017

Expected Energy Cost	\$2,462,210
Actual Energy Cost	\$1,352,794
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Program Savings	\$1,109,416
Percent Savings	45.1%
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Other Savings	\$0
Total Savings	\$1,109,416



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.

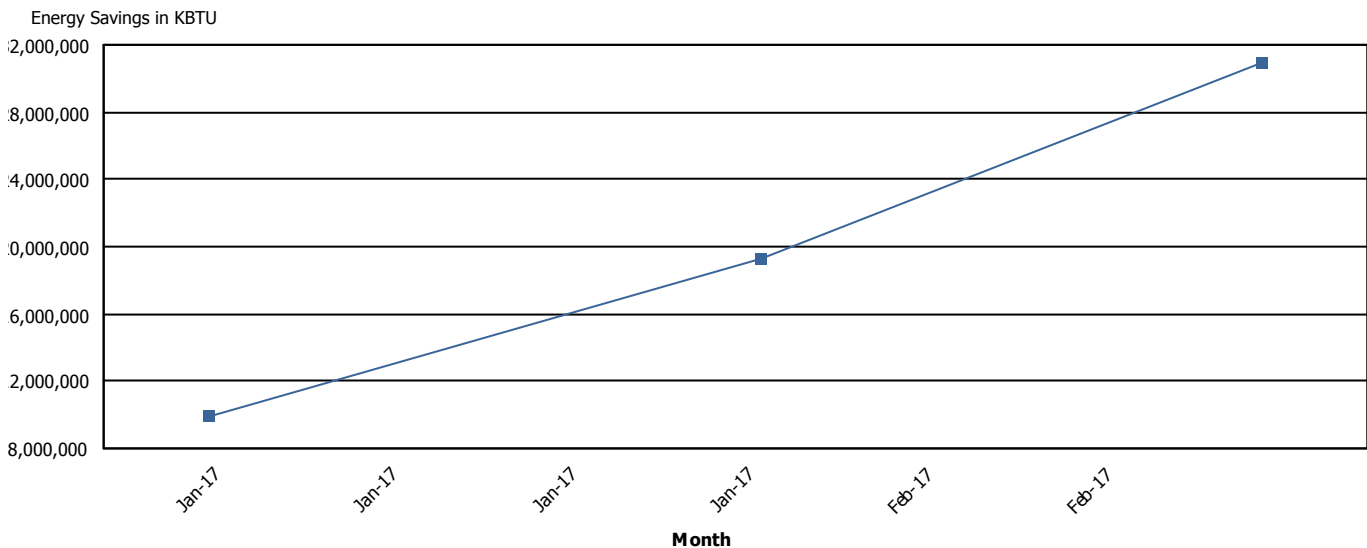
Other Savings

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: 30,916,770 KBTU 4,847 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,010
Tree seedlings grown for 10 years:	124,279

Requested by: acrutchfield

Version:

Report Version: 16

Filters: Billing Period Between 201701;201703;Commodity Code Equals ELECTRIC;One Page per Building (Y/N) Equals 0;Bill Account is Active Equals 1;Bill is From a Vendor Equals 1

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Monthly Summary

	2017		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	363,608	42.2	363,608
Feb	349,374	41.8	349,374
Mar	417,122	47.1	417,122
Total	1,130,104	43.7	1,130,104

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

Energy Summary

	Use				Cost				Total Savings \$
	BATCC	Actual	Avoid	Avoid %	BATCC	Actual	Avoid	Avoid %	
Electric (KWH)	20,609,750	11,551,218	9,058,532	44.0	2,462,210	1,352,794	1,109,416	45.1	1,109,416
Water & Sewer (KGAL)	7,492	5,751	1,740	23.2	109,343	85,407	23,936	21.9	23,936
Irrigation (KGAL)	2,617	3,287	-670	-25.6	12,871	16,119	-3,248	-25.2	-3,248
Total (MMBTU)	70,341,077	39,424,307	30,916,770	44.0	2,584,424	1,454,320	1,130,104	43.7	1,130,104

Requested by: acrutchfield

Version:

Report Version: 7

Filters: Billing Period Between Jan 2017 and Mar 2017; Commodity Code Between ELECTRIC;WATERSEWER; ; ; 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	\$85,605,124	732,441,427	\$45,238,671	393,670,970	\$40,366,453	47.2%	338,770,457	46.3%
Irrigation	Kgal	\$537,272	120,192	\$442,264	105,815	\$95,008	17.7%	14,377	12.0%
Water	Kgal	\$26,676	4,171	\$15,620	2,069	\$11,057	41.4%	2,102	50.4%
Water & Sewer	Kgal	\$6,146,350	468,335	\$4,247,820	334,569	\$1,898,530	30.9%	133,766	28.6%
Totals:		\$92,315,423		\$49,944,375		\$42,371,048	45.9%		

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