



### Agenda Item Details

Meeting	Jun 09, 2020 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report June 2020
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report June 2020
Goals	<a href="#">GM-1 Mission Statement</a> <a href="#">GO-3 Energy Consumption Strategies</a>

### 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 2020 Energy Conservation Program Quarterly Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of January 2020 - March 2020. 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 2020 - March 2020 the Energy Conservation Program has resulted in additional energy cost avoidance for the School District of \$1,306,489. 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 \$57,588,211.

**Recommendation:**

Acceptance of the Energy Conservation Program Quarterly Status Report for June 2020.

**Action Required:**

Approval of Superintendent's recommendation.

**Drafted, reviewed and submitted by:**

Al Crutchfield, Energy Manager

Paul Rose, Executive Director for Facilities and Operations

Sincerely,

**Tim Forson**

**Superintendent of Schools**

 [Energy Conservation Program Quarterly Status Report June 2020.pdf \(459 KB\)](#)

**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 21, 2020 11:14 AM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.  
    May 21, 2020 4:15 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.  
    May 21, 2020 4:16 PM :: Approved by Paul Rose. Routed to Vicki Davenport for approval.  
    May 26, 2020 8:04 AM :: Approved by Vicki Davenport. Routed to Nicole Cubbedge for approval.  
    May 26, 2020 11:42 PM :: Approved by Nicole Cubbedge. Routed to Gina Fallica for approval.  
    May 28, 2020 11:44 AM :: Approved by Gina Fallica. Routed to Tim Forson for approval.  
    Jun 2, 2020 2:58 PM :: Final approval by Tim Forson

Last Modified by Tim Forson on June 2, 2020

**ENERGY CONSERVATION PROGRAM  
QUARTERLY STATUS REPORT  
January 2020 – March 2020**

**EXECUTIVE SUMMARY**

The June 2020 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of January 2020 – March 2020 and is comprised of the following:

- Cost Avoidance Summary by Site (January 2020 – March 2020): The District realized a total cost avoidance for this quarterly period of \$1,306,489 (or a 49.2% cost avoidance from the baseline period).
- Greenhouse Gas Reduction: Greenhouse Gas Reduction for this quarterly period reduced CO<sup>2</sup> by 5,844 metric tons.
- Year to Date Monthly Cost Avoidance Summary (January 2020 – March 2020): This reflects the monthly summary of total cost avoidance for the period January 2020 – March 2020.
- Energy Consumption Summary (Cumulative Year to date): Summary breakdown for electricity, water & sewer, and irrigation for January 2020 – March 2020.
- Total cost avoidance for the district from program inception (July 2008 – March 2020): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$57,588,211.

During the period of January 2020 – March 2020 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 principals and our facilities staff district-wide for a very successful first quarter for 2020. We are currently monitoring and collecting energy consumption and billing data to determine the COVID-19 impacts and additional savings due to the impacts of the school closings and distance learning.

**St. Johns County School Board**

**Cost Avoidance Summary By Building CAP - 01B**

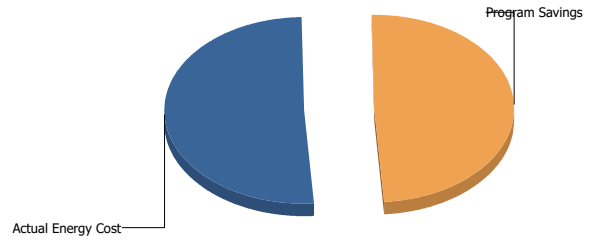
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[AD] Administrative Complex	\$25,087	\$14,586	\$10,501	41.9%
[BG] CROOKSHANK BUS GARAGE	\$5,694	\$3,350	\$2,344	41.2%
[BH] Bartram High School	\$163,551	\$80,438	\$83,113	50.8%
[CE] Cunningham Creek Elementary School	\$43,073	\$17,555	\$25,518	59.2%
[CLN] CLINIC - RAY ROAD	\$1,205	\$1,321	(\$116)	-9.6%
[CM] CLINIC-SR206	\$1,361	\$1,190	\$171	12.6%
[CRO] Crookshank Elementary School	\$21,165	\$14,437	\$6,728	31.8%
[CS] Creekside High School	\$94,590	\$78,118	\$16,472	17.4%
[DCE_1] Durbin Creek Elementary	\$146,477	\$32,982	\$113,495	77.5%
[FC] Freedom Crossing	\$27,592	\$27,592	(\$0)	0.0%
[FCS_1] Fruit Cove Middle School	\$55,061	\$32,075	\$22,986	41.7%
[FCTC] First Coast Tech College	\$62,377	\$52,966	\$9,411	15.1%
[FU] FULLERWOOD	\$10,998	\$4,743	\$6,256	56.9%
[GAS_1] Gaines Alternative School	\$12,911	\$8,488	\$4,424	34.3%
[GRM_1] Gamble Rogers Middle School	\$59,171	\$23,173	\$35,998	60.8%
[HCE_1] Hickory Creek Elementary School	\$97,456	\$45,651	\$51,805	53.2%
[JCE_1] Julington Creek Elementary School	\$79,682	\$40,797	\$38,885	48.8%
[KES_1] Ketterlinus Elementary School	\$25,539	\$11,623	\$13,917	54.5%
[LMS_1] Alice B. Landrum Middle School	\$71,348	\$34,187	\$37,161	52.1%
[LPA_1] Liberty Pines Academy k-8	\$100,761	\$58,600	\$42,161	41.8%
[MCE_1] Mill Creek Elementary School	\$55,956	\$29,942	\$26,013	46.5%
[MES_1] Otis Mason Elementary School	\$24,934	\$13,155	\$11,779	47.2%
[MMS_1] RJ Murray Middle School	\$46,857	\$19,258	\$27,599	58.9%
[MT] Maintenance	\$2,929	\$2,098	\$831	28.4%
[NHS_1] Allen D. Nease High School	\$147,787	\$48,475	\$99,313	67.2%
[OES_1] Osceola Elementary School	\$50,635	\$14,519	\$36,115	71.3%
[OL] OCONNELL CENTER	\$2,363	\$1,539	\$824	34.9%
[OPE_1] Ocean Palms Elementary School	\$48,232	\$24,488	\$23,744	49.2%
[PBM_1] Pacetti Bay Middle School	\$103,515	\$50,230	\$53,285	51.5%
[PCE] Picolata Crossing Elementary	\$17,876	\$21,882	(\$4,006)	-22.4%
[PES_1] PALENCIA ELEMENTARY	\$15,241	\$20,864	(\$5,622)	-36.9%
[PMH_1] Pedro Menendez High School	\$106,760	\$45,187	\$61,573	57.7%
[POA] PATRIOT OAKS ACADEMY	\$43,967	\$39,845	\$4,123	9.4%
[PVA] Palm Valley Academy	\$28,609	\$28,609	(\$0)	0.0%
[PVH_1] Ponte Vedra High School	\$84,040	\$63,604	\$20,436	24.3%
[PVP_1] PV-PV Elementary	\$28,187	\$11,165	\$17,022	60.4%
[RBH_1] RB Hunt Elementary School	\$36,741	\$12,641	\$24,100	65.6%
[RES_1] Rawlings Elementary School	\$35,679	\$16,400	\$19,279	54.0%
[SAH_1] ST Augustine High School	\$82,643	\$42,858	\$39,785	48.1%
[SJT_1] ST Johns Technical High School	\$14,523	\$10,142	\$4,381	30.2%
[SMS_1] Sebastian Middle School	\$34,619	\$18,717	\$15,901	45.9%
[SPM_1] Switzerland Point Middle School	\$52,222	\$27,851	\$24,371	46.7%
[SWE_1] South Woods Elementary School	\$103,264	\$32,937	\$70,326	68.1%
[TCE_1] Timberlin Creek Elementary School	\$131,159	\$49,572	\$81,587	62.2%
<b>Cost Avoidance Summary By Building CAP - 01B</b>				
[VRA] VALLEY RIDGE ACADEMY	\$42,805	\$42,149	\$655	1.5%
[WCE_1] Wards Creek Elementary School	\$124,070	\$41,625	\$82,445	66.5%
[WDH_1] WD Hartley Elementary School	\$48,794	\$21,757	\$27,037	55.4%
[WSE_1] Webster School Elementary	\$35,180	\$12,815	\$22,364	63.6%
<b>Totals:</b>	<b>\$2,654,687</b>	<b>\$1,348,197</b>	<b>\$1,306,489</b>	<b>49.2%</b>



**Cumulative Cost Savings**

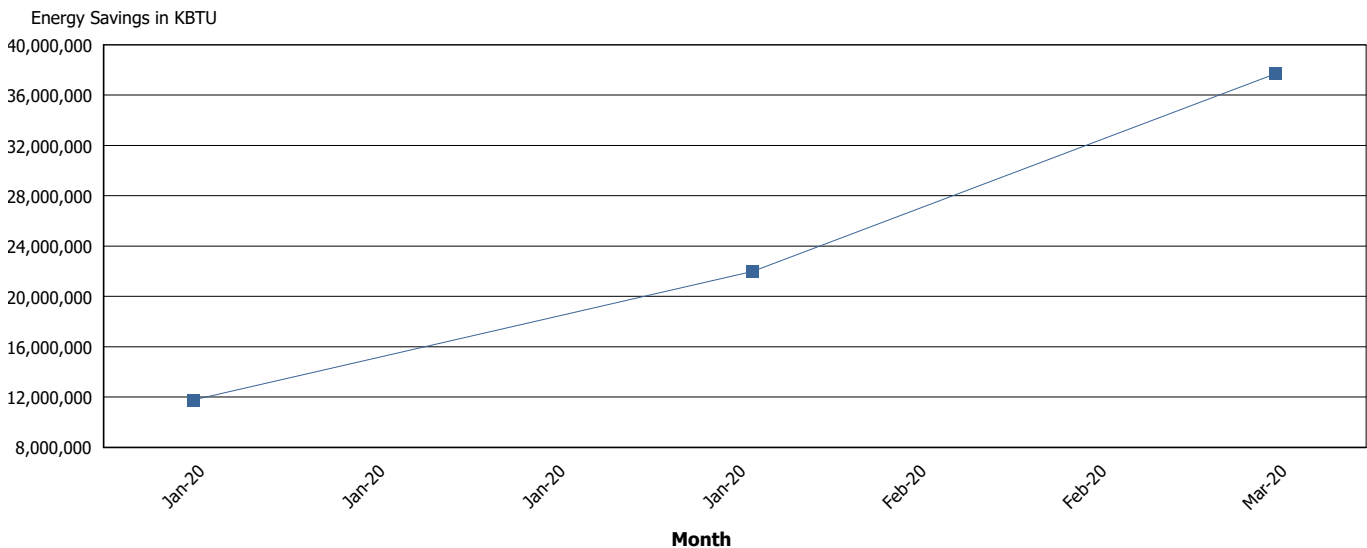
March 2020

Expected Energy Cost	\$2,654,687
Actual Energy Cost	\$1,348,197
<hr/>	
Program Savings	\$1,306,489
Percent Savings	49.2%
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Other Savings	\$0
Total Savings	\$1,306,489



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**

<b>Energy Reduction Impact:</b>	37,705,296 KBTU	5,844 equiv. metric tons of CO2
This is equivalent to the following:		
Passenger cars not driven for one year:	1,217	
Tree seedlings grown for 10 years:	149,844	

Requested by: acrutchfield

Version:

Report Version: 17

Filters: Billing Period Between 202001;202003;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**

	2020		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	<b>386,218</b>	<b>40.3</b>	<b>386,218</b>
Feb	<b>346,339</b>	<b>37.9</b>	<b>346,339</b>
Mar	<b>604,135</b>	<b>59.5</b>	<b>604,135</b>
Total	<b>1,336,692</b>	<b>46.3</b>	<b>1,336,692</b>

\* 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)	<b>22,805,405</b>	<b>11,754,615</b>	<b>11,050,790</b>	<b>48.5</b>	<b>2,654,687</b>	<b>1,348,197</b>	<b>1,306,489</b>	<b>49.2</b>	<b>1,306,489</b>
Water & Sewer (KGAL)	<b>14,301</b>	<b>11,194</b>	<b>3,107</b>	<b>21.7</b>	<b>219,882</b>	<b>152,937</b>	<b>66,945</b>	<b>30.4</b>	<b>66,945</b>
Irrigation (KGAL)	<b>2,695</b>	<b>10,890</b>	<b>-8,195</b>	<b>-304.2</b>	<b>12,298</b>	<b>49,040</b>	<b>-36,742</b>	<b>-298.8</b>	<b>-36,742</b>
Total (KBTU)	<b>77,812,042</b>	<b>40,106,746</b>	<b>37,705,295</b>	<b>48.5</b>	<b>2,886,866</b>	<b>1,550,174</b>	<b>1,336,692</b>	<b>46.3</b>	<b>1,336,692</b>

**Requested by:** acrutchfield

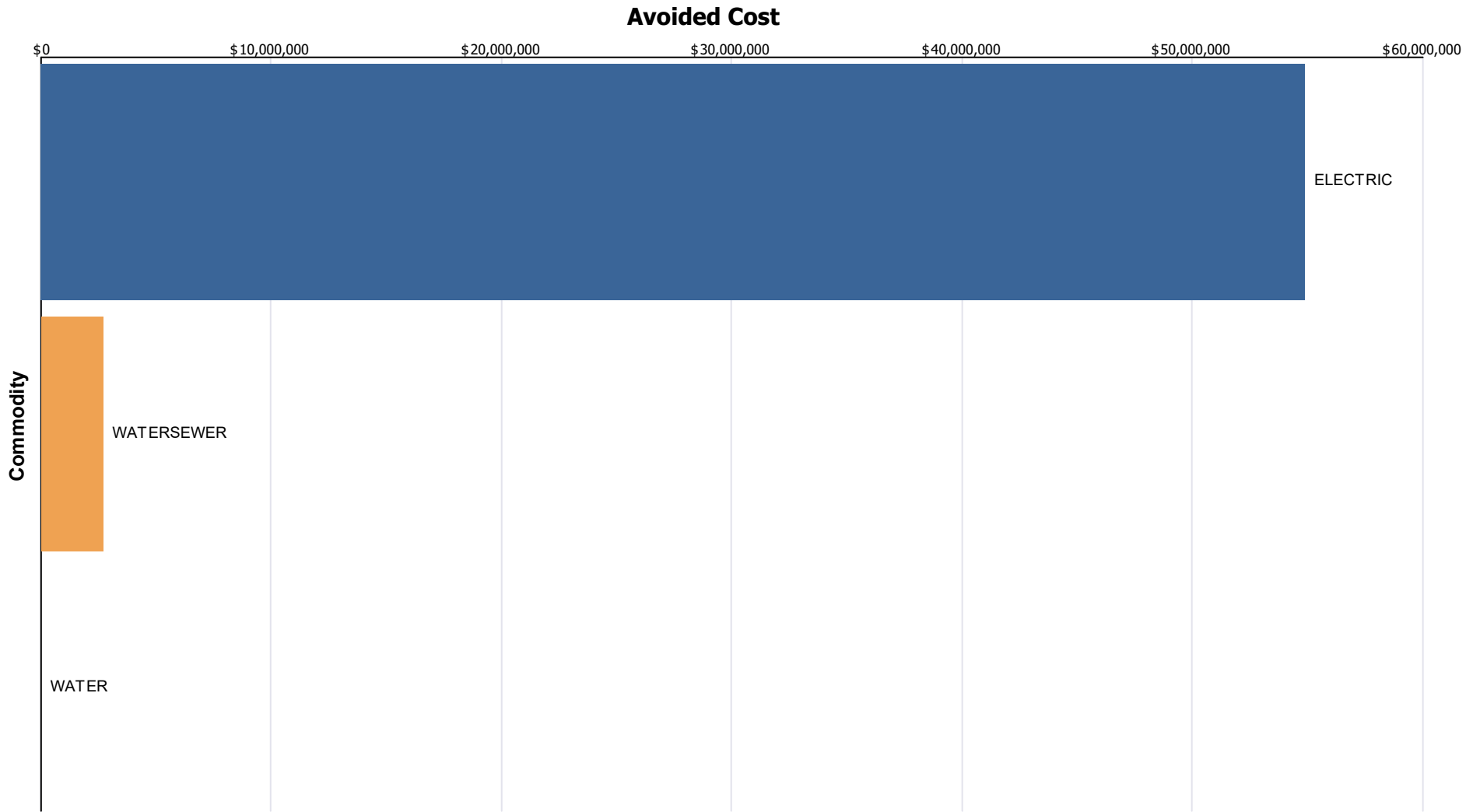
**Version:**

**Report Version:** 7

**Filters:** Billing Period Between Jan 2020 and Mar 2020; ; ; 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	\$117,515,793	1,027,086,095	\$62,639,895	557,795,767	\$54,875,898	46.7%	469,290,328	45.7%
Water	Kgal	\$71,926	9,758	\$60,733	7,954	\$11,193	15.6%	1,804	18.5%
Water & Sewer	Kgal	\$9,456,252	685,073	\$6,755,132	503,023	\$2,701,120	28.6%	182,049	26.6%
<b>Totals:</b>		<b>\$127,043,971</b>		<b>\$69,455,760</b>		<b>\$57,588,211</b>	<b>45.3%</b>		





**Requested by:** acrutchfield

**Client Version:**

**Report version:** 10

**Filters:**

Filters: Commodity One of Water & Sewer;Electric;Water; Billing Period Between Jul 2008 and Mar 2020; ; ; ; ; ; ; ; ; Bill is from External Vendor Equals 1; Account is Active Equals 1;