

ANNUAL REPORT



Performance Services

GARRARD COUNTY SCHOOLS

Year 3

July 2021 – June 2022

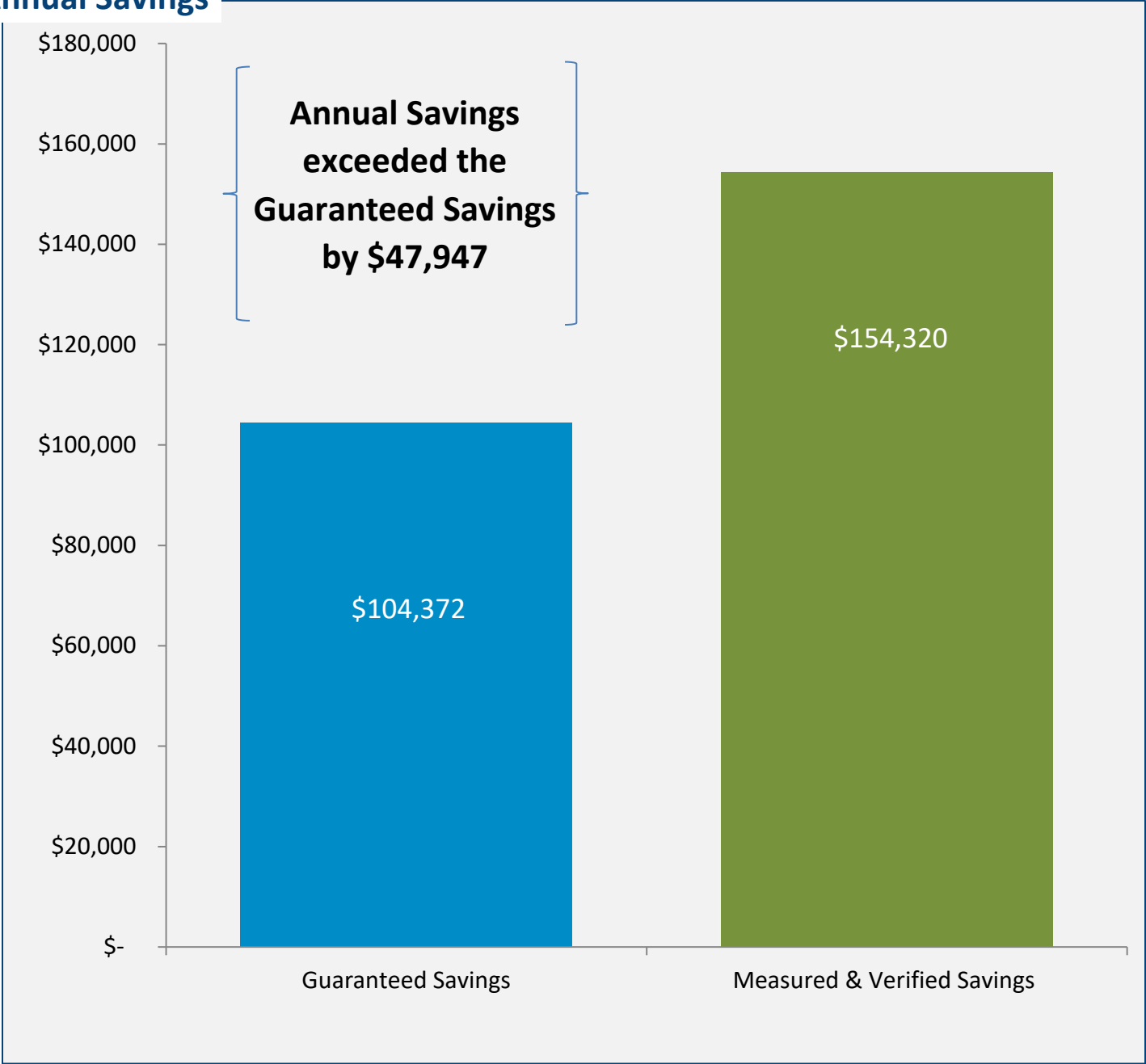


Performance Services, Inc.
1051 Floyd Drive, Suite 170 | Lexington, KY 40505
www.performanceservices.com

Executive Summary

This Year 3 Annual Report provides an overview of energy performance resulting from the efficiency project completed by Performance Services (PSI) in 2019. Our Performance Assurance team is committed to measuring and monitoring project performance, recognizing customer successes, and identifying opportunities for increased efficiency. The following Annual Savings table shows guaranteed energy savings compared to actual savings measured for the period of July 1, 2021 – June 30, 2022. Measured savings surpassed guaranteed savings by **\$49,947**, or **47.9%**.

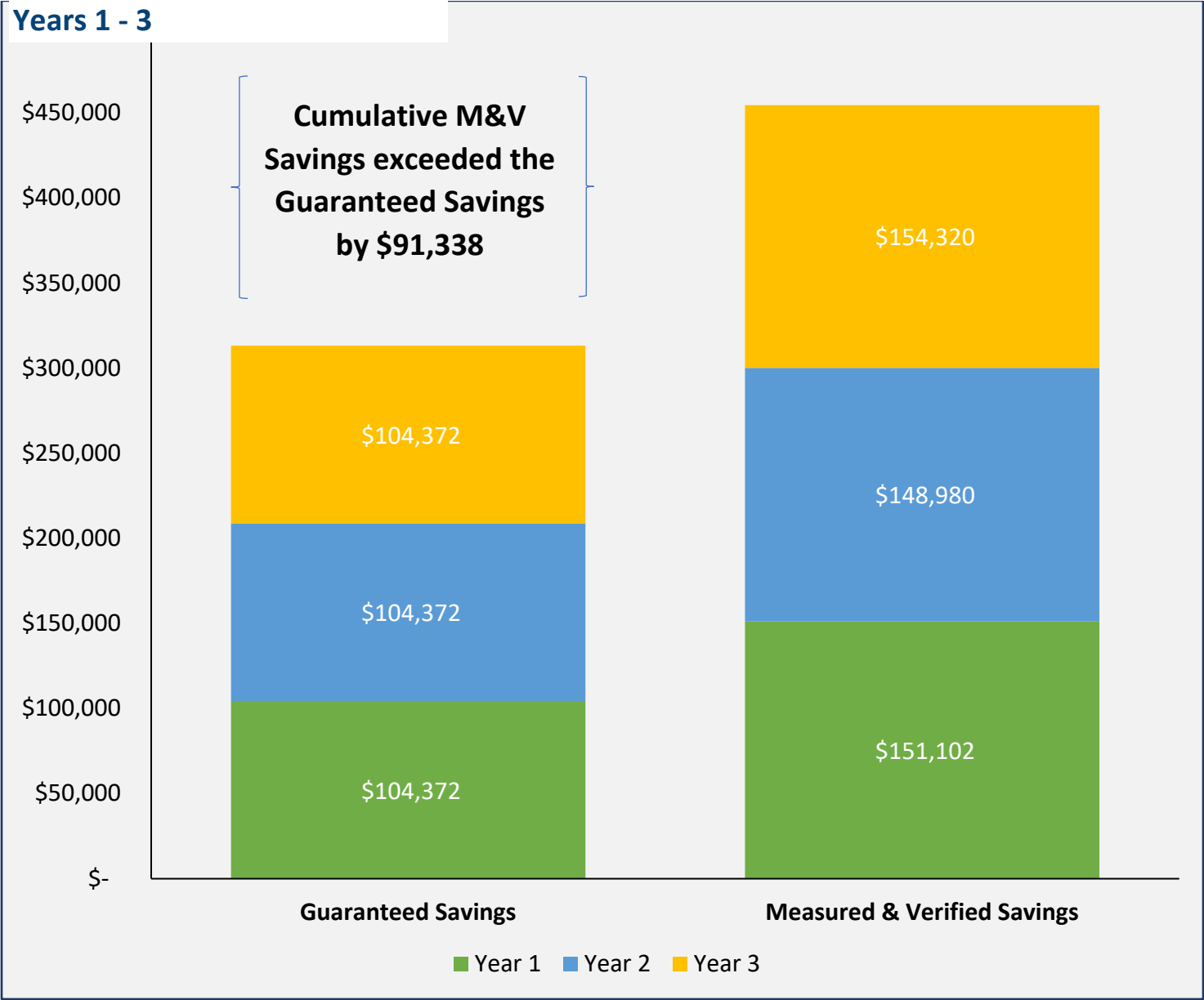
Annual Savings



The following Cumulative Project Savings table shows guaranteed energy savings compared to actual measured savings throughout the life of the project, or July 2019 – June 2022. Measured savings surpassed guaranteed savings by **\$141,286**, or **45.1%**.

Cumulative Project Savings

Years 1 - 3



Project Description

Garrard County Schools in Lancaster, KY was looking to implement solutions to address their facilities' energy and operational savings, maintainability, and learning environment needs. In 2017 the District partnered with Performance Services to improve the energy efficiency of their 11 buildings, address their aging systems, and improve the learning environment for students and faculty.



Project Highlights

- Installation of new heating, ventilation, and air-conditioning systems (HVAC) at the Garrard Education Center
- Installation of new high-efficiency boilers installed at the Middle School and the Area Tech Center
- Upgrade of interior and exterior lighting to LED technology throughout the district
- Implementation of water conservation measures throughout the district



“It was a pleasure working with Brad Abee at Garrard County Schools. The success of this project can be attributed to the engaged and knowledgeable staff at GCS and our skilled subcontracting team. Open lines of communication between contractors, school personnel and Performance Services meant no one was left in the dark. The quality of collaboration allowed us to complete the project two weeks early.”

Philip Pursley
PROJECT MANAGER

Project Benefits

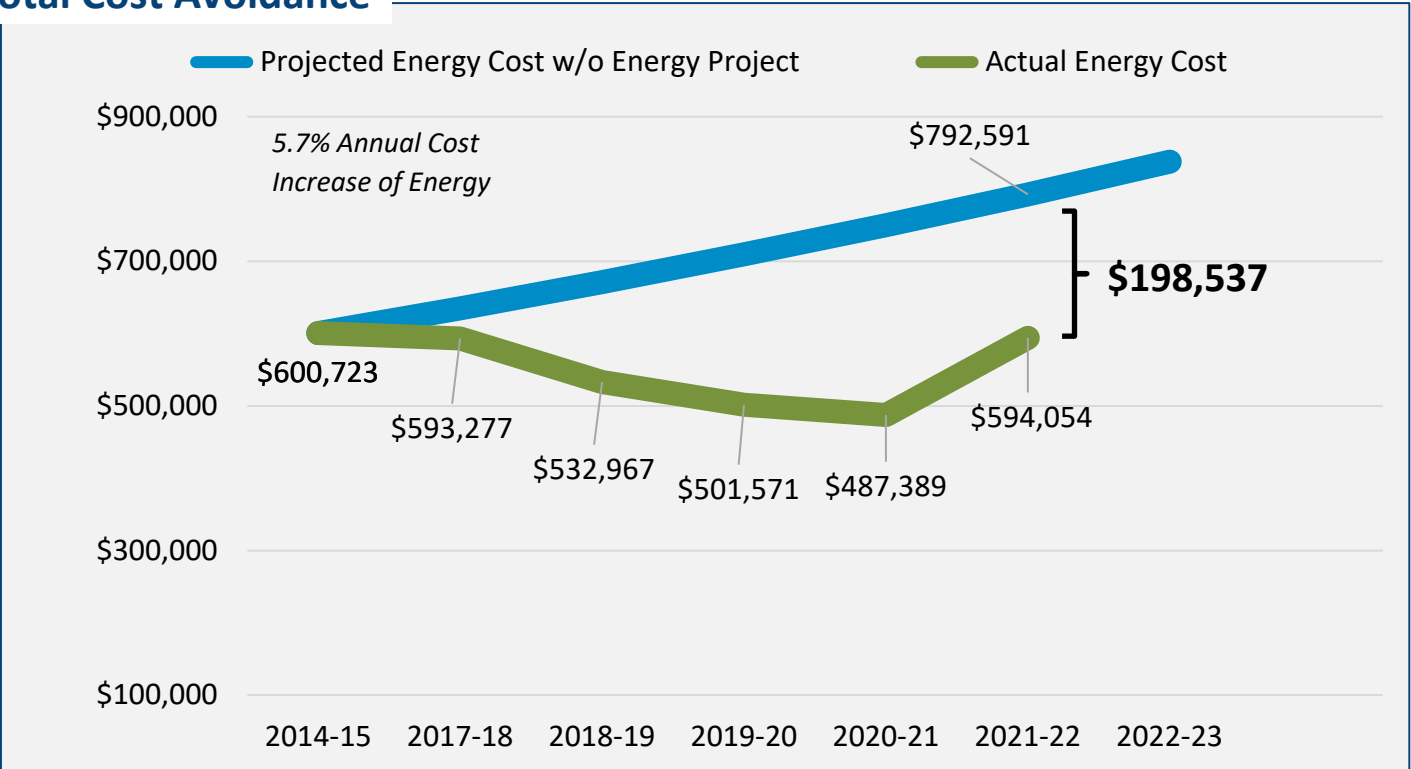
Performance Services provides systems and solutions with the goal of providing high-performing learning and working environments for our customers. Our Four-Season Optimization process ensures that your building systems are energy-efficient while also providing an optimal learning environment. We also design reliable and resilient systems in order to minimize operational costs.



Financial Impact of the Project

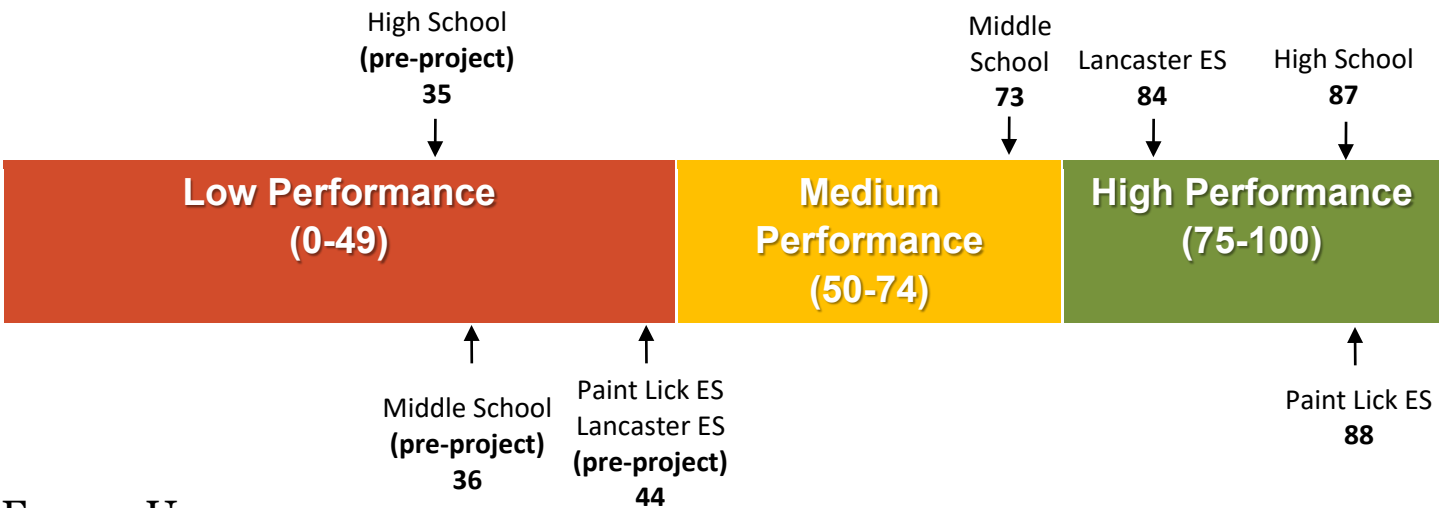
The avoided cost calculation examines projected energy expenditure had the district chosen not to upgrade equipment and adopt new consumption habits through the Energy Leadership program. This metric is demonstrated by applying actual utility rate inflation to pre-project equipment performance and usage. As shown in the following chart, Garrard County Schools avoided \$198,537 in energy costs during the third full year following project implementation.

Total Cost Avoidance



Energy Impact of the Project

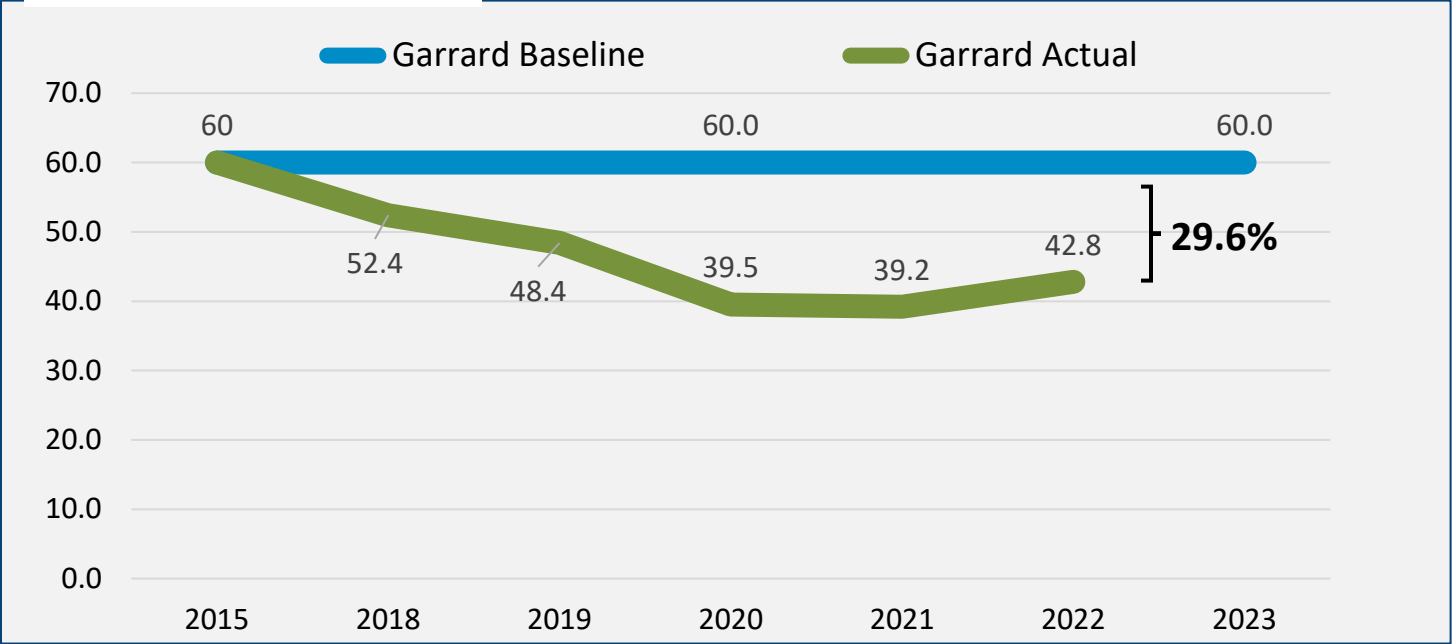
A widely adopted metric used to gauge energy impact is the ENERGY STAR score. ENERGY STAR, a federal program administered by the Environmental Protection Agency, provides recognition to facilities that meet their enhanced criteria for energy efficiency and indoor quality standards. Each facility is scored on a scale from 0 to 100 based on a variety of indicators like facility function, local climate, hours of operation, and the number of occupants. A building must achieve a score of 75 or better in order to qualify for ENERGY STAR certification. The chart below illustrates the improvement of your facilities' that are candidates for ENERGY STAR certification.



Energy Usage

The Energy Use Index (EUI), referred to generally as “energy intensity,” demonstrates the volume of energy consumed per square foot at a set of facilities over the course of a year. Prior to 2019, the Garrard County facilities included in this project scored a combined EUI of 60. After equipment upgrades and Four-Season Optimization, the EUI of these facilities is now 42.8, which is a 29.6% reduction in energy intensity.

Energy Use Comparison

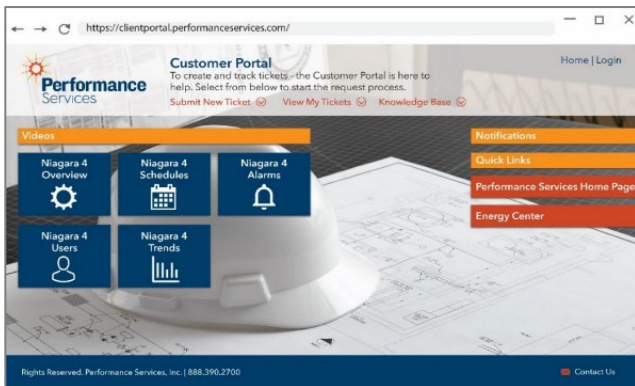


Customer Portal

Performance Services provides a **Customer Portal** to our customers with access to training videos, an in-depth searchable knowledge base, and a ticketing system to create and track work requests. This portal allows for ease of communication and ensures a convenient way to request assistance, and document system performance.

Customer Portal Data

- 8 total tickets submitted by Garrard staff
- 6 issues resolved
- 2 tickets in process



Ticket Excerpts

7/1/2021, Bradley Abee submitted a ticket stating that the High School kitchen unit continually trips out and unit is not able to cool properly.

PSI logged into the control system and conducted testing. We found that the issue was relating to a mechanical problem with a refrigerant device and not relating to the temperature controls. The school then coordinated the mechanical repairs and PSI closed the ticket.

9/9/2021, Derek Johnson submitted a ticket stating that a thermostat at Camp Dick Robinson Cafeteria had failed.

On 9/13/2021, PSI provided a quote for a new thermostat, received purchase order from the school, and placed the order for replacement.

3/1/2022, Bradley Abee submitted a ticket stating that the exterior lighting at Paint Lick ES is not working.

Later that day, PSI logged into the control system and verified that the controls and BAS scheduling for the lighting was working properly and that the issue was relating to existing wiring within the building. The school then coordinated the troubleshooting with their preferred electrician.

Who We Are

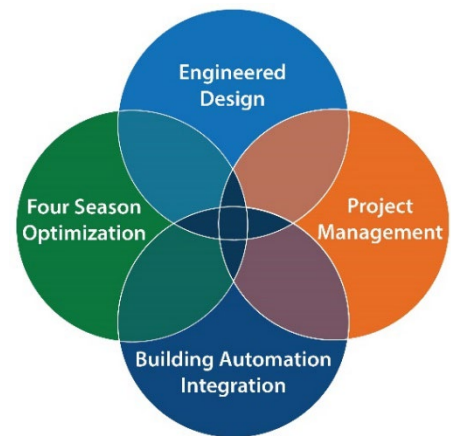
Performance Services is a high-performance specialist, creating and delivering facility and environmental solutions using integrated design and delivery with sole accountability. We do this by utilizing either design-build or guaranteed energy savings contracts. Our focus since the company's founding in 1998 is serving education and local governments to provide sustainable solutions and 100% customer satisfaction on every project.

What We Do



How We Do It

Performance Services provides **integrated design and delivery** that is enabled and focused on quality results for our customers. We prefer not to relinquish our design, project management, optimization, or performance assurance work to subcontractors and perform these essential functions in-house. Our team utilizes a cohesive and collaborative team approach throughout project development and implementation to maximize quality results and customer satisfaction.



How We're Different

Performance Services conducts master planning and completes both new construction and major renovation projects using a design-to-budget and collaborative process to save our customers time and money.

- **A multidisciplinary approach**
- **Unparalleled performance guarantees**
- **No change orders guarantee**
- **Transparent, open-book pricing**
- **Vendor independence**
- **Sole accountability for results**

Contact for Assistance



David Dowdell

BUSINESS DEVELOPMENT MANAGER

502-264-2017 | ddowdell@performanceservices.com



Abby Vaal

PERFORMANCE ASSURANCE ADMINISTRATOR

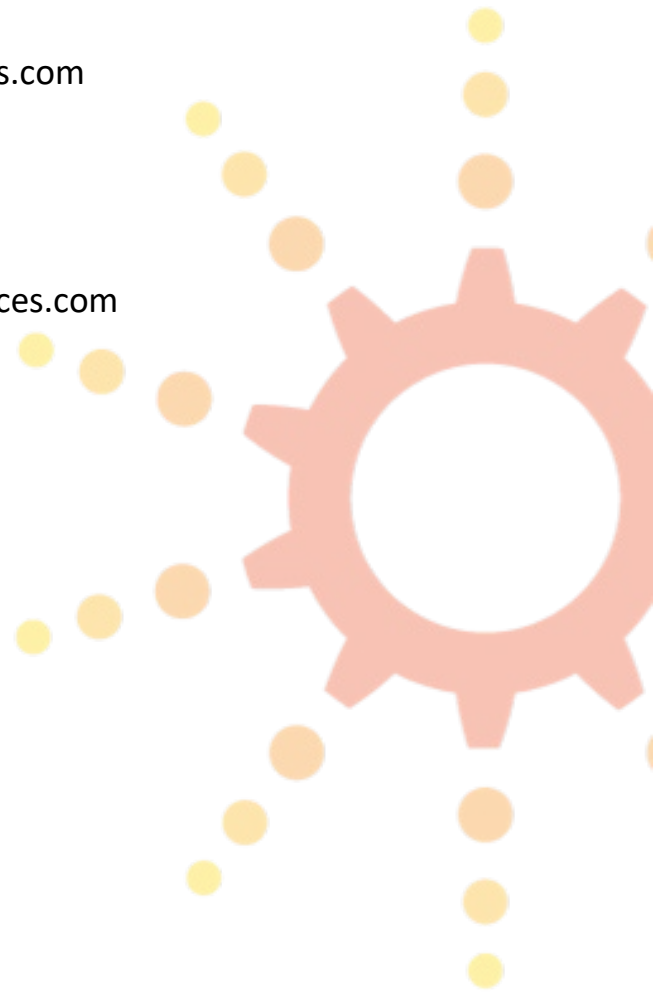
317-713-1750 | avaal@performanceservices.com



Dustin Stuffle

PERFORMANCE ASSURANCE SPECIALIST

317-435-1959 | dstuffle@performanceservices.com



OUR WORD IS OUR BOND

When we commit to implementing a project at a set price, we implement that project for that price without asking customers for change orders to cover design or construction errors.

RELATIONSHIPS MATTER

We work with customers that believe in a collaborative and partnership approach. We value long-term relationships.

WE FULFILL PROMISES

Promises and commitments to customers always take priority over profits. Our employees are empowered and expected to make this happen.

CUSTOMER IS IN CONTROL

Quality performance and value is defined by our customers. Customer feedback is always taken into consideration.



Performance
Services

Performance Services

Appendix

PROPRIETARY

APPENDIX - TABLE OF CONTENTS

GUARANTEE RESULTS	Page #:
Savings Summary – Calculated vs. Guaranteed	1
Detailed Energy Savings Summary	2-3
Utility Bill vs. Calculated Savings Summary	4
Utility Bills – Garrard High School	5
Utility Bills – Garrard Middle School	6
Utility Bills – Camp Dick Robinson Elementary	7
Utility Bills – Lancaster Elementary	8
Utility Bills – Paint Lick Elementary	9
Utility Bills – Education Center	10
Utility Bills – Area Technology Center	11
Utility Bills – Board of Education Office	12
Utility Bills – Merritt-Little Building	13
Utility Bills – Bus Garage	14
Utility Bills – High School Field House	15
Actual Equipment Runtimes - Quarter 1	16
Actual Equipment Runtimes - Quarter 2	17
Actual Equipment Runtimes - Quarter 3	18
Actual Equipment Runtimes - Quarter 4	19
Fan Motor Runtime Savings and Adjustment	20-21
Interior and Exterior Lighting Retrofit Savings	22
Water Retrofit Savings	23
Outside Air Heating & Cooling Costs	24
Pump Motor Replacement Savings	25
Electric Fan Motor Savings (VFD)	26
Boiler Savings	27-29
Chiller Efficiency Savings	30

Annual Guaranteed Savings Report Summary Year 3 (July 1, 2021 - June 30, 2022)			
Description	Guaranteed Savings	Calculated Savings	Net Difference
GARRARD COUNTY HIGH SCHOOL			
* Electric	\$ 12,904	\$ 16,536	\$ 3,632
* Gas	\$ -	\$ -	\$ -
* Water	\$ 2,057	\$ 2,285	\$ 229
Sub-Total	\$ 14,961	\$ 18,822	\$ 3,861
GARRARD MIDDLE SCHOOL			
* Electric	\$ 17,678	\$ 29,316	\$ 11,637
* Gas	\$ 2,535	\$ 3,496	\$ 962
* Water	\$ 5,065	\$ 5,628	\$ 563
Sub-Total	\$ 25,278	\$ 38,440	\$ 13,162
CAMP DICK ROBINSON ELEMENTARY SCHOOL			
* Electric	\$ 10,301	\$ 15,377	\$ 5,076
* Gas	\$ -	\$ -	\$ -
* Water	\$ 822	\$ 913	\$ 91
Sub-Total	\$ 11,123	\$ 16,290	\$ 5,167
LANCASTER ELEMENTARY SCHOOL			
* Electric	\$ 10,923	\$ 18,211	\$ 7,288
* Gas	\$ 746	\$ 1,780	\$ 1,035
* Water	\$ 4,540	\$ 5,045	\$ 504
Sub-Total	\$ 16,209	\$ 25,036	\$ 8,827
PAINT LICK ELEMENTARY SCHOOL			
* Electric	\$ 8,723	\$ 12,547	\$ 3,824
* Gas	\$ -	\$ -	\$ -
* Water	\$ 714	\$ 793	\$ 79
Sub-Total	\$ 9,437	\$ 13,340	\$ 3,904
GARRARD EDUCATION CENTER			
* Electric	\$ 15,488	\$ 26,222	\$ 10,734
* Gas	\$ 4,815	\$ 6,763	\$ 1,947
* Water	\$ 834	\$ 927	\$ 93
Sub-Total	\$ 21,137	\$ 33,912	\$ 12,774
AREA TECHNOLOGY CENTER			
* Electric	\$ -	\$ -	\$ -
* Gas	\$ 2,675	\$ 3,344	\$ 669
* Water	\$ 798	\$ 887	\$ 89
Sub-Total	\$ 3,473	\$ 4,231	\$ 758
BOARD OF EDUCATION OFFICE			
* Electric	\$ 1,802	\$ 2,228	\$ 426
* Gas	\$ -	\$ -	\$ -
* Water	\$ 137	\$ 152	\$ 15
Sub-Total	\$ 1,939	\$ 2,381	\$ 441
MERRITT-LITTLE BUILDING			
* Electric	\$ 1,390	\$ 1,884	\$ 494
* Gas	\$ -	\$ -	\$ -
* Water	\$ 18	\$ 20	\$ 2
Sub-Total	\$ 1,408	\$ 1,904	\$ 496
BUS GARAGE			
* Electric	\$ 997	\$ 1,617	\$ 620
* Gas	\$ -	\$ -	\$ -
* Water	\$ 66	\$ 73	\$ 7
Sub-Total	\$ 1,063	\$ 1,691	\$ 628
HIGH SCHOOL FIELD HOUSE			
* Electric	\$ 924	\$ 1,241	\$ 317
* Gas	\$ -	\$ -	\$ -
* Water	\$ -	\$ -	\$ -
Sub-Total	\$ 924	\$ 1,241	\$ 317
BASLINE ADJUSTMENTS			
* Electric	\$ (247)	\$ (294)	\$ (47)
* Gas	\$ (2,333)	\$ (2,672)	\$ (340)
* Water	\$ -	\$ -	\$ -
Sub-Total	\$ (2,579)	\$ (2,966)	\$ (387)
Total	\$ 104,372	\$ 154,320	\$ 49,947
OPERATIONAL SAVINGS			
* HVAC Renovation	\$ 26,738	\$ 26,738	\$ -
SAVINGS	\$ 131,110	\$ 181,058	\$ 49,947

Detailed Energy Savings Summary (1/2)

Year 3 (July 1, 2021 - June 30, 2022)

Improvements	Electric Savings			Gas Savings			Water Savings			Total Savings		
	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference
	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
GARRARD COUNTY HIGH SCHOOL												
Savings												
* Savings due to fan runtime reduction	\$ 1,956	\$ 3,019	\$ 1,063			\$ -				\$ 1,956	\$ 3,019	\$ 1,063
* Savings due to exterior lighting retrofit	\$ 5,817	\$ 7,183	\$ 1,365			\$ -				\$ 5,817	\$ 7,183	\$ 1,365
* Savings due to interior lighting retrofit and occupancy-based sensors	\$ 5,131	\$ 6,335	\$ 1,204			\$ -				\$ 5,131	\$ 6,335	\$ 1,204
* Savings due to water conservation retrofit			\$ -			\$ -	\$ 2,057	\$ 2,285	\$ 229	\$ 2,057	\$ 2,285	\$ 229
Sub-Total Savings	\$ 12,904	\$ 16,536	\$ 3,632	\$ -	\$ -	\$ -	\$ 2,057	\$ 2,285	\$ 229	\$ 14,961	\$ 18,822	\$ 3,861
GARRARD MIDDLE SCHOOL												
Savings												
* Savings due to fan runtime reduction	\$ 681	\$ 1,823	\$ 1,143			\$ -			\$ -	\$ 681	\$ 1,823	\$ 1,143
* Savings due to reduced outside air heating and cooling based upon fan runtime	\$ 227	\$ 609	\$ 382	\$ 461	\$ 904	\$ 443			\$ -	\$ 688	\$ 1,513	\$ 825
* Additional cost due to replacing hot water pump/motors	\$ (27)	\$ (43)	\$ (16)			\$ -			\$ -	\$ (27)	\$ (43)	\$ (16)
* Savings due to converting (2) HHW pumps to variable speed	\$ 85	\$ 171	\$ 86			\$ -			\$ -	\$ 85	\$ 171	\$ 86
* Savings due to replacement of (2) old boilers with high efficiency units			\$ -	\$ 2,074	\$ 2,592	\$ 518			\$ -	\$ 2,074	\$ 2,592	\$ 518
* Savings due to exterior lighting retrofit	\$ 744	\$ 1,329	\$ 585			\$ -			\$ -	\$ 744	\$ 1,329	\$ 585
* Savings due to interior lighting retrofit	\$ 15,967	\$ 25,426	\$ 9,458			\$ -			\$ -	\$ 15,967	\$ 25,426	\$ 9,458
* Savings due to water conservation retrofit			\$ -			\$ -	\$ 5,065	\$ 5,628	\$ 563	\$ 5,065	\$ 5,628	\$ 563
Sub-Total Savings	\$ 17,678	\$ 29,316	\$ 11,637	\$ 2,535	\$ 3,496	\$ 962	\$ 5,065	\$ 5,628	\$ 563	\$ 25,278	\$ 38,440	\$ 13,162
CAMP DICK ROBINSON ELEMENTARY SCHOOL												
Savings												
* Savings due to fan runtime reduction	\$ 1,562	\$ 2,757	\$ 1,194			\$ -				\$ 1,562	\$ 2,757	\$ 1,194
* Savings due to reduced outside air heating and cooling based upon fan runtime	\$ 1,602	\$ 2,827	\$ 1,225			\$ -				\$ 1,602	\$ 2,827	\$ 1,225
* Savings due to exterior lighting retrofit	\$ 472	\$ 647	\$ 176			\$ -				\$ 472	\$ 647	\$ 176
* Savings due to interior lighting retrofit	\$ 6,665	\$ 9,146	\$ 2,481			\$ -				\$ 6,665	\$ 9,146	\$ 2,481
* Savings due to water conservation retrofit						\$ -	\$ 822	\$ 913	\$ 91	\$ 822	\$ 913	\$ 91
Sub-Total Savings	\$ 10,301	\$ 15,377	\$ 5,076	\$ -	\$ -	\$ -	\$ 822	\$ 913	\$ 91	\$ 11,123	\$ 16,290	\$ 5,167
LANCASTER ELEMENTARY SCHOOL												
Savings												
* Savings due to fan runtime reduction	\$ 771	\$ 1,685	\$ 914			\$ -			\$ -	\$ 771	\$ 1,685	\$ 914
* Savings due to reduced outside air heating and cooling based upon fan runtime	\$ 317	\$ 693	\$ 376	\$ 746	\$ 1,780	\$ 1,035			\$ -	\$ 1,062	\$ 2,473	\$ 1,410
* Savings due to exterior lighting retrofit	\$ 339	\$ 463	\$ 124			\$ -			\$ -	\$ 339	\$ 463	\$ 124
* Savings due to interior lighting retrofit	\$ 9,496	\$ 15,370	\$ 5,874			\$ -			\$ -	\$ 9,496	\$ 15,370	\$ 5,874
* Savings due to water conservation retrofit			\$ -			\$ -	\$ 4,540	\$ 5,045	\$ 504	\$ 4,540	\$ 5,045	\$ 504
Sub-Total Savings	\$ 10,923	\$ 18,211	\$ 7,288	\$ 746	\$ 1,780	\$ 1,035	\$ 4,540	\$ 5,045	\$ 504	\$ 16,209	\$ 25,036	\$ 8,827
PAINT LICK ELEMENTARY SCHOOL												
Savings												
* Savings due to fan runtime reduction	\$ 495	\$ 1,015	\$ 520			\$ -			\$ -	\$ 495	\$ 1,015	\$ 520
* Savings due to reduced outside air heating and cooling based upon fan runtime	\$ 416	\$ 853	\$ 437			\$ -			\$ -	\$ 416	\$ 853	\$ 437
* Savings due to exterior lighting retrofit	\$ 1,164	\$ 1,591	\$ 427			\$ -			\$ -	\$ 1,164	\$ 1,591	\$ 427
* Savings due to interior lighting retrofit	\$ 6,648	\$ 9,088	\$ 2,440			\$ -			\$ -	\$ 6,648	\$ 9,088	\$ 2,440
* Savings due to water conservation retrofit						\$ -	\$ 714	\$ 793	\$ 79	\$ 714	\$ 793	\$ 79
Sub-Total Savings	\$ 8,723	\$ 12,547	\$ 3,824	\$ -	\$ -	\$ -	\$ 714	\$ 793	\$ 79	\$ 9,437	\$ 13,340	\$ 3,904
GARRARD EDUCATION CENTER												
Savings												
* Savings due to fan runtime reduction	\$ 126	\$ 215	\$ 88							\$ 126	\$ 215	\$ 88
* Savings due to reduced outside air heating and cooling based upon fan runtime	\$ 306	\$ 521	\$ 214	\$ 1,923	\$ 3,148	\$ 1,225				\$ 2,230	\$ 3,669	\$ 1,439
* Savings due to UV, FCU, EF, and RAF replacements	\$ 1,490	\$ 2,216	\$ 726							\$ 1,490	\$ 2,216	\$ 726
* Savings due to fan motor replacement (2) single-zone AHUs	\$ 74	\$ 109	\$ 36							\$ 74	\$ 109	\$ 36
* Savings due to reducing fan speed on (2) single-zone AHUs via VFDs	\$ 625	\$ 930	\$ 305							\$ 625	\$ 930	\$ 305
* Additional cost due to pumping changes [replace (2) DT w/ (2) DT & (2) circ]	\$ (654)	\$ (1,610)	\$ (957)							\$ (654)	\$ (1,610)	\$ (957)
* Savings due to converting (2) DT pumps to variable speed	\$ 1,158	\$ 1,722	\$ 564							\$ 1,158	\$ 1,722	\$ 564
* Savings due to replacement of old boilers with high efficiency units			\$ -	\$ 2,892	\$ 3,615	\$ 723				\$ 2,892	\$ 3,615	\$ 723
* Savings due to more efficient chiller	\$ 1,003	\$ 2,256	\$ 1,253							\$ 1,003	\$ 2,256	\$ 1,253
* Savings due to exterior lighting retrofit	\$ 954	\$ 1,135	\$ 181							\$ 954	\$ 1,135	\$ 181
* Savings due to interior lighting retrofit	\$ 10,407	\$ 18,729	\$ 8,322							\$ 10,407	\$ 18,729	\$ 8,322
* Savings due to water conservation retrofit							\$ 834	\$ 927	\$ 93	\$ 834	\$ 927	\$ 93
Sub-Total Savings	\$ 15,488	\$ 26,222	\$ 10,734	\$ 4,815	\$ 6,763	\$ 1,947	\$ 834	\$ 927	\$ 93	\$ 21,137	\$ 33,912	\$ 12,774
AREA TECHNOLOGY CENTER												
Savings												
* Savings due to replacement of old boilers with high efficiency units				\$ 2,675	\$ 3,344	\$ 669				\$ 2,675	\$ 3,344	\$ 669
* Savings due to water conservation retrofit							\$ 798	\$ 887	\$ 89	\$ 798	\$ 887	\$ 89
Sub-Total Savings				\$ 2,675	\$ 3,344	\$ 669	\$ 798	\$ 887	\$ 89	\$ 3,473	\$ 4,231	\$ 758

Detailed Energy Savings Summary (2/2)

Year 3 (July 1, 2021 - June 30, 2022)

Improvements	Electric Savings			Gas Savings			Water Savings			Total Savings		
	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference	Guaranteed	Calculated	Difference
	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
BOARD OF EDUCATION OFFICE												
Savings												
* Savings due to exterior lighting retrofit	\$ 176	\$ 217	\$ 42			\$ -				\$ 176	\$ 217	\$ 42
* Savings due to interior lighting retrofit	\$ 1,626	\$ 2,011	\$ 385			\$ -				\$ 1,626	\$ 2,011	\$ 385
* Savings due to water conservation retrofit			\$ -			\$ -	\$ 137	\$ 152	\$ 15	\$ 137	\$ 152	\$ 15
Sub-Total Savings	\$ 1,802	\$ 2,228	\$ 426	\$ -	\$ -	\$ -	\$ 137	\$ 152	\$ 15	\$ 1,939	\$ 2,381	\$ 441
MERRITT-LITTLE BUILDING												
Savings												
* Savings due to fan runtime reduction	\$ 33	\$ 50	\$ 17			\$ -				\$ 33	\$ 50	\$ 17
* Savings due to exterior lighting retrofit	\$ 229	\$ 309	\$ 80			\$ -				\$ 229	\$ 309	\$ 80
* Savings due to interior lighting retrofit	\$ 1,128	\$ 1,524	\$ 396			\$ -				\$ 1,128	\$ 1,524	\$ 396
* Savings due to water conservation retrofit							\$ 18	\$ 20	\$ 2	\$ 18	\$ 20	\$ 2
Sub-Total Savings	\$ 1,390	\$ 1,884	\$ 494	\$ -	\$ -	\$ -	\$ 18	\$ 20	\$ 2	\$ 1,408	\$ 1,904	\$ 496
BUS GARAGE												
Savings												
* Savings due to exterior lighting retrofit	\$ 215	\$ 350	\$ 134			\$ -				\$ 215	\$ 350	\$ 134
* Savings due to interior lighting retrofit	\$ 781	\$ 1,268	\$ 486			\$ -				\$ 781	\$ 1,268	\$ 486
* Savings due to water conservation retrofit							\$ 66	\$ 73	\$ 7	\$ 66	\$ 73	\$ 7
Sub-Total Savings	\$ 997	\$ 1,617	\$ 620	\$ -	\$ -	\$ -	\$ 66	\$ 73	\$ 7	\$ 1,063	\$ 1,691	\$ 628
HIGH SCHOOL FIELD HOUSE												
Savings												
* Savings due to interior lighting retrofit and occupancy-based sensors	\$ 762	\$ 1,023	\$ 261			\$ -				\$ 762	\$ 1,023	\$ 261
* Savings due to interior lighting retrofit	\$ 162	\$ 217	\$ 55			\$ -				\$ 162	\$ 217	\$ 55
Sub-Total Savings	\$ 924	\$ 1,241	\$ 317	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 924	\$ 1,241	\$ 317
TOTAL SAVINGS	\$ 81,130	\$ 125,179	\$ 44,049	\$ 10,771	\$ 15,383	\$ 4,613	\$ 15,051	\$ 16,723	\$ 1,672	\$ 106,952	\$ 157,286	\$ 50,334
BASELINE ADJUSTMENTS												
GARRARD EDUCATION CENTER												
* Baseyear adjustment to provide outside air per current code	\$ (247)	\$ (294)	\$ (47)	\$ (2,333)	\$ (2,672)	\$ (340)				\$ (2,579)	\$ (2,966)	\$ (387)
TOTAL SAVINGS WITH BASELINE ADJUSTMENT	\$ 80,884	\$ 124,886	\$ 44,002	\$ 8,438	\$ 12,711	\$ 4,273	\$ 15,051	\$ 16,723	\$ 1,672	\$ 104,372	\$ 154,320	\$ 49,947

Utility Bill vs. Calculated Savings Comparison

Year 3

Description	Guaranteed Savings	Utility Bill Savings	Owner Override Adj.	Calculated Savings	Difference
UTILITY SAVINGS					
GARRARD COUNTY HIGH					
* Electric	\$ 12,904	\$ 28,954	\$ 17,801	\$ 16,536	\$ 30,219
GARRARD MIDDLE					
* Electric	\$ 17,678	\$ 40,344	\$ (9,066)	\$ 29,316	\$ 1,962
* Gas	\$ 2,535	\$ 12,504		\$ 3,496	\$ 9,008
CAMP DICK ROBINSON ES					
* Electric	\$ 10,301	\$ 4,810	\$ (4,913)	\$ 15,377	\$ (15,480)
* Gas					
LANCASTER ES					
* Electric	\$ 10,923	\$ 23,601	\$ (3,167)	\$ 18,211	\$ 2,222
* Gas	\$ 746	\$ (1,529)		\$ 1,780	\$ (3,309)
PAINT LICK ES					
* Electric	\$ 8,723	\$ 19,207	\$ (3,444)	\$ 12,547	\$ 3,215
GARRARD EDUCATION CTR					
* Electric	\$ 15,488	\$ 55,033		\$ 26,222	\$ 28,811
* Gas	\$ 4,815	\$ 15,923		\$ 6,763	\$ 9,160
AREA TECHNOLOGY CTR					
* Gas	\$ 2,675	\$ 8,745		\$ 3,344	\$ 5,401
BOARD OF ED OFFICE					
* Electric	\$ 1,802	\$ 3,845		\$ 2,228	\$ 1,616
MERRITT-LITTLE BUILDING					
* Electric	\$ 1,390	\$ (4,395)		\$ 1,884	\$ (6,279)
BUS GARAGE					
* Electric	\$ 997	\$ 5,923		\$ 1,617	\$ 4,306
HS FIELD HOUSE					
* Electric	\$ 924	\$ 3,233		\$ 1,241	\$ 1,992
BASE YEAR ADJUSTMENT					
* Electric	\$ (247)	\$ -		\$ (294)	
* Gas	\$ (2,333)	\$ -		\$ (2,672)	
SAVINGS	\$ 89,322	\$ 216,196	\$ (2,790)	\$ 137,597	\$ 72,843

Calculated savings are defined in the Performance Guarantee Agreement, not based on raw utility data. Raw utility data is not used to calculate energy savings because it is inaccurate and very time consuming. However, we feel it is important to compare raw utility data to the calculated savings as a cross check. Therefore, we have provided raw utility data with this report. After adjusting for rate changes, weather and owner overrides, the raw utility data corresponds to within 53% or \$72,843 of the calculated savings. This table includes gas and electric savings only and does not include water utility data since water savings are fully stipulated and invoices are not monitored.

Utility Bill Savings

Buildings:

Garrard County High School

Timeframe			<i>ELECTRIC</i>								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	130,944	\$ 0.1045	\$ 12,659	159,264	\$ 0.0846	\$ 14,100	28,320	\$ 0.1045	\$ 2,958
2015	2021	Aug	152,016	\$ 0.1045	\$ 14,393	179,424	\$ 0.0846	\$ 15,263	27,408	\$ 0.1045	\$ 2,863
2015	2021	Sept	157,536	\$ 0.1045	\$ 14,698	167,040	\$ 0.0846	\$ 14,022	9,504	\$ 0.1045	\$ 993
2014	2021	Oct	151,488	\$ 0.1045	\$ 14,654	180,576	\$ 0.0846	\$ 15,857	29,088	\$ 0.1045	\$ 3,038
2014	2021	Nov	134,544	\$ 0.1045	\$ 13,480	152,640	\$ 0.0846	\$ 13,230	18,096	\$ 0.1045	\$ 1,890
2014	2021	Dec	128,736	\$ 0.1045	\$ 14,765	153,216	\$ 0.0846	\$ 13,659	24,480	\$ 0.1045	\$ 2,557
2015	2022	Jan	131,808	\$ 0.1045	\$ 15,459	180,576	\$ 0.0846	\$ 15,336	48,768	\$ 0.1045	\$ 5,094
2015	2022	Feb	128,400	\$ 0.1045	\$ 13,704	154,080	\$ 0.0846	\$ 13,019	25,680	\$ 0.1045	\$ 2,682
2015	2022	Mar	145,680	\$ 0.1045	\$ 14,508	157,824	\$ 0.0846	\$ 12,933	12,144	\$ 0.1045	\$ 1,268
2015	2022	Apr	130,128	\$ 0.1045	\$ 14,970	167,616	\$ 0.0846	\$ 13,032	37,488	\$ 0.1045	\$ 3,916
2015	2022	May	145,152	\$ 0.1045	\$ 15,906	157,248	\$ 0.0846	\$ 12,146	12,096	\$ 0.1045	\$ 1,263
2015	2022	Jun	136,992	\$ 0.1045	\$ 15,597	141,120	\$ 0.0846	\$ 12,422	4,128	\$ 0.1045	\$ 431
Total			1,673,424	\$ 0.1045	\$ 174,793	1,950,624	\$ 0.0846	\$ 165,020	277,200	\$ 0.1045	\$ 28,954

Utility Bill Savings

Buildings:

Garrard County Middle School

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	80,513	\$ 0.1201	\$ 7,214	136,640	\$ 0.0838	\$ 10,846	56,127	\$ 0.1201	\$ 6,744
2015	2021	Aug	83,145	\$ 0.1201	\$ 9,244	119,360	\$ 0.0838	\$ 10,243	36,215	\$ 0.1201	\$ 4,351
2015	2021	Sept	88,807	\$ 0.1201	\$ 9,495	85,920	\$ 0.0838	\$ 8,550	(2,887)	\$ 0.1201	\$ (347)
2014	2021	Oct	57,751	\$ 0.1201	\$ 7,831	93,280	\$ 0.0838	\$ 7,830	35,529	\$ 0.1201	\$ 4,269
2014	2021	Nov	55,775	\$ 0.1201	\$ 7,324	81,920	\$ 0.0838	\$ 6,648	26,145	\$ 0.1201	\$ 3,141
2014	2021	Dec	68,461	\$ 0.1201	\$ 8,581	93,280	\$ 0.0838	\$ 7,491	24,819	\$ 0.1201	\$ 2,982
2015	2022	Jan	74,212	\$ 0.1201	\$ 9,267	101,120	\$ 0.0838	\$ 7,834	26,908	\$ 0.1201	\$ 3,233
2015	2022	Feb	75,917	\$ 0.1201	\$ 9,472	60,320	\$ 0.0838	\$ 5,855	(15,597)	\$ 0.1201	\$ (1,874)
2015	2022	Mar	65,359	\$ 0.1201	\$ 8,132	70,720	\$ 0.0838	\$ 6,397	5,361	\$ 0.1201	\$ 644
2015	2022	Apr	59,611	\$ 0.1201	\$ 8,618	98,720	\$ 0.0838	\$ 8,660	39,109	\$ 0.1201	\$ 4,699
2015	2022	May	61,885	\$ 0.1201	\$ 7,582	119,360	\$ 0.0838	\$ 9,384	57,475	\$ 0.1201	\$ 6,906
2015	2022	Jun	69,743	\$ 0.1201	\$ 8,307	116,320	\$ 0.0838	\$ 8,934	46,577	\$ 0.1201	\$ 5,596
Total			841,179	\$ 0.1201	\$ 101,067	1,176,960	\$ 0.0838	\$ 98,674	335,781	\$ 0.1201	\$ 40,344

Total Savings \$ 52,848

Timeframe			GAS												
Base Year	Current Year	Month	Current Year				Base Year						Savings		
			Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather Adjustment	Adj. Usage (therms)	Usage (Therms)	Rate (\$ / Therm)	Savings (\$)
2015	2021	July	-	130	\$ 0.85	\$ 139	-	77	\$ 0.72	\$ (73)	1.00	77	(53)	\$ 0.85	\$ (45)
2015	2021	Aug	-	83	\$ 0.85	\$ 113	-	734	\$ 0.72	\$ 385	1.00	734	651	\$ 0.85	\$ 553
2015	2021	Sept	32	177	\$ 0.85	\$ 176	15	169	\$ 0.72	\$ 145	1.00	169	(8)	\$ 0.85	\$ (7)
2014	2021	Oct	176	184	\$ 0.85	\$ 180	237	3,509	\$ 0.72	\$ 2,473	0.74	2,606	2,422	\$ 0.85	\$ 2,056
2014	2021	Nov	661	614	\$ 0.85	\$ 531	434	4,893	\$ 0.72	\$ 3,453	1.52	7,453	6,839	\$ 0.85	\$ 5,805
2014	2021	Dec	561	1,469	\$ 0.85	\$ 1,227	496	5,562	\$ 0.72	\$ 3,992	1.13	6,291	4,822	\$ 0.85	\$ 4,093
2015	2022	Jan	1,117	3,336	\$ 0.85	\$ 2,755	1,022	3,853	\$ 0.72	\$ 2,829	1.09	4,211	875	\$ 0.85	\$ 743
2015	2022	Feb	752	1,246	\$ 0.85	\$ 970	767	726	\$ 0.72	\$ 554	0.98	712	(534)	\$ 0.85	\$ (453)
2015	2022	Mar	502	1,318	\$ 0.85	\$ 1,058	394	838	\$ 0.72	\$ 663	1.27	1,067	(251)	\$ 0.85	\$ (213)
2015	2022	Apr	320	922	\$ 0.85	\$ 738	262	619	\$ 0.72	\$ 452	1.22	756	(166)	\$ 0.85	\$ (141)
2015	2022	May	34	269	\$ 0.85	\$ 307	137	398	\$ 0.72	\$ 307	1.00	398	129	\$ 0.85	\$ 110
2015	2022	Jun	-	135	\$ 0.85	\$ 195	1	140	\$ 0.72	\$ 340	1.00	140	5	\$ 0.85	\$ 4
Total			4,155	9,883	\$ 0.85	\$ 8,389	3,765	21,518	\$ 0.72	\$ 15,520	1.10	24,614	14,731	\$ 0.85	\$ 12,504

Utility Bill Savings

Buildings:

Camp Dick Robinson Elementary School

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	76,800	\$ 0.1044	\$ 7,769	51,840	\$ 0.0832	\$ 4,564	(24,960)	\$ 0.1044	\$ (2,605)
2015	2021	Aug	70,656	\$ 0.1044	\$ 7,205	73,344	\$ 0.0832	\$ 6,342	2,688	\$ 0.1044	\$ 281
2015	2021	Sept	77,568	\$ 0.1044	\$ 7,484	80,256	\$ 0.0832	\$ 6,876	2,688	\$ 0.1044	\$ 281
2014	2021	Oct	62,208	\$ 0.1044	\$ 6,378	69,888	\$ 0.0832	\$ 6,043	7,680	\$ 0.1044	\$ 802
2014	2021	Nov	71,040	\$ 0.1044	\$ 7,321	74,880	\$ 0.0832	\$ 6,052	3,840	\$ 0.1044	\$ 401
2014	2021	Dec	74,112	\$ 0.1044	\$ 7,764	74,880	\$ 0.0832	\$ 5,889	768	\$ 0.1044	\$ 80
2015	2022	Jan	108,672	\$ 0.1044	\$ 11,584	107,904	\$ 0.0832	\$ 8,909	(768)	\$ 0.1044	\$ (80)
2015	2022	Feb	60,288	\$ 0.1044	\$ 6,401	102,528	\$ 0.0832	\$ 8,517	42,240	\$ 0.1044	\$ 4,409
2015	2022	Mar	63,360	\$ 0.1044	\$ 6,872	72,960	\$ 0.0832	\$ 5,976	9,600	\$ 0.1044	\$ 1,002
2015	2022	Apr	71,808	\$ 0.1044	\$ 7,706	62,208	\$ 0.0832	\$ 5,098	(9,600)	\$ 0.1044	\$ (1,002)
2015	2022	May	56,832	\$ 0.1044	\$ 6,119	63,360	\$ 0.0832	\$ 5,119	6,528	\$ 0.1044	\$ 681
2015	2022	Jun	52,224	\$ 0.1044	\$ 5,655	57,600	\$ 0.0832	\$ 4,779	5,376	\$ 0.1044	\$ 561
Total			845,568	\$ 0.1044	\$ 88,258	891,648	\$ 0.0832	\$ 74,166	46,080	\$ 0.1044	\$ 4,810

Utility Bill Savings

Buildings:

Lancaster Elementary School

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	46,464	\$ 0.1313	\$ 5,983	65,664	\$ 0.1014	\$ 6,994	19,200	\$ 0.1313	\$ 2,521
2015	2021	Aug	40,320	\$ 0.1313	\$ 5,973	86,016	\$ 0.1014	\$ 8,188	45,696	\$ 0.1313	\$ 6,001
2015	2021	Sept	51,456	\$ 0.1313	\$ 7,056	58,368	\$ 0.1014	\$ 6,201	6,912	\$ 0.1313	\$ 908
2014	2021	Oct	37,632	\$ 0.1313	\$ 4,991	49,536	\$ 0.1014	\$ 5,220	11,904	\$ 0.1313	\$ 1,563
2014	2021	Nov	39,168	\$ 0.1313	\$ 5,546	52,992	\$ 0.1014	\$ 5,345	13,824	\$ 0.1313	\$ 1,815
2014	2021	Dec	50,304	\$ 0.1313	\$ 5,897	61,056	\$ 0.1014	\$ 5,750	10,752	\$ 0.1313	\$ 1,412
2015	2022	Jan	59,520	\$ 0.1313	\$ 6,841	67,200	\$ 0.1014	\$ 5,493	7,680	\$ 0.1313	\$ 1,009
2015	2022	Feb	49,152	\$ 0.1313	\$ 6,163	50,304	\$ 0.1014	\$ 5,649	1,152	\$ 0.1313	\$ 151
2015	2022	Mar	40,320	\$ 0.1313	\$ 5,881	59,904	\$ 0.1014	\$ 6,614	19,584	\$ 0.1313	\$ 2,572
2015	2022	Apr	43,008	\$ 0.1313	\$ 5,516	59,136	\$ 0.1014	\$ 6,262	16,128	\$ 0.1313	\$ 2,118
2015	2022	May	45,312	\$ 0.1313	\$ 6,138	62,208	\$ 0.1014	\$ 6,540	16,896	\$ 0.1313	\$ 2,219
2015	2022	Jun	43,776	\$ 0.1313	\$ 5,775	53,760	\$ 0.1014	\$ 5,391	9,984	\$ 0.1313	\$ 1,311
Total			546,432	\$ 0.1313	\$ 71,760	726,144	\$ 0.1014	\$ 73,647	179,712	\$ 0.1313	\$ 23,601

Total Savings \$ 22,072

Timeframe			GAS												
Base Year	Current Year	Month	Current Year				Base Year						Savings		
			Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather Adjustment	Adj. Usage (therms)	Usage (Therms)	Rate (\$ / Therm)	Savings (\$)
2015	2021	July	-	48	\$ 0.90	\$ 88	-	38	\$ 0.83	\$ 68	1.00	38	(10)	\$ 0.90	\$ (9)
2015	2021	Aug	-	41	\$ 0.90	\$ 86	-	208	\$ 0.83	\$ 163	1.00	208	167	\$ 0.90	\$ 150
2015	2021	Sept	32	61	\$ 0.90	\$ 99	15	12	\$ 0.83	\$ 57	1.00	12	(49)	\$ 0.90	\$ (44)
2014	2021	Oct	176	94	\$ 0.90	\$ 121	237	180	\$ 0.83	\$ 171	0.74	133	39	\$ 0.90	\$ 35
2014	2021	Nov	661	588	\$ 0.90	\$ 511	434	418	\$ 0.83	\$ 344	1.52	636	48	\$ 0.90	\$ 43
2014	2021	Dec	561	621	\$ 0.90	\$ 552	496	749	\$ 0.83	\$ 593	1.13	848	227	\$ 0.90	\$ 203
2015	2022	Jan	1,117	1,008	\$ 0.90	\$ 877	1,022	460	\$ 0.83	\$ 379	1.09	503	(505)	\$ 0.90	\$ (452)
2015	2022	Feb	752	1,437	\$ 0.90	\$ 1,109	767	946	\$ 0.83	\$ 625	0.98	927	(510)	\$ 0.90	\$ (456)
2015	2022	Mar	502	851	\$ 0.90	\$ 704	394	122	\$ 0.83	\$ 136	1.27	156	(695)	\$ 0.90	\$ (622)
2015	2022	Apr	320	550	\$ 0.90	\$ 464	262	117	\$ 0.83	\$ 123	1.22	143	(407)	\$ 0.90	\$ (365)
2015	2022	May	34	180	\$ 0.90	\$ 225	137	95	\$ 0.83	\$ 109	1.00	95	(85)	\$ 0.90	\$ (76)
2015	2022	Jun	-	54	\$ 0.90	\$ 119	1	126	\$ 0.83	\$ 129	1.00	126	72	\$ 0.90	\$ 65
Total			4,155	5,533	\$ 0.90	\$ 4,955	3,765	3,472	\$ 0.83	\$ 2,897	1.10	3,826	(1,707)	\$ 0.90	\$ (1,529)

Utility Bill Savings

Buildings:

Paint Lick Elementary School

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	31,920	\$ 0.1041	\$ 3,060	46,200	\$ 0.0846	\$ 4,090	14,280	\$ 0.1041	\$ 1,487
2015	2021	Aug	30,120	\$ 0.1041	\$ 2,838	62,880	\$ 0.0846	\$ 5,349	32,760	\$ 0.1041	\$ 3,411
2015	2021	Sept	32,520	\$ 0.1041	\$ 3,019	50,040	\$ 0.0846	\$ 4,201	17,520	\$ 0.1041	\$ 1,824
2014	2021	Oct	30,120	\$ 0.1041	\$ 2,902	44,160	\$ 0.0846	\$ 3,878	14,040	\$ 0.1041	\$ 1,462
2014	2021	Nov	31,680	\$ 0.1041	\$ 3,146	46,800	\$ 0.0846	\$ 4,056	15,120	\$ 0.1041	\$ 1,575
2014	2021	Dec	31,440	\$ 0.1041	\$ 3,583	48,240	\$ 0.0846	\$ 4,300	16,800	\$ 0.1041	\$ 1,749
2015	2022	Jan	36,240	\$ 0.1041	\$ 4,211	54,480	\$ 0.0846	\$ 4,627	18,240	\$ 0.1041	\$ 1,899
2015	2022	Feb	33,960	\$ 0.1041	\$ 3,597	44,040	\$ 0.0846	\$ 3,721	10,080	\$ 0.1041	\$ 1,050
2015	2022	Mar	31,560	\$ 0.1041	\$ 3,127	38,280	\$ 0.0846	\$ 3,137	6,720	\$ 0.1041	\$ 700
2015	2022	Apr	26,400	\$ 0.1041	\$ 3,026	48,960	\$ 0.0846	\$ 3,807	22,560	\$ 0.1041	\$ 2,349
2015	2022	May	30,960	\$ 0.1041	\$ 3,379	40,800	\$ 0.0846	\$ 3,151	9,840	\$ 0.1041	\$ 1,025
2015	2022	Jun	25,200	\$ 0.1041	\$ 2,863	31,680	\$ 0.0846	\$ 2,789	6,480	\$ 0.1041	\$ 675
Total			372,120	\$ 0.1041	\$ 38,751	556,560	\$ 0.0846	\$ 47,106	184,440	\$ 0.1041	\$ 19,207

Garrard Education Center

Utility Bill Savings

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	52,320	\$ 0.1519	\$ 5,036	77,520	\$ 0.0844	\$ 6,567	25,200	\$ 0.1519	\$ 3,827
2015	2021	Aug	33,120	\$ 0.1519	\$ 4,938	78,240	\$ 0.0844	\$ 6,720	45,120	\$ 0.1519	\$ 6,852
2015	2021	Sept	34,560	\$ 0.1519	\$ 5,101	51,840	\$ 0.0844	\$ 4,915	17,280	\$ 0.1519	\$ 2,624
2014	2021	Oct	25,440	\$ 0.1519	\$ 3,454	42,240	\$ 0.0844	\$ 3,537	16,800	\$ 0.1519	\$ 2,551
2014	2021	Nov	17,040	\$ 0.1519	\$ 3,192	42,960	\$ 0.0844	\$ 3,310	25,920	\$ 0.1519	\$ 3,936
2014	2021	Dec	18,720	\$ 0.1519	\$ 3,393	50,880	\$ 0.0844	\$ 3,817	32,160	\$ 0.1519	\$ 4,884
2015	2022	Jan	22,320	\$ 0.1519	\$ 2,860	68,160	\$ 0.0844	\$ 4,402	45,840	\$ 0.1519	\$ 6,961
2015	2022	Feb	16,560	\$ 0.1519	\$ 2,676	23,280	\$ 0.0844	\$ 2,655	6,720	\$ 0.1519	\$ 1,020
2015	2022	Mar	16,800	\$ 0.1519	\$ 2,684	40,560	\$ 0.0844	\$ 3,343	23,760	\$ 0.1519	\$ 3,608
2015	2022	Apr	17,040	\$ 0.1519	\$ 4,851	46,560	\$ 0.0844	\$ 4,684	29,520	\$ 0.1519	\$ 4,483
2015	2022	May	23,040	\$ 0.1519	\$ 4,484	68,400	\$ 0.0844	\$ 6,328	45,360	\$ 0.1519	\$ 6,888
2015	2022	Jun	32,880	\$ 0.1519	\$ 4,382	81,600	\$ 0.0844	\$ 6,446	48,720	\$ 0.1519	\$ 7,398
Total			309,840	\$ 0.1519	\$ 47,051	672,240	\$ 0.0844	\$ 56,723	362,400	\$ 0.1519	\$ 55,033

Total Savings \$ 70,955

Timeframe			GAS												
Base Year	Current Year	Month	Current Year				Base Year						Savings		
			Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather Adjustment	Adj. Usage (therms)	Usage (Therms)	Rate (\$ / Therm)	Savings (\$)
2015	2021	July	-	166	\$ 0.83	\$ 161	-	224	\$ 0.72	\$ 172	1.00	224	58	\$ 0.83	\$ 48
2015	2021	Aug	-	473	\$ 0.83	\$ 372	15	248	\$ 0.72	\$ 185	1.00	248	(225)	\$ 0.83	\$ (186)
2015	2021	Sept	32	448	\$ 0.83	\$ 355	237	215	\$ 0.72	\$ 171	1.00	215	(233)	\$ 0.83	\$ (193)
2014	2021	Oct	176	130	\$ 0.83	\$ 144	434	2,535	\$ 0.72	\$ 1,813	0.41	1,028	898	\$ 0.83	\$ 742
2014	2021	Nov	661	185	\$ 0.83	\$ 201	496	3,926	\$ 0.72	\$ 2,807	1.33	5,232	5,047	\$ 0.83	\$ 4,172
2014	2021	Dec	561	1,533	\$ 0.83	\$ 1,278	1,022	5,414	\$ 0.72	\$ 3,890	0.55	2,972	1,439	\$ 0.83	\$ 1,189
2015	2022	Jan	1,117	2,241	\$ 0.83	\$ 1,880	767	4,177	\$ 0.72	\$ 3,051	1.46	6,082	3,841	\$ 0.83	\$ 3,175
2015	2022	Feb	752	2,762	\$ 0.83	\$ 2,079	394	5,419	\$ 0.72	\$ 3,733	1.91	10,344	7,582	\$ 0.83	\$ 6,266
2015	2022	Mar	502	1,496	\$ 0.83	\$ 1,194	262	1,446	\$ 0.72	\$ 1,110	1.92	2,770	1,274	\$ 0.83	\$ 1,053
2015	2022	Apr	320	1,057	\$ 0.83	\$ 838	137	292	\$ 0.72	\$ 238	2.34	683	(374)	\$ 0.83	\$ (309)
2015	2022	May	34	261	\$ 0.83	\$ 300	1	214	\$ 0.72	\$ 186	1.00	214	(47)	\$ 0.83	\$ (39)
2015	2022	Jun	-	147	\$ 0.83	\$ 206	3,765	152	\$ 0.72	\$ 146	1.00	152	5	\$ 0.83	\$ 4
Total			4,155	10,899	\$ 0.83	\$ 9,008	7,530	24,262	\$ 0.72	\$ 17,503	0.55	30,164	19,265	\$ 0.83	\$ 15,923

Utility Bill Savings

Buildings:

Board of Education Office

Timeframe			<i>ELECTRIC</i>								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	6,311	\$ 0.1303	\$ 679	8,261	\$ 0.1213	\$ 929	1,950	\$ 0.1303	\$ 254
2015	2021	Aug	5,349	\$ 0.1303	\$ 690	7,509	\$ 0.1213	\$ 841	2,160	\$ 0.1303	\$ 281
2015	2021	Sept	5,312	\$ 0.1303	\$ 645	7,447	\$ 0.1213	\$ 842	2,135	\$ 0.1303	\$ 278
2014	2021	Oct	4,422	\$ 0.1303	\$ 575	7,493	\$ 0.1213	\$ 807	3,071	\$ 0.1303	\$ 400
2014	2021	Nov	4,265	\$ 0.1303	\$ 680	8,162	\$ 0.1213	\$ 861	3,897	\$ 0.1303	\$ 508
2014	2021	Dec	6,733	\$ 0.1303	\$ 877	9,885	\$ 0.1213	\$ 1,078	3,152	\$ 0.1303	\$ 411
2015	2022	Jan	8,260	\$ 0.1303	\$ 1,082	10,719	\$ 0.1213	\$ 1,167	2,459	\$ 0.1303	\$ 320
2015	2022	Feb	6,829	\$ 0.1303	\$ 885	7,237	\$ 0.1213	\$ 1,953	408	\$ 0.1303	\$ 53
2015	2022	Mar	6,790	\$ 0.1303	\$ 897	9,090	\$ 0.1213	\$ 976	2,300	\$ 0.1303	\$ 300
2015	2022	Apr	5,259	\$ 0.1303	\$ 703	6,522	\$ 0.1213	\$ 698	1,263	\$ 0.1303	\$ 165
2015	2022	May	4,406	\$ 0.1303	\$ 596	7,954	\$ 0.1213	\$ 869	3,548	\$ 0.1303	\$ 462
2015	2022	Jun	4,745	\$ 0.1303	\$ 638	7,915	\$ 0.1213	\$ 892	3,170	\$ 0.1303	\$ 413
Total			68,681	\$ 0.1303	\$ 8,947	98,194	\$ 0.1213	\$ 11,913	29,513	\$ 0.1303	\$ 3,845

Utility Bill Savings

Buildings:

Area Technology Center

Timeframe			GAS												
Base Year	Current Year	Month	Current Year				Base Year						Savings		
			Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather (HDD)	Usage (Therms)	Rate (\$ / Therm)	Costs (\$)	Weather Adjustmen	Adj. Usage (therms)	Usage (Therms)	Rate (\$ / Therm)	Savings (\$)
2015	2021	July	-	107	\$ 0.83	\$ 124	-	8	\$ 0.73	\$ 38	1.00	8	(99)	\$ 0.83	\$ (82)
2015	2021	Aug	-	94	\$ 0.83	\$ 120	-	31	\$ 0.73	\$ 64	1.00	31	(63)	\$ 0.83	\$ (52)
2015	2021	Sept	32	111	\$ 0.83	\$ 132	15	140	\$ 0.73	\$ 129	1.00	140	29	\$ 0.83	\$ 24
2014	2021	Oct	176	315	\$ 0.83	\$ 267	237	2,043	\$ 0.73	\$ 1,470	0.74	1,517	1,202	\$ 0.83	\$ 993
2014	2021	Nov	661	1,204	\$ 0.83	\$ 985	434	3,105	\$ 0.73	\$ 2,258	1.52	4,729	3,525	\$ 0.83	\$ 2,911
2014	2021	Dec	561	1,903	\$ 0.83	\$ 1,572	496	4,559	\$ 0.73	\$ 3,304	1.13	5,156	3,253	\$ 0.83	\$ 2,686
2015	2022	Jan	1,117	2,516	\$ 0.83	\$ 2,104	1,022	3,967	\$ 0.73	\$ 2,907	1.09	4,336	1,820	\$ 0.83	\$ 1,503
2015	2022	Feb	752	2,627	\$ 0.83	\$ 1,981	767	4,946	\$ 0.73	\$ 3,423	0.98	4,850	2,223	\$ 0.83	\$ 1,835
2015	2022	Mar	502	1,776	\$ 0.83	\$ 1,406	394	2,100	\$ 0.73	\$ 1,591	1.27	2,675	899	\$ 0.83	\$ 743
2015	2022	Apr	320	1,792	\$ 0.83	\$ 1,380	262	280	\$ 0.73	\$ 230	1.22	342	(1,450)	\$ 0.83	\$ (1,197)
2015	2022	May	34	565	\$ 0.83	\$ 581	137	16	\$ 0.73	\$ 57	1.00	16	(549)	\$ 0.83	\$ (453)
2015	2022	Jun	-	208	\$ 0.83	\$ 263	1	7	\$ 0.73	\$ 67	1.00	7	(201)	\$ 0.83	\$ (166)
Total			4,155	13,218	\$ 0.83	\$ 10,915	3,765	21,203	\$ 0.73	\$ 15,538	1.10	23,808	10,590	\$ 0.83	\$ 8,745

Utility Bill Savings

Buildings:

Merritt-Little Building

Timeframe			<i>ELECTRIC</i>								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	8,400	\$ 0.1281	\$ 1,050	3,600	\$ 0.1097	\$ 421	(4,800)	\$ 0.1281	\$ (615)
2015	2021	Aug	8,300	\$ 0.1281	\$ 1,048	3,300	\$ 0.1097	\$ 386	(5,000)	\$ 0.1281	\$ (641)
2015	2021	Sept	8,100	\$ 0.1281	\$ 962	2,100	\$ 0.1097	\$ 258	(6,000)	\$ 0.1281	\$ (769)
2014	2021	Oct	6,100	\$ 0.1281	\$ 778	4,800	\$ 0.1097	\$ 525	(1,300)	\$ 0.1281	\$ (167)
2014	2021	Nov	5,900	\$ 0.1281	\$ 758	5,800	\$ 0.1097	\$ 619	(100)	\$ 0.1281	\$ (13)
2014	2021	Dec	8,000	\$ 0.1281	\$ 1,033	9,700	\$ 0.1097	\$ 1,058	1,700	\$ 0.1281	\$ 218
2015	2022	Jan	9,100	\$ 0.1281	\$ 1,188	11,200	\$ 0.1097	\$ 1,132	2,100	\$ 0.1281	\$ 269
2015	2022	Feb	13,400	\$ 0.1281	\$ 1,702	7,000	\$ 0.1097	\$ 761	(6,400)	\$ 0.1281	\$ (820)
2015	2022	Mar	7,000	\$ 0.1281	\$ 922	3,000	\$ 0.1097	\$ 337	(4,000)	\$ 0.1281	\$ (513)
2015	2022	Apr	6,800	\$ 0.1281	\$ 897	2,500	\$ 0.1097	\$ 282	(4,300)	\$ 0.1281	\$ (551)
2015	2022	May	5,800	\$ 0.1281	\$ 772	3,300	\$ 0.1097	\$ 374	(2,500)	\$ 0.1281	\$ (320)
2015	2022	Jun	7,000	\$ 0.1281	\$ 922	3,300	\$ 0.1097	\$ 388	(3,700)	\$ 0.1281	\$ (474)
Total			93,900	\$ 0.1281	\$ 12,032	59,600	\$ 0.1097	\$ 6,541	(34,300)	\$ 0.1281	\$ (4,395)

Utility Bill Savings

Buildings:

Bus Garage

Timeframe			ELECTRIC								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	958	\$ 0.1709	\$ 174	1,613	\$ 0.1350	\$ 222	655	\$ 0.1709	\$ 112
2015	2021	Aug	936	\$ 0.1709	\$ 181	2,055	\$ 0.1350	\$ 268	1,119	\$ 0.1709	\$ 191
2015	2021	Sept	1,115	\$ 0.1709	\$ 192	1,804	\$ 0.1350	\$ 243	689	\$ 0.1709	\$ 118
2014	2021	Oct	991	\$ 0.1709	\$ 186	2,422	\$ 0.1350	\$ 293	1,431	\$ 0.1709	\$ 245
2014	2021	Nov	953	\$ 0.1709	\$ 178	8,296	\$ 0.1350	\$ 892	7,343	\$ 0.1709	\$ 1,255
2014	2021	Dec	1,755	\$ 0.1709	\$ 292	8,860	\$ 0.1350	\$ 986	7,105	\$ 0.1709	\$ 1,215
2015	2022	Jan	1,663	\$ 0.1709	\$ 275	9,013	\$ 0.1350	\$ 1,002	7,350	\$ 0.1709	\$ 1,256
2015	2022	Feb	2,972	\$ 0.1709	\$ 437	10,162	\$ 0.1350	\$ 2,113	7,190	\$ 0.1709	\$ 1,229
2015	2022	Mar	2,287	\$ 0.1709	\$ 357	2,365	\$ 0.1350	\$ 288	78	\$ 0.1709	\$ 13
2015	2022	Apr	1,093	\$ 0.1709	\$ 199	1,814	\$ 0.1350	\$ 227	721	\$ 0.1709	\$ 123
2015	2022	May	1,043	\$ 0.1709	\$ 202	1,679	\$ 0.1350	\$ 219	636	\$ 0.1709	\$ 109
2015	2022	Jun	1,053	\$ 0.1709	\$ 202	1,385	\$ 0.1350	\$ 192	332	\$ 0.1709	\$ 57
Total			16,819	\$ 0.1709	\$ 2,875	51,468	\$ 0.1350	\$ 6,946	34,649	\$ 0.1709	\$ 5,923

Utility Bill Savings

Buildings:

High School Field House

Timeframe			<i>ELECTRIC</i>								
Base Year	Current Year	Month	Current Year			Base Year			Savings		
			Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Costs (\$)	Usage (kWh)	Rate (\$ / kWh)	Savings (\$)
2015	2021	July	4,440	\$ 0.1414	\$ 589	6,960	\$ 0.1098	\$ 782	2,520	\$ 0.1414	\$ 356
2015	2021	Aug	6,180	\$ 0.1414	\$ 817	8,100	\$ 0.1098	\$ 896	1,920	\$ 0.1414	\$ 272
2015	2021	Sept	5,760	\$ 0.1414	\$ 723	4,980	\$ 0.1098	\$ 573	(780)	\$ 0.1414	\$ (110)
2014	2021	Oct	4,860	\$ 0.1414	\$ 652	5,040	\$ 0.1098	\$ 551	180	\$ 0.1414	\$ 25
2014	2021	Nov	1,800	\$ 0.1414	\$ 290	7,440	\$ 0.1098	\$ 782	5,640	\$ 0.1414	\$ 798
2014	2021	Dec	6,900	\$ 0.1414	\$ 918	8,400	\$ 0.1098	\$ 911	1,500	\$ 0.1414	\$ 212
2015	2022	Jan	5,640	\$ 0.1414	\$ 982	7,260	\$ 0.1098	\$ 792	1,620	\$ 0.1414	\$ 229
2015	2022	Feb	5,280	\$ 0.1414	\$ 717	8,220	\$ 0.1098	\$ 881	2,940	\$ 0.1414	\$ 416
2015	2022	Mar	3,000	\$ 0.1414	\$ 445	4,320	\$ 0.1098	\$ 479	1,320	\$ 0.1414	\$ 187
2015	2022	Apr	2,760	\$ 0.1414	\$ 409	3,840	\$ 0.1098	\$ 425	1,080	\$ 0.1414	\$ 153
2015	2022	May	2,820	\$ 0.1414	\$ 426	4,740	\$ 0.1098	\$ 529	1,920	\$ 0.1414	\$ 272
2015	2022	Jun	2,820	\$ 0.1414	\$ 423	5,820	\$ 0.1098	\$ 651	3,000	\$ 0.1414	\$ 424
Total			52,260	\$ 0.1414	\$ 7,391	75,120	\$ 0.1098	\$ 8,250	22,860	\$ 0.1414	\$ 3,233

Actual Equipment Runtimes

Year 3 - Quarter 1 (July 1, 2021 - September 31, 2021)

Building	System ID	July			August			September			Quarterly Runtimes Savings		
		Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)
Garrard County High School	(97) Water-source heat pumps	0	380	(380)	0	329	(329)	0	404	(404)	0	1,113	(1,113)
Garrard County High School	(6) Exhaust Fans	172	129	43	172	119	53	166	120	46	509	368	141
Garrard County High School	Cafeteria AHU	209	234	(25)	214	244	(30)	217	239	(22)	640	717	(77)
Garrard County High School	Gym AHU	286	364	(78)	290	712	(422)	289	720	(431)	865	1,796	(931)
Garrard County High School	OA-1	166	0	166	166	0	166	161	0	161	493	0	493
Garrard County High School	OA-2	166	203	(37)	166	195	(29)	161	170	(9)	493	568	(75)
Garrard County High School	OA-3	166	233	(67)	166	195	(29)	161	197	(36)	493	625	(132)
Garrard County High School	OA-4	166	203	(37)	166	195	(29)	161	196	(35)	493	594	(101)
Garrard County Middle School	(36) Classroom WSHPs	240	152	88	250	148	102	265	125	140	755	425	330
Garrard County Middle School	(18) Admin WSHPs	281	249	32	285	209	76	284	142	142	850	600	250
Garrard County Middle School	(13) Library WSHPs	302	229	73	308	213	95	313	155	158	923	597	326
Garrard County Middle School	(2) Auditorium WSHPs	252	103	149	273	61	212	313	55	258	839	219	620
Garrard County Middle School	(3) Classroom MAUs	199	94	105	206	112	94	214	0	214	619	206	413
Garrard County Middle School	(1) Admin MAU	244	54	190	244	165	79	236	165	71	723	384	339
Garrard County Middle School	(1) Library MAU	270	542	(272)	270	252	18	261	161	100	802	955	(153)
Garrard County Middle School	(1) Kitchen RTU	273	0	273	288	0	288	315	0	315	876	0	876
Garrard County Middle School	(2) Cafeteria RTUs	273	0	273	280	0	280	286	0	286	838	0	838
Garrard County Middle School	(4) Gym RTUs	310	263	47	326	277	49	354	154	200	989	694	295
Garrard County Middle School	(6) Exhaust Air Fans	270	80	190	273	110	163	272	110	162	816	300	516
Garrard County Middle School	(2) Boiler circulation pumps	0	6	(6)	0	61	(61)	0	116	(116)		183	
Garrard County Middle School	(2) Hot water pumps	0	3	(3)	0	3	(3)	0	58	(58)		64	
Camp Dick Robinson Elementary	Area A - WSHPs	345	309	36	348	338	10	344	268	76	1,036	915	121
Camp Dick Robinson Elementary	Area B - WSHPs	345	269	76	348	297	51	344	264	80	1,036	830	206
Camp Dick Robinson Elementary	Area C - WSHPs	345	327	18	348	367	(19)	344	251	93	1,036	945	91
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	365	246	119	368	125	243	363	121	242	1,096	492	604
Camp Dick Robinson Elementary	(2) Gym WSHPs	345	269	76	356	259	97	371	172	199	1,071	700	371
Camp Dick Robinson Elementary	(4) MAUs	312	71	241	312	58	254	302	0	302	927	129	798
Camp Dick Robinson Elementary	(11) Exhaust fans	345	318	27	348	318	30	344	308	36	1,036	944	92
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	345	387	(42)	348	371	(23)	344	242	102	1,036	1,000	36
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	312	495	(183)	312	495	(183)	302	479	(177)	927	1,469	(542)
Lancaster Elementary	(6) Kitchen / Cafeteria WSHPs	328	86	242	338	200	138	350	185	165	1,016	471	545
Lancaster Elementary	(2) Gym WSHPs	330	0	330	336	130	206	340	112	228	1,007	242	765
Lancaster Elementary	(3) Office WSHPs	330	73	257	336	127	209	340	124	216	1,007	324	683
Lancaster Elementary	(4) Library WSHPs	330	183	147	336	174	162	340	505	(165)	1,007	862	145
Lancaster Elementary	(43) Classroom WSHPs	379	28	351	385	189	196	386	164	222	1,151	381	770
Lancaster Elementary	(18) Exhaust fans	319	442	(123)	319	446	(127)	309	564	(255)	946	1,452	(506)
Paint Lick Elementary	(28) Classroom WSHPs	355	278	77	358	211	147	354	215	139	1,066	704	362
Paint Lick Elementary	(3) Office WSHPs	355	233	122	358	230	128	354	220	134	1,066	683	383
Paint Lick Elementary	(3) Media Center WSHPs	355	259	96	358	104	254	354	221	133	1,066	584	482
Paint Lick Elementary	(5) Kitchen / Cafeteria WSHPs	345	175	170	348	169	179	344	155	189	1,036	499	537
Paint Lick Elementary	(3) Gym WSHPs	355	0	355	358	0	358	354	1	353	1,066	1	1,065
Paint Lick Elementary	(4) Exhaust fans	323	132	191	323	136	187	313	132	181	959	400	559
Garrard Education Center	(22) Classroom UV & FCUs	277	381	(104)	300	181	119	344	173	171	921	735	186
Garrard Education Center	(19) Common Area FCUs	277	228	49	300	154	146	344	122	222	921	504	417
Garrard Education Center	(4) Office FCUs	285	218	67	303	185	118	336	127	209	925	530	395
Garrard Education Center	(6) Kitchen / Cafeteria UV & FCUs	324	369	(45)	343	241	102	377	222	155	1,044	832	212
Garrard Education Center	Atrium AHU	285	555	(270)	306	260	46	346	250	96	937	1,065	(128)
Garrard Education Center	Gym AHU	363	547	(184)	368	413	(45)	369	440	(71)	1,100	1,400	(300)
Garrard Education Center	Locker Room AHU	281	547	(266)	292	413	(121)	307	440	(133)	880	1,400	(520)
Garrard Education Center	(6) Exhaust fans	248	18	230	264	29	235	294	27	267	806	74	732
Garrard Education Center	(14) ASHPs	285	552	(267)	303	226	77	336	209	127	925	987	(62)

Actual Equipment Runtimes

Year 3 - Quarter 2 (October 1, 2021 - December 31, 2021)

Building	System ID	October			November			December			Quarterly Runtimes Savings		
		Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)
Garrard County High School	(97) Water-source heat pumps	387	465	(78)	375	457	(82)	387	469	(82)	1,149	1,391	(242)
Garrard County High School	(6) Exhaust Fans	172	129	43	166	122	44	172	133	39	509	384	125
Garrard County High School	Cafeteria AHU	224	223	1	217	234	(17)	224	34	190	664	491	173
Garrard County High School	Gym AHU	299	744	(445)	289	729	(440)	299	735	(436)	886	2,208	(1,322)
Garrard County High School	OA-1	166	0	166	161	0	161	166	0	166	493	0	493
Garrard County High School	OA-2	166	71	95	161	18	143	166	63	103	493	152	341
Garrard County High School	OA-3	166	187	(21)	161	198	(37)	166	114	52	493	499	(6)
Garrard County High School	OA-4	166	161	5	161	0	161	166	18	148	493	179	314
Garrard County Middle School	(36) Classroom WSHPs	274	78	196	265	56	209	274	63	211	812	197	615
Garrard County Middle School	(18) Admin WSHPs	294	117	177	284	135	149	294	170	124	871	422	449
Garrard County Middle School	(13) Library WSHPs	324	81	243	313	67	246	324	82	242	960	230	730
Garrard County Middle School	(2) Auditorium WSHPs	324	53	271	313	55	258	324	58	266	960	166	794
Garrard County Middle School	(3) Classroom MAUs	221	0	221	214	0	214	221	0	221	657	0	657
Garrard County Middle School	(1) Admin MAU	244	158	86	236	165	71	244	173	71	723	496	227
Garrard County Middle School	(1) Library MAU	270	94	176	261	83	178	270	196	74	802	373	429
Garrard County Middle School	(1) Kitchen RTU	326	0	326	315	0	315	326	0	326	966	0	966
Garrard County Middle School	(2) Cafeteria RTUs	296	0	296	286	0	286	296	0	296	877	0	877
Garrard County Middle School	(4) Gym RTUs	365	88	277	354	60	294	365	52	313	1,084	200	884
Garrard County Middle School	(6) Exhaust Air Fans	281	105	176	272	110	162	281	115	166	835	330	505
Garrard County Middle School	(2) Boiler circulation pumps	0	322	(322)	0	663	(663)	0	654	(654)		1,639	
Garrard County Middle School	(2) Hot water pumps	0	161	(161)	0	115	(115)	0	327	(327)		603	
Camp Dick Robinson Elementary	Area A - WSHPs	355	235	120	344	307	37	355	308	47	1,055	850	205
Camp Dick Robinson Elementary	Area B - WSHPs	355	115	240	344	255	89	355	237	118	1,055	607	448
Camp Dick Robinson Elementary	Area C - WSHPs	355	261	94	344	439	(95)	355	376	(21)	1,055	1,076	(21)
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	375	167	208	363	269	94	375	248	127	1,114	684	430
Camp Dick Robinson Elementary	(2) Gym WSHPs	383	88	295	371	153	218	383	162	221	1,138	403	735
Camp Dick Robinson Elementary	(4) MAUs	312	0	312	302	0	302	312	0	312	927	0	927
Camp Dick Robinson Elementary	(11) Exhaust fans	355	318	37	344	308	36	355	318	37	1,055	944	111
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	355	156	199	344	230	114	355	222	133	1,055	608	447
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	312	495	(183)	302	480	(178)	312	495	(183)	927	1,470	(543)
Lancaster Elementary	(6) Kitchen / Cafeteria WSHPs	361	129	232	350	182	168	361	249	112	1,072	560	512
Lancaster Elementary	(2) Gym WSHPs	351	105	246	340	121	219	351	189	162	1,043	415	628
Lancaster Elementary	(3) Office WSHPs	351	113	238	340	136	204	351	132	219	1,043	381	662
Lancaster Elementary	(4) Library WSHPs	351	435	(84)	340	426	(86)	351	418	(67)	1,043	1,279	(236)
Lancaster Elementary	(43) Classroom WSHPs	399	150	249	386	167	219	399	164	235	1,185	481	704
Lancaster Elementary	(18) Exhaust fans	319	569	(250)	309	504	(195)	319	521	(202)	946	1,594	(648)
Paint Lick Elementary	(28) Classroom WSHPs	365	191	174	354	184	170	365	199	166	1,084	574	510
Paint Lick Elementary	(3) Office WSHPs	365	213	152	354	227	127	365	241	124	1,084	681	403
Paint Lick Elementary	(3) Media Center WSHPs	365	254	111	354	469	(115)	365	542	(177)	1,084	1,265	(181)
Paint Lick Elementary	(5) Kitchen / Cafeteria WSHPs	355	139	216	344	213	131	355	205	150	1,055	557	498
Paint Lick Elementary	(3) Gym WSHPs	365	275	90	354	479	(125)	365	609	(244)	1,084	1,363	(279)
Paint Lick Elementary	(4) Exhaust fans	323	126	197	313	132	181	323	138	185	959	396	563
Garrard Education Center	(22) Classroom UV & FCUs	355	165	190	344	141	203	355	158	197	1,055	464	591
Garrard Education Center	(19) Common Area FCUs	355	118	237	344	164	180	355	169	186	1,055	451	604
Garrard Education Center	(4) Office FCUs	347	140	207	336	111	225	347	73	274	1,031	324	707
Garrard Education Center	(6) Kitchen / Cafeteria UV & FCUs	389	200	189	377	200	177	389	199	190	1,155	599	556
Garrard Education Center	Atrium AHU	357	213	144	346	215	131	357	211	146	1,061	639	422
Garrard Education Center	Gym AHU	381	460	(79)	369	251	118	381	272	109	1,132	983	149
Garrard Education Center	Locker Room AHU	318	459	(141)	307	220	87	318	258	60	942	937	5
Garrard Education Center	(6) Exhaust fans	303	27	276	294	51	243	303	106	197	900	184	716
Garrard Education Center	(14) ASHPs	347	213	134	336	223	113	347	220	127	1,031	656	375

Actual Equipment Runtimes

Year 3 - Quarter 3 (January 2, 2022 - March 31, 2022)

Building	System ID	January			February			March			Quarterly Runtimes Savings		
		Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)
Garrard County High School	(97) Water-source heat pumps	387	479	(92)	350	435	(85)	387	501	(114)	1,124	1,415	(291)
Garrard County High School	(6) Exhaust Fans	172	130	42	155	130	25	172	141	31	498	401	97
Garrard County High School	Cafeteria AHU	224	150	74	202	210	(8)	224	242	(18)	650	602	48
Garrard County High School	Gym AHU	299	744	(445)	270	672	(402)	299	743	(444)	867	2,159	(1,292)
Garrard County High School	OA-1	166	0	166	150	0	150	166	0	166	482	0	482
Garrard County High School	OA-2	166	144	22	150	5	145	166	0	166	482	149	333
Garrard County High School	OA-3	166	144	22	150	178	(28)	166	205	(39)	482	527	(45)
Garrard County High School	OA-4	166	0	166	150	5	145	166	0	166	482	5	477
Garrard County Middle School	(36) Classroom WSHPs	274	110	164	247	64	183	274	59	215	795	233	562
Garrard County Middle School	(18) Admin WSHPs	294	212	82	265	173	92	294	168	126	852	553	299
Garrard County Middle School	(13) Library WSHPs	324	164	160	292	97	195	324	64	260	939	325	614
Garrard County Middle School	(2) Auditorium WSHPs	324	53	271	292	50	242	324	58	266	939	161	778
Garrard County Middle School	(3) Classroom MAUs	221	0	221	200	0	200	221	0	221	643	0	643
Garrard County Middle School	(1) Admin MAU	244	158	86	220	150	70	244	173	71	707	481	226
Garrard County Middle School	(1) Library MAU	270	179	91	244	170	74	270	196	74	784	545	239
Garrard County Middle School	(1) Kitchen RTU	326	0	326	294	0	294	326	0	326	945	0	945
Garrard County Middle School	(2) Cafeteria RTUs	296	0	296	267	0	267	296	0	296	858	0	858
Garrard County Middle School	(4) Gym RTUs	365	127	238	330	75	255	365	51	314	1,061	253	808
Garrard County Middle School	(6) Exhaust Air Fans	281	105	176	254	100	154	281	115	166	816	320	496
Garrard County Middle School	(2) Boiler circulation pumps	0	738	(738)	0	644	(644)	0	588	(588)		1,970	
Garrard County Middle School	(2) Hot water pumps	0	369	(369)	0	321	(321)	0	294	(294)		984	
Camp Dick Robinson Elementary	Area A - WSHPs	355	372	(17)	321	315	6	355	298	57	1,032	985	47
Camp Dick Robinson Elementary	Area B - WSHPs	355	410	(55)	321	343	(22)	355	249	106	1,032	1,002	30
Camp Dick Robinson Elementary	Area C - WSHPs	355	472	(117)	321	377	(56)	355	298	57	1,032	1,147	(115)
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	375	304	71	339	273	66	375	284	91	1,090	861	229
Camp Dick Robinson Elementary	(2) Gym WSHPs	383	266	117	346	196	150	383	59	324	1,113	521	592
Camp Dick Robinson Elementary	(4) MAUs	312	0	312	282	0	282	312	0	312	906	0	906
Camp Dick Robinson Elementary	(11) Exhaust fans	355	318	37	321	287	34	355	318	37	1,032	923	109
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	355	454	(99)	321	354	(33)	355	201	154	1,032	1,009	23
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	312	495	(183)	282	447	(165)	312	495	(183)	906	1,437	(531)
Lancaster Elementary	(6) Kitchen / Cafeteria WSHPs	361	223	138	326	136	190	361	106	255	1,049	465	584
Lancaster Elementary	(2) Gym WSHPs	351	130	221	317	64	253	351	36	315	1,020	230	790
Lancaster Elementary	(3) Office WSHPs	351	153	198	317	96	221	351	74	277	1,020	323	697
Lancaster Elementary	(4) Library WSHPs	351	424	(73)	317	366	(49)	351	435	(84)	1,020	1,225	(205)
Lancaster Elementary	(43) Classroom WSHPs	399	196	203	361	121	240	399	117	282	1,159	434	725
Lancaster Elementary	(18) Exhaust fans	319	521	(202)	288	470	(182)	319	520	(201)	926	1,511	(585)
Paint Lick Elementary	(28) Classroom WSHPs	365	206	159	330	175	155	365	185	180	1,061	566	495
Paint Lick Elementary	(3) Office WSHPs	365	235	130	330	88	242	365	55	310	1,061	378	683
Paint Lick Elementary	(3) Media Center WSHPs	365	445	(80)	330	451	(121)	365	314	51	1,061	1,210	(149)
Paint Lick Elementary	(5) Kitchen / Cafeteria WSHPs	355	282	73	321	163	158	355	92	263	1,032	537	495
Paint Lick Elementary	(3) Gym WSHPs	365	691	(326)	330	669	(339)	365	715	(350)	1,061	2,075	(1,014)
Paint Lick Elementary	(4) Exhaust fans	323	126	197	292	120	172	323	138	185	939	384	555
Garrard Education Center	(22) Classroom UV & FCUs	355	148	207	321	140	181	355	160	195	1,032	448	584
Garrard Education Center	(19) Common Area FCUs	355	215	140	321	186	135	355	178	177	1,032	579	453
Garrard Education Center	(4) Office FCUs	347	89	258	314	68	246	347	83	264	1,009	240	769
Garrard Education Center	(6) Kitchen / Cafeteria UV & FCUs	389	202	187	352	182	170	389	199	190	1,130	583	547
Garrard Education Center	Atrium AHU	357	206	151	323	185	138	357	211	146	1,038	602	436
Garrard Education Center	Gym AHU	381	319	62	344	254	90	381	241	140	1,107	814	293
Garrard Education Center	Locker Room AHU	318	301	17	287	238	49	318	224	94	922	763	159
Garrard Education Center	(6) Exhaust fans	303	98	205	274	87	187	303	96	207	881	281	600
Garrard Education Center	(14) ASHPs	347	227	120	314	181	133	347	208	139	1,009	616	393

Year 3 - Quarter 4 (April 1, 2022 - June 30, 2022)

Building	System ID	April			May			June			Quarterly Runtimes Savings		
		Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)	Guar. (Hours)	Actual (Hours)	Difference (Hours)
Garrard County High School	(97) Water-source heat pumps	375	463	(88)	0	500	(500)	0	504	(504)	375	1,467	(1,092)
Garrard County High School	(6) Exhaust Fans	166	132	34	172	143	29	166	120	46	504	395	109
Garrard County High School	Cafeteria AHU	217	189	28	224	154	70	203	264	(61)	643	607	36
Garrard County High School	Gym AHU	289	720	(431)	299	744	(445)	277	720	(443)	865	2,184	(1,319)
Garrard County High School	OA-1	161	0	161	166	0	166	161	0	161	488	0	488
Garrard County High School	OA-2	161	0	161	166	0	166	161	0	161	488	0	488
Garrard County High School	OA-3	161	180	(19)	166	196	(30)	161	196	(35)	488	572	(85)
Garrard County High School	OA-4	161	81	80	166	0	166	161	0	161	488	81	407
Garrard County Middle School	(36) Classroom WSHPs	265	71	194	274	113	161	232	128	104	771	312	459
Garrard County Middle School	(18) Admin WSHPs	284	164	120	294	197	97	272	240	32	850	601	249
Garrard County Middle School	(13) Library WSHPs	313	82	231	324	124	200	292	180	112	928	386	542
Garrard County Middle School	(2) Auditorium WSHPs	313	53	260	324	55	269	244	28	216	881	136	745
Garrard County Middle School	(3) Classroom MAUs	214	0	214	221	0	221	193	0	193	629	0	629
Garrard County Middle School	(4) Admin MAU	236	158	78	244	165	79	236	165	71	715	488	227
Garrard County Middle School	(1) Library MAU	261	215	46	270	290	(20)	261	324	(63)	793	829	(36)
Garrard County Middle School	(1) Kitchen RTU	315	0	315	326	0	326	264	0	264	905	0	905
Garrard County Middle School	(2) Cafeteria RTUs	286	0	286	296	0	296	264	0	264	846	0	846
Garrard County Middle School	(4) Gym RTUs	354	31	323	365	97	268	300	200	100	1,019	328	691
Garrard County Middle School	(6) Exhaust Air Fans	272	105	167	281	110	171	261	110	151	815	325	490
Garrard County Middle School	(2) Boiler circulation pumps	0	481	(481)	0	161	(161)	0	39	(39)		681	
Garrard County Middle School	(2) Hot water pumps	0	240	(240)	0	80	(80)	0	19	(19)		339	
Camp Dick Robinson Elementary	Area A - WSHPs	344	272	72	355	238	117	333	262	71	1,033	772	261
Camp Dick Robinson Elementary	Area B - WSHPs	344	220	124	355	230	125	333	261	72	1,033	711	322
Camp Dick Robinson Elementary	Area C - WSHPs	344	306	38	355	322	33	333	311	22	1,033	939	94
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	363	220	143	375	212	163	353	185	168	1,092	617	475
Camp Dick Robinson Elementary	(2) Gym WSHPs	371	141	230	383	109	274	333	191	142	1,088	441	647
Camp Dick Robinson Elementary	(4) MAUs	302	0	302	312	0	312	302	0	302	917	0	917
Camp Dick Robinson Elementary	(11) Exhaust fans	344	308	36	355	318	37	333	308	25	1,033	934	99
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	344	165	179	355	173	182	333	298	35	1,033	636	397
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	302	479	(177)	312	495	(183)	302	479	(177)	917	1,453	(537)
Lancaster Elementary	(6) Kitchen / Cafeteria WSHPs	350	87	263	361	118	243	318	181	137	1,029	386	643
Lancaster Elementary	(2) Gym WSHPs	340	33	307	351	56	295	320	97	223	1,011	186	825
Lancaster Elementary	(3) Office WSHPs	340	68	272	351	71	280	320	71	249	1,011	210	801
Lancaster Elementary	(4) Library WSHPs	340	399	(59)	351	415	(64)	320	516	(196)	1,011	1,330	(319)
Lancaster Elementary	(43) Classroom WSHPs	386	118	268	399	142	257	367	159	208	1,153	419	734
Lancaster Elementary	(18) Exhaust fans	309	504	(195)	319	521	(202)	309	504	(195)	936	1,529	(593)
Paint Lick Elementary	(28) Classroom WSHPs	354	189	165	365	168	197	343	225	118	1,062	582	480
Paint Lick Elementary	(3) Office WSHPs	354	35	319	365	29	336	343	69	274	1,062	133	929
Paint Lick Elementary	(3) Media Center WSHPs	354	251	103	365	199	166	343	208	135	1,062	658	404
Paint Lick Elementary	(5) Kitchen / Cafeteria WSHPs	344	69	275	355	72	283	333	91	242	1,033	232	801
Paint Lick Elementary	(3) Gym WSHPs	354	575	(221)	365	269	96	343	121	222	1,062	965	97
Paint Lick Elementary	(4) Exhaust fans	313	86	227	323	78	245	313	110	203	949	274	675
Garrard Education Center	(22) Classroom UV & FCUs	344	167	177	355	169	186	268	188	80	967	524	443
Garrard Education Center	(19) Common Area FCUs	344	158	186	355	153	202	268	169	99	967	480	487
Garrard Education Center	(4) Office FCUs	336	151	185	347	170	177	276	164	112	960	485	475
Garrard Education Center	(6) Kitchen / Cafeteria UV & FCUs	377	142	235	389	168	221	314	187	127	1,080	497	583
Garrard Education Center	Atrium AHU	346	195	151	357	220	137	276	236	40	979	651	328
Garrard Education Center	Gym AHU	369	201	168	381	189	192	351	275	76	1,102	665	437
Garrard Education Center	Locker Room AHU	307	192	115	318	189	129	272	274	(2)	897	655	242
Garrard Education Center	(6) Exhaust fans	294	91	203	303	97	206	240	130	110	837	318	519
Garrard Education Center	(14) ASHPs	336	185	151	347	202	145	276	233	43	960	620	340

FAN MOTOR RUNTIME SAVINGS

Building	System ID	Motor HP	Break HP / Motor HP	kW / HP	Fan Speed	Fan kW	Saved Hrs / Yr	Motor Efficiency	Savings (kWh)	Rate (kWh)	Savings (\$)
Garrard County High School	(101) Water-source heat pumps	44.5	0.80	0.746	100%	31	452	85%	14,134	\$ 0.104	\$ 1,476
Garrard County High School	Cafeteria AHU	22.5	0.80	0.746	100%	16	457	85%	7,216	\$ 0.104	\$ 754
Garrard County High School	Gym AHU	27.5	0.80	0.746	100%	19	391	85%	7,552	\$ 0.104	\$ 789
Subtotal									28,902		\$ 3,019
Garrard Middle School	(36) Classroom WSHPs	16.2	0.80	0.746	100%	11	687	85%	7,804	\$ 0.056	\$ 434
Garrard Middle School	(3) Classroom MAUs	17.5	0.80	0.746	100%	12	320	85%	3,932	\$ 0.056	\$ 219
Garrard Middle School	(16) Admin WSHPs	4.5	0.80	0.746	100%	3	832	85%	2,603	\$ 0.056	\$ 145
Garrard Middle School	(1) Admin MAU	5.0	0.80	0.746	100%	4	520	85%	1,826	\$ 0.056	\$ 102
Garrard Middle School	(13) Library WSHPs	3.6	0.80	0.746	100%	3	419	85%	1,059	\$ 0.056	\$ 59
Garrard Middle School	(1) Library MAU	5.0	0.80	0.746	100%	4	104	85%	365	\$ 0.056	\$ 20
Garrard Middle School	(2) Auditorium WSHPs	10.0	0.80	0.746	100%	7	378	85%	2,651	\$ 0.056	\$ 147
Garrard Middle School	(2) Auditorium RA Fans	6.0	0.80	0.746	100%	4	378	85%	1,591	\$ 0.056	\$ 88
Garrard Middle School	(1) Kitchen RTU	2.0	0.80	0.746	100%	1	435	85%	611	\$ 0.056	\$ 34
Garrard Middle School	(2) Cafeteria RTUs	4.0	0.80	0.746	100%	3	269	85%	755	\$ 0.056	\$ 42
Garrard Middle School	(4) Gym RTUs	30.0	0.80	0.746	100%	21	455	85%	9,575	\$ 0.056	\$ 533
Garrard Middle School	(19) Exhaust Air Fans	3.8	0.80	0.746	100%	3	4	85%	11	\$ 0.056	\$ 1
Subtotal									32,782		\$ 1,823
Camp Dick Robinson Elementary	Area A - WSHPs	2.4	0.80	0.746	100%	2	930	85%	1,574	\$ 0.104	\$ 164
Camp Dick Robinson Elementary	Area B - WSHPs	4.3	0.80	0.746	100%	3	930	85%	2,786	\$ 0.104	\$ 291
Camp Dick Robinson Elementary	Area C - WSHPs	5.3	0.80	0.746	100%	4	930	85%	3,438	\$ 0.104	\$ 359
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	2.6	0.80	0.746	100%	2	694	85%	1,280	\$ 0.104	\$ 134
Camp Dick Robinson Elementary	(2) Gym WSHPs	12.0	0.80	0.746	100%	8	678	85%	5,711	\$ 0.104	\$ 596
Camp Dick Robinson Elementary	(4) MAUs	9.0	0.80	0.746	100%	6	702	85%	4,436	\$ 0.104	\$ 463
Camp Dick Robinson Elementary	(11) Exhaust fans	3.0	0.80	0.746	100%	2	224	85%	477	\$ 0.104	\$ 50
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	6.5	0.80	0.746	100%	5	930	85%	4,244	\$ 0.104	\$ 443
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	5.0	0.80	0.746	100%	4	702	85%	2,464	\$ 0.104	\$ 257
Subtotal									26,410		\$ 2,757
Lancaster Elementary School	(6) Kitchen / Cafeteria WSHPs	10.8	0.80	0.746	100%	8	1,269	85%	9,578	\$ 0.040	\$ 379
Lancaster Elementary School	(2) Gym WSHPs	10.0	0.80	0.746	100%	7	1,354	85%	9,503	\$ 0.040	\$ 376
Lancaster Elementary School	(4) Office WSHPs	2.0	0.80	0.746	100%	1	1,354	85%	1,853	\$ 0.040	\$ 73
Lancaster Elementary School	(4) Library WSHPs	5.3	0.80	0.746	100%	4	1,354	85%	4,989	\$ 0.040	\$ 197
Lancaster Elementary School	(41) Classroom WSHPs	23.5	0.80	0.746	100%	16	788	85%	13,007	\$ 0.040	\$ 514
Lancaster Elementary School	(18) Exhaust fans	5.1	0.80	0.746	100%	4	1,040	85%	3,692	\$ 0.040	\$ 146
Subtotal									42,623		\$ 1,685
Paint Lick Elementary School	(28) Classroom WSHPs	22.3	0.80	0.746	100%	16	356	85%	5,554	\$ 0.104	\$ 578
Paint Lick Elementary School	(3) Office WSHPs	2.5	0.80	0.746	100%	2	356	85%	624	\$ 0.104	\$ 65

FAN MOTOR RUNTIME SAVINGS ADJUSTMENT

Building	System ID	Motor HP	Break HP / Motor HP	kW / HP	Fan Speed	Fan kW	Saved Hrs / Yr	Motor Efficiency	Savings (kWh)	Rate (kWh)	Savings (\$)
Garrard County High School	(101) Water-source heat pumps	44.5	0.80	0.746	100%	31	(2,738)	85%	(85,537)	\$ 0.104	\$ (8,934)
Garrard County High School	Cafeteria AHU	22.5	0.80	0.746	100%	16	180	85%	2,846	\$ 0.104	\$ 297
Garrard County High School	Gym AHU	27.5	0.80	0.746	100%	19	(4,864)	85%	(93,923)	\$ 0.104	\$ (9,810)
Subtotal									(170,421)		\$ (17,801)
Garrard Middle School	(36) Classroom WSHPs	16.2	0.80	0.746	100%	11	1,966	85%	22,346	\$ 0.056	\$ 1,243
Garrard Middle School	(3) Classroom MAUs	17.5	0.80	0.746	100%	12	2,342	85%	28,775	\$ 0.056	\$ 1,600
Garrard Middle School	(16) Admin WSHPs	4.5	0.80	0.746	100%	3	1,248	85%	3,905	\$ 0.056	\$ 217
Garrard Middle School	(1) Admin MAU	5.0	0.80	0.746	100%	4	1,019	85%	3,577	\$ 0.056	\$ 199
Garrard Middle School	(13) Library WSHPs	3.6	0.80	0.746	100%	3	2,212	85%	5,592	\$ 0.056	\$ 311
Garrard Middle School	(1) Library MAU	5.0	0.80	0.746	100%	4	479	85%	1,681	\$ 0.056	\$ 93
Garrard Middle School	(2) Auditorium WSHPs	10.0	0.80	0.746	100%	7	2,937	85%	20,619	\$ 0.056	\$ 1,147
Garrard Middle School	(1) Kitchen RTU	2.0	0.80	0.746	100%	1	3,692	85%	5,184	\$ 0.056	\$ 288
Garrard Middle School	(2) Cafeteria RTUs	4.0	0.80	0.746	100%	3	3,420	85%	9,604	\$ 0.056	\$ 534
Garrard Middle School	(4) Gym RTUs	30.0	0.80	0.746	100%	21	2,678	85%	56,408	\$ 0.056	\$ 3,137
Garrard Middle School	(19) Exhaust Air Fans	3.8	0.80	0.746	100%	3	2,006	85%	5,312	\$ 0.056	\$ 295
Subtotal									163,003		\$ 9,066
Camp Dick Robinson Elementary	Area A - WSHPs	2.4	0.80	0.746	100%	2	634	85%	1,073	\$ 0.104	\$ 112
Camp Dick Robinson Elementary	Area B - WSHPs	4.3	0.80	0.746	100%	3	1,006	85%	3,012	\$ 0.104	\$ 314
Camp Dick Robinson Elementary	Area C - WSHPs	5.3	0.80	0.746	100%	4	49	85%	180	\$ 0.104	\$ 19
Camp Dick Robinson Elementary	Kitchen / Cafeteria WSHPs	2.6	0.80	0.746	100%	2	1,738	85%	3,203	\$ 0.104	\$ 334
Camp Dick Robinson Elementary	(2) Gym WSHPs	12.0	0.80	0.746	100%	8	2,344	85%	19,752	\$ 0.104	\$ 2,062
Camp Dick Robinson Elementary	(4) MAUs	9.0	0.80	0.746	100%	6	3,547	85%	22,414	\$ 0.104	\$ 2,340
Camp Dick Robinson Elementary	(11) Exhaust fans	3.0	0.80	0.746	100%	2	411	85%	873	\$ 0.104	\$ 91
Camp Dick Robinson Elementary	Zone 6 (additions) - (13) WSHPs	6.5	0.80	0.746	100%	5	903	85%	4,119	\$ 0.104	\$ 430
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	5.0	0.80	0.746	100%	4	(2,153)	85%	(7,558)	\$ 0.104	\$ (789)
Subtotal									47,068		\$ 4,913
Lancaster Elementary School	(6) Kitchen / Cafeteria WSHPs	10.8	0.80	0.746	100%	8	2,284	85%	17,240	\$ 0.040	\$ 682
Lancaster Elementary School	(2) Gym WSHPs	10.0	0.80	0.746	100%	7	3,008	85%	21,119	\$ 0.040	\$ 835
Lancaster Elementary School	(4) Office WSHPs	2.0	0.80	0.746	100%	1	2,843	85%	3,892	\$ 0.040	\$ 154
Lancaster Elementary School	(4) Library WSHPs	5.3	0.80	0.746	100%	4	(615)	85%	(2,267)	\$ 0.040	\$ (90)
Lancaster Elementary School	(41) Classroom WSHPs	23.5	0.80	0.746	100%	16	2,933	85%	48,388	\$ 0.040	\$ 1,913
Lancaster Elementary School	(18) Exhaust fans	5.1	0.80	0.746	100%	4	(2,332)	85%	(8,278)	\$ 0.040	\$ (327)
Subtotal									80,093		\$ 3,167
Paint Lick Elementary School	(28) Classroom WSHPs	22.3	0.80	0.746	100%	16	1,848	85%	28,864	\$ 0.104	\$ 3,006
Paint Lick Elementary School	(3) Office WSHPs	2.5	0.80	0.746	100%	2	2,399	85%	4,210	\$ 0.104	\$ 438
Subtotal									33,074		\$ 3,444

Interior and Exterior Lighting Retrofit Savings

Building:	Current Usage		Exterior Lighting Savings		Interior Lighting Savings		TOTAL SAVINGS		Estimated Utility Rebate Incentive (\$)
	Annual Electricity Usage (kWh)	Annual Electricity Cost (\$)	Annual Electricity Savings (kWh)	Annual Electricity Cost Savings (\$)	Annual Electricity Savings (kWh)	Annual Electricity Cost Savings (\$)	Annual Electricity Savings (kWh)	Annual Electricity Savings (\$)	
Garrard County High School	1,950,624	\$ 165,020	68,766	\$ 7,183	60,648	\$ 6,335	129,414	\$ 13,518	\$ 5,587
Garrard Middle School	1,176,960	\$ 98,674	23,893	\$ 1,329	211,618	\$ 25,426	235,511	\$ 26,755	\$ 12,590
Camp Dick Robinson Elementary	891,648	\$ 74,166	6,202	\$ 647	87,628	\$ 9,146	93,830	\$ 9,794	\$ 5,275
Lancaster Elementary School	726,144	\$ 73,647	11,721	\$ 463	117,035	\$ 15,370	128,756	\$ 15,833	\$ 4,379
Paint Lick Elementary School	556,560	\$ 47,106	15,282	\$ 1,591	87,269	\$ 9,088	102,551	\$ 10,679	\$ 8,509
Garrard Education Center	672,240	\$ 56,723	26,354	\$ 1,135	123,331	\$ 18,729	149,685	\$ 19,864	\$ 5,830
Board of Education Office	98,194	\$ 11,913	1,669	\$ 217	15,437	\$ 2,011	17,105	\$ 2,228	\$ 539
Merritt-Little Building	59,600	\$ 6,541	2,413	\$ 309	11,896	\$ 1,524	14,310	\$ 1,834	\$ 643
Bus Garage	51,468	\$ 6,946	2,045	\$ 350	7,415	\$ 1,268	9,461	\$ 1,617	\$ 405
High School Field House	75,120	\$ 8,250	7,236	\$ 1,023	1,537	\$ 217	8,773	\$ 1,241	\$ 707
Total	6,258,558	\$ 548,986	165,582	\$ 14,249	723,813	\$ 89,113	889,395	\$ 103,362	\$ 44,465

Water Retrofit Savings

Buildings:	Current Usage		Proposed Savings	
	Annual Water Usage (gal)	Annual Water & Sewer Cost (\$)	Annual Water Savings (gal)	Annual Water & Sewer Cost Savings (\$)
Garrard County High School	1,178,719	\$ 24,541	148,396	\$ 2,285
Garrard Middle School & Area Technology Center	1,327,883	\$ 17,991	436,257	\$ 5,628
			68,738	\$ 887
Camp Dick Robinson Elementary	733,600	\$ 3,582	222,645	\$ 913
Lancaster Elementary School	939,200	\$ 16,494	385,077	\$ 5,045
Paint Lick Elementary School	560,800	\$ 2,928	193,467	\$ 793
Garrard Education Center	164,600	\$ 2,694	65,737	\$ 927
Board of Education Office	25,105	\$ 769	9,072	\$ 152
Merritt-Little Building	7,160	\$ 1,614	2,471	\$ 20
Bus Garage	79,577	\$ 1,398	4,710	\$ 73
TOTAL	5,016,644	\$ 72,011	1,536,569	\$ 16,723

Outside Air Heating & Cooling Costs Resulting From HVAC System Modifications

Building	Unit Type	Quantity	Current Hours		Future Hours		Reduced Hours		Current OA		Energy Savings/Penalties		Savings/Costs		
			Winter (Hours)	Summer (Hours)	Winter (Hours)	Summer (Hours)	Winter (Hours)	Summer (Hours)	Heating (CFM)	Cooling (CFM)	Heating (BTU)	Cooling (BTU)	Heating (BTU)	Electric Heating	Cooling (BTU)
													Gas Heating	Electric Heating	Electric Cooling
Garrard Middle School	(3) Classroom MAUs	1	1,980	880	1,800	740	180	140	11,190	11,190	(76,489,245)	(42,316,216)	\$ 487	\$ 125	\$ 197
Garrard Middle School	(1) Admin MAU	1	2,340	1,040	1,980	880	360	160	2,500	2,500	(34,177,500)	(10,804,600)	\$ 218	\$ 56	\$ 50
Garrard Middle School	(1) Library MAU	1	2,268	1,008	2,196	976	72	32	4,100	4,100	(11,210,220)	(3,543,909)	\$ 71	\$ 18	\$ 16
Garrard Middle School	(1) Kitchen RTU	1	2,804	1,310	2,646	1,034	158	277	680	680	(4,090,363)	(5,078,702)	\$ 26	\$ 7	\$ 24
Garrard Middle School	(2) Cafeteria RTUs	1	2,498	1,180	2,403	1,007	95	174	1,200	1,200	(4,347,378)	(5,623,794)	\$ 28	\$ 7	\$ 26
Garrard Middle School	(4) Gym RTUs	1	3,141	1,453	2,970	1,169	171	284	1,800	1,800	(11,688,705)	(13,788,831)	\$ 74	\$ 19	\$ 64
Subtotal											(142,003,411)	(81,156,052)	\$ 904	\$ 231	\$ 378
Camp Dick Robinson Elementary	(4) MAUs	1	3,024	1,344	2,538	1,128	486	216	12,150	12,150	(224,238,578)	(70,888,981)	\$	1,523	\$ 433
Camp Dick Robinson Elementary	Zone 6 (additions) - (3) MAUs	1	3,024	1,344	2,538	1,128	486	216	5,400	5,400	(99,661,590)	(31,506,214)	\$	677	\$ 193
Subtotal											(323,900,168)	(102,395,194)	\$	2,201	\$ 626
													Gas Heating	Electric Heating	Electric Cooling
Lancaster Elementary School	(6) Kitchen / Cafeteria WSHPs	1	3,722	1,700	2,938	1,216	785	484	1,600	1,600	(47,684,448)	(20,928,510)	\$ 278	\$ 55	\$ 54
Lancaster Elementary School	(2) Gym WSHPs	1	3,722	1,700	2,857	1,212	866	488	3,600	3,600	(118,363,518)	(47,424,631)	\$ 691	\$ 137	\$ 122
Lancaster Elementary School	(4) Office WSHPs	1	3,722	1,700	2,857	1,212	866	488	184	184	(6,049,691)	(2,423,926)	\$ 35	\$ 7	\$ 6
Lancaster Elementary School	(4) Library WSHPs	1	3,722	1,700	2,857	1,212	866	488	240	240	(7,890,901)	(3,161,642)	\$ 46	\$ 9	\$ 8
Lancaster Elementary School	(41) Classroom WSHPs	1	3,722	1,700	3,245	1,389	477	311	6,892	6,892	(124,842,205)	(57,952,622)	\$ 729	\$ 145	\$ 149
Subtotal											(304,830,763)	(131,891,331)	\$ 1,780	\$ 353	\$ 339

PUMP MOTOR REPLACEMENT									
Building	System ID	HP	Speed	Motor Effic.	Power (kW)	Operating Hours / Year	Usage (kWh)	Rate (kWh)	Cost (\$)
Existing									
Garrard Middle School	(2) Boiler circulation pumps	4.0	100%	87%	2.8	2,590	7,148	\$ 0.056	\$ 398
Garrard Middle School	(2) Hot water pumps	3.0	100%	87%	2.1	2,590	5,361	\$ 0.056	\$ 298
Proposed									
Garrard Middle School	(2) Boiler circulation pumps	6.0	100%	90%	4.0	2,225	8,852	\$ 0.056	\$ 492
Garrard Middle School	(2) Hot water pumps	3.0	100%	90%	2.0	2,225	4,426	\$ 0.056	\$ 246
TOTAL					(1.1)		(768)		\$ (43)

Constant Volume to Variable Speed Fan Conversion

Electric Fan Motor Savings

Description	Full Load Power		Fan Speed		Average kW Savings (kWh)	Future Operating Hours	Savings (kWh)	Energy Savings Rate (\$)	Utility Savings (\$)
	(HP)	(kW)	Current Average Amount	Future Average Amount					
Garrard Education Center									
Atrium AHU	1.50	1.053	100%	60%	0.83	4,001	3,303	\$ 0.043	\$ 142
Gym AHU	7.50	5.266	100%	60%	4.13	4,428	18,280	\$ 0.043	\$ 787
Subtotal							21,583		\$ 930

BOILER REPLACEMENT SAVINGS Garrard Middle School

Existing Boiler Data

* Burner manufacturer, age, model number:	1996 Sellers 80HP 15 Commodore
* Burner size:	Fire-tubed, hot water boilers
* Number of boilers:	2
* Catalog boiler seasonal efficiency:	80%
* Jacket losses (radiation & convection)	3%
* Burner firing rate losses	7%
* Average seasonal efficiency	70%

* Fuel type:	Natural gas
* Cost of fuel:	\$0.85 / therm
* Fuel conversion factor:	100,000 BTU / therm

* Total heating cost:	\$	15,520	/ year
* Kitchen fuel cost:	\$	1,552	/ year
* Domestic HW heating costs:	\$	3,104	/ year
* Building heating costs:	\$	10,864	/ year

* Building heating requirement boiler output:	896,502,120	BTU / year
---	-------------	------------

Proposed Boiler Data

* Number of boilers:	2
* Percent "design day" load carried per boiler:	50%
* Proposed boiler seasonal heating efficiency:	92%
* Building heating costs:	\$ 8,272 / year

Boiler replacement savings:	\$	2,592	/ year
------------------------------------	-----------	--------------	---------------

BOILER REPLACEMENT SAVINGS

Garrard Education Center

Existing Boiler Data

* Burner manufacturer, age, model number:	1989 Weil-McClain PG-788-WP
* Burner size:	hot water boiler
* Number of boilers:	1
* Catalog boiler seasonal efficiency:	80%
* Jacket losses (radiation & convection)	3%
* Burner firing rate losses	7%
* Average seasonal efficiency	70%
* Fuel type:	Natural gas
* Cost of fuel:	\$0.83 / therm
* Fuel conversion factor:	100,000 BTU / therm
* Total heating cost:	\$ 17,503 / year
* Kitchen fuel cost:	\$ 875 / year
* Domestic HW heating costs:	\$ 1,750 / year
* Building heating costs:	\$ 14,878 / year
* Building heating requirement boiler output:	1,253,732,461 BTU / year

Proposed Boiler Data

* Number of boilers:	2
* Percent "design day" load carried per boiler:	50%
* Proposed boiler seasonal heating efficiency:	92%
* Building heating costs:	\$ 11,263 / year

Boiler replacement savings:	\$ 3,615 / year
------------------------------------	------------------------

BOILER REPLACEMENT SAVINGS

Area Technology Center

Existing Boiler Data

* Burner manufacturer, age, model number:	1967 National US 66A Series
* Burner size:	Atmospheric hot water boiler
* Number of boilers:	1
* Catalog boiler seasonal efficiency:	80%
* Jacket losses (radiation & convection)	3%
* Burner firing rate losses	7%
* Average seasonal efficiency	70%
* Fuel type:	Natural gas
* Cost of fuel:	\$0.83 / therm
* Fuel conversion factor:	100,000 BTU / therm
* Total heating cost:	\$ 15,538 / year
* Kitchen fuel cost:	\$ - / year
* Domestic HW heating costs:	\$ 1,554 / year
* Building heating costs:	\$ 13,985 / year
* Building heating requirement boiler output:	1,185,469,899 BTU / year

Proposed Boiler Data

* Number of boilers:	1
* Percent "design day" load carried per boiler:	100%
* Proposed boiler seasonal heating efficiency:	92%
* Building heating costs:	\$ 10,640 / year

Boiler replacement savings:	\$ 3,344 / year
------------------------------------	------------------------

Chiller Efficiency Savings Garrard County Schools											
System ID	Quantity	Efficiency (kW / Ton)	Total Tonage	Total kW	Average Output	Average kW	Average Tonage	Operating Hours / Year	Usage (kWh/yr)	Rate (\$/kWh)	Usage (\$/yr)
Garrard Education Center											
Existing											
Air Cooled Chiller	1	1.12	100	112.15	50%	56.07	50.00	1,799	100,905	\$ 0.152	\$ 15,323
Proposed											
Air Cooled Chiller	1	1.03	100	102.56	50%	51.28	50.00	1,678	86,048	\$ 0.152	\$ 13,067
Total Savings											
									14,857		\$ 2,256