



Agenda Item Details

Meeting	Sep 13, 2022 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report September 2022
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report September 2022
Goals	GM-1 Mission Statement 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 Conservation Program Status Reports have been presented to the School Board since April 2009.

The September 2022 Energy Conservation Program Quarterly Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of April 2022 – June 2022. 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 2022 - June 2022 the Energy Conservation Program has resulted in additional energy cost avoidance for the School District of \$876,875. 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 \$65,930,149.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for September 2022.

Action Required:

Approval of Superintendent's recommendation.

Drafted, reviewed and submitted by:

Val Kovalenko, Energy Manager

Paul Rose, Executive Director for Facilities and Operations

Sincerely,

Tim Forson

Superintendent of Schools

[Energy Conservation Program Quarterly Status Report September 2022.pdf \(577 KB\)](#)

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, 2022 12:20 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.

Aug 26, 2022 12:21 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.

Aug 26, 2022 12:21 PM :: Approved by Paul Rose. Routed to Miriam Testasecca for approval.

Aug 26, 2022 12:54 PM :: Approved by Miriam Testasecca. Routed to Mike Degutis for approval.

Aug 30, 2022 10:45 AM :: Approved by Mike Degutis. Routed to Gina Fallica for approval.

Sep 1, 2022 4:02 PM :: Approved by Gina Fallica. Routed to Tim Forson for approval.

Sep 8, 2022 9:48 AM :: Final approval by Tim Forson

Last Modified by Tim Forson on September 8, 2022

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
April 2022 – June 2022**

EXECUTIVE SUMMARY

The September 2022 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of April 2022 – June 2022 and is comprised of the following:

- **Electric Cost Avoidance Summary by Building (2nd Quarter 2022):** The District realized a total electric cost avoidance for this quarterly period of \$876,875 (or a 32.4% cost avoidance from the baseline period).
- **2nd Quarter Electric Cost Savings Summary (2nd Quarter 2022):** This reflects the monthly summary of total electric cost avoidance for the period April 2022 – June 2022.
- **Greenhouse Gas Reduction:** Greenhouse Gas Emissions Equivalent for this quarterly period reduced CO² by 2,816 metric tons.
- **YTD Monthly Utilities Cost Avoidance (through 2nd Quarter 2022):** This reflects the monthly summary of water, sewer, and electric cost avoidance for the period January 2022 – June 2022.
- **Energy/Utilities Consumption YTD Summary:** Summary breakdown for electricity, water and sewer for January 2022 – June 2022 period. Between all tracked utilities, the District realized a total cost avoidance for this year of \$2,217,668.
- **Total Cost Avoidance Summary by Commodity (July 2008 – June 2022):** This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance is \$65,930,149. Cost avoidance is calculated by comparing current year's data against 2008 Baseline adjusted to current conditions.

During the period of April 2022 – June 2022 there were over 150 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 for good stewardship and reducing the overall energy consumption. Many thanks to principals, school site managers and our facilities staff district-wide for a successful second quarter of 2022.

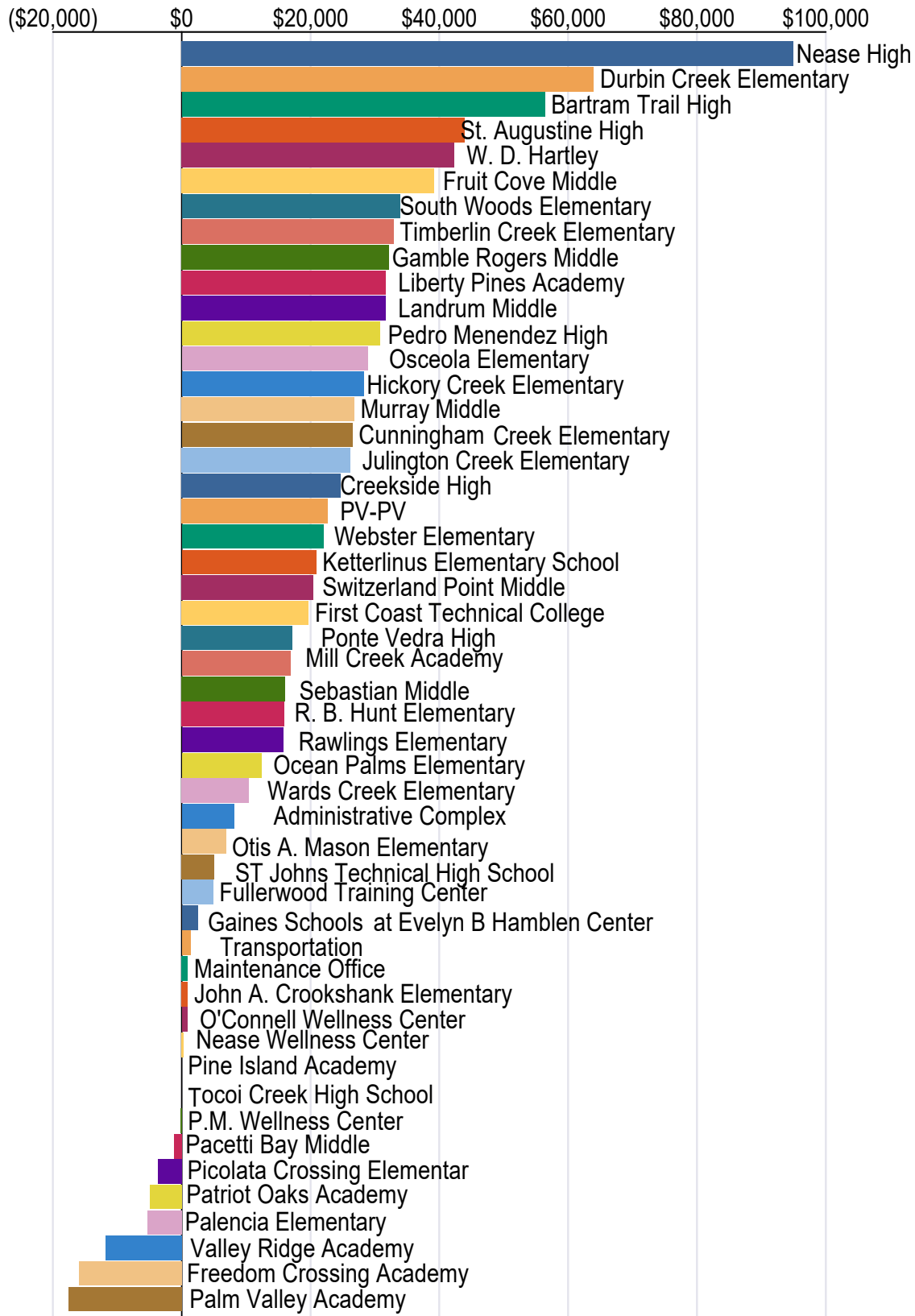
Electric Cost Avoidance Summary By Building

St. Johns County School Board

April 2022 - June 2022

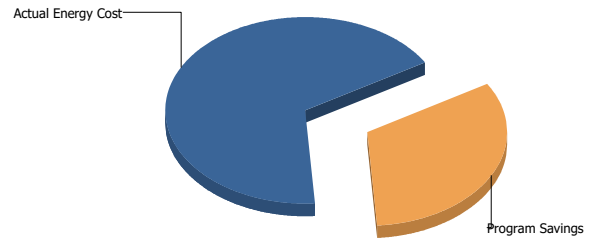
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[0021] John A. Crookshank Elementary	\$22,893	\$21,911	\$983	4.3%
[0032] Gaines Schools at Evelyn B Hamblen	\$12,796	\$10,295	\$2,501	19.5%
[0091] Ketterlinus Elementary School	\$41,622	\$20,758	\$20,864	50.1%
[0161] R. B. Hunt Elementary	\$32,813	\$16,868	\$15,944	48.6%
[0171] R. J. Murray Middle	\$56,815	\$30,033	\$26,782	47.1%
[0181] St. Augustine High	\$94,908	\$50,912	\$43,996	46.4%
[0201] Webster Elementary	\$40,015	\$17,956	\$22,059	55.1%
[0231] First Coast Technical College	\$86,356	\$66,675	\$19,681	22.8%
[0241] Julington Creek Elementary	\$74,080	\$47,907	\$26,172	35.3%
[0251] Allen D. Nease High	\$155,996	\$61,050	\$94,946	60.9%
[0261] W. D. Hartley Elementary	\$67,017	\$24,723	\$42,294	63.1%
[0301] Sebastian Middle	\$40,005	\$23,924	\$16,081	40.2%
[0311] Alice B. Landrum Middle	\$76,135	\$44,471	\$31,664	41.6%
[0321] Switzerland Point Middle	\$56,178	\$35,743	\$20,435	36.4%
[0331] Osceola Elementary	\$53,718	\$24,843	\$28,876	53.8%
[0341] Mill Creek Academy	\$59,256	\$42,388	\$16,868	28.5%
[0351P] PV-PV Elementary	\$36,380	\$13,692	\$22,688	62.4%
[0351R] Rawlings Elementary	\$37,668	\$21,920	\$15,748	41.8%
[0361] Otis A. Mason Elementary	\$28,712	\$21,842	\$6,871	23.9%
[0371] Gamble Rogers Middle	\$61,365	\$29,118	\$32,247	52.5%
[0381] Cunningham Creek Elementary	\$53,206	\$26,687	\$26,519	49.8%
[0391] Ocean Palms Elementary	\$48,007	\$35,637	\$12,371	25.8%
[0401] Pedro Menendez High	\$100,501	\$69,778	\$30,722	30.6%
[0411] Bartram Trail High	\$171,898	\$115,501	\$56,397	32.8%
[0441] Durbin Creek Elementary	\$111,719	\$47,711	\$64,008	57.3%
[0451] Timberlin Creek Elementary	\$76,358	\$43,500	\$32,858	43.0%
[0461] South Woods Elementary	\$75,258	\$41,385	\$33,874	45.0%
[0471] Patriot Oaks Academy	\$38,225	\$43,188	(\$4,963)	-13.0%
[0472] Liberty Pines Academy	\$92,107	\$60,394	\$31,713	34.4%
[0481] Pacetti Bay Middle	\$74,124	\$75,277	(\$1,153)	-1.6%
[0482] Wards Creek Elementary	\$62,167	\$51,743	\$10,424	16.8%
[0491] Fruit Cove Middle	\$74,384	\$35,215	\$39,169	52.7%
[0492] Ponte Vedra High	\$87,646	\$70,470	\$17,176	19.6%
[0493] Creekside High	\$130,857	\$106,180	\$24,676	18.9%
[0501] Hickory Creek Elementary	\$76,710	\$48,440	\$28,270	36.9%
[0502] Valley Ridge Academy	\$32,221	\$43,992	(\$11,771)	-36.5%
[0511] Palencia Elementary	\$19,006	\$24,335	(\$5,329)	-28.0%
[0521] Picolata Crossing Elementary	\$13,587	\$17,298	(\$3,710)	-27.3%
[0531] Freedom Crossing Academy	\$38,035	\$54,024	(\$15,988)	-42.0%
[0541] Palm Valley Academy	\$30,356	\$47,872	(\$17,515)	-57.7%
[0551] Pine Island Academy	\$29,047	\$29,047	\$0	0.0%
[0552] Toco Creek High School	\$59,107	\$59,107	\$0	0.0%
[9061] Fullerwood Training Center	\$11,006	\$6,154	\$4,852	44.1%
[9721A] Administrative Complex	\$29,127	\$20,962	\$8,165	28.0%
[9780C] Transportation at Crookshank	\$6,834	\$5,471	\$1,363	19.9%
[9810] Maintenance Office	\$3,698	\$2,714	\$984	26.6%
[SJT_1] ST Johns Technical High School	\$20,418	\$15,334	\$5,084	24.9%
Totals:	\$2,704,595	\$1,827,720	\$876,875	32.4%

Avoided Cost



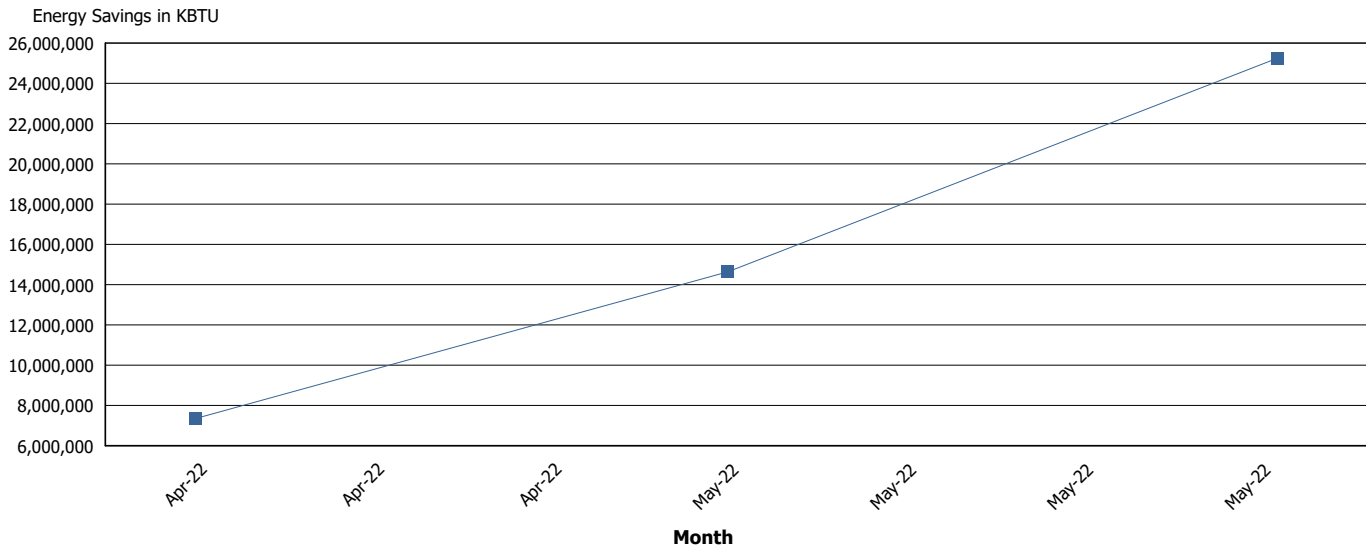
2nd Quarter 2022 Electric Cost Savings

Expected Energy Cost	\$2,704,595
Actual Energy Cost	\$1,827,720
<hr/>	
Program Savings	\$876,875
Percent Savings	32.4%
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Other Savings	\$0
Total Savings	\$876,875



Expected Energy Cost	Actual Energy Cost	Program Savings
<p>Anticipated expense without energy management.</p> <p>Base year usage after adjustments for such variables as changes in weather, equipment, schedules, occupancy and prices.</p>	<p>Actual utility costs for electricity, gas, water, sewer, etc. obtained directly from bills.</p> <div style="background-color: black; color: white; text-align: center; padding: 2px;">Other Savings</div> <p>Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.</p>	<p>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%.</p>

2nd Quarter 2022 Energy Savings



2nd Quarter 2022 Greenhouse Gas Reduction

Energy Reduction Impact:	25,251,734 KBTU	2,816 equiv. metric tons of CO2
This is equivalent to the following:		
Passenger cars not driven for one year:	587	
Tree seedlings grown for 10 years:	72,198	

YTD Monthly Cost Avoidance Summary

	2022		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	498,126	41.1	498,126
Feb	398,162	36.9	398,162
Mar	430,023	39.5	430,023
Apr	282,405	28.6	282,405
May	260,097	25.0	260,097
Jun	348,855	35.9	348,855
Total	2,217,668	34.8	2,217,668

* The Total \$ column is the sum of Cost Avoidance Savings and Other Savings.

Energy/Utilities Consumption Summary YTD (through 2nd Quarter 2022)

	Use				Cost				
	BATCC	Actual	Avoid	Avoid %	BATCC	Actual	Avoid	Avoid %	Total Savings \$
Electric (KWH)	46,783,788	30,140,775	16,643,013	35.6	5,765,990	3,624,807	2,141,182	37.1	2,141,182
Water (KGAL)	481	903	-422	-87.8	5,730	8,131	-2,400	-41.9	-2,400
Water & Sewer (KGAL)	33,834	28,700	5,134	15.2	571,967	482,153	89,814	15.7	89,814
Irrigation (KGAL)	13,571	16,046	-2,475	-18.2	36,023	46,951	-10,928	-30.3	-10,928
Total (KBTU)	159,626,285	102,840,324	56,785,960	35.6	6,379,709	4,162,042	2,217,668	34.8	2,217,668

Cost Avoidance Summary by Commodity

July 2008 - June 2022

St. Johns County School Board

Commodity		BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance %	Use Avoidance	Use Avoidance %
Electric	kWh	\$138,462,360	1,222,936,267	\$76,028,341	683,530,625	\$62,434,019	45.1%	539,405,642	44.1%
Water	Kgal	\$145,488	16,844	\$117,092	14,539	\$28,396	19.5%	2,305	13.7%
Water & Sewer	Kgal	\$12,716,654	862,683	\$9,248,920	645,461	\$3,467,734	27.3%	217,222	25.2%
Totals:		\$151,324,501		\$85,394,352		\$65,930,149	43.6%		

