

**Agenda Item Details**

Meeting	Sep 11, 2018 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report September 2018
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report September 2018

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 2018 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of April 2018 - June 2018. 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 2018 - June 2018 the Energy Savings Program has resulted in additional costs avoidance for the School District of \$1,047,254. 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 \$48,621,904.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for September 2018.

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 2018.pdf \(554 KB\)](#)

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 23, 2018 11:51 AM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
Aug 24, 2018 1:35 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
Aug 24, 2018 1:43 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.
Aug 24, 2018 1:49 PM :: Approved by Vicki Davenport. Routed to Cathy Mittelstadt for approval.
Aug 27, 2018 1:59 PM :: Approved by Cathy Mittelstadt. Routed to Vicki Moody for approval.
Sep 4, 2018 8:49 AM :: Approved by Vicki Moody. Routed to Tim Forson for approval.
Sep 4, 2018 12:11 PM :: Final approval by Tim Forson

Last Modified by Tim Forson on September 4, 2018

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
April 2018 – June 2018**

EXECUTIVE SUMMARY

The September 2018 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of April 2018 – June 2018 and is comprised of the following:

- **Cost Avoidance Summary by Site (April 2018 – June 2018):** The District realized a total cost avoidance for this quarterly period of \$1,047,254 (or a 49.6% cost avoidance from the baseline period).
- **Greenhouse Gas Reduction:** Greenhouse Gas Reduction for this quarterly period reduced CO² by 5,460 metric tons.
- **Year to Date Monthly Cost Avoidance Summary (April 2018 – June 2018):** This reflects the monthly summary of total cost avoidance for the period April 2018 – June 2018.
- **Energy Consumption Summary (Cumulative Year to date):** Summary breakdown for electricity, water & sewer, and irrigation for January 2018 – June 2018.
- **Total cost avoidance for the district from program inception (July 2008 – June 2018):** This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$48,621,904.

During the period of April 2018 – June 2018 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. Many thanks to principals and our facilities staff district-wide for a very successful summer energy savings program.

St. Johns County School Board

Cost Avoidance Summary By Building CAP - 01B

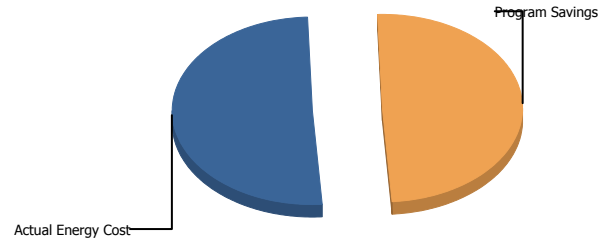
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$20,438	\$11,701	\$8,737	42.8%
[BH] Bartram High School	\$141,179	\$56,423	\$84,756	60.0%
[CE] Cunningham Creek Elementary School	\$50,807	\$21,372	\$29,435	57.9%
[CLN] CLINIC - RAY ROAD	\$414	\$401	\$13	3.2%
[CRO] Crookshank Elementary School	\$18,814	\$14,790	\$4,024	21.4%
[CS] Creekside High School	\$111,047	\$72,562	\$38,485	34.7%
[DCE_1] Durbin Creek Elementary	\$119,891	\$35,579	\$84,312	70.3%
[FCS_1] Fruit Cove Middle School	\$63,164	\$11,467	\$51,697	81.8%
[FCTC] First Coast Tech College	\$63,621	\$46,648	\$16,973	26.7%
[FU] FULLERWOOD	\$7,367	\$4,431	\$2,935	39.8%
[GAS_1] Gaines Alternative School	\$11,213	\$7,719	\$3,494	31.2%
[GRM_1] Gamble Rogers Middle School	\$39,637	\$17,834	\$21,803	55.0%
[HCE_1] Hickory Creek Elementary School	\$56,724	\$21,971	\$34,753	61.3%
[JCE_1] Julington Creek Elementary School	\$78,148	\$33,668	\$44,480	56.9%
[KES_1] Ketterlinus Elementary School	\$19,647	\$9,627	\$10,021	51.0%
[LMS_1] Alice B. Landrum Middle School	\$80,751	\$39,918	\$40,832	50.6%
[LPA_1] Liberty Pines Academy k-8	\$76,729	\$52,101	\$24,628	32.1%
[MCE_1] Mill Creek Elementary School	\$32,799	\$19,257	\$13,541	41.3%
[MES_1] Otis Mason Elementary School	\$19,809	\$12,174	\$7,636	38.5%
[MMS_1] RJ Murray Middle School	\$41,215	\$22,170	\$19,044	46.2%
[NHS_1] Allen D. Nease High School	\$125,940	\$54,980	\$70,960	56.3%
[OES_1] Osceola Elementary School	\$43,324	\$16,341	\$26,983	62.3%
[OPE_1] Ocean Palms Elementary School	\$52,314	\$30,889	\$21,425	41.0%
[PBM_1] Pacetti Bay Middle School	\$63,185	\$32,728	\$30,457	48.2%
[PCE] Picolata Crossing Elementary	\$11,656	\$11,656	\$0	0.0%
[PES_1] PALENCIA ELEMENTARY	\$17,375	\$17,005	\$370	2.1%
[PMH_1] Pedro Menendez High School	\$126,251	\$35,421	\$90,831	71.9%
[POA] PATRIOT OAKS ACADEMY	\$33,707	\$43,105	(\$9,398)	-27.9%
[PVH_1] Ponte Vedra High School	\$77,435	\$50,994	\$26,441	34.1%
[PVP_1] PV-PV Elementary	\$28,116	\$9,994	\$18,122	64.5%
[RBH_1] RB Hunt Elementary School	\$31,317	\$10,963	\$20,354	65.0%
[RES_1] Rawlings Elementary School	\$35,605	\$18,331	\$17,274	48.5%
[SAH_1] ST Augustine High School	\$60,093	\$38,644	\$21,449	35.7%
[SJT_1] ST Johns Technical High School	\$10,724	\$11,243	(\$519)	-4.8%
[SMS_1] Sebastian Middle School	\$35,528	\$17,842	\$17,686	49.8%
[SPM_1] Switzerland Point Middle School	\$37,228	\$18,036	\$19,192	51.6%
[SWE_1] South Woods Elementary School	\$55,403	\$29,392	\$26,011	46.9%
[TCE_1] Timberlin Creek Elementary School	\$51,966	\$18,826	\$33,140	63.8%
[VRA] VALLEY RIDGE ACADEMY	\$29,507	\$36,370	(\$6,863)	-23.3%
[WCE_1] Wards Creek Elementary School	\$64,135	\$23,713	\$40,422	63.0%
[WDH_1] WD Hartley Elementary School	\$32,087	\$14,051	\$18,035	56.2%
[WSE_1] Webster School Elementary	\$35,928	\$12,644	\$23,284	64.8%
Totals:	\$2,112,237	\$1,064,983	\$1,047,254	49.6%

Cost Avoidance Summary By Building CAP - 01B

Cumulative Cost Savings

June 2018

Expected Energy Cost	\$2,112,237
Actual Energy Cost	\$1,064,983
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Program Savings	\$1,047,254
Percent Savings	49.6%
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Other Savings	\$0
Total Savings	\$1,047,254



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.

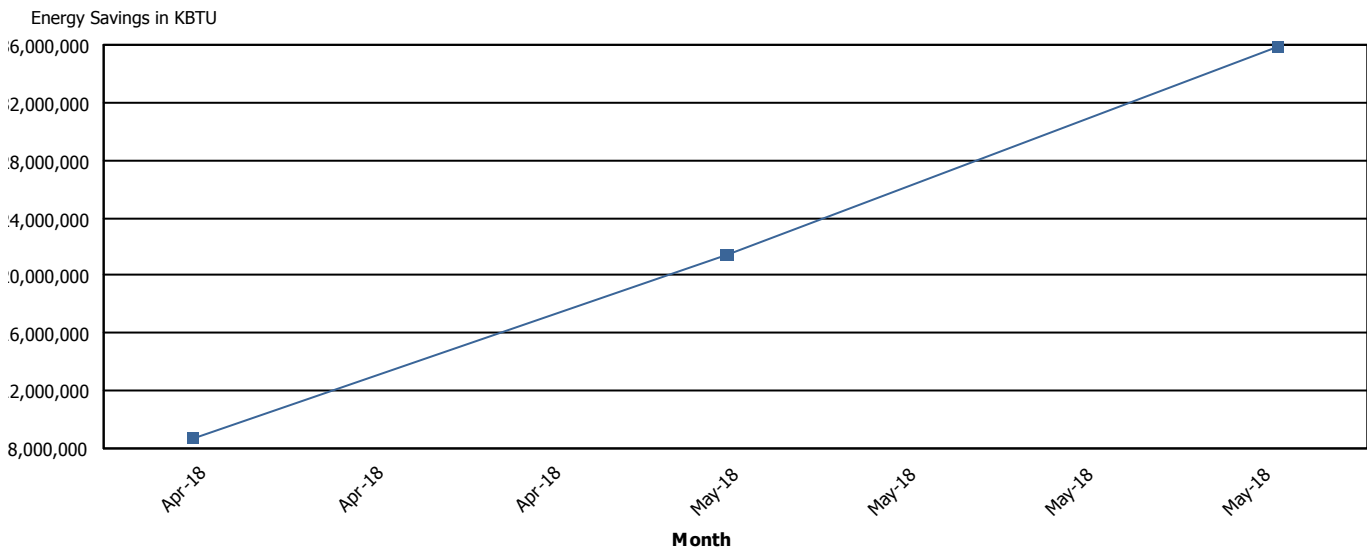
Other Savings

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: 35,832,282 KBTU 5,460 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,137
Tree seedlings grown for 10 years:	139,988

Requested by: acrutchfield

Version:

Report Version: 17

Filters: Billing Period Between 201804;201806;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

	2018		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	434,852	42.8	434,852
Feb	353,802	40.1	353,802
Mar	421,859	47.5	421,859
Apr	281,207	35.5	281,207
May	430,057	53.4	430,057
Jun	365,860	54.9	365,860
Total	2,287,637	45.3	2,287,637

* 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)	43,821,554	23,536,650	20,284,904	46.3	4,711,818	2,490,791	2,221,027	47.1	2,221,027
Water & Sewer (KGAL)	20,173	15,318	4,855	24.1	305,761	241,761	63,999	20.9	63,999
Irrigation (KGAL)	7,077	6,653	424	6.0	35,190	32,580	2,610	7.4	2,610
Total (KBTU)	149,562,964	80,330,586	69,232,377	46.3	5,052,769	2,765,132	2,287,637	45.3	2,287,637

Requested by: acrutchfield**Version:****Report Version:** 7**Filters:** Billing Period Between Jan 2018 and Jun 2018; Commodity Code Between ELECTRIC|WATERSEWER; ; ; 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	\$98,206,613	850,089,884	\$52,007,952	457,769,196	\$46,198,661	47.0%	392,320,688	46.2%
Irrigation	Kgal	\$640,174	140,902	\$534,225	124,875	\$105,950	16.6%	16,027	11.4%
Water	Kgal	\$55,237	7,834	\$31,537	4,218	\$23,700	42.9%	3,617	46.2%
Water & Sewer	Kgal	\$7,682,806	562,064	\$5,389,212	405,257	\$2,293,594	29.9%	156,807	27.9%
Totals:		\$106,584,830		\$57,962,926		\$48,621,904	45.6%		



Requested by: acrutchfield

Client Version:

Report version: 10

Filters:

Filters: Commodity Between Electric|Water & Sewer; Billing Period Between Jul 2008 and Jun 2018; ; ; ; ; ; Bill is from External Vendor Equals 1; Account is Active Equals 1;