

Annual Savings Report

State of Ohio Standard Forms and Documents

Project Name Greeneview LSD

Date September 21, 2016

Project Number 1342

Project Summary	
School District Name	Greeneview Local
State Project Number (SN)	1342
Total Project Cost (\$)	\$633,185
Length of Contract Term (years)	3
Projected Avg. Annual Savings (\$)	\$42,938
Construction Started / Completed	June 2014 – June 2015
Reporting Year (1, 2, or 3)	1
ESCO Name	Energy Optimizers USA
ESCO Address	7950 S. County Rd. 25 A Tipp City, OH 45371
ESCO Phone Number	(937) 877-1919
ESCO Contact Person	Brandon Little
ESCO E-mail Address	blittle@energyoptusa.com

At a minimum, the following items must be included in the annual report in order to support the summary table above. Additional information may be included and the items below are in no particular order within your report.

Please check that the following are included in the report.

- ✓ Baseline utility tables (gas, electric, water/sewage, etc.) including rates
- ✓ Actual monthly utility data for the current year
- ✓ List of Adjustments from baseline to current year and the supporting documentation
- ✓ Adjusted utility tables for the current reporting year
- ✓ Conclusion as to whether the project has its savings projection
- ✓ Conclusion as to whether the project has met its guarantee (for projects approved after September 2013)
- ✓ In case of shortfall, what measures are proposed to remedy the shortfall (if applicable)

Prepared By



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1 Annual Savings Summary

Below is a quick overview of the House Bill Project completed at Greeneview Local Schools.

Greeneview Local Schools	Benchmark			Proposed		Actual Post-Project					Normalized Post-Project		
	Consumption & Costs	Adjustments	Net	Consumption & Costs	Savings	Consumption & Costs	Adjustments	Net	Savings	% Change to Benchmark	Consumption & Costs	Normalized Savings	% Change to Benchmark
Electric													
Annual Usage, <i>kWh</i>	2,258,822	0	2,258,822	1,888,412	370,410	1,938,300	0	1,938,300	320,522	-14.2%	961,074	203,139	-57.5%
Annual Cost, \$	\$218,686	\$0	\$218,686	\$182,825	\$35,861	\$172,763	\$0	\$172,763	\$45,923	-21.0%	\$201,601	\$17,085	-7.8%
Fuel													
Annual Usage, <i>MMBtu</i>	3,128	0	3,128	2,751	377	2,060	0	2,060	1,068	-34.1%	2,286	842	-26.9%
Annual Cost, \$	\$18,404	\$0	\$18,404	\$16,184	\$2,220	\$11,900	\$0	\$11,900	\$6,504	-35.3%	\$13,451	\$4,953	-26.9%
Total Annual Utility Cost	\$237,090	\$0	\$237,090	\$199,009	\$38,081	\$184,663	\$0	\$184,663	\$52,427	-22.1%	\$215,052	\$22,038	-9.3%
Stipulation/Savings accounted for									\$16,526			\$16,526	
Weather													
Cooling Degree Days, <i>CDD</i>	949			914					-3.7%				
Heating Degree Days, <i>HDD</i>	5,512			4,760					-13.6%				

Greeneview Local Schools



	Proposed Savings	Actual Savings	Normalized Savings
Electric	\$35,861	\$45,923	\$33,611
Natural Gas	\$2,220	\$6,504	\$4,953
Total Savings	\$38,081	\$52,427	\$38,564

- The district has realized significant actual savings. For year one, the district saved \$52,427 which is \$14,346 above proposed savings.
- Electrical usage is down 17% and gas usage is down 27%.

2 Introduction

The Reconciliation Report is meant to highlight the energy savings due to the School Energy Performance Contracting Project for Greeneview Local Schools. There is a slight difference in the initial submittal savings versus the proposed savings due to the adjustments in detailed engineering calculations as well as what the true savings are compared to what we guarantee. The implementation of the energy savings measures was completed in June 2015. This report details energy savings only; operations and maintenance savings have not been tabulated.

2.1 Energy Savings Summary

It was anticipated that the School Energy Performance Contracting Project would save the district \$38,081 in energy per year. In the one year of post-project energy data considered, it has been calculated that the district saved \$38,564 in energy.

Reconciliation Report – Energy Savings Summary

Proposed Savings		Actual Savings	Normalized Savings
Electric	\$35,861	\$45,923	\$33,611
Natural Gas	\$2,220	\$6,504	\$4,953
Total Savings	\$38,081	\$52,427	\$38,564

Note: The table above only includes Energy Savings; it does not include Operations and Maintenance Savings.

3 Post-Project Adjustments

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4 Savings Calculations

We at Energy Optimizers, USA find that the most accurate and reliable way of calculating the savings is Option C which is to compare energy usage data from after the project to data from before the project. Energy data from the time period after the project has been completed, or the “post-project period” is measured against the energy data from before the project started, the baseline or benchmark time period. These two time periods are:

Benchmark Time Period:	August 2012 – July 2013
Post-Project Time Period:	June 2015 – May 2016

4.1 Normalized Savings

4.1.1 Need for Normalization

Due to fluctuations in weather and prices in energy, the amount of money spent on energy can change drastically from year-to-year. In order to compare “apples to apples,” normalizing the data for the same weather and energy cost baseline is necessary. For example, if the price of electricity increases from \$0.10/unit to \$0.12/unit from one year to the next, and the owner uses 10% less energy, the overall cost will still increase because of the increased cost per unit.

Normalization is accomplished by adjusting the savings figures by a ratio of the benchmark heating or cooling demand and the post-project heating or cooling demand. Also, the benchmark energy cost rate is multiplied by the energy saved. These two steps remove the variables of weather and energy cost from the savings figures so that they are comparable to the anticipated savings. In turn, this allows us to determine the accurate amount of energy that was saved due to the School Energy Performance Contracting project.

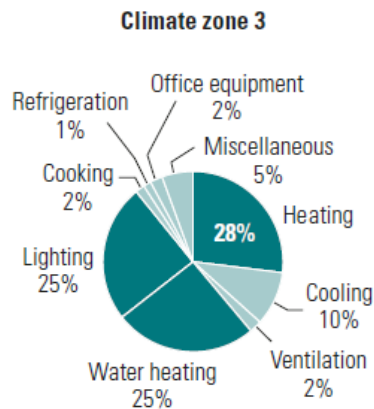
4.1.2 Usage Dependency

The first step is separating each respective energy usage by two or three categories, namely Weather-dependent, Occupancy-dependent, and/or Independent use. These dependency percentages were determined using “Energy Explorer,” regression model software developed by Dr. Kelly Kissock at the University of Dayton. The percentages will allow the energy usage that is dependent on the weather to be normalized with respect to changes in weather from year to year. These percentages determined using “Energy Explorer” for the district are displayed in the table below. Due to a bad fit, R^2 value less than 0.75, for the electricity usage, it was assumed that the usage was 90% independent and 10% weather dependent based on the graph displayed below.

Pre and Post Project Energy Usage Dependence Percentages

Pre - Project						
Greeneview Local Schools	Electric			Natural Gas		
	Ind %	Wea %	Occ %	Ind %	Wea %	Occ %
Greeneview High School	79.0%	21.0%	0.0%	6.9%	93.1%	0.0%
Greeneview Elementary School	64.0%	26.1%	10.0%			100.0%
Transportation Dept	79.0%	21.0%	0.0%			100.0%

Post - Project						
Greeneview Local Schools	Electric			Natural Gas		
	Ind %	Wea %	Occ %	Ind %	Wea %	Occ %
Greeneview High School	78.0%	12.0%	10.1%	15.6%	69.5%	14.9%
Greeneview Elementary School	58.2%	27.5%	14.4%			100.0%
Transportation Dept	79.0%	21.0%	0.0%			100.0%



Source: Managing Energy Costs in Schools

4.1.3 Weather Differences

To adjust for differences in weather, it is necessary to determine the annual heating and cooling demand. Energy Optimizers, USA chooses to use heating degree days (HDD) and cooling degree days (CDD) for this measurement, as degree days are a great representation of the typical heating/cooling requirements for a building.

For example, the process of calculating the annual heating degree days is:

When the average outdoor air temperature (T_{oa}) is less than the balance point temperature (T_{bal} - the outdoor air temperature at which heating/cooling is initiated), calculate the difference between the balance point temperature and average outdoor air temperature.

Sum that difference up for all days in the given year.

This equates to the heating degree days per year, and gives us an estimate of the annual heating energy use for a given location and balance temperature. The calculation for heating degree days is represented in the equation below; the process is nearly identical for cooling degree days.

$$\text{Heating Degree Days} = \sum_{i=1}^{365} (T_{bal} - T_{oa,i})$$

The heating and cooling degree days for the both time periods are displayed in the table below.

Heating and Cooling Degree Days			
Weather Data	Baseline	Post Project	% Change to Baseline
Cooling Degree Days CDD	949	914	-3.7%
Heating Degree Days HDD	5,512	4,760	-13.6%

Using the heating and cooling degree days for each time period, as well as the Baseline Energy Signature breakdown from the initial analysis of the District's energy use, we were able to determine how much of the total energy was used for heating or cooling the facility. The percentage breakdown allows us to adjust the weather dependent portion of the usage with the ratio of heating/cooling degree days of the two time periods, which enables us to calculate the normalized post-project savings. This, in turn, will allow us to see how well the project has performed in comparison to the anticipated savings.

4.1.4 Electricity

Now that the heating and cooling degree days have been determined, it is possible to normalize the energy savings to determine just how much energy and money the House Bill project saved the district. To adjust for the electricity cost per unit change from the benchmark to the post-project time frame, we will multiple the weather normalized savings by the benchmark electricity cost per unit. The calculations and results are displayed below.

Weather Normalized Electricity Usage Calculations			
Weather Normalized Data			
Electricity Usage Data	Baseline	Post-Project	Change from Baseline
Independent kWh Usage	919,728	838,103	-8.9%
Weather-Dependent kWh Usage	244,485	118,384	-51.6%
Electrical kWh/CDD	257.62	129.58	-49.7%
Weather Normalized kWh	1,164,213	961,074	-17.4%
Total Electrical kWh/CDD	1,227	1,052	-14.2%

Electricity Savings Comparison			
Electrical Savings	kWh Saved	\$ per unit	\$ Saved
Anticipated Savings	370,410	\$ 0.0968	\$ 35,861
Utility Bill Comparison Savings	320,522		\$ 45,923
Normalized (Weather and Price) Savings - kWh	277,892	Dependat on Bulding's Blended Rate	\$ 17,085
Stipulated Savings	-	-	\$ 16,526

4.1.5 Natural Gas

The same process that was completed to ascertain the normalized electricity savings has been executed for the natural gas side of the savings venture. The calculations and savings associated are shown below.

Weather Normalized Natural Gas Usage Calculations

Weather Normalized Data			
Heating Fuel Usage Data	Baseline	Post-Project	Change from Baseline
Independent MMBtu Usage	216	628	190.8%
Weather-Dependent MMBtu Usage	2,912	1,432	-50.8%
Heating Fuel MMBtu/HDD	0.53	0.30	-43.1%
Weather Normalized MMBtu	3,128	2,286	-26.9%
Total Heating Fuel MMBtu/HDD	0.57	0.48	-15.4%

Natural Gas Savings Comparison

Heating Fuel Savings	MMBtu Saved	\$ per unit	Total \$ Saved
Anticipated Savings	377	\$ 5.884	\$ 2,220
Utility Bill Comparison Savings	1,068	-	\$ 6,504
Normalized (Weather and Price) Savings	2,286	Variance in MMBtu Cost in Each Building	\$ 4,953

4.1.6 Savings Summary

Total Summarized Savings

Proposed Savings		Actual Savings	Normalized Savings
Electric	\$35,861	\$45,923	\$17,085
Natural Gas	\$2,220	\$6,504	\$4,953
Stipulated Savings			\$16,526
Total Savings	\$38,081	\$52,427	\$38,564

5 Explanation of Stipulated Savings and Points of Further Discussion

Energy Optimizers, USA is aware of mechanical concerns at the District and is working with third party vendors to mitigate the situation.

6 Appendices

6.1 District Reconciliation Analysis

Greeneview Local Schools



District Summary

Reconciliation Report: HVAC, Weather and Price Normalized

Baseline Energy Use Time Period: August 2012 - July 2013

Post-Project Energy Use Time Period: June 2015 - May 2016

Note: Energy savings figures only reflect (12) months of post-project data.

Weather Data	Cooling Degree Days (CDD)	Baseline:	949	Post Project:	914	Difference from Baseline:	-3.7%
Weather Stn. Location: Dayton	Heating Degree Days (HDD)	Baseline:	5,512	Post Project:	4,760	Difference from Baseline:	-13.6%

ENERGY USAGE COMPARISON

Electricity Usage Data

Non-Weather Normalized Data			
Electricity Usage Data	Baseline	Post-Project	Change from Baseline
Annual kWh Usage	2,258,822	1,938,300	-14.2%
Annual kWh Cost	\$218,686	\$172,763	(\$45,923)
Average Cost per kWh	\$0.10	\$0.09	-7.9%
Annual kW Usage (Demand)	5,897	6,120	3.8%
Rate Structure: Cost per kW; Cost per kWh	\$4.71	\$0.08	
Electrical kBtu/SqFt	32.00	27.46	-14.2%

Weather Normalized Data			
Electricity Usage Data	Baseline	Post-Project	Change from Baseline
Independent kWh Usage	919,728	838,103	-8.9%
Weather-Dependent kWh Usage	244,485	118,384	-51.6%
Electrical kWh/CDD	257.62	129.58	-49.7%
Weather Normalized kWh	1,164,213	961,074	-17.4%
Total Electrical kWh/CDD	1,227	1,052	-14.2%

Heating Fuel Usage Data

Non-Weather Normalized Data			
Heating Fuel Usage Data	Baseline	Post-Project	Change from Baseline
Annual MMBtu Usage	3,128	2,060	-34.1%
Annual MMBtu Cost	\$18,404	\$11,900	(\$6,504)
Average Cost per MMBtu	\$5.88	\$5.78	-1.8%
Heating Fuel kBtu/SqFt	12.98	8.55	-34.1%

Weather Normalized Data			
Heating Fuel Usage Data	Baseline	Post-Project	Change from Baseline
Independent MMBtu Usage	216	628	190.8%
Weather-Dependent MMBtu Usage	2,912	1,432	-50.8%
Heating Fuel MMBtu/HDD	0.53	0.30	-43.1%
Weather Normalized MMBtu	3,128	2,286	-26.9%
Total Heating Fuel MMBtu/HDD	0.57	0.48	-15.4%

Savings Summary

	Proposed Savings - Unit	Proposed Savings - \$	Proposed Savings 12 Months	Bill to Bill Savings by Unit	Bill to Bill Savings - \$	Normalized Savings - Unit	Normalized Savings - \$
Electrical Savings - kWh	370,410	\$35,861	\$35,861	320,522	\$45,923	203,139	\$17,085
Heating Fuel Savings - MMBtu	377	\$2,220	\$2,220	1,068	\$6,504	842	\$4,953
Stipulation/Savings accounted for							\$16,526

TOTAL SAVINGS:

Anticipated Savings	\$38,081	Bill to Bill Comparison Savings	\$52,427	Normalized Savings	\$38,564
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6.2 District Utility Analysis

Greeneview Local Schools



District Summary

Utility Summary August 2012 - July 2013

FACILITY LOCATION NAME	FACILITY SIZE (S.F.)	ANNUAL ELECTRIC		COST/ KWH	KWH/ SF	KBTU/ SF	ANNUAL FUEL (Total)		COST/ MMBTU	KBTU/ SF	TOTAL ANNUAL COST	TOTAL KBTU/SF	TOTAL \$/SF
		KWH	COST				MMBTU	COST (Total)					
1 Greeneview High School	92,592	1,115,930	\$ 102,372	\$ 0.092	12.05	41.13	3,128	\$ 18,404	\$ 5.88	33.78	\$ 120,776	74.92	\$ 1.30
2 Greeneview Middle School	64,571	648,400	\$ 63,024	\$ 0.097	10.04	34.27	1,919	\$ 11,191	\$ 5.83	29.72	\$ 74,215	63.99	\$ 1.15
3 Greeneview Elementary School	73,458	330,720	\$ 33,941	\$ 0.103	4.50	15.37	3,170	\$ 18,615	\$ 5.87	43.15	\$ 52,556	58.52	\$ 0.72
4 Board of Education Building	5,304	115,489	\$ 13,367	\$ 0.116	21.77	74.31	188	\$ 1,108	\$ 5.89	35.44	\$ 14,474	109.76	\$ 2.73
5 Transportation Department	5,000	48,283	\$ 5,983	\$ 0.124	9.66	32.96	-	\$ -	\$ -	-	\$ 5,983	32.96	\$ 1.20
District Totals	240,925	2,258,822	\$ 218,686	\$ 0.097	9.38	32.00	8,405	\$ 49,319	\$ 5.87	35.63	\$ 268,005	67.62	\$ 1.11

Note : Squage footage of the Board of Education Building and the Transportation Building was estimated via a satellite image area estimation tool.

Weather Normalized Utility Summary

Weather Normalized Totals Year 1	240,925	2,214,157	\$ 214,362	\$ 0.097	9.19	31.37	8,421	\$ 49,415	\$ 5.87	34.95	\$ 263,777	66.32	\$ 1.09
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
2012-2013 - Heating Degree Days	0	1	99	390	733	819	1,031	988	929	399	109	12	5,510
2012-2013 - Cooling Degree Days	461	254	89	8	0	0	0	0	0	14	111	195	1,132
5 Year Average - Heating Degree Days	2	37	105	373	644	1,016	1,194	958	681	390	112	11	5,522
5 Year Average - Cooling Degree Days	336	249	92	6	0	0	0	0	6	16	102	219	1,025

Proprietary Information of Energy Optimizers, USA

Utility Energy Analysis Report

6.3 Greeneview High School Utility Analysis

Greeneview High School

4710 Cottonville Rd, Jamestown, OH 45335										Facility Size	92,592
Post Project Data	Electricity					Fuel				Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Meter Read Date	Fuel (MMBtu)	Cost (\$)	Cost/ MMBtu	Total (\$)	\$/SF
	06/03/15	79,630	\$6,410	\$ 0.080	263.3	06/30/15	18.0	\$108	\$ 6.00	\$6,518	\$0.07
	07/13/15	74,122	\$5,830	\$ 0.079	197.5	07/31/15	18.2	\$86	\$ 4.73	\$5,916	\$0.06
	08/05/15	66,706	\$5,780	\$ 0.087	203.2	08/31/15	46.6	\$231	\$ 4.97	\$6,011	\$0.06
	09/10/15	70,667	\$6,068	\$ 0.086	253.8	09/30/15	94.9	\$649	\$ 6.84	\$6,717	\$0.07
	10/05/15	105,917	\$8,637	\$ 0.082	311.6	10/31/15	145.8	\$996	\$ 6.83	\$9,632	\$0.10
	11/04/15	88,413	\$7,211	\$ 0.082	257.8	11/30/15	269.2	\$1,273	\$ 4.73	\$8,484	\$0.09
	12/03/15	76,605	\$6,554	\$ 0.086	268.1	12/31/15	249.9	\$1,640	\$ 6.56	\$8,195	\$0.09
	01/06/16	77,224	\$6,224	\$ 0.081	224.5	01/31/16	550.6	\$2,619	\$ 4.76	\$8,843	\$0.10
	02/03/16	65,885	\$5,379	\$ 0.082	201.1	02/29/16	310.5	\$2,058	\$ 6.63	\$7,436	\$0.08
	03/04/16	67,248	\$5,965	\$ 0.089	270.4	03/31/16	194.5	\$1,236	\$ 6.35	\$7,201	\$0.08
	04/05/16	68,768	\$5,842	\$ 0.085	237.8	04/30/16	124.3	\$824	\$ 6.64	\$6,667	\$0.07
	05/04/16	70,176	\$6,093	\$ 0.087	261.8	05/31/16	37.5	\$180	\$ 4.79	\$6,273	\$0.07
	Totals	911,361	\$ 75,992	\$ 0.083	2,950.9		2,060.0	\$ 11,900	\$ 5.78	\$87,893	\$0.95
Baseline Pre-Project Data	Electricity					Fuel				Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Meter Read Date	Fuel (MMBtu)	Cost (\$)	Cost/ MMBtu	Total (\$)	\$/SF
	08/06/12	90,114	\$7,706	\$ 0.086	228.1	08/01/12	16.0	\$98	\$ 6.12	\$7,804	\$0.08
	09/06/12	104,123	\$9,761	\$ 0.094	302.2	09/01/12	19.0	\$114	\$ 6.00	\$9,875	\$0.11
	10/05/12	106,566	\$10,409	\$ 0.098	340.3	10/01/12	60.0	\$383	\$ 6.38	\$10,791	\$0.12
	11/06/12	106,367	\$9,769	\$ 0.092	294.7	11/01/12	336.0	\$1,864	\$ 5.55	\$11,633	\$0.13
	12/04/12	88,965	\$8,346	\$ 0.094	283.1	12/01/12	468.0	\$2,717	\$ 5.81	\$11,063	\$0.12
	01/06/13	98,967	\$8,528	\$ 0.086	240.2	01/01/13	519.0	\$3,217	\$ 6.20	\$11,745	\$0.13
	02/06/13	95,739	\$8,397	\$ 0.088	263.0	02/01/13	560.0	\$3,321	\$ 5.93	\$11,718	\$0.13
	03/06/13	82,924	\$7,624	\$ 0.092	234.6	03/01/13	465.0	\$2,664	\$ 5.73	\$10,288	\$0.11
	04/05/13	83,286	\$7,573	\$ 0.091	216.8	04/01/13	401.0	\$2,280	\$ 5.69	\$9,852	\$0.11
	05/06/13	87,937	\$8,289	\$ 0.094	293.6	05/01/13	215.0	\$1,314	\$ 6.11	\$9,603	\$0.10
	06/06/13	101,941	\$9,443	\$ 0.093	308.3	06/01/13	50.0	\$314	\$ 6.28	\$9,757	\$0.11
	07/05/13	69,001	\$6,528	\$ 0.095	192.6	07/01/13	19.0	\$119	\$ 6.25	\$6,646	\$0.07
	Totals	1,115,930	102,372	\$ 0.092	3,197.5		3,128.0	\$ 18,404	\$ 5.88	\$120,776	\$1.30

6.4 Greeneview Middle School Utility Analysis

Greeneview Middle School

4990 Cottonville Rd, Jamestown, OH 45335	Facility Size	64,571
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Post Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	06/03/15	50,814	\$5,106	\$ 0.100	195.8	\$5,839	\$0.09
	07/13/15	58,471	\$5,025	\$ 0.086	172.4	\$5,464	\$0.08
	08/05/15	56,618	\$5,021	\$ 0.089	172.9	\$5,909	\$0.09
	09/10/15	62,156	\$5,089	\$ 0.082	184.9	\$5,931	\$0.09
	10/05/15	70,396	\$5,813	\$ 0.083	217.6	\$6,602	\$0.10
	11/04/15	52,640	\$4,535	\$ 0.086	189.5	\$5,267	\$0.08
	12/03/15	42,029	\$3,733	\$ 0.089	168.0	\$4,703	\$0.07
	01/06/16	42,958	\$3,606	\$ 0.084	146.9	\$5,006	\$0.08
	02/03/16	40,493	\$3,461	\$ 0.085	146.9	\$4,730	\$0.07
	03/04/16	46,701	\$3,875	\$ 0.083	146.9	\$4,677	\$0.07
	04/05/16	40,930	\$3,564	\$ 0.087	154.8	\$4,076	\$0.06
	05/04/16	40,803	\$3,554	\$ 0.087	153.9	\$3,903	\$0.06
	Totals	605,009	\$52,384	\$ 0.087	2,050.5	\$62,107	\$0.96

Baseline Pre-Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	08/03/12	34,960	\$3,936	\$ 0.113	164.2	\$4,443	\$0.07
	09/06/12	79,840	\$7,961	\$ 0.100	214.5	\$8,356	\$0.13
	10/03/12	61,760	\$6,978	\$ 0.113	199.0	\$7,873	\$0.12
	11/05/12	70,640	\$7,057	\$ 0.100	169.0	\$8,183	\$0.13
	12/04/12	55,280	\$5,398	\$ 0.098	140.1	\$6,605	\$0.10
	01/04/13	50,080	\$4,383	\$ 0.088	139.0	\$5,449	\$0.08
	02/05/13	54,880	\$4,741	\$ 0.086	141.0	\$6,320	\$0.10
	03/05/13	46,400	\$4,264	\$ 0.092	136.1	\$5,680	\$0.09
	04/03/13	43,680	\$3,992	\$ 0.091	122.9	\$5,306	\$0.08
	05/03/13	45,840	\$4,389	\$ 0.096	172.0	\$5,128	\$0.08
	06/04/13	59,680	\$5,634	\$ 0.094	208.6	\$6,237	\$0.10
	07/03/13	45,360	\$4,292	\$ 0.095	159.4	\$4,635	\$0.07
	Totals	648,400	\$63,024	\$ 0.097	1,965.8	\$74,215	\$1.15

6.5 Greenview Elementary School Utility Analysis

Greeneview Elementary School

53 N Limestone St, Jamestown, OH 45335	Facility Size	73,458
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Post Project Data	Electricity				Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Total (\$)	\$/SF
	06/03/15	15,200	\$2,142	\$ 0.141	\$2,250	\$0.03
	07/13/15	13,600	\$2,096	\$ 0.154	\$2,116	\$0.03
	08/05/15	22,880	\$2,590	\$ 0.113	\$2,640	\$0.04
	09/10/15	16,160	\$1,487	\$ 0.092	\$1,577	\$0.02
	10/05/15	26,400	\$2,400	\$ 0.091	\$3,248	\$0.04
	11/04/15	24,960	\$2,278	\$ 0.091	\$3,646	\$0.05
	12/03/15	24,960	\$2,278	\$ 0.091	\$4,020	\$0.05
	01/06/16	28,960	\$2,603	\$ 0.090	\$5,727	\$0.08
	02/03/16	25,440	\$2,292	\$ 0.090	\$4,690	\$0.06
	03/04/16	31,200	\$2,825	\$ 0.091	\$4,306	\$0.06
	04/05/16	24,800	\$2,252	\$ 0.091	\$3,419	\$0.05
	05/04/16	22,400	\$2,044	\$ 0.091	\$2,339	\$0.03
	Totals	276,960	\$27,288	\$ 0.099	\$39,978	\$0.54

Baseline Pre-Project Data	Electricity				Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Total (\$)	\$/SF
	08/10/12	14,400	\$1,542	\$ 0.107	\$1,640	\$0.02
	09/12/12	27,520	\$2,997	\$ 0.109	\$3,144	\$0.04
	10/10/12	26,560	\$2,894	\$ 0.109	\$3,066	\$0.04
	11/09/12	32,640	\$3,545	\$ 0.109	\$4,631	\$0.06
	12/08/12	33,280	\$3,486	\$ 0.105	\$5,907	\$0.08
	01/10/13	30,400	\$2,939	\$ 0.097	\$5,858	\$0.08
	02/11/13	37,440	\$3,608	\$ 0.096	\$7,167	\$0.10
	03/11/13	32,960	\$3,304	\$ 0.100	\$6,410	\$0.09
	04/10/13	31,200	\$3,130	\$ 0.100	\$6,133	\$0.08
	05/10/13	29,600	\$2,972	\$ 0.100	\$4,386	\$0.06
	06/10/13	22,880	\$2,308	\$ 0.101	\$2,830	\$0.04
	07/11/13	11,840	\$1,216	\$ 0.103	\$1,384	\$0.02
	Totals	330,720	\$33,941	\$ 0.103	\$52,556	\$0.72

6.6 Board of Education Building Utility Analysis

Board of Education Building

4 South Charleston Rd, Jamestown, OH 45335	Facility Size	5,304
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Post Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	06/03/15	4,268	\$1,195	\$ 0.280	76.7	\$1,202	\$0.23
	07/13/15	4,840	\$1,216	\$ 0.251	76.7	\$1,221	\$0.23
	08/05/15	5,936	\$890	\$ 0.150	76.7	\$895	\$0.17
	09/10/15	7,520	\$802	\$ 0.107	78.2	\$807	\$0.15
	10/05/15	7,840	\$1,051	\$ 0.134	81.9	\$1,081	\$0.20
	11/04/15	5,760	\$646	\$ 0.112	82.5	\$708	\$0.13
	12/03/15	9,040	\$1,124	\$ 0.124	81.2	\$1,228	\$0.23
	01/06/16	13,840	\$1,271	\$ 0.092	60.9	\$1,474	\$0.28
	02/03/16	17,200	\$1,479	\$ 0.086	60.9	\$1,623	\$0.31
	03/04/16	13,520	\$1,261	\$ 0.093	60.9	\$1,330	\$0.25
	04/05/16	6,000	\$788	\$ 0.131	60.9	\$841	\$0.16
	05/04/16	4,080	\$669	\$ 0.164	60.9	\$687	\$0.13
	Totals	99,844	\$12,392	\$ 0.124	858.4	\$13,097	\$2.47

Baseline Pre-Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	08/10/12	6,532	\$969	\$ 0.148	23.1	\$969	\$0.18
	09/10/12	5,937	\$959	\$ 0.161	24.2	\$959	\$0.18
	10/10/12	4,396	\$876	\$ 0.199	29.9	\$877	\$0.17
	11/10/12	6,017	\$962	\$ 0.160	34.0	\$998	\$0.19
	12/08/12	10,077	\$1,268	\$ 0.126	49.3	\$1,379	\$0.26
	01/10/13	19,253	\$1,723	\$ 0.089	46.3	\$1,915	\$0.36
	02/10/13	18,914	\$1,737	\$ 0.092	54.6	\$1,974	\$0.37
	03/10/13	14,466	\$1,450	\$ 0.100	52.1	\$1,686	\$0.32
	04/10/13	12,346	\$1,247	\$ 0.101	44.1	\$1,457	\$0.27
	05/10/13	6,441	\$771	\$ 0.120	32.0	\$838	\$0.16
	06/10/13	4,920	\$653	\$ 0.133	26.1	\$665	\$0.13
	07/10/13	6,190	\$752	\$ 0.121	20.2	\$758	\$0.14
	Totals	115,489	\$13,367	\$ 0.116	435.9	\$14,474	\$2.73

6.7 Transportation Building Utility Analysis

Transportation Department Building

4950 Cottonville Rd, Jamestown, OH 45335	Facility Size	5,000
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Post Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	06/03/15	2,060	\$302	\$ 0.147	21.8	\$302	\$ 0.06
	07/13/15	2,474	\$331	\$ 0.134	21.8	\$331	\$ 0.07
	08/05/15	2,134	\$308	\$ 0.145	21.8	\$308	\$ 0.06
	09/10/15	2,289	\$236	\$ 0.103	21.8	\$236	\$ 0.05
	10/05/15	3,099	\$360	\$ 0.116	21.8	\$360	\$ 0.07
	11/04/15	2,860	\$346	\$ 0.121	21.8	\$346	\$ 0.07
	12/03/15	3,003	\$355	\$ 0.118	21.8	\$355	\$ 0.07
	01/06/16	4,577	\$448	\$ 0.098	23.0	\$448	\$ 0.09
	02/03/16	9,210	\$744	\$ 0.081	24.1	\$744	\$ 0.15
	03/04/16	8,161	\$683	\$ 0.084	23.9	\$683	\$ 0.14
	04/05/16	2,877	\$312	\$ 0.109	18.1	\$312	\$ 0.06
	05/04/16	2,382	\$281	\$ 0.118	18.1	\$281	\$ 0.06
	Totals	45,126	\$4,707	\$ 0.104	259.8	\$4,707	\$ 0.94

Baseline Pre-Project Data	Electricity					Summary	
	Meter Read Date	Energy (kWh)	Cost (\$)	Cost/ kWh	Demand (kW billed)	Total (\$)	\$/SF
	08/03/12	2,056	\$437	\$ 0.213	22.3	\$437	\$0.09
	09/06/12	2,316	\$458	\$ 0.198	22.3	\$458	\$0.09
	10/03/12	1,924	\$409	\$ 0.213	22.3	\$409	\$0.08
	11/05/12	3,032	\$496	\$ 0.164	22.3	\$496	\$0.10
	12/04/12	3,762	\$521	\$ 0.139	22.3	\$521	\$0.10
	01/04/13	5,393	\$682	\$ 0.126	28.2	\$682	\$0.14
	02/05/13	8,461	\$786	\$ 0.093	31.0	\$786	\$0.16
	03/05/13	7,860	\$765	\$ 0.097	29.9	\$765	\$0.15
	04/03/13	6,523	\$647	\$ 0.099	27.1	\$647	\$0.13
	05/03/13	2,856	\$343	\$ 0.120	23.3	\$343	\$0.07
	06/04/13	2,068	\$221	\$ 0.107	23.3	\$221	\$0.04
	07/03/13	2,032	\$217	\$ 0.107	23.3	\$217	\$0.04
	Totals	48,283	\$5,983	\$ 0.124	297.6	\$5,983	\$1.20