



Agenda Item Details

Meeting	Jun 11, 2019 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report June 2019
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report June 2019
Goals	GM-1 Mission Statement GO-1 Improvement of Internal Procedures Facilities/Construction

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 Conservation Program Status Reports have been presented to the School Board since April 2009.

The June 2019 Energy Conservation Program Quarterly Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of January 2019 - March 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 January 2019 - March 2019 the Energy Conservation Program has resulted in additional costs avoidance for the School District of \$1,126,650. 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 \$52,571,962.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for June 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 June 2019.pdf \(494 KB\)](#)

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 28, 2019 4:15 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
 May 28, 2019 4:20 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
 May 28, 2019 4:21 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.
 May 29, 2019 7:26 AM :: Approved by Vicki Davenport. Routed to Cathy Mittelstadt for approval.
 May 29, 2019 7:40 AM :: Approved by Cathy Mittelstadt. Routed to Vicki Moody for approval.
 Jun 3, 2019 1:00 PM :: Approved by Vicki Moody. Routed to Tim Forson for approval.
 Jun 4, 2019 12:32 PM :: Final approval by Tim Forson

Last Modified by Tim Forson on June 4, 2019

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
January 2019 – March 2019**

EXECUTIVE SUMMARY

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

- Cost Avoidance Summary by Site (January 2019 – March 2019): The District realized a total cost avoidance for this quarterly period of \$1,126,650 (or a 43.4% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 4,818 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2019 – March 2019): This reflects the monthly summary of total cost avoidance for the period January 2019 – March 2019.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2019 – March 2019.
- Total cost avoidance for the district from program inception (July 2008 – March 2019): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$52,571,962.

During the period of January 2019 – March 2019 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 our principals and facilities staff district-wide for your continued support. The energy management department is looking forward to 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	\$24,106	\$14,593	\$9,513	39.5%
[BG] CROOKSHANK BUS GARAGE	\$5,279	\$3,328	\$1,951	37.0%
[BH] Bartram High School	\$173,199	\$100,039	\$73,160	42.2%
[CE] Cunningham Creek Elementary School	\$39,965	\$21,962	\$18,003	45.0%
[CLN] CLINIC - RAY ROAD	\$1,185	\$939	\$247	20.8%
[CM] CLINIC-SR206	\$1,368	\$1,201	\$167	12.2%
[CRO] Crookshank Elementary School	\$21,306	\$17,563	\$3,743	17.6%
[CS] Creekside High School	\$90,248	\$78,091	\$12,157	13.5%
[DCE_1] Durbin Creek Elementary	\$161,599	\$33,009	\$128,589	79.6%
[FC] Freedom Crossng	\$31,212	\$31,212	\$0	0.0%
[FCS_1] Fruit Cove Middle School	\$51,710	\$36,001	\$15,709	30.4%
[FCTC] First Coast Tech College	\$60,597	\$49,269	\$11,328	18.7%
[FU] FULLERWOOD	\$9,512	\$4,811	\$4,702	49.4%
[GAS_1] Gaines Alternative School	\$12,024	\$8,602	\$3,422	28.5%
[GRM_1] Gamble Rogers Middle School	\$54,843	\$27,545	\$27,298	49.8%
[HCE_1] Hickory Creek Elementary School	\$90,437	\$44,094	\$46,343	51.2%
[JCE_1] Julington Creek Elementary School	\$77,875	\$47,327	\$30,548	39.2%
[KES_1] Ketterlinus Elementary School	\$23,420	\$13,130	\$10,290	43.9%
[LMS_1] Alice B. Landrum Middle School	\$69,800	\$36,955	\$32,845	47.1%
[LPA_1] Liberty Pines Academy k-8	\$97,346	\$89,753	\$7,592	7.8%
[MCE_1] Mill Creek Elementary School	\$42,508	\$27,442	\$15,065	35.4%
[MES_1] Otis Mason Elementary School	\$25,040	\$14,354	\$10,686	42.7%
[MMS_1] RJ Murray Middle School	\$50,650	\$25,300	\$25,350	50.1%
[MT] Maintenance	\$946	\$770	\$175	18.6%
[NHS_1] Allen D. Nease High School	\$149,315	\$50,157	\$99,158	66.4%
[OES_1] Osceola Elementary School	\$42,979	\$21,484	\$21,496	50.0%
[OL] OCONNELL CENTER	\$2,883	\$1,456	\$1,427	49.5%
[OPE_1] Ocean Palms Elementary School	\$48,871	\$25,201	\$23,670	48.4%
[PBM_1] Pacetti Bay Middle School	\$108,457	\$54,411	\$54,046	49.8%
[PCE] Picolata Crossing Elementary	\$17,465	\$17,465	\$0	0.0%
[PES_1] PALENCIA ELEMENTARY	\$13,853	\$25,522	(\$11,669)	-84.2%
[PMH_1] Pedro Menendez High School	\$135,664	\$65,853	\$69,811	51.5%
[POA] PATRIOT OAKS ACADEMY	\$42,592	\$42,877	(\$284)	-0.7%
[PVA] Palm Valley Academy	\$25,496	\$25,496	\$0	0.0%
[PVH_1] Ponte Vedra High School	\$82,133	\$73,230	\$8,903	10.8%
[PVP_1] PV-PV Elementary	\$27,087	\$11,772	\$15,316	56.5%
[RBH_1] RB Hunt Elementary School	\$19,163	\$9,045	\$10,118	52.8%
[RES_1] Rawlings Elementary School	\$32,745	\$15,741	\$17,005	51.9%
[SAH_1] ST Augustine High School	\$72,878	\$41,318	\$31,561	43.3%
[SJT_1] ST Johns Technical High School	\$11,636	\$9,987	\$1,648	14.2%
[SMS_1] Sebastian Middle School	\$34,253	\$21,218	\$13,035	38.1%
[SPM_1] Switzerland Point Middle School	\$50,497	\$26,364	\$24,133	47.8%
[SWE_1] South Woods Elementary School	\$105,070	\$33,503	\$71,567	68.1%
[TCE_1] Timberlin Creek Elementary School	\$109,256	\$34,902	\$74,353	68.1%

Cost Avoidance Summary By Building CAP - 01B

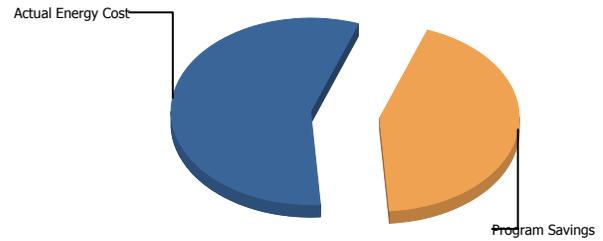
[VRA] VALLEY RIDGE ACADEMY	\$43,217	\$46,345	(\$3,128)	-7.2%
[WCE_1] Wards Creek Elementary School	\$128,046	\$56,666	\$71,380	55.7%
[WDH_1] WD Hartley Elementary School	\$44,461	\$19,845	\$24,615	55.4%
[WSE_1] Webster School Elementary	\$33,869	\$14,264	\$19,605	57.9%

Totals:	\$2,598,062	\$1,471,412	\$1,126,650	43.4%
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Cumulative Cost Savings

March 2019

Expected Energy Cost	\$2,598,062
Actual Energy Cost	\$1,471,412
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Program Savings	\$1,126,650
Percent Savings	43.4%
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Other Savings	\$0
Total Savings	\$1,126,650



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.

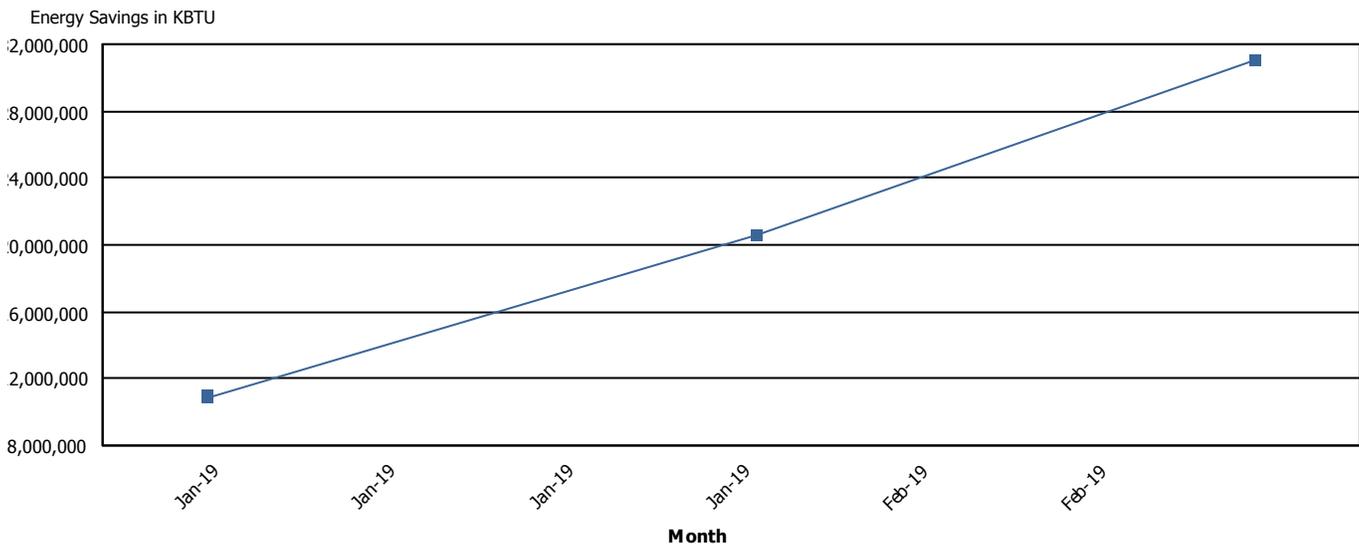
Other Savings

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: 31,022,460 KBTU 4,818 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,004
Tree seedlings grown for 10 years:	123,536

Requested by: acrutchfield

Version:

Report Version: 17

Filters: Billing Period Between 201901;201903;Commodity Code Equals ELECTRIC;One Page per Building (Y/N) Equals 0;Account is Active Equals 1;Bill is from External Vendor Equals 1

05/22/2019 1:42:03PM

Monthly Summary

	2019		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	423,489	43.6	423,489
Feb	354,890	40.4	354,890
Mar	384,006	43.8	384,006
Total	1,162,384	42.6	1,162,384

* 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)	21,660,093	12,567,930	9,092,163	42.0	2,598,062	1,471,412	1,126,650	43.4	1,126,650
Water & Sewer (KGAL)	7,421	5,431	1,990	26.8	111,714	84,701	27,014	24.2	27,014
Irrigation (KGAL)	2,489	1,336	1,153	46.3	16,391	7,671	8,720	53.2	8,720
Total (KBTU)	73,904,237	42,881,777	31,022,460	42.0	2,726,167	1,563,783	1,162,384	42.6	1,162,384

Requested by: acrutchfield

Version:

Report Version: 7

Filters: Billing Period Between Jan 2019 and Mar 2019; 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	\$106,717,422	926,368,828	\$56,746,330	501,541,349	\$49,971,092	46.8%	424,827,479	45.9%
Irrigation	Kgal	\$702,578	152,522	\$572,020	132,297	\$130,558	18.6%	20,225	13.3%
Water	Kgal	\$71,926	9,758	\$60,733	7,954	\$11,193	15.6%	1,804	18.5%
Water & Sewer	Kgal	\$8,307,804	605,230	\$5,848,684	437,578	\$2,459,119	29.6%	167,652	27.7%
Totals:		\$115,799,730		\$63,227,768		\$52,571,962	45.4%		



Requested by: acrutchfield

Client Version:

Report version: 10

Filters:

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