



Agenda Item Details

Meeting	Mar 21, 2017 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report March 2017
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report March 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 March 2017 Energy Program Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period October 2016 – December 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 October 2016 – December 2016 the Energy Savings Program has resulted in additional cost avoidance for the School District of \$1,306,775. 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 \$41,187,024.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report March 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 March 2017.pdf (428 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

Feb 27, 2017 12:34 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.

Feb 27, 2017 12:34 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.

Feb 27, 2017 12:41 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.

Feb 27, 2017 2:52 PM :: Approved by Vicki Davenport. Routed to Cathy Mittelstadt for approval.

Feb 27, 2017 3:00 PM :: Approved by Cathy Mittelstadt. Routed to Vicki Moody for approval.

Mar 8, 2017 9:16 AM :: Approved by Vicki Moody. Routed to Tim Forson for approval.

Mar 14, 2017 6:30 AM :: Final approval by Tim Forson

Last Modified by Tim Forson on March 14, 2017

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
October 2016 – December 2016**

EXECUTIVE SUMMARY

The March 2017 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of October 2016 – December 2016 and is comprised of the following:

- Cost Avoidance Summary by Site (October 2016 – December 2016): The District realized a total cost avoidance for this quarterly period of \$1,306,775 (or a 49.5% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO² by 5,793 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2016 – December 2016): This reflects the monthly summary of total cost avoidance for the period January 2016 – December 2016.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2016 – December 2016.
- Total cost avoidance for the district from program inception (July 2008 – December 2016): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$41,187,024.

During the period of October 2016 – December 2016 there were 155 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 one of the most successful winter break shutdowns in the history of the Energy Conservation Program.

St. Johns County School Board

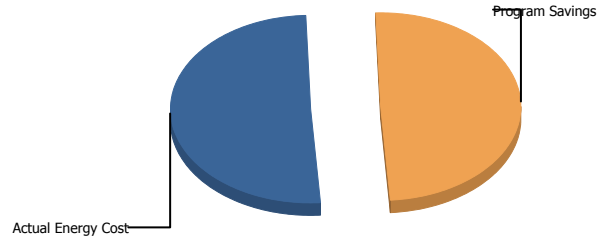
Cost Avoidance Summary By Building CAP - 01B

Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$19,209	\$12,846	\$6,362	33.1
[BG] CROOKSHANK BUS GARAGE	\$2,703	\$2,457	\$246	9.1
[BH] Bartram High School	\$222,753	\$85,418	\$137,336	61.7
[CE] Cunningham Creek Elementary School	\$44,682	\$24,241	\$20,441	45.7
[CLN] CLINIC - RAY ROAD	\$1,065	\$1,153	(\$88)	-8.3
[CRO] Crookshank Elementary School	\$22,817	\$18,672	\$4,145	18.2
[CS] Creekside High School	\$135,037	\$90,467	\$44,570	33.0
[DCE_1] Durbin Creek Elementary	\$151,496	\$38,901	\$112,595	74.3
[FCS_1] Fruit Cove Middle School	\$56,846	\$23,327	\$33,519	59.0
[FIRSTCOASTTECHCOLLEGE] First Coast Tech College	\$54,887	\$51,579	\$3,308	6.0
[FU] FULLERWOOD	\$5,232	\$3,359	\$1,873	35.8
[GAS_1] Gaines Alternative School	\$11,584	\$5,639	\$5,946	51.3
[GRM_1] Gamble Rogers Middle School	\$55,706	\$24,053	\$31,653	56.8
[HCE_1] Hickory Creek Elementary School	\$124,999	\$33,104	\$91,895	73.5
[JCE_1] Julington Creek Elementary School	\$64,330	\$38,637	\$25,692	39.9
[KES_1] Ketterlinus Elementary School	\$25,183	\$13,776	\$11,407	45.3
[LMS_1] Alice B. Landrum Middle School	\$83,511	\$42,296	\$41,215	49.4
[LPA_1] Liberty Pines Academy k-8	\$114,691	\$58,842	\$55,848	48.7
[LSO] Lewis Speedway Offices	\$1,460	\$1,727	(\$266)	-18.2
[MCE_1] Mill Creek Elementary School	\$45,726	\$29,233	\$16,493	36.1
[MES_1] Otis Mason Elementary School	\$25,931	\$13,207	\$12,724	49.1
[MMS_1] RJ Murray Middle School	\$55,822	\$25,317	\$30,505	54.6
[MT] Maintenance	\$3,481	\$1,807	\$1,673	48.1
[NHS_1] Allen D. Nease High School	\$110,688	\$49,460	\$61,228	55.3
[OES_1] Osceola Elementary School	\$45,960	\$17,898	\$28,062	61.1
[OL] OCONNELL CENTER	\$2,679	\$1,454	\$1,224	45.7
[OPE_1] Ocean Palms Elementary School	\$62,275	\$28,575	\$33,700	54.1
[PBM_1] Pacetti Bay Middle School	\$82,149	\$52,844	\$29,306	35.7
[PES_1] PALENCIA ELEMENTARY	\$15,611	\$15,726	(\$116)	-0.7
[PMH_1] Pedro Menendez High School	\$157,806	\$60,904	\$96,902	61.4
[POA] PATRIOT OAKS ACADEMY	\$50,988	\$38,095	\$12,893	25.3
[PVH_1] Ponte Vedra High School	\$78,163	\$73,363	\$4,801	6.1
[PVP_1] PV-PV Elementary	\$32,358	\$14,174	\$18,184	56.2
[RBH_1] RB Hunt Elementary School	\$31,942	\$13,906	\$18,036	56.5
[RES_1] Rawlings Elementary School	\$37,157	\$25,221	\$11,936	32.1
[SAH_1] ST Augustine High School	\$78,867	\$45,507	\$33,361	42.3
[SJT_1] ST Johns Technical High School	\$17,570	\$9,397	\$8,173	46.5
[SMS_1] Sebastian Middle School	\$43,403	\$20,132	\$23,271	53.6
[SPM_1] Switzerland Point Middle School	\$58,782	\$26,873	\$31,909	54.3
[SWE_1] South Woods Elementary School	\$77,758	\$31,840	\$45,918	59.1
[TCE_1] Timberlin Creek Elementary School	\$120,783	\$41,463	\$79,320	65.7
[VRA] VALLEY RIDGE ACADEMY	\$49,709	\$43,460	\$6,248	12.6
[WCE_1] Wards Creek Elementary School	\$78,294	\$46,740	\$31,554	40.3
[WDH_1] WD Hartley Elementary School	\$42,040	\$23,049	\$18,991	45.2
Cost Avoidance Summary By Building CAP - 01B				
[WSE_1] Webster School Elementary	\$36,529	\$13,750	\$22,780	62.4
Totals:	\$2,640,663	\$1,333,889	\$1,306,774	49.5

Cumulative Cost Savings

December 2016

Expected Energy Cost	\$2,640,664
Actual Energy Cost	\$1,333,889
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Program Savings	\$1,306,775
Percent Savings	49.5%
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Other Savings	\$0
Total Savings	\$1,306,775



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.

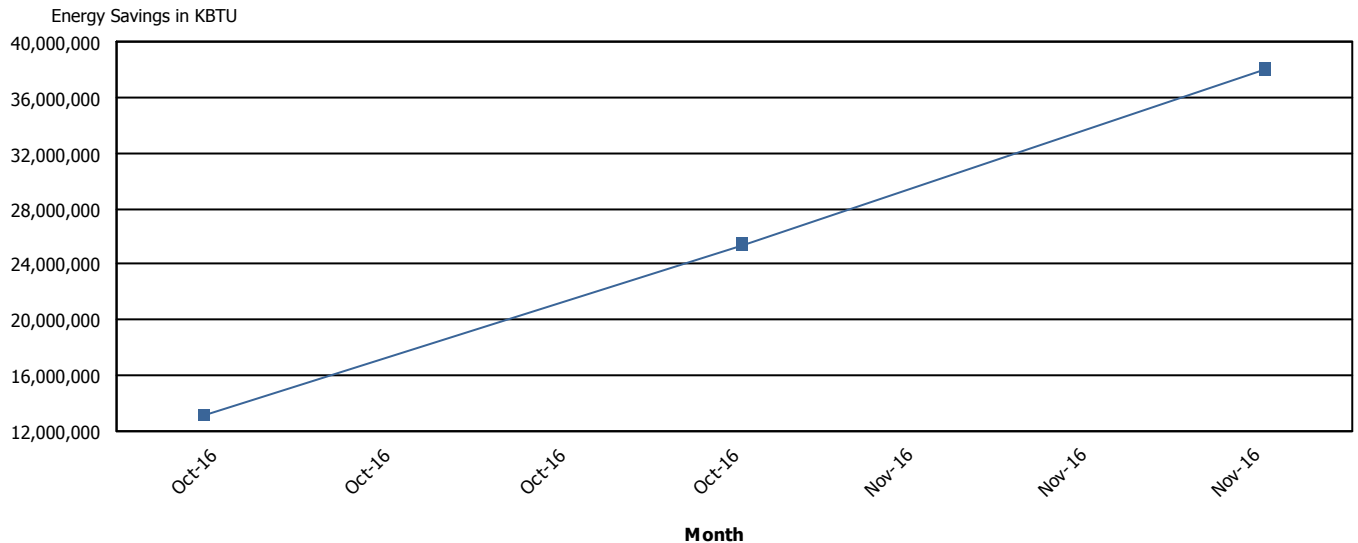
Other Savings

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: 38,057,489 KBTU 5,793 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,207
Tree seedlings grown for 10 years:	148,538

Requested by: acrutchfield

Version:

Report Version: 15

Filters: Billing Period Between 201610;201612;Commodity Code Equals ELECTRIC;Bill Account is Active Equals 1;Bill is From a Vendor Equals 1

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Monthly Summary

	2016		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	465,776	47.5	465,776
Feb	397,925	44.9	397,925
Mar	419,873	49.1	419,873
Apr	297,821	38.2	297,821
May	354,009	48.6	354,009
Jun	401,541	53.5	401,541
Jul	397,537	45.9	397,537
Aug	393,237	37.9	393,237
Sep	437,365	43.0	437,365
Oct	417,718	44.1	417,718
Nov	419,137	47.4	419,137
Dec	487,994	52.0	487,994
Total	4,889,932	45.8	4,889,932

* 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)	93,396,109	50,314,105	43,082,004	46.1	10,102,463	5,314,456	4,788,007	47.4	4,788,007
Water & Sewer (KGAL)	31,983	26,157	5,826	18.2	490,171	382,458	107,713	22.0	107,713
Irrigation (KGAL)	16,355	17,782	-1,427	-8.7	78,753	84,541	-5,788	-7.3	-5,788
Total (MMBTU)	318,760,920	171,722,040	147,038,880	46.1	10,671,387	5,781,455	4,889,932	45.8	4,889,932

Requested by: acrutchfield

Version:

Report Version: 7

Filters: Billing Period Between Jan 2016 and Dec 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	\$83,091,190	711,409,166	\$43,879,890	382,067,839	\$39,211,300	47.2%	329,341,327	46.3%
Irrigation	Kgal	\$524,401	117,574	\$426,145	102,528	\$98,256	18.7%	15,046	12.8%
Water	Kgal	\$26,676	4,171	\$15,620	2,069	\$11,057	41.4%	2,102	50.4%
Water & Sewer	Kgal	\$6,000,896	459,169	\$4,134,484	327,129	\$1,866,411	31.1%	132,040	28.8%
Totals:		\$89,643,163		\$48,456,139		\$41,187,024	45.9%		

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