



Agenda Item Details

Meeting	Mar 08, 2022 - REGULAR SCHOOL BOARD MEETING
Category	S. Operational Services - Consent
Subject	3. Request for Acceptance of the Energy Conservation Program Quarterly Status Report March 2022
Access	Public
Type	Action (Consent)
Recommended Action	Acceptance of the Energy Conservation Program Quarterly Status Report March 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 March 2022 Energy Conservation Program Quarterly Status Report summarizes the performance results of the Energy Conservation Program for the quarterly period of October 2021 – December 2021. 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 October 2021 - December 2021 the Energy Conservation Program has resulted in additional energy cost avoidance for the School District of \$1,228,621. 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 \$63,703,919.

Recommendation:

Acceptance of the Energy Conservation Program Quarterly Status Report for March 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 March 2022.pdf \(598 KB\)](#)

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 24, 2022 10:00 AM :: Submitted by Cara Pacetti. Routed to Cara Pacetti for approval.
Feb 24, 2022 12:13 PM :: Approved by Cara Pacetti. Routed to Paul Rose for approval.
Feb 24, 2022 12:41 PM :: Approved by Paul Rose. Routed to Miriam Testasecca for approval.
Feb 24, 2022 1:05 PM :: Approved by Miriam Testasecca. Routed to Mike Degutis for approval.
Feb 24, 2022 3:01 PM :: Approved by Mike Degutis. Routed to Gina Fallica for approval.
Feb 24, 2022 4:16 PM :: Approved by Gina Fallica. Routed to Tim Forson for approval.
Mar 2, 2022 11:50 AM :: Final approval by Tim Forson

Last Modified by Tim Forson on March 2, 2022

**ENERGY CONSERVATION PROGRAM
QUARTERLY STATUS REPORT
October 2021 – December 2021**

EXECUTIVE SUMMARY

The March 2022 Energy Conservation Program Quarterly Status Report summarizes the performance results for the quarterly period of October 2021 – December 2021 and is comprised of the following:

- Electric Cost Avoidance Summary by Building (4th Quarter 2021): The District realized a total electric cost avoidance for this quarterly period of \$1,228,621 (or a 43.1% cost avoidance from the baseline period).
- 4th Quarter Electric Cost Savings Summary (4th Quarter 2021): This reflects the monthly summary of total electric cost avoidance for the period October 2021 – December 2021.
- Greenhouse Gas Reduction: Greenhouse Gas Emissions Equivalent for this quarterly period reduced CO² by 5,625 metric tons. This is equivalent to 1,172 passenger cars not driven for one year.
- (YTD) Monthly Utilities Cost Avoidance (Through 4th Quarter 2021): This reflects the monthly summary of water, sewer and electric cost avoidance for the period January 2021 – December 2021.
- Energy/Utilities Consumption YTD Summary: Summary breakdown for electricity, water and sewer for January 2021 – December 2021 period. Between all tracked utilities, the District realized a total cost avoidance for this year of \$4,515,251. Cost avoidance is calculated by comparing current year's data against 2008 Baseline adjusted to current conditions.
- Total Cost Avoidance Summary by Commodity (October 2008 – December 2021): This reflects the total cost avoidance since the implementation of the program. Total cumulative cost avoidance of \$63,703,919.

During the period of October 2021 – December 2021 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 fourth quarter of 2021.

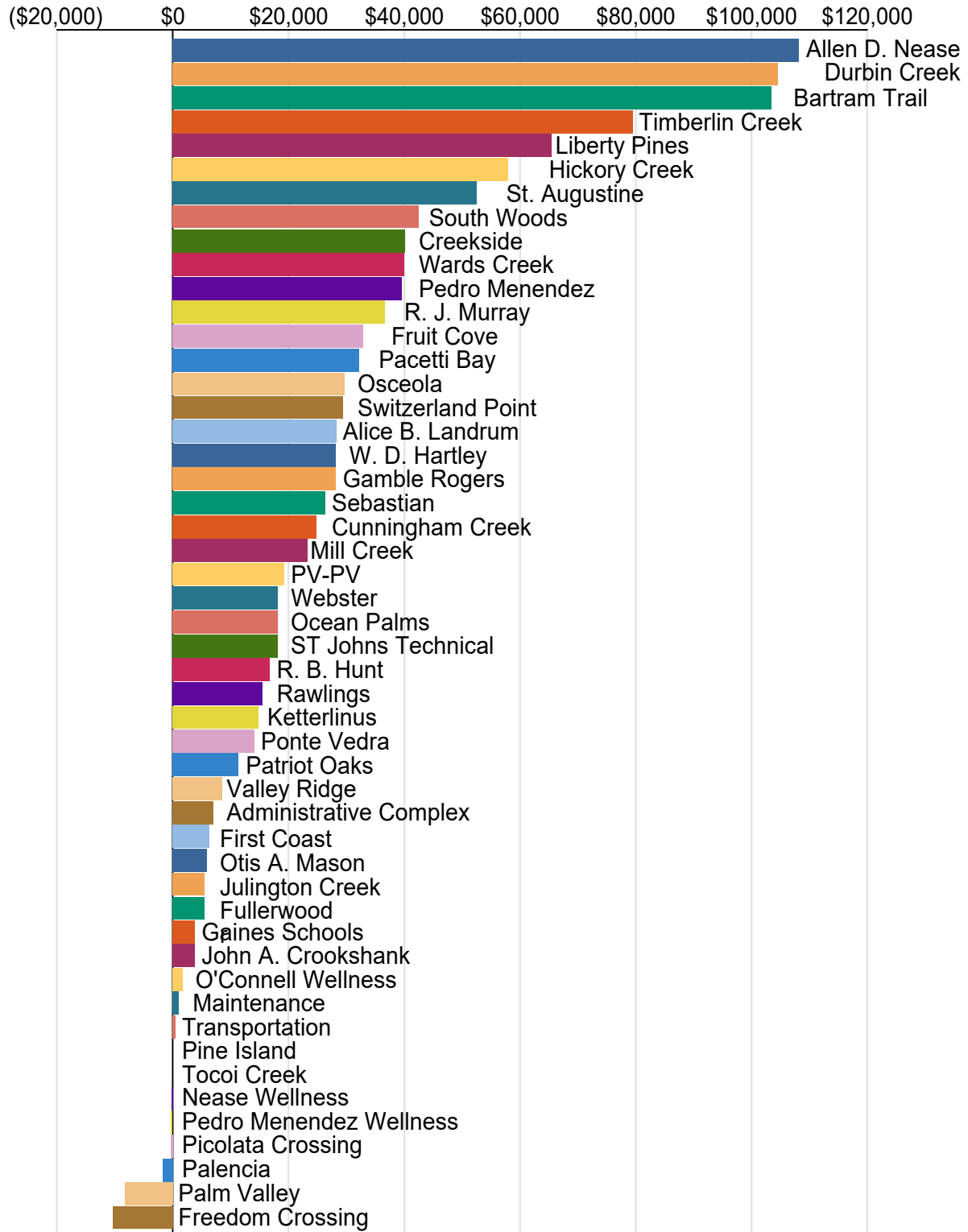
Electric Cost Avoidance Summary By Building

St. Johns County School Board

October 2021 - December 2021

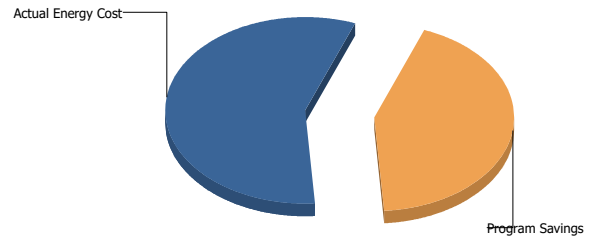
Place	BATCC Cost	Actual Cost	Cost Avoidance	Cost Avoidance %
[0021] John A. Crookshank Elementary	\$20,217	\$16,427	\$3,790	18.7%
[0032] Gaines Schools at Evelyn B Hamblen Center	\$12,844	\$8,982	\$3,862	30.1%
[0091] Ketterlinus Elementary School	\$28,834	\$14,040	\$14,794	51.3%
[0161] R. B. Hunt Elementary	\$31,561	\$14,755	\$16,806	53.2%
[0171] R. J. Murray Middle	\$59,133	\$22,499	\$36,634	62.0%
[0181] St. Augustine High	\$96,082	\$43,572	\$52,510	54.7%
[0201] Webster Elementary	\$32,405	\$14,199	\$18,205	56.2%
[0231] First Coast Technical College	\$59,624	\$53,329	\$6,296	10.6%
[0241] Julington Creek Elementary	\$65,253	\$59,759	\$5,493	8.4%
[0251] Allen D. Nease High	\$165,090	\$56,896	\$108,194	65.5%
[0261] W. D. Hartley Elementary	\$52,277	\$24,116	\$28,161	53.9%
[0301] Sebastian Middle	\$46,750	\$20,388	\$26,362	56.4%
[0311] Alice B. Landrum Middle	\$69,321	\$41,022	\$28,299	40.8%
[0321] Switzerland Point Middle	\$62,940	\$33,569	\$29,370	46.7%
[0331] Osceola Elementary	\$46,530	\$16,826	\$29,704	63.8%
[0341] Mill Creek Academy	\$61,802	\$38,444	\$23,359	37.8%
[0351P] PV-PV Elementary	\$31,718	\$12,413	\$19,304	60.9%
[0351R] Rawlings Elementary	\$36,305	\$20,810	\$15,495	42.7%
[0361] Otis A. Mason Elementary	\$24,330	\$18,428	\$5,901	24.3%
[0371] Gamble Rogers Middle	\$55,503	\$27,359	\$28,143	50.7%
[0381] Cunningham Creek Elementary	\$46,554	\$21,642	\$24,912	53.5%
[0391] Ocean Palms Elementary	\$49,833	\$31,680	\$18,153	36.4%
[0401] Pedro Menendez High	\$103,572	\$63,986	\$39,586	38.2%
[0411] Bartram Trail High	\$195,890	\$92,503	\$103,388	52.8%
[0441] Durbin Creek Elementary	\$141,366	\$36,828	\$104,539	73.9%
[0451] Timberlin Creek Elementary	\$122,150	\$42,589	\$79,561	65.1%
[0461] South Woods Elementary	\$88,259	\$45,698	\$42,562	48.2%
[0471] Patriot Oaks Academy	\$52,223	\$40,902	\$11,321	21.7%
[0472] Liberty Pines Academy	\$117,318	\$51,882	\$65,436	55.8%
[0481] Pacetti Bay Middle	\$90,472	\$58,246	\$32,226	35.6%
[0482] Wards Creek Elementary	\$84,276	\$44,255	\$40,021	47.5%
[0491] Fruit Cove Middle	\$63,292	\$30,337	\$32,955	52.1%
[0492] Ponte Vedra High	\$88,136	\$74,039	\$14,096	16.0%
[0493] Creekside High	\$134,404	\$94,188	\$40,216	29.9%
[0501] Hickory Creek Elementary	\$109,820	\$51,917	\$57,903	52.7%
[0502] Valley Ridge Academy	\$52,506	\$44,041	\$8,465	16.1%
[0511] Palencia Elementary	\$19,741	\$21,551	(\$1,809)	-9.2%
[0521] Picolata Crossing Elementary	\$15,079	\$15,494	(\$415)	-2.8%
[0531] Freedom Crossing Academy	\$34,818	\$45,141	(\$10,323)	-29.6%
[0541] Palm Valley Academy	\$25,903	\$34,217	(\$8,315)	-32.1%
[0551] Pine Island Academy	\$37,424	\$37,424	\$0	0.0%
[0552] Toco Creek High School	\$38,207	\$38,207	\$0	0.0%
[9061] Fullerwood Training Center	\$9,845	\$4,370	\$5,475	55.6%
[9721A] Administrative Complex	\$23,120	\$16,028	\$7,093	30.7%
[9780C] Transportation at Crookshank	\$4,670	\$4,246	\$424	9.1%
[9810] Maintenance Office	\$3,367	\$2,252	\$1,115	33.1%
[NCLN] Nease Wellness Center	\$1,070	\$1,276	(\$206)	-19.3%
[OCLN] O'Connell Wellness Center	\$3,089	\$1,424	\$1,664	53.9%
[PCLN] Pedro Menendez Wellness Center	\$940	\$1,180	(\$240)	-25.5%
[SJT_1] ST Johns Technical High School	\$33,084	\$14,948	\$18,136	54.8%
Totals:	\$2,848,944	\$1,620,324	\$1,228,621	43.1%

Avoided Cost



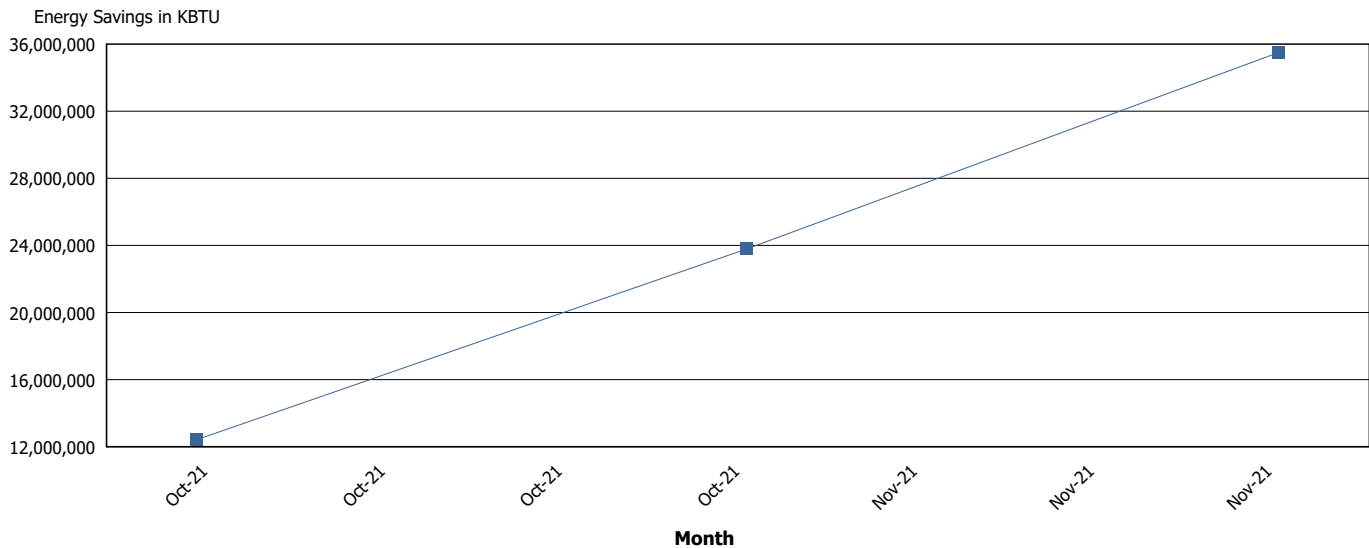
4th Quarter 2021 Electric Cost Savings

Expected Energy Cost	\$2,848,944
Actual Energy Cost	\$1,620,324
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Program Savings	\$1,228,621
Percent Savings	43.1%
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Other Savings	\$0
Total Savings	\$1,228,621



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.	

4th Quarter 2021 Energy Savings



4th Quarter 2021 Greenhouse Gas Reduction

Energy Reduction Impact: 35,503,965 KBTU 5,625 equiv. metric tons of CO2

This is equivalent to the following:

Passenger cars not driven for one year:	1,172
Tree seedlings grown for 10 years:	144,240

YTD Monthly Cost Avoidance Summary

	2021		
	Cost Avoid \$	Cost Avoid %	* Total \$
Jan	448,412	43.4	448,412
Feb	353,314	38.0	353,314
Mar	336,326	36.8	336,326
Apr	280,250	31.3	280,250
May	244,830	28.3	244,830
Jun	346,952	41.4	346,952
Jul	418,643	46.7	418,643
Aug	384,591	32.5	384,591
Sep	395,530	34.6	395,530
Oct	405,744	37.3	405,744
Nov	405,117	39.4	405,117
Dec	495,542	45.7	495,542
Total	4,515,251	37.9	4,515,251

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

Energy/Utilities Consumption Summary YTD (through 4th Quarter 2021)

	Use				Cost				
	*BATCC	Actual	Avoid	Avoid %	*BATCC	Actual	Avoid	Avoid %	Total Savings \$
Electric (KWH)	99,360,578	60,312,676	39,047,902	39.3	10,610,058	6,322,267	4,287,791	40.4	4,287,791
Water (KGAL)	1,957	995	962	49.2	18,626	9,063	9,563	51.3	9,563
Water & Sewer (KGAL)	71,098	62,598	8,499	12.0	1,184,116	985,853	198,263	16.7	198,263
Irrigation (KGAL)	20,573	17,692	2,882	14.0	86,258	66,625	19,633	22.8	19,633
Total (KBTU)	339,018,292	205,786,851	133,231,442	39.3	11,899,058	7,383,807	4,515,251	37.9	4,515,251

***BATCC**: Baseline adjusted to current conditions

Cost Avoidance Summary By Commodity July 2008 - December 2021

Commodity		BATCC Cost	BATCC Use	Actual Cost	Actual Use	Cost Avoidance	Cost Avoidance %	Use Avoidance	Use Avoidance %
Electric	kWh	\$132,670,121	1,177,061,359	\$72,374,405	654,319,460	\$60,295,716	45.4%	522,741,899	44.4%
Water	Kgal	\$139,757	16,363	\$108,961	13,636	\$30,796	22.0%	2,727	16.7%
Water & Sewer	Kgal	\$12,143,110	828,768	\$8,765,703	616,612	\$3,377,407	27.8%	212,156	25.6%
Totals:		\$144,952,988		\$81,249,069		\$63,703,919	43.9%		

Avoided Cost

