



Agenda Item Details

Meeting	Jun 14, 2022 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report June 2022
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report June 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 June 2022 Energy Conservation Program Quarterly Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of January 2022 – March 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 January 2022 – March 2022 the Energy Conservation Program has resulted in additional energy cost avoidance for the School District of \$1,264,307. 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 \$65,036,507.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for June 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

Michael Degutis, Chief of Staff

Sincerely,

Tim Forson

Superintendent of Schools

[Energy Conservation Program Quarterly Status Report June 2022.pdf \(584 KB\)](#)

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 31, 2022 3:26 PM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
- May 31, 2022 3:40 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
- May 31, 2022 3:43 PM :: Approved by Paul Rose. Routed to Miriam Testasecca for approval.
- May 31, 2022 3:53 PM :: Approved by Miriam Testasecca. Routed to Mike Degutis for approval.
- Jun 1, 2022 1:23 PM :: Approved by Mike Degutis. Routed to Gina Fallica for approval.
- Jun 2, 2022 11:09 AM :: Approved by Gina Fallica. Routed to Tim Forson for approval.
- Jun 8, 2022 2:07 PM :: Final approval by Tim Forson

Last Modified by Tim Forson on June 8, 2022

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
January 2022 – March 2022**

EXECUTIVE SUMMARY

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

- Electric Cost Avoidance Summary by Building (1st Quarter 2022): The District realized a total electric cost avoidance for this quarterly period of \$1,264,307 (or a 41.3% cost avoidance from the baseline period).
- 1st Quarter Electric Cost Savings Summary (1st Quarter 2022): This reflects the monthly summary of total electric cost avoidance for the period January 2022 – March 2022.
- Greenhouse Gas Reduction: Greenhouse Gas Emissions Equivalent for this quarterly period reduced CO² by 4,996 metric tons.
- YTD Monthly Utilities Cost Avoidance (1st Quarter 2022): This reflects the monthly summary of water, sewer, and electric cost avoidance for the period January 2022 – March 2022.
- Energy/Utilities Consumption YTD Summary: Summary breakdown for electricity, water and sewer for January 2022 – March 2022 period. Between all tracked utilities, the District realized a total cost avoidance for this year of \$1,326,311.
- Total Cost Avoidance Summary by Commodity (July 2008 – March 2022): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance is \$65,036,507. Cost avoidance is calculated by comparing current year's data against 2008 Baseline adjusted to current conditions.

During the period of January 2022 – March 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 very successful first quarter of 2022.

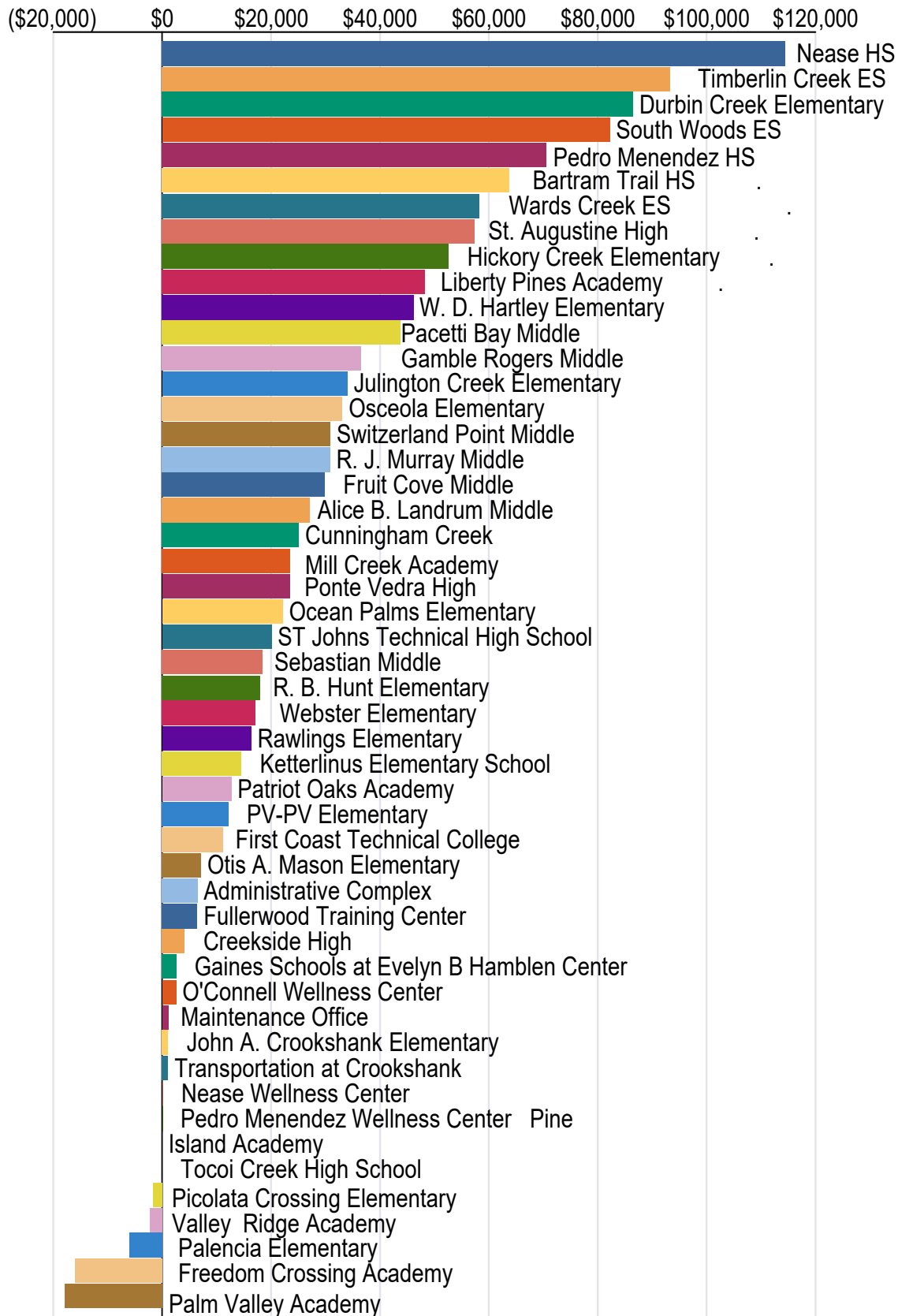
Electric Cost Avoidance Summary By Building

St. Johns County School Board

January 2022 - March 2022

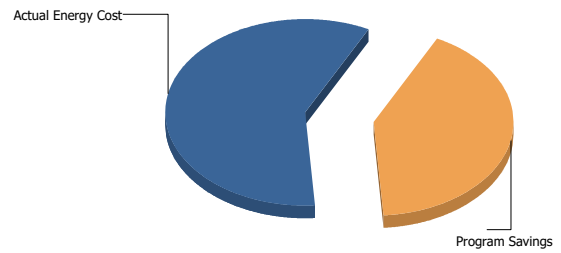
	Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[0021]	John A. Crookshank Elementary	\$22,487	\$21,360	\$1,127	5.0%
[0032]	Gaines Schools at Evelyn B Hamblen	\$15,686	\$13,058	\$2,628	16.8%
[0091]	Ketterlinus Elementary School	\$27,263	\$12,710	\$14,554	53.4%
[0161]	R. B. Hunt Elementary	\$33,488	\$15,390	\$18,098	54.0%
[0171]	R. J. Murray Middle	\$58,571	\$27,715	\$30,855	52.7%
[0181]	St. Augustine High	\$108,259	\$50,811	\$57,448	53.1%
[0201]	Webster Elementary	\$35,206	\$18,096	\$17,110	48.6%
[0231]	First Coast Technical College	\$72,802	\$61,573	\$11,230	15.4%
[0241]	Julington Creek Elementary	\$80,972	\$46,952	\$34,020	42.0%
[0251]	Allen D. Nease High	\$180,784	\$66,331	\$114,453	63.3%
[0261]	W. D. Hartley Elementary	\$64,269	\$18,109	\$46,160	71.8%
[0301]	Sebastian Middle	\$40,337	\$21,944	\$18,394	45.6%
[0311]	Alice B. Landrum Middle	\$66,297	\$39,095	\$27,203	41.0%
[0321]	Switzerland Point Middle	\$64,306	\$33,397	\$30,909	48.1%
[0331]	Osceola Elementary	\$52,878	\$19,764	\$33,114	62.6%
[0341]	Mill Creek Academy	\$64,844	\$41,330	\$23,514	36.3%
[0351P]	PV-PV Elementary	\$24,415	\$12,229	\$12,186	49.9%
[0351R]	Rawlings Elementary	\$33,602	\$17,245	\$16,357	48.7%
[0361]	Otis A. Mason Elementary	\$24,367	\$17,200	\$7,167	29.4%
[0371]	Gamble Rogers Middle	\$61,620	\$25,073	\$36,547	59.3%
[0381]	Cunningham Creek Elementary	\$46,352	\$21,216	\$25,135	54.2%
[0391]	Ocean Palms Elementary	\$51,059	\$28,892	\$22,167	43.4%
[0401]	Pedro Menendez High	\$147,593	\$76,966	\$70,627	47.9%
[0411]	Bartram Trail High	\$183,348	\$119,649	\$63,699	34.7%
[0441]	Durbin Creek Elementary	\$123,320	\$36,818	\$86,502	70.1%
[0451]	Timberlin Creek Elementary	\$148,087	\$54,729	\$93,359	63.0%
[0461]	South Woods Elementary	\$128,148	\$45,914	\$82,234	64.2%
[0471]	Patriot Oaks Academy	\$56,941	\$44,207	\$12,734	22.4%
[0472]	Liberty Pines Academy	\$108,279	\$60,066	\$48,213	44.5%
[0481]	Pacetti Bay Middle	\$111,842	\$68,068	\$43,774	39.1%
[0482]	Wards Creek Elementary	\$116,175	\$57,897	\$58,278	50.2%
[0491]	Fruit Cove Middle	\$63,628	\$33,720	\$29,908	47.0%
[0492]	Ponte Vedra High	\$102,579	\$79,167	\$23,412	22.8%
[0493]	Creekside High	\$104,398	\$100,242	\$4,156	4.0%
[0501]	Hickory Creek Elementary	\$110,155	\$57,508	\$52,647	47.8%
[0502]	Valley Ridge Academy	\$46,397	\$48,618	(\$2,221)	-4.8%
[0511]	Palencia Elementary	\$17,005	\$23,046	(\$6,041)	-35.5%
[0521]	Picolata Crossing Elementary	\$20,832	\$22,494	(\$1,662)	-8.0%
[0531]	Freedom Crossing Academy	\$31,932	\$49,770	(\$17,837)	-55.9%
[0541]	Palm Valley Academy	\$25,812	\$41,871	(\$16,059)	-62.2%
[0551]	Pine Island Academy	\$40,225	\$40,225	\$0	0.0%
[0552]	Tocoi Creek High School	\$52,244	\$52,244	\$0	0.0%
[9061]	Fullerwood Training Center	\$12,608	\$6,133	\$6,475	51.4%
[9721A]	Administrative Complex	\$26,443	\$19,909	\$6,533	24.7%
[9780C]	Transportation at Crookshank	\$6,104	\$4,983	\$1,121	18.4%
[9810]	Maintenance Office	\$3,588	\$2,438	\$1,151	32.1%
[NCLN]	Nease Wellness Center	\$1,167	\$1,028	\$139	11.9%
[OCLN]	O'Connell Wellness Center	\$4,525	\$1,961	\$2,564	56.7%
[PCLN]	Pedro Menendez Wellness Center	\$984	\$870	\$115	11.6%
[SJT_1]	ST Johns Technical High School	\$37,170	\$17,056	\$20,114	54.1%
Totals:		\$3,061,394	\$1,797,087	\$1,264,307	41.3%

Avoided Cost



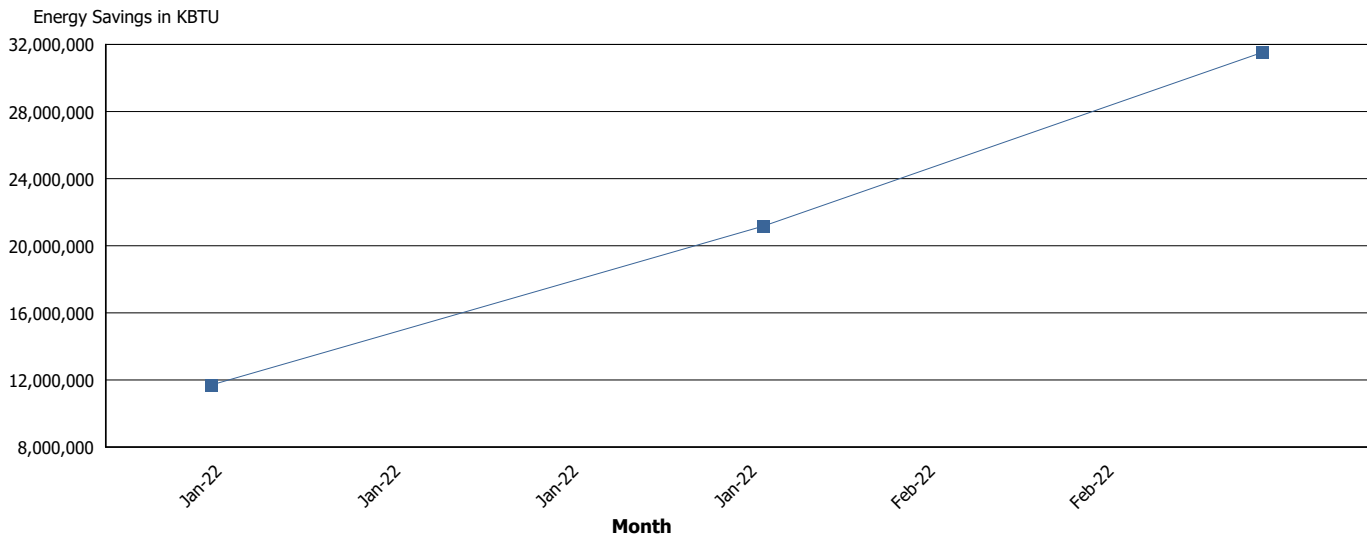
1st Quarter 2022 Electric Cost Savings

Expected Energy Cost	\$3,061,394
Actual Energy Cost	\$1,797,087
<hr/>	
Program Savings	\$1,264,307
Percent Savings	41.3%
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Other Savings	\$0
Total Savings	\$1,264,307



Expected Energy Cost	Actual Energy Cost	Program Savings
Anticipated expense without energy management.	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%.
Base year usage after adjustments for such variables as changes in weather, equipment, schedules, occupancy and prices.	Other Savings Additional documented savings attributable to Program activities but not the direct result of usage reductions, such as rebates, refunds, tariff changes, etc.	

1st Quarter 2022 Energy Savings



1st Quarter 2022 Greenhouse Gas Reduction

Energy Reduction Impact:	31,534,226 KBTU	4,996 equiv. metric tons of CO2
This is equivalent to the following:		
Passenger cars not driven for one year:	1,041	
Tree seedlings grown for 10 years:	128,112	

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
Total	1,326,311	39.2	1,326,311

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

Energy/Utilities Consumption Summary YTD (through 1st Quarter 2022)

	Use				Cost				
	BATCC	Actual	Avoid	Avoid %	BATCC	Actual	Avoid	Avoid %	Total Savings \$
Electric (KWH)	22,946,200	13,704,047	9,242,153	40.3	3,061,394	1,797,087	1,264,307	41.3	1,264,307
Water (KGAL)	286	121	166	57.8	4,027	1,312	2,716	67.4	2,716
Water & Sewer (KGAL)	17,545	14,162	3,384	19.3	301,603	240,105	61,498	20.4	61,498
Irrigation (KGAL)	3,149	3,682	-533	-16.9	13,301	15,510	-2,210	-16.6	-2,210
Total (KBTU)	78,292,434	46,758,208	31,534,226	40.3	3,380,325	2,054,014	1,326,311	39.2	1,326,311

Cost Avoidance Summary by Commodity July 2008 - March 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	\$135,758,054	1,199,098,679	\$74,193,952	667,080,397	\$61,564,103	45.3%	532,018,282	44.4%
Water	Kgal	\$143,785	16,649	\$110,273	13,757	\$33,512	23.3%	2,892	17.4%
Water & Sewer	Kgal	\$12,444,700	846,314	\$9,005,808	630,868	\$3,438,892	27.6%	215,445	25.5%
Totals:		\$148,346,539		\$83,310,033		\$65,036,507	43.8%		

Avoided Cost

