



Agenda Item Details

Meeting	Sep 10, 2019 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report September 2019
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report September 2019
Goals	GM-1 Mission Statement

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 2019 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of April 2019 – June 2019. 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 life long learning in all students, creating educated and caring contributors to the world.

Fiscal Impact:

During the quarterly period April 2019 - June 2019 the Energy Savings Program has resulted in additional costs avoidance for the School District of \$993,830. 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 \$53,522,033.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for September 2019.

Action Required:

Approval of Superintendent's recommendation.

Drafted, reviewed and submitted by:

Al Crutchfield, Energy Manager

Paul Rose, Executive Director for Facilities and Operations

Cathy Mittelstadt, Deputy Superintendent for Operations

Sincerely,

Tim Forson

Superintendent of Schools

[Energy Conservation Program Quarterly Status Report September 2019.pdf \(553 KB\)](#)

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 26, 2019 2:17 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
 Aug 29, 2019 5:05 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
 Aug 29, 2019 5:06 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.
 Aug 29, 2019 5:24 PM :: Approved by Vicki Davenport. Routed to Cathy Mittelstadt for approval.
 Aug 30, 2019 4:30 PM :: Approved by Cathy Mittelstadt. Routed to Vicki Moody for approval.
 Sep 2, 2019 10:35 AM :: Approved by Vicki Moody. Routed to Tim Forson for approval.
 Sep 2, 2019 3:31 PM :: Final approval by Tim Forson

Last Modified by Tim Forson on September 2, 2019

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
April 2019 – June 2019**

EXECUTIVE SUMMARY

The September 2019 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of April 2019 – June 2019 and is comprised of the following:

- **Cost Avoidance Summary by Site (April 2019 – June 2019):** The District realized a total cost avoidance for this quarterly period of \$993,830 (or a 43.1% cost avoidance from the baseline period).
- **Greenhouse Gas Reduction:** Greenhouse Gas Reduction for this quarterly period reduced CO² by 4,860 metric tons.
- **Monthly Cost Avoidance Summary Year to Date (January 2019 – June 2019):** This reflects the monthly summary of total cost avoidance for the period January 2019 – June 2019.
- **Energy Consumption Summary (Cumulative Year to date):** Summary breakdown for electricity, water & sewer, and irrigation for January 2019 – June 2019.
- **Total cost avoidance for the district from program inception (July 2008 – June 2019):** This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$53,522,033.

During the period of April 2019 – June 2019 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. Our principals and district-wide facilities staff are to be commended for their continued support. The energy management department would like to thank all of our employees for another successful summer energy savings program.

St. Johns County School Board

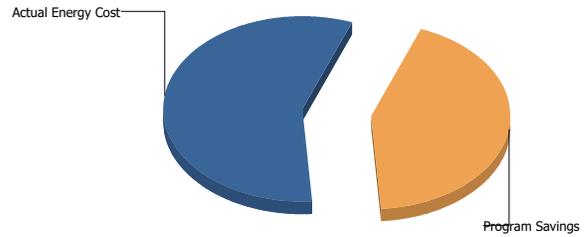
Cost Avoidance Summary By Building CAP - 01B

Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$24,542	\$14,755	\$9,787	39.9%
[BG] CROOKSHANK BUS GARAGE	\$5,438	\$3,824	\$1,614	29.7%
[BH] Bartram High School	\$147,759	\$56,328	\$91,430	61.9%
[CE] Cunningham Creek Elementary School	\$49,384	\$20,153	\$29,231	59.2%
[CLN] CLINIC - RAY ROAD	\$810	\$1,296	(\$486)	-59.9%
[CM] CLINIC-SR206	\$856	\$1,112	(\$256)	-29.9%
[CRO] Crookshank Elementary School	\$17,954	\$14,221	\$3,733	20.8%
[CS] Creekside High School	\$117,892	\$77,508	\$40,384	34.3%
[DCE_1] Durbin Creek Elementary	\$141,023	\$36,428	\$104,595	74.2%
[FC] Freedom Crossing	\$32,849	\$32,849	\$0	0.0%
[FCS_1] Fruit Cove Middle School	\$62,900	\$38,872	\$24,027	38.2%
[FCTC] First Coast Tech College	\$78,757	\$61,597	\$17,160	21.8%
[FU] FULLERWOOD	\$7,780	\$4,569	\$3,211	41.3%
[GAS_1] Gaines Alternative School	\$11,388	\$7,505	\$3,883	34.1%
[GRM_1] Gamble Rogers Middle School	\$52,611	\$21,006	\$31,605	60.1%
[HCE_1] Hickory Creek Elementary School	\$62,266	\$26,152	\$36,114	58.0%
[JCE_1] Julington Creek Elementary School	\$73,376	\$40,842	\$32,534	44.3%
[KES_1] Ketterlinus Elementary School	\$19,744	\$11,618	\$8,126	41.2%
[LMS_1] Alice B. Landrum Middle School	\$77,776	\$42,589	\$35,187	45.2%
[LPA_1] Liberty Pines Academy k-8	\$90,793	\$136,827	(\$46,034)	-50.7%
[MCE_1] Mill Creek Elementary School	\$33,829	\$19,872	\$13,957	41.3%
[MES_1] Otis Mason Elementary School	\$19,315	\$12,657	\$6,658	34.5%
[MMS_1] RJ Murray Middle School	\$43,536	\$21,517	\$22,019	50.6%
[MT] Maintenance	\$806	\$702	\$104	12.9%
[NHS_1] Allen D. Nease High School	\$136,506	\$41,507	\$94,999	69.6%
[OES_1] Osceola Elementary School	\$38,881	\$16,817	\$22,065	56.7%
[OL] OCONNELL CENTER	\$766	\$430	\$336	43.9%
[OPE_1] Ocean Palms Elementary School	\$47,782	\$31,462	\$16,320	34.2%
[PBM_1] Pacetti Bay Middle School	\$65,832	\$34,405	\$31,427	47.7%
[PCE] Picolata Crossing Elementary	\$11,096	\$11,096	(\$0)	0.0%
[PES_1] PALENCIA ELEMENTARY	\$16,867	\$19,928	(\$3,061)	-18.1%
[PMH_1] Pedro Menendez High School	\$112,809	\$45,326	\$67,483	59.8%
[POA] PATRIOT OAKS ACADEMY	\$36,527	\$46,563	(\$10,035)	-27.5%
[PVA] Palm Valley Academy	\$20,505	\$20,505	(\$0)	0.0%
[PVH_1] Ponte Vedra High School	\$93,320	\$44,783	\$48,537	52.0%
[PVP_1] PV-PV Elementary	\$36,686	\$13,264	\$23,422	63.8%
[RBH_1] RB Hunt Elementary School	\$29,540	\$11,430	\$18,110	61.3%
[RES_1] Rawlings Elementary School	\$38,053	\$19,695	\$18,358	48.2%
[SAH_1] ST Augustine High School	\$54,893	\$35,372	\$19,522	35.6%
[SJT_1] ST Johns Technical High School	\$9,544	\$20,819	(\$11,275)	-118.1%
[SMS_1] Sebastian Middle School	\$34,678	\$19,069	\$15,609	45.0%
[SPM_1] Switzerland Point Middle School	\$48,124	\$19,864	\$28,261	58.7%
[SWE_1] South Woods Elementary School	\$55,990	\$33,075	\$22,915	40.9%
[TCE_1] Timberlin Creek Elementary School	\$82,529	\$28,475	\$54,054	65.5%
Cost Avoidance Summary By Building CAP - 01B				
[VRA] VALLEY RIDGE ACADEMY	\$31,449	\$39,757	(\$8,308)	-26.4%
[WCE_1] Wards Creek Elementary School	\$66,059	\$25,932	\$40,127	60.7%
[WDH_1] WD Hartley Elementary School	\$32,610	\$17,426	\$15,184	46.6%
[WSE_1] Webster School Elementary	\$33,747	\$12,549	\$21,198	62.8%
Totals:	\$2,308,174	\$1,314,344	\$993,830	43.1%

Cumulative Cost Savings

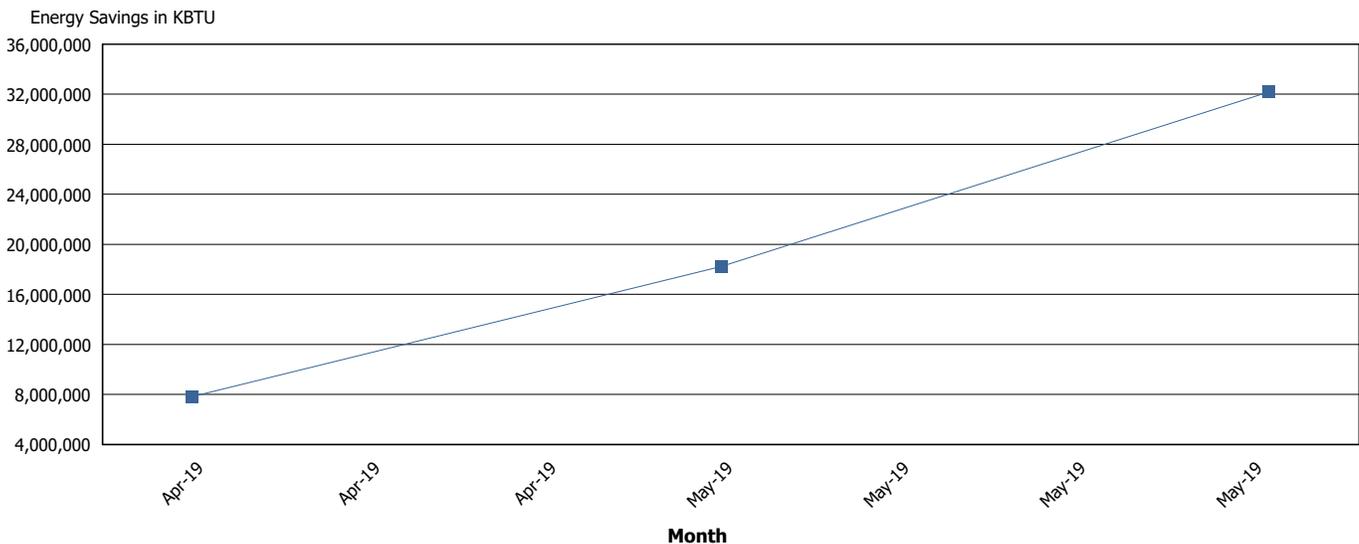
June 2019

Expected Energy Cost	\$2,308,174
Actual Energy Cost	\$1,314,344
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Program Savings	\$993,830
Percent Savings	43.1%
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Other Savings	\$0
Total Savings	\$993,830



Expected Energy Cost	Actual Energy Cost	Program Savings
Anticipated expense without energy management. Base year usage after adjustments for such variables as changes in weather, equipment, schedules, occupancy and prices.	Actual utility costs for electricity, gas, water, sewer, etc. obtained directly from bills.	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%.
Other Savings	Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.	

Cumulative Energy Savings



Cumulative Greenhouse Gas Reduction

Energy Reduction Impact:	32,194,646 KBTU	4,860 equiv. metric tons of CO2
This is equivalent to the following:		
Passenger cars not driven for one year:	1,012	
Tree seedlings grown for 10 years:	124,605	

Requested by: acrutchfield

Version:

Report Version: 17

Filters: Billing Period Between 201904;201906;Commodity Code Equals ELECTRIC;One Page per Building (Y/N) Equals 0;Account is Active Equals 1;Bill is from External Vendor Equals 1

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Monthly Summary

	2019		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	448,300	44.7	448,300
Feb	363,861	40.8	363,861
Mar	418,321	44.9	418,321
Apr	261,984	30.8	261,984
May	364,525	42.9	364,525
Jun	379,719	51.1	379,719
Total	2,236,711	42.5	2,236,711

* 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)	45,726,223	26,924,574	18,801,649	41.1	4,994,658	2,812,358	2,182,300	43.7	2,182,300
Water & Sewer (KGAL)	15,451	11,895	3,556	23.0	236,004	188,540	47,464	20.1	47,464
Irrigation (KGAL)	7,121	6,373	748	10.5	38,314	31,367	6,947	18.1	6,947
Total (KBTU)	156,017,873	91,866,646	64,151,226	41.1	5,268,976	3,032,266	2,236,711	42.5	2,236,711

Requested by: acrutchfield**Version:****Report Version:** 7**Filters:** Billing Period Between Jan 2019 and Jun 2019; ; ; Account is Active Equals 1; ; Bill is from External Vendor Equals 1

Commodity		BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance	Use Avoidance	Use Avoidance %
Electric	kWh	\$109,124,908	950,505,301	\$58,093,638	515,931,545	\$51,031,270	46.8%	434,573,756	45.7%
Water	Kgal	\$71,926	9,758	\$60,733	7,954	\$11,193	15.6%	1,804	18.5%
Water & Sewer	Kgal	\$8,432,094	613,260	\$5,952,524	444,042	\$2,479,570	29.4%	169,218	27.6%
Totals:		\$117,628,928		\$64,106,895		\$53,522,033	45.5%		



Requested by: acrutchfield

Client Version:

Report version: 10

Filters:

Filters: Commodity One of Electric|Water & Sewer|Water; Billing Period Between Jul 2008 and Jun 2019; ; ; ; ; ; ; Bill is from External Vendor Equals 1; Account is Active Equals 1;