Local Government Energy Audit Report

Union High School

April 19, 2019

Prepared for:

Township of Union Public Schools
2350 North Third Street
Union, NJ 07083

Prepared by:

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Disclaimer

The goal of this audit report is to identify potential energy efficiency opportunities, help prioritize specific measures for implementation, and provide information about financial incentives that may be available. Most energy conservation measures have received preliminary analysis of feasibility that identifies expected ranges of savings and costs. This level of analysis is usually considered sufficient to establish a basis for further discussion and to help prioritize energy measures.

TRC Energy Services (TRC) reviewed the energy conservation measures and estimates of energy savings were reviewed for technical accuracy. Actual, achieved energy savings depend on behavioral factors and other uncontrollable variables and, therefore, estimates of final energy savings are not guaranteed. TRC and the New Jersey Board of Public Utilities (NJBPU) shall in no event be liable should the actual energy savings vary.

TRC bases estimated installation costs on our experience at similar facilities, pricing from local contractors and vendors, and/or cost estimates from RS Means. We encourage the owner of the facility is encouraged to independently confirm these cost estimates and to obtain multiple estimates when considering measure installations. Actual installation costs can vary widely based on individual measures and conditions. TRC and NJBPU do not guarantee installed cost estimates and shall in no event be held liable should actual installed costs vary from estimates.

New Jersey's Clean Energy Program (NJCEP) incentive values provided in this report are estimates based on program information available at the time of the report. Incentive levels are not guaranteed. The NJBPU reserves the right to extend, modify, or terminate programs without prior notice. Please review all available program incentives and eligibility requirements prior to selecting and installing any energy conservation measures.

The customer and their respective contractor(s) are responsible to implement energy conservation measures in complete conformance with all applicable local, state and federal requirements.

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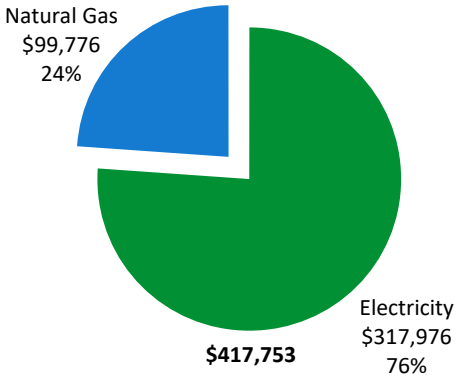
1 EXECUTIVE SUMMARY

The New Jersey Board of Public Utilities (NJBPU) has sponsored this Local Government Energy Audit (LGEA) report for Union High School. This report provides you with information about your facility's energy use, identifies energy conservation measures (ECMs) that can reduce your energy use, and provides information and assistance to help make changes in your facility. TRC Energy Services (TRC) conducted this study as part of a comprehensive effort to assist New Jersey school districts and local governments in controlling their energy costs and help protect our environment by reducing statewide energy consumption.

BUILDING PERFORMANCE REPORT

Annual Utilities	Costs: $417,753 Electricity: 2,424,898 kWh Natural Gas: 104,030 Therms	
ENERGY STAR® Benchmarking Score	73 *(1-100 scale)*	This building performs at or below the national average. This report contains suggestions about how to improve building performance and reduce energy costs.

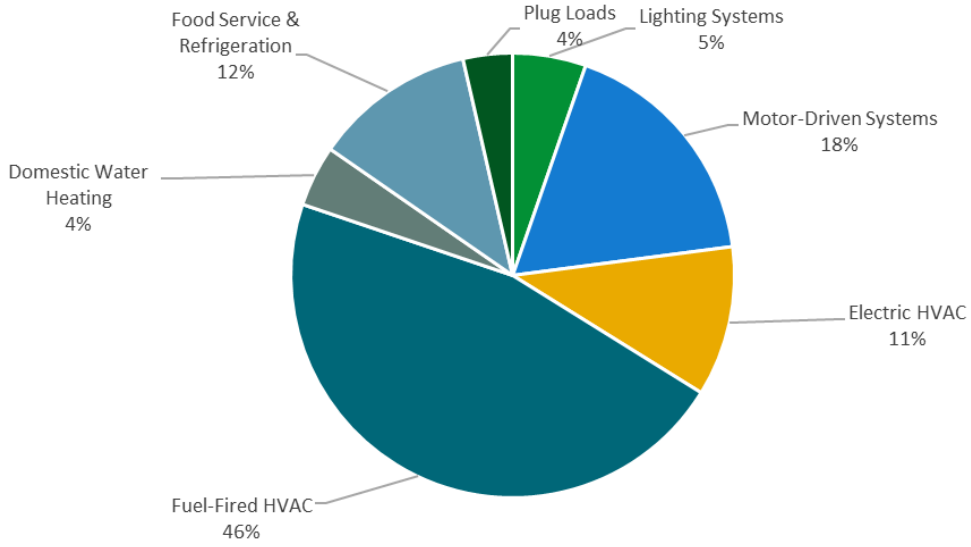


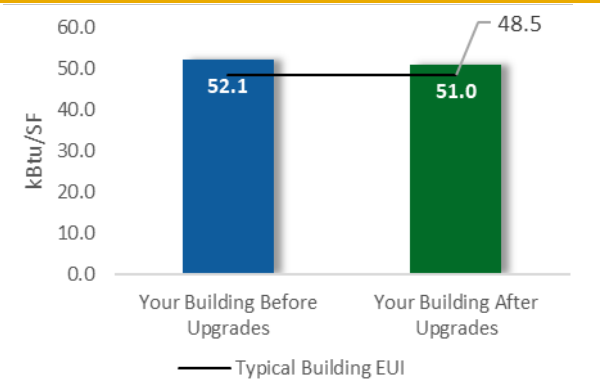
Figure 1 - Energy Use by System

POTENTIAL IMPROVEMENTS

This energy audit considered a range of potential energy improvements in your building. Costs and savings will vary between improvements. Presented below are two potential scopes of work for your consideration.

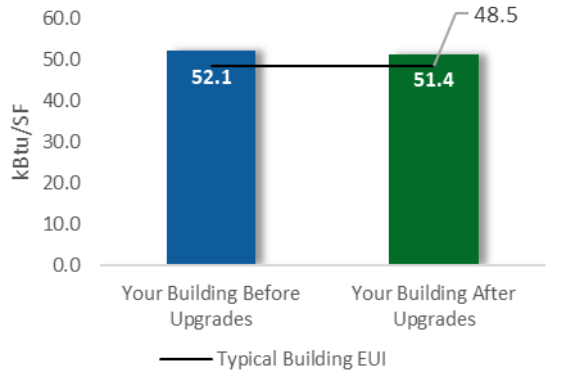
Scenario 1: Full Package (all evaluated measures)

Installation Cost	$350,245
Potential Rebates & Incentives[1]	$18,560
Annual Cost Savings	$14,200
Annual Energy Savings	Electricity: 103,575 kWh Natural Gas: 644 Therms
Greenhouse Gas Emission Savings	56 Tons
Simple Payback	23.4 Years
Site Energy Savings (all utilities)	2%



Scenario 2: Cost Effective Package[2]

Installation Cost	$54,192
Potential Rebates & Incentives	$5,626
Annual Cost Savings	$10,199
Annual Energy Savings	Electricity: 78,353 kWh
Greenhouse Gas Emission Savings	39 Tons
Simple Payback	4.8 Years
Site Energy Savings (all utilities)	1%



On-site Generation Potential

Photovoltaic	High
Combined Heat and Power	None

[1] Incentives are based on current SmartStart Prescriptive incentives. Other program incentives may apply.

[2] A cost-effective measure is defined as one where the simple payback does not exceed two-thirds of the expected proposed equipment useful life. Simple payback is based on the net measure cost after potential incentives.

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Lifetime Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Upgrades		**41,488**	**5.7**	**-3**	**$5,414**	**$81,212**	**$34,595**	**$3,981**	**$30,614**	**5.7**	**41,459**
ECM 1	Install LED Fixtures	30,551	4.2	0	$4,002	$60,030	$31,391	$3,500	$27,891	7.0	30,714
ECM 2	Retrofit Fixtures with LED Lamps	10,937	1.5	-2	$1,412	$21,183	$3,205	$481	$2,724	1.9	10,745
Lighting Control Measures		**24,528**	**3.3**	**-5**	**$3,167**	**$25,337**	**$16,470**	**$1,645**	**$14,825**	**4.7**	**24,099**
ECM 3	Install Occupancy Sensor Lighting Controls	24,528	3.3	-5	$3,167	$25,337	$16,470	$1,645	$14,825	4.7	24,099
Electric Unitary HVAC Measures		**22,187**	**12.6**	**0**	**$2,909**	**$43,641**	**$183,955**	**$9,399**	**$174,557**	**60.0**	**22,342**
	Install High Efficiency Air Conditioning Units	22,187	12.6	0	$2,909	$43,641	$183,955	$9,399	$174,557	60.0	22,342
HVAC System Improvements		**3,035**	**0.0**	**0**	**$398**	**$5,970**	**$10,875**	**$0**	**$10,875**	**27.3**	**3,057**
	Implement Demand Control Ventilation (DCV)	3,035	0.0	0	$398	$5,970	$10,875	$0	$10,875	27.3	3,057
Domestic Water Heating Upgrade		**0**	**0.0**	**72**	**$693**	**$10,396**	**$101,222**	**$3,535**	**$97,687**	**141.0**	**8,461**
	Install High Efficiency Gas-Fired Water Heater	0	0.0	72	$693	$10,396	$101,222	$3,535	$97,687	141.0	8,461
Food Service & Refrigeration Measures		**12,337**	**1.4**	**0**	**$1,618**	**$9,471**	**$3,127**	**$0**	**$3,127**	**1.9**	**12,423**
ECM 4	Refrigerator/Freezer Case Electrically Commutated Motors	1,054	0.1	0	$138	$2,073	$1,517	$0	$1,517	11.0	1,062
ECM 5	Vending Machine Control	11,283	1.3	0	$1,480	$7,398	$1,610	$0	$1,610	1.1	11,362
TOTALS		**103,575**	**23.0**	**64**	**$14,200**	**$176,028**	**$350,245**	**$18,560**	**$331,685**	**23.4**	**111,841**

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

** - Simple Payback Period is based on net measure costs (i.e. after incentives).

Figure 2 – Evaluated Energy Improvements

1.1 Planning Your Project

Careful planning makes for a successful energy project. When considering this scope of work, you will have some decisions to make, such as:

- How will the project be funded and/or financed?
- Is it best to pursue individual ECMs, groups of ECMs, or use a comprehensive approach where all ECMs are installed together?
- Are there other facility improvements that should happen at the same time?

Pick Your Installation Approach

New Jersey Clean Energy Programs give you the flexibility to do a little or a lot. Rebates, incentives, and financing are available to help reduce both your installation costs and your energy bills. If you are planning to take advantage of these programs, make sure to review incentive program guidelines before proceeding. This is important because in most cases you will need to submit applications for the incentives before purchasing materials or starting installation.

The potential ECMs identified for this building likely qualify for multiple incentive and funding programs. Based on current program rules and requirements, your measures are likely to qualify for the following programs:

Energy Conservation Measure		SmartStart	Direct Install	Pay For Performance
ECM 1	Install LED Fixtures	x		
ECM 2	Retrofit Fixtures with LED Lamps	x		
ECM 3	Install Occupancy Sensor Lighting Controls	x		
ECM 4	Refrigerator/Freezer Case Electrically Commutated Motors			
ECM 5	Vending Machine Control			

Figure 3 – Funding Options

New Jersey's Clean Energy Programs At-A-Glance

	SmartStart Flexibility to install at your own pace	Direct Install Turnkey installation	Pay for Performance Whole building upgrades
Who should use it?	Buildings installing individual measures or small group of measures.	Small to mid-size facilities that can bundle multiple measures together. Average Peak demand should be below 200 kW. Not suitable for significant building shell issues.	Mid to large size facilities looking to implement as many measures as possible at one time. Peak demand should be over 200 kW.
How does it work?	Use in-house staff or your preferred contractor.	Pre-approved contractors pass savings along to you via reduced material and labor costs.	Whole-building approach to energy upgrades designed to reduce energy use by at least 15%. The more you save, the higher the incentives.
What are the Incentives?	Fixed incentives for specific energy efficiency measures.	Incentives pay up to 70% of eligible costs, up to $125,000 per project. You pay the remaining 30% directly to the contractor.	Up to 25% of installation cost, calculated based on level of energy savings per square foot.
How do I participate?	Submit an application for the specific equipment to be installed.	Contact a participating contractor in your region.	Contact a pre-qualified Partner to develop your Energy Reduction Plan and set your energy savings targets.

Take the next step by visiting **www.njcleanenergy.com** for program details, applications, and to contact a qualified contractor.

Individual Measures with SmartStart

For facilities wishing to pursue only selected individual measures (or planning to phase implementation of selected measures over multiple years), incentives are available through the SmartStart program. To participate, you can use internal resources or an outside firm or contractor to perform the final design of the ECM(s) and install the equipment. Program pre-approval is required for some SmartStart incentives, so only after receiving pre-approval should you proceed with ECM installation.

Turnkey Installation with Direct Install

The Direct Install program provides turnkey installation of multiple measures through an authorized network of participating contractors. This program can provide substantially higher incentives than SmartStart, up to 70% of the cost of selected measures. Direct Install contractors will assess and verify individual measure eligibility and, in most cases, they perform the installation work. The Direct Install program is available to sites with an average peak demand of less than 200 kW.

Whole Building Approach with Pay for Performance

Pay for Performance can be a good option for medium to large sized facilities to achieve deep energy savings. Pay for Performance allows you to install as many measures as possible under a single project as well as address measures that may not qualify for other programs. Many facilities pursuing an Energy Savings Improvement Program (ESIP) loan also use this program. Pay for Performance works for larger customers with a peak demand over 200 kW. The minimum installed scope of work must include at least two unique measures resulting in at least 15% energy savings, where lighting cannot make up the majority of the savings.

More Options from Around the State

Financing and Planning Support with the Energy Savings Improvement Program (ESIP)

For larger facilities with limited capital availability to implement ECMs, project financing may be available through the ESIP. Supported directly by the NJBPU, ESIP provides government agencies with project development, design, and implementation support services, as well as, attractive financing for implementing ECMs. You have already taken the first step as an LGEA customer, because this report is required to participate in ESIP.

Resiliency with Return on Investment through Combined Heat & Power (CHP)

The CHP program provides incentives for combined heat and power (aka cogeneration) and waste heat to power projects. Combined heat and power systems generate power on-site and recover heat from the generation system to meet on-site thermal loads. Waste heat to power systems use waste heat to generate power. You will work with a qualified developer who will design a system that meets your building's heating and cooling needs.

Ongoing Electric Savings with Demand Response

The Demand Response Energy Aggregator program reduces electric loads at commercial facilities when wholesale electricity prices are high or when the reliability of the electric grid is threatened due to peak power demand. By enabling commercial facilities to reduce their electric demand during times of peak demand, the grid is made more reliable and overall transmission costs are reduced for all ratepayers. Curtailment service providers provide regular payments to medium and large consumers of electric power for their participation in demand response (DR) programs. Program participation is voluntary, and facilities receive payments regardless of whether they are called upon to curtail their load during times of peak demand.

2 EXISTING CONDITIONS

The New Jersey Board of Public Utilities (NJBPU) has sponsored this Local Government Energy Audit (LGEA) Report for Union High School. This report provides information on how your facility uses energy, identifies energy conservation measures (ECMs) that can reduce your energy use, and provides information and assistance to help you implement the ECMs. This report also contains valuable information on financial incentives from New Jersey's Clean Energy Program (NJCEP) for implementing ECMs.

TRC Energy Services (TRC) conducted this study as part of a comprehensive effort to assist New Jersey educational and local government facilities in controlling energy costs and protecting our environment by offering a wide range of energy management options and advice.

2.1 Site Overview

On August 20, 2018, TRC performed an energy audit at Union High School located in Union, NJ. TRC met with Bernie Pecoritello to review the facility operations and help focus our investigation on specific energy-using systems.

Union Township High School is a 358,161 square foot building built in 1956. Spaces in the facility include classrooms, hallways, gymnasium, auditorium, media center, offices, cafeteria, kitchen, storage spaces, restrooms, stairwells and mechanical areas. Recent improvements in the facility include an LED retrofit with occupancy sensors throughout the school and interior ceiling replacement.

Space heating in the school is provided using both gas-fired hot water and steam boilers. Some areas also contain forced air furnaces in the packaged units that also provide space cooling to the respective spaces. The majority of space cooling is provided using packaged units, split air condition (AC) units and window AC units.

2.2 Building Occupancy

The facility is occupied from September through June. Typical weekday occupancy is 283 staff and 2,200 students. During the weekdays the facility is occupied from 6:00 AM to late in the night. On Saturdays, the school is occupied from 6:00 AM to 4:00 PM and the school remain shut on Sundays.

Building Name	Weekday/Weekend	Operating Schedule
Union High School	Weekday	6:00 AM - 12:00 AM
	Weekend	Saturday: 6:00 AM - 4:00 PM Sunday: 6:00 AM - 4:00 PM

Figure 4 - Building Occupancy Schedule

2.3 Building Envelope

Building walls are concrete/masonry construction with a brick veneer facade. The roof is flat and covered with gravel. It was observed during the site visit that the roof had a few leaks.

The windows are double glazed and have vinyl frames. The glass-to-frame seals are in good condition. The operable window weather seals are in good condition, showing little evidence of excessive wear. Exterior doors have aluminum frames and are in good condition.

Roof

Facade

Typical Windows

Main Entrance doors

2.4 Lighting Systems

During the summer of 2017, the facility completed a LED retrofit of both interior and exterior fixtures. The primary interior lighting system uses 4-foot 15-Watt LED linear lamps. There also some 4-foot 32-Watt T8 fixtures found in spaces such as rooms 207S and D235I, transit room and storage room. Additionally, there are some recessed compact fluorescent lamps (CFL) serving smaller spaces. Typically, T8 fluorescent fixtures use electronic ballasts. Fixture types include 1 or 2 lamp 4-foot long troffers. Most fixtures are in good condition. Most of the lighting in the facility are controlled using remotely mounted or wall mounted occupancy sensors and wall switches

Interior lighting levels were generally noted to be sufficient.

LED Troffer

Cafeteria lights

Ceiling mount LED fixtures

Recessed CFL fixtures

Exterior fixtures include wall packs with 400-Watt metal halide, 150 and 400-Watt high pressure sodium fixtures, downlight recessed fixtures over the doorways and pole mounted LED fixtures. Exterior light fixtures are generally controlled by photocells.


Exterior Wall Pack Fixtures


Exterior Arm & Pole Mounted Fixtures

2.5 Air Handling Systems

Unit Ventilators

Older unit ventilators (UV) in the school have hot water coils which are served by hot water boilers, while the newer UV have either steam or hot water coils. Heating system with the hot water and steam are controlled by the building energy management system (EMS) and UVs are pneumatically controlled. The majority of the unit ventilators serving the old sections of the facility are original to the building and in need of replacement, while the new additions are served by newer unit ventilators.

Packaged Units

Approximately 50% of the school is mechanically cooled. Many big areas such as the cafeterias, auditorium the library, weight room, and some classrooms are served by packaged roof top units (RTUs). The cooling capacities of the RTUs range from 3 ton to 50 ton. There are two cafeterias (A&B) each of which is served by a 20 ton AAON package unit. Half of the RTUs are newer with an estimated average EER of 12, while the remaining have reached or nearing the end their useful life. The RTUs are controlled with programmable thermostats.

Refer to Appendix A for detailed information about each unit.

Air Conditioners

Smaller spaces such as the offices use window air conditioning (AC) units. These vary in capacity between 0.5 and 1.5 tons. Many of these units are old and have been evaluated for replacement. The older ones are not ENERGY STAR® labeled. Classrooms and some larger office spaces are cooled using split system AC units with capacities ranging from 3 tons to 20 tons. The window AC units are manually controlled, while the split system AC units are controlled with programmable thermostats.

Window AC

Roof top unit

Split AC unit

Split AC unit

Programmable Thermostat

Programmable Thermostat

2.6 Heating [Hot Water/Steam] Systems

Heating in the new wing is provided by three gas-fired Mach –C3000 condensing hot water boilers with output capacities of 2,850 MBh and nominal heating efficiencies of 95%. The main gym and a section of C-wing are heated using two Laars-Rheos gas-fired condensing boilers with output capacities of 1,873 MBh and nominal heating efficiencies of 93.65%. Hot water from the boilers is circulated in the respective sections using five sets of variable speed pumps: (2) 5 hp pumps, (4) 15 hp pumps, (3) 3 hp pumps, (2) 10 hp pumps and (2) 7.5 hp pumps. The new wing boilers are two years old, well maintained and in good condition. The main gym and section of C-wing boilers were installed in 2004 and are in good condition.

Hot water is supplied at 180°F when the outside air temperature is low, and the setpoint is adjusted linearly to 130°F when the outside air is above 65°F. The system is locked out at an outside temperature of 50°F.

Heating for the older wing in the school is provided using two Burnham gas fired forced draft steam boilers with an output capacity of 8,840 MBh and a heating efficiency of 84.50%. These boilers are two years old, in good condition and well maintained.

Conditioned air is distributed to the air handlers and unit ventilators with hot water or steam coils on them. The Nesbitt unit ventilators have reached the end of their useful life and are in need of replacement. The locker rooms of the main gymnasium have air handlers that are equipped with electric heat.

Mach C-3000 boilers

Burnham boilers

Laars Rheos boilers

Hot water pumps

2.7 Domestic Hot Water

Hot water is produced with four gas-fired hot water boilers serving the G-wing, boys locker room, girls locker room and kitchen. The input capacities vary from 100 MBh to 1,010 MBh with efficiencies above 80%. Domestic hot water needs of section C-wing and room 103 are served by electric water heaters with input capacities of 12 kW and 9 kW respectively. The tank capacities of the water heaters range from 80 gallons to 350 gallons.

The gas fired water heaters serving the locker rooms are old and have been evaluated for replacement. Other water heaters are in good condition and well maintained.

Water heater serving the locker rooms (needs replacement)

Electric water heater serving the C-wing

2.8 Food Service Equipment

The kitchen has a mixture of gas and electric kitchen equipment used to prepare approximately 1,500 breakfast and lunches for students and staff in the school. Most cooking is done using a convection gas-fired oven, gas fryers and gas burners. Bulk prepared foods are held for serving in several holding cabinets. Equipment with high efficiency were observed to be in good condition. The dishwasher is an ENERGY STAR® high temperature unit with an electric booster.

Convection oven

Griddles

Gas range

Gas fryers

2.9 Refrigeration

The kitchen has several stand-up refrigerators and freezers with either solid or glass doors. There is also an energy efficient stand-up solid door freezer. All equipment are in good condition.

The walk-in refrigerator has an estimated 0.5 ton compressor located in the kitchen and a 2 fan evaporator. The walk-in medium temperature freezer has approximately a 0.75 ton compressor located in the kitchen and a 3 fan evaporator.

Visit https://www.energystar.gov/products/commercial_food_service_equipment for the latest information on high efficiency food service equipment.

2.10 Plug Load & Vending Machines

The utility bill analysis indicates that plug loads consume approximately 2.0% of total building energy use.

You seem to already be doing a great job managing your electrical plug loads. This report makes additional suggestions for ECMs in this area as well as Energy Efficient Best Practices.

There are approximately 471 computer work stations throughout the facility. Plug loads throughout the building include general café and office equipment. There are classroom typical loads such as smart boards, projectors, and fans.

There are several residential style refrigerators throughout the building that are used to store food for the staff. These vary in condition and efficiency.

There are seven refrigerated beverage vending machines and five non-refrigerated vending machines. Vending machines are not equipped with occupancy-based controls.

Refrigerated vending machine

Refrigerated vending machine

Electric Kiln

Typical copy machine

2.11 Water-Using Systems

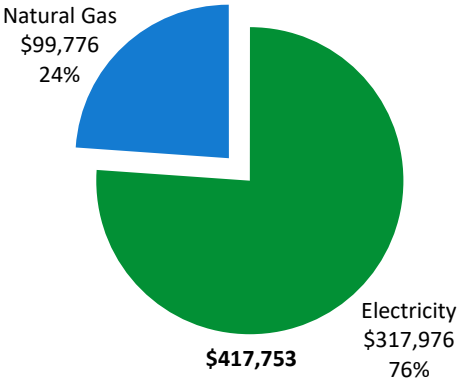
There are several restrooms with toilets, urinals, and sinks. Faucet flow rates are at 2.2 gallons per minute (gpm) or lower. Toilets are rated at 1.6 gallons per flush (gpf) and urinals are rated at 1.0 gpf.

Girls and boys locker rooms are frequently used. The showerheads are rated at 1.5 gpm.

3 Energy Use and Costs

Twelve months of utility billing data are used to develop annual energy consumption and cost data. This information creates a profile of the annual energy consumption and energy costs.

Utility Summary		
Fuel	**Usage**	**Cost**
Electricity	2,424,898 kWh	$317,976
Natural Gas	104,030 Therms	$99,776
Total		**$417,753**



An energy balance identifies and quantifies energy use in your various building systems. This can highlight areas with the most potential for improvement. This energy balance was developed using calculated energy use for each of the end uses noted in the figure.

The energy auditor collects information regarding equipment operating hours, capacity, efficiency and other operational parameters from facility staff, drawings, and on-site observations. This information is used as the inputs to calculate the existing conditions energy use for the site. The calculated energy use is then compared to the historical energy use and the initial inputs are revised, as necessary, to balance the calculated energy use to the historical energy use.

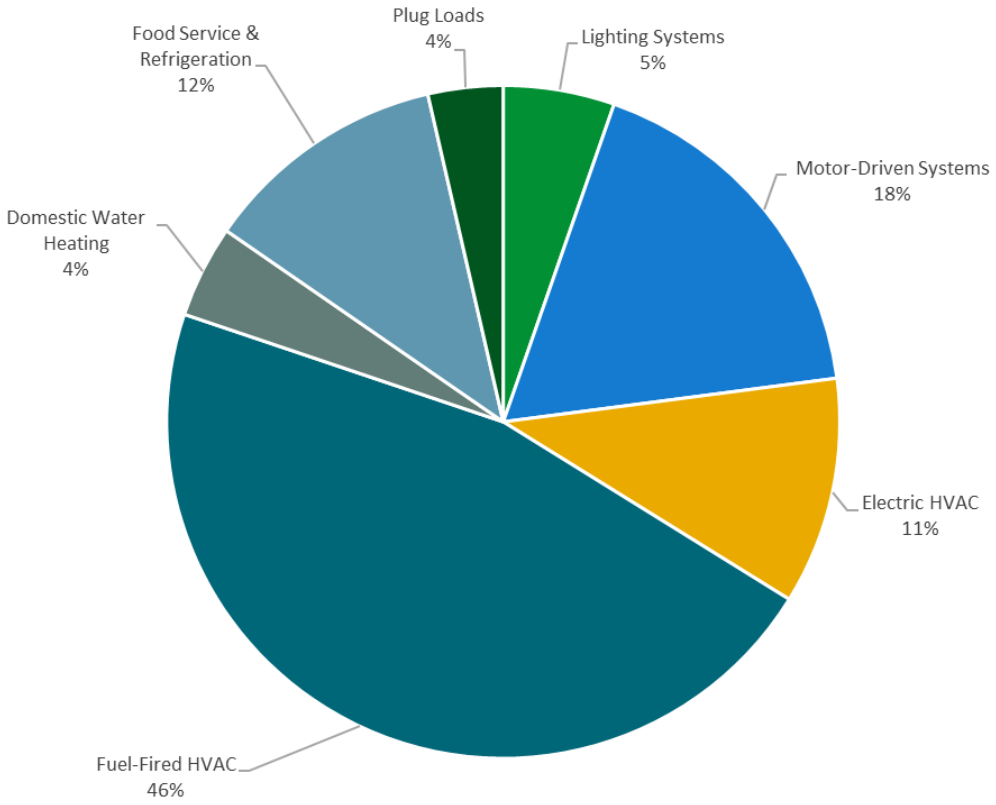
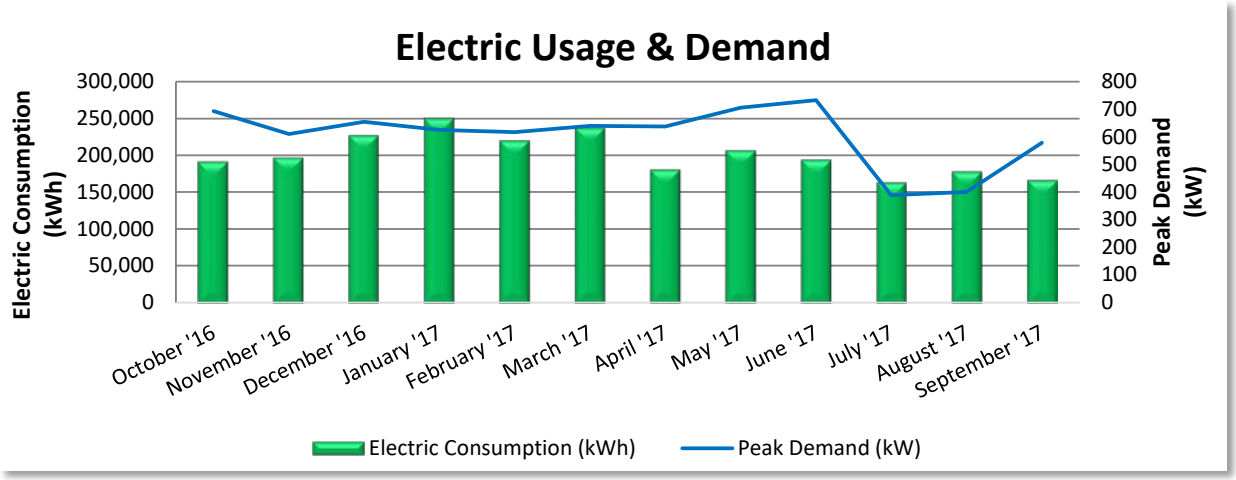


Figure 5 - Energy Balance

3.1 Electricity

PSE&G delivers electricity under rate class LPLS, with electric production provided by Agera Energy/ SJE, a third-party supplier.



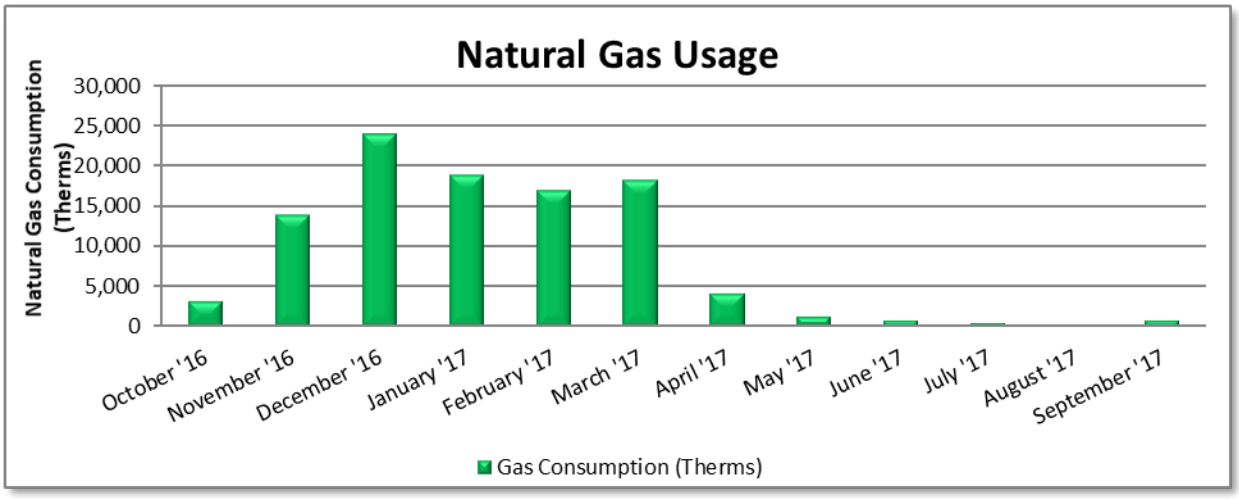
Electric Billing Data					
Period Ending	**Days in Period**	**Electric Usage (kWh)**	**Demand (kW)**	**Demand Cost**	**Total Electric Cost**
10/31/16	30	191,933	694		$23,561
11/30/16	30	197,625	611		$23,859
12/31/16	31	227,580	655		$27,619
1/31/17	31	250,574	625		$30,009
2/28/17	28	220,524	618		$26,708
3/31/17	31	237,764	640		$28,699
4/30/17	30	181,206	638		$22,525
5/31/17	31	207,098	706		$25,570
6/30/17	30	194,556	733		$31,865
7/31/17	31	163,721	389		$23,966
8/31/17	31	178,819	401		$25,843
9/30/17	30	166,854	579		$26,881
Totals	**364**	**2,418,254**	**733**	**$0**	**$317,105**
Annual	**365**	**2,424,898**	**733**	**$0**	**$317,976**

Notes:

- Peak electric usage occurred in January 2017.
- The average electric cost over the past 12 months was $0.131/kWh, which is the blended rate that includes energy supply, distribution, demand, and other charges. This report uses this blended rate to estimate energy cost savings. The profile indicates year round use with increased winter load for electric heating.

3.2 Natural Gas

Elizabethtown Gas delivers natural gas under rate class 231, with natural gas supply provided by Hudson Energy, a third-party supplier.



Gas Billing Data			
Period Ending	**Days in Period**	**Natural Gas Usage (Therms)**	**Natural Gas Cost**
10/31/16	30	3,303	$4,065
11/30/16	30	13,982	$16,941
12/31/16	31	24,011	$30,076
1/31/17	31	18,974	$14,366
2/28/17	28	16,962	$12,761
3/31/17	31	18,366	$14,137
4/30/17	30	4,247	$2,994
5/31/17	31	1,276	$964
6/30/17	30	844	$658
7/31/17	31	459	$374
8/31/17	31	392	$829
9/30/17	30	929	$1,338
Totals	**364**	**103,745**	**$99,503**
Annual	**365**	**104,030**	**$99,776**

Notes:

- The average gas cost for the past 12 months is $0.959/therm, which is the blended rate used throughout the analysis. Usage is indicative of a gas heating profile.

3.3 Benchmarking

Your building was benchmarked using the United States Environmental Protection Agency's (EPA) *Portfolio Manager®* software. Benchmarking compares your building's energy use to that of similar buildings across the county, while neutralizing variations due to location, occupancy and operating hours. Some building types can be scored with a 1-100 ranking of a building's energy performance relative to the national building market. A score of 50 represents the national average and a score of 100 is best.

This ENERGY STAR® benchmarking score provides a comprehensive snapshot of your building's energy performance. It assesses the building's physical assets, operations, and occupant behavior, which is compiled into a quick and easy-to-understand score.

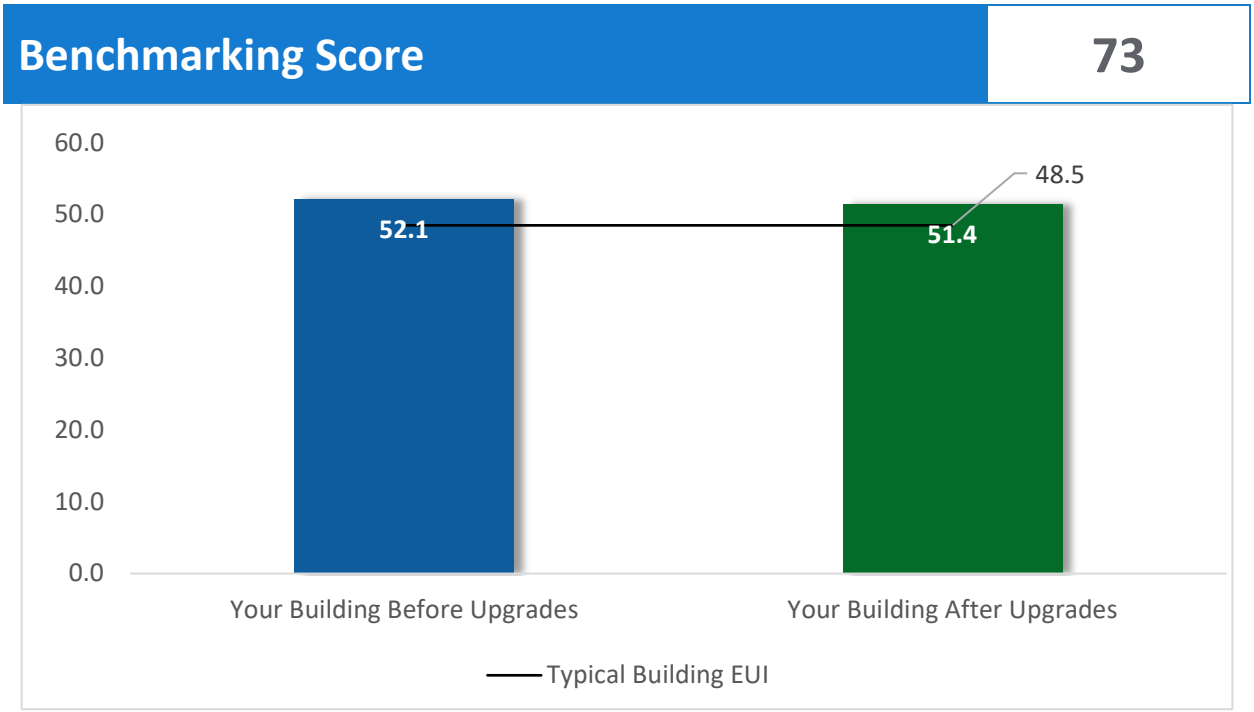


Figure 6 - Energy Use Intensity Comparison

This building performs at, or below the national average. This report contains suggestions about how to improve building performance and reduce energy costs. Energy use intensity (EUI) measures energy consumption per square foot and is the standard metric for comparing buildings' energy performance. A lower EUI means better performance and less energy consumed. A number of factors can cause as building to vary from the "typical" energy usage. Local weather conditions, building age and insulation levels, equipment efficiency, daily occupancy hours, changes in occupancy throughout the year, equipment operating hours, and occupant behavior all contribute to a building's energy use and the benchmarking score.

Tracking Your Energy Performance

Keeping track of your energy use on a monthly basis is one of the best ways to keep energy costs in check. Update your utility information in Portfolio Manager® regularly, so that you can keep track of your building's performance.

We have created a Portfolio Manager® account for your facility and we have already entered the monthly utility data shown above for you. Account login information for your account will be sent via email.

Free online training is available to help you use ENERGY STAR® Portfolio Manager® to track your building's performance at: https://www.energystar.gov/buildings/training.

For more information on ENERGY STAR® and Portfolio Manager®, visit their website[3].

[3] https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification/how-app-1.

4 ENERGY CONSERVATION MEASURES

The goal of this audit report is to identify and evaluate potential energy efficiency improvements, provide information about the cost effectiveness of those improvements, and recognize potential financial incentives from NJBPU. Most energy conservation measures have received preliminary analysis of feasibility which identifies expected ranges of savings and costs. This level of analysis is typically sufficient to demonstrate project cost-effectiveness and help prioritize energy measures.

Calculations of energy use and savings are based on the current version of the *New Jersey Clean Energy Program Protocols to Measure Resource Savings*, which is approved by the NJBPU. Further analysis or investigation may be required to calculate more precise savings based on specific circumstances.

Operation and maintenance costs for the proposed new equipment will generally be lower than the current costs for the existing equipment—especially if the existing equipment is at or past its normal useful life. We have conservatively assumed there to be no impact on overall maintenance costs over the life of the equipment.

Financial incentives are based on the current NJCEP prescriptive SmartStart program. A higher level of investigation may be necessary to support any SmartStart Custom, Pay for Performance, or Direct Install incentive applications. Some measures and proposed upgrades may be eligible for higher incentives than those shown below through other NJCEP programs described in a following section of this report.

Appendix A: Equipment Inventory & Recommendations provides a detailed list of the locations and recommended upgrades for each energy conservation measure.

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Upgrades		**41,488**	**5.7**	**-3**	**$5,414**	**$34,595**	**$3,981**	**$30,614**	**5.7**	**41,459**
ECM 1	Install LED Fixtures	30,551	4.2	0	$4,002	$31,391	$3,500	$27,891	7.0	30,714
ECM 2	Retrofit Fixtures with LED Lamps	10,937	1.5	-2	$1,412	$3,205	$481	$2,724	1.9	10,745
Lighting Control Measures		**24,528**	**3.3**	**-5**	**$3,167**	**$16,470**	**$1,645**	**$14,825**	**4.7**	**24,099**
ECM 3	Install Occupancy Sensor Lighting Controls	24,528	3.3	-5	$3,167	$16,470	$1,645	$14,825	4.7	24,099
Electric Unitary HVAC Measures		**22,187**	**12.6**	**0**	**$2,909**	**$183,955**	**$9,399**	**$174,557**	**60.0**	**22,342**
	Install High Efficiency Air Conditioning Units	22,187	12.6	0	$2,909	$183,955	$9,399	$174,557	60.0	22,342
HVAC System Improvements		**3,035**	**0.0**	**0**	**$398**	**$10,875**	**$0**	**$10,875**	**27.3**	**3,057**
	Implement Demand Control Ventilation (DCV)	3,035	0.0	0	$398	$10,875	$0	$10,875	27.3	3,057
Domestic Water Heating Upgrade		**0**	**0.0**	**72**	**$693**	**$101,222**	**$3,535**	**$97,687**	**141.0**	**8,461**
	Install High Efficiency Gas-Fired Water Heater	0	0.0	72	$693	$101,222	$3,535	$97,687	141.0	8,461
Food Service & Refrigeration Measures		**12,337**	**1.4**	**0**	**$1,618**	**$3,127**	**$0**	**$3,127**	**1.9**	**12,423**
ECM 4	Refrigerator/Freezer Case Electrically Commutated Motors	1,054	0.1	0	$138	$1,517	$0	$1,517	11.0	1,062
ECM 5	Vending Machine Control	11,283	1.3	0	$1,480	$1,610	$0	$1,610	1.1	11,362
TOTALS		**103,575**	**23.0**	**64**	**$14,200**	**$350,245**	**$18,560**	**$331,685**	**23.4**	**111,841**

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

** - Simple Payback Period is based on net measure costs (i.e. after incentives).

Figure 7 – All Evaluated ECMs

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Upgrades		**41,488**	**5.7**	**-3**	**$5,414**	**$34,595**	**$3,981**	**$30,614**	**5.7**	**41,459**
ECM 1	Install LED Fixtures	30,551	4.2	0	$4,002	$31,391	$3,500	$27,891	7.0	30,714
ECM 2	Retrofit Fixtures with LED Lamps	10,937	1.5	-2	$1,412	$3,205	$481	$2,724	1.9	10,745
Lighting Control Measures		**24,528**	**3.3**	**-5**	**$3,167**	**$16,470**	**$1,645**	**$14,825**	**4.7**	**24,099**
ECM 3	Install Occupancy Sensor Lighting Controls	24,528	3.3	-5	$3,167	$16,470	$1,645	$14,825	4.7	24,099
Food Service & Refrigeration Measures		**12,337**	**1.4**	**0**	**$1,618**	**$3,127**	**$0**	**$3,127**	**1.9**	**12,423**
ECM 4	Refrigerator/Freezer Case Electrically Commutated Motors	1,054	0.1	0	$138	$1,517	$0	$1,517	11.0	1,062
ECM 5	Vending Machine Control	11,283	1.3	0	$1,480	$1,610	$0	$1,610	1.1	11,362
TOTALS		**78,353**	**10.4**	**-8**	**$10,199**	**$54,192**	**$5,626**	**$48,566**	**4.8**	**77,981**

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

** - Simple Payback Period is based on net measure costs (i.e. after incentives).

Figure 8 – Cost Effective ECMs

4.1 Lighting

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Upgrades		**41,488**	**5.7**	**-3**	**$5,414**	**$34,595**	**$3,981**	**$30,614**	**5.7**	**41,459**
ECM 1	Install LED Fixtures	30,551	4.2	0	$4,002	$31,391	$3,500	$27,891	7.0	30,714
ECM 2	Retrofit Fixtures with LED Lamps	10,937	1.5	-2	$1,412	$3,205	$481	$2,724	1.9	10,745

When considering lighting upgrades, we suggest using a comprehensive design approach that simultaneously upgrades lighting fixtures and controls to maximize energy savings and improve occupant lighting. Comprehensive design will also consider appropriate lighting levels for different space types to make sure that the right amount of light is delivered where needed. If conversion to LED light sources are proposed, we suggest converting all of a specific lighting type (e.g. linear fluorescent) to LED lamps to minimize the number of lamp types in use at the facility, which should help reduce future maintenance costs.

ECM 1: Install LED Fixtures

Replace existing exterior fixtures containing HID lamps with new LED light fixtures. This measure saves energy by installing LEDs which use less power than other technologies with a comparable light output.

In some cases, HID fixtures can be retrofitted with screw-based LED lamps. Replacing an existing HID fixture with a new LED fixture will generally provide better overall lighting optics; however, replacing the HID lamp with a LED screw-in lamp is typically a less expensive retrofit. We recommend you work with your lighting contractor to determine which retrofit solution is best suited to your needs and will be compatible with the existing fixture(s).

Maintenance savings may also be achieved since LED lamps last longer than other light sources and therefore do not need to be replaced as often.

Affected building areas: Roof lighting and exterior fixtures

ECM 2: Retrofit Fixtures with LED Lamps

Replace fluorescent T8 and incandescent lamps with LED lamps. Many LED tubes are direct replacements for existing fluorescent tubes and can be installed while leaving the fluorescent fixture ballast in place. LED lamps can be used in existing fixtures as a direct replacement for most other lighting technologies.

This measure saves energy by installing LEDs which use less power than other lighting technologies yet provide equivalent lighting output for the space. Maintenance savings may also be available, as longer-lasting LEDs lamps will not need to be replaced as often as the existing lamps.

Affected building areas: Restrooms, security office, transit room, stairwell, mechanical room, storage room, electrical closet

4.2 Lighting Controls

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Control Measures		**24,528**	**3.3**	**-5**	**$3,167**	**$16,470**	**$1,645**	**$14,825**	**4.7**	**24,099**
ECM 3	Install Occupancy Sensor Lighting Controls	24,528	3.3	-5	$3,167	$16,470	$1,645	$14,825	4.7	24,099

Lighting controls reduce energy use by turning off or lowering, lighting fixture power levels when not in use. A comprehensive approach to lighting design should upgrade the lighting fixtures and the controls together for maximum energy savings and improved lighting for occupants.

ECM 3: Install Occupancy Sensor Lighting Controls

Install occupancy sensors to control lighting fixtures in areas that are frequently unoccupied, even for short periods. For most spaces, we recommend lighting controls use dual technology sensors, which reduce the possibility of lights turning off unexpectedly.

Occupancy sensors detect occupancy using ultrasonic and/or infrared sensors. When an occupant enters the space, the lighting fixtures switch to full lighting levels. Most occupancy sensor lighting controls allow users to manually turn fixtures on/off, as needed. Some controls can also provide dimming options.

Occupancy sensors can be mounted on the wall at existing switch locations, mounted on the ceiling, or in remote locations. In general, wall switch replacement sensors are best suited to single occupant offices and other small rooms. Ceiling-mounted or remote mounted sensors are used in large spaces, locations without local switching, and where wall switches are not in the line-of-sight of the main work area.

This measure provides energy savings by reducing the lighting operating hours.

Affected building areas: Boiler room, storage rooms, staff restroom, small gym, auditorium, library entrance, security office and few other offices (A100, A102 etc.)

4.3 Electric Unitary HVAC

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Electric Unitary HVAC Measures		**22,187**	**12.6**	**0**	**$2,909**	**$183,955**	**$9,399**	**$174,557**	**60.0**	**22,342**
	Install High Efficiency Air Conditioning Units	22,187	12.6	0	$2,909	$183,955	$9,399	$174,557	60.0	22,342

Install High Efficiency Air Conditioning Units

We evaluated replacement of standard efficiency packaged, split system and window air conditioning units with high efficiency packaged, split system and window air conditioning units. The magnitude of energy savings for this measure depends on the relative efficiency of the older unit versus the new high efficiency unit, the average cooling load, and the estimated annual operating hours.

Replacing the unitary HVAC units has a long payback period and may not be justifiable based simply on energy considerations. However, most of the units at this facility are nearing or have reached the end of their normal useful life. Typically, the marginal cost of purchasing a high efficiency unit can be justified by the marginal savings from the improved efficiency. When the packaged roof top units are eventually replaced, consider purchasing equipment that exceeds the minimum efficiency required by building codes.

4.4 HVAC

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
HVAC System Improvements		**3,035**	**0.0**	**0**	**$398**	**$10,875**	**$0**	**$10,875**	**27.3**	**3,057**
	Implement Demand Control Ventilation (DCV)	3,035	0.0	0	$398	$10,875	$0	$10,875	27.3	3,057

Implement Demand Control Ventilation (DCV)

Demand control ventilation (DCV) monitors the indoor air's carbon dioxide (CO_2) content to measure room occupancy. This data is used to regulate the amount of outdoor air provided to the space for ventilation.

Standard ventilation systems often provide outside air based on a space's estimated maximum occupancy but not actual occupancy. During low occupancy periods, the space may then be over ventilated. This wastes energy through excessive fan motor usage as well as heating and cooling the excess outside air flow. DCV reduces unnecessary outdoor air intake by regulating ventilation based on actual occupancy levels. DCV is most suited for facilities where occupancy levels vary significantly from hour to hour and day to day.

Energy savings associated with DCV are based on hours of operation, space occupancy, system air flow, outside air reduction, and other factors. Energy savings results from eliminating unnecessary ventilation and space conditioning.

We evaluated demand control ventilation for the library, auditorium and gymnasium, however, the project payback appears to exceed the useful life of the controls measure.

Affected building areas: Library, auditorium and gymnasium

4.5 Domestic Water Heating

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Domestic Water Heating Upgrade		**0**	**0.0**	**72**	**$693**	**$101,222**	**$3,535**	**$97,687**	**141.0**	**8,461**
	Install High Efficiency Gas-Fired Water Heater	0	0.0	72	$693	$101,222	$3,535	$97,687	141.0	8,461

Install High Efficiency Gas-Fired Water Heater

We evaluated the replacing the gas tank water heaters serving the locker rooms with high efficiency tank water heaters. Energy savings result from the increased efficiency of the unit, which uses less gas to heat water, and fewer operating hours to maintain the tank water temperature.

The projected payback based on energy savings exceeds the life of the replacement equipment, therefore, this measure is not recommended for implementation.

4.6 Food Service & Refrigeration Measures

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated Install Cost ($)	Estimated Incentive ($)*	Estimated Net Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Food Service & Refrigeration Measures		**12,337**	**1.4**	**0**	**$1,618**	**$3,127**	**$0**	**$3,127**	**1.9**	**12,423**
ECM 4	Refrigerator/Freezer Case Electrically Commutated Motors	1,054	0.1	0	$138	$1,517	$0	$1,517	11.0	1,062
ECM 5	Vending Machine Control	11,283	1.3	0	$1,480	$1,610	$0	$1,610	1.1	11,362

ECM 4: Refrigerator/Freezer Case Electrically Commutated Motors

Replace shaded pole or permanent split capacitor (PSC) motors with electronically commutated (EC) motors in walk-in coolers and freezers. Fractional horsepower EC motors are significantly more efficient than mechanically commutated, brushed motors, particularly at low speeds or partial load. By using variable-speed technology, EC motors can optimize fan usage. Because these motors are brushless and use DC power, losses due to friction and phase shifting are eliminated.

Savings for this measure consider both the increased efficiency of the motor as well as the reduction in refrigeration load due to motor heat loss.

ECM 5: Vending Machine Control

Vending machines operate continuously, even during unoccupied hours. Install occupancy sensor controls to reduce energy use. These controls power down vending machines when the vending machine area has been vacant for some time, and, they power up the machines at necessary regular intervals or when the surrounding area is occupied. Energy savings are dependent on the vending machine and activity level in the area surrounding the machines.

5 ENERGY EFFICIENT BEST PRACTICES

A whole building maintenance plan will extend equipment life; improve occupant comfort, health, and safety; and reduce energy and maintenance costs. You may already be doing some of these things— see our list below for potential additions to your maintenance plan. Be sure to consult with qualified equipment specialists for details on proper maintenance and system operation.

Energy Tracking with ENERGY STAR® Portfolio Manager®

You've heard it before - you can't manage what you don't measure. ENERGY STAR® Portfolio Manager® is an online tool that you can use to measure and track energy and water consumption, as well as greenhouse gas emissions.[4] Your account has already been established. Now you can continue to keep tabs on your energy performance every month.

Lighting Controls

As part of a lighting maintenance schedule, test lighting controls to ensure proper functioning. For occupancy sensors, this requires triggering the sensor and verifying that the sensor's timer settings are correct. For daylight and photocell sensors, maintenance involves cleaning sensor lenses and confirming that setpoints and sensitivity are configured properly.

Thermostat Schedules and Temperature Resets

Use thermostat setback temperatures and schedules to reduce heating and cooling energy use during periods of low or no occupancy. Thermostats should be programmed for a setback of 5-10°F during low occupancy hours (reduce heating setpoints and increase cooling setpoints). Cooling load can be reduced by increasing the facility's occupied setpoint temperature. In general, during the cooling season, thermostats should be set as high as possible without sacrificing occupant comfort.

AC System Evaporator/Condenser Coil Cleaning

Dirty evaporator and condenser coils restrict air flow and restrict heat transfer. This increases the loads on the evaporator and condenser fan, and decreases overall cooling system performance. Keeping the coils clean allows the fans and cooling system to operate more efficiently.

Boiler Maintenance

Many boiler problems develop slowly over time, so regular inspection and maintenance is essential to keeping the heating system running efficiently and preventing expensive repairs. Annual tune-ups should include a combustion analysis to analyze the exhaust from the boilers and to ensure the boiler is operating safely. Boilers should be cleaned according to the manufacturer's instructions to remove soot and scale from the water side or fire side of the boiler.

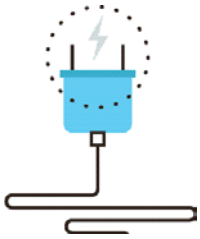
[4] https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager.

Water Heater Maintenance

Preventative maintenance can extend the life of the system, maintain energy efficiency, and ensure safe operation. At least once a year, follow manufacturer instructions to drain a few gallons out of the water heater using the drain valve. If there is a lot of sediment or debris, then a full flush is recommended. Turn the temperature down and then completely drain the tank. Annual checks should include checks for:

- Leaks or heavy corrosion on the pipes and valves.
- Corrosion or wear on the gas line and on the piping. If you noticed any black residue, soot, or charred metal, this is a sign you may be having combustion issues and you should have the unit serviced by a professional.
- For electric water heaters, look for signs of leaking such as rust streaks or residue around the upper and lower panels covering the electrical components on the tank.
- For water heaters more than three years old, have a technician inspect the sacrificial anode annually.

Plug Load Controls



Reducing plug loads is a common way to decrease your electrical use. Limiting the energy use of plug loads can include increasing occupant awareness, removing under-used equipment, installing hardware controls, and using software controls. Consider enabling the most aggressive power settings on existing devices or install load sensing or occupancy sensing (advanced) power strips.[5] Your local utility may offer incentives or rebates for this equipment.

[5] For additional information refer to "Assessing and Reducing Plug and Process Loads in Office Buildings" http://www.nrel.gov/docs/fy13osti/54175.pdf, or "Plug Load Best Practices Guide" http://www.advancedbuildings.net/plug-load-best-practices-guide-offices.

Water Conservation

Installing dual flush or low-flow toilets and low-flow/waterless urinals are ways to reduce water use. The EPA WaterSense™ ratings for urinals is 0.5 gallons per flush (gpf) and for flush valve toilets is 1.28 gpf (this is lower than the current 1.6 gpf federal standard).

For more information regarding water conservation go to the EPA's WaterSense™ website[6] or download a copy of EPA's "WaterSense™ at Work: Best Management Practices for Commercial and Institutional Facilities"[7] to get ideas for creating a water management plan and best practices for a wide range of water using systems.

Water conservation devices that do not reduce hot water consumption will not provide energy savings at the site level, but they may significantly affect your water and sewer usage costs. Any reduction in water use does however ultimately reduce grid-level electricity use since a significant amount of electricity is used to deliver water from reservoirs to end users.

If the facility has detached buildings with a master water meter for the entire campus, check for unnatural wet areas in the lawn or water seeping in the foundation at water pipe penetrations through the foundation. Periodically check overnight meter readings when the facility is unoccupied, and there is no other scheduled water usage.

Manage irrigation systems to use water more effectively outside the building. Adjust spray patterns so that water lands on intended lawns and plantings and not on pavement and walls. Consider installing an evapotranspiration irrigation controller that will prevent over-watering.

Procurement Strategies

Purchasing efficient products reduces energy costs without compromising quality. Consider modifying your procurement policies and language to require ENERGY STAR® or WaterSense™ products where available.

[6] https://www.epa.gov/watersense.

[7] https://www.epa.gov/watersense/watersense-work-0.

6 ON-SITE GENERATION

You don't have to look far in New Jersey to see one of the thousands of solar electric systems providing clean power to homes, businesses, schools, and government buildings. On-site generation includes both renewable (e.g., solar, wind) and non-renewable (e.g., fuel cells) technologies that generate power to meet all or a portion of the facility's electric energy needs. Also referred to as distributed generation, these systems contribute to greenhouse gas (GHG) emission reductions, demand reductions and reduced customer electricity purchases reduction, which results in improved electric grid reliability through better use of transmission and distribution systems.

Preliminary screenings were performed to determine if an on-site generation measure could be a cost-effective solution for your facility. Before deciding to install an on-site generation system, we recommend conducting a feasibility study to analyze existing energy profiles, siting, interconnection, and the costs associated with the generation project including interconnection costs, departing load charges, and any additional special facilities charges.

6.1 Solar Photovoltaic

Photovoltaic (PV) panels convert sunlight into electricity. Individual panels are combined into an array that produces direct current (DC) electricity. The DC is converted to alternating current (AC) through an inverter. The inverter is then connected to the building's electrical distribution system.

A preliminary screening based on the facility's electric demand, size and location of free area, and shading elements shows that the facility has **high** potential for installing a PV array.

The amount of free area, ease of installation (location), and the lack of shading elements contribute to the high potential. A PV array located on the roof may be feasible. If you are interested in pursuing the installation of PV, we recommend conducting a full feasibility study.

The graphic below displays the results of the PV potential screening conducted as a part of this audit. The position of each slider indicates the potential (potential increases to the right) that each factor contributes to the overall site potential.

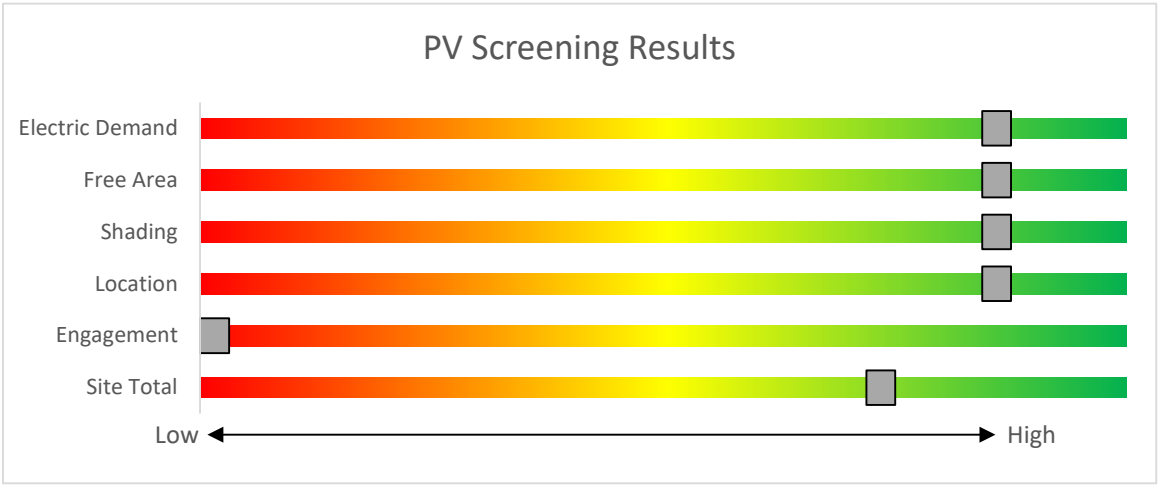


Figure 9 - Photovoltaic Screening

Solar Renewable Energy Certificate (SREC) Registration Program (SRP)

Rebates are not available for solar projects, but owners of solar projects MUST register their projects in the SREC Registration Program before starting construction. Once your PV system is up and running, you periodically earn credits, which can then be sold on the open market for up to 15 years.

If you are considering installing solar photovoltaics on your building, visit www.njcleanenergy.com/srec for more information about the SREC Registration Program.

Get more information about solar power in New Jersey or find a qualified solar installer who can help you decide if solar is right for your building:

- **Basic Info on Solar PV in NJ**: www.njcleanenergy.com/whysolar
- **NJ Solar Market FAQs**: www.njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-transition/solar-market-faqs
- **Approved Solar Installers in the NJ Market**: www.njcleanenergy.com/commercial-industrial/programs/nj-smartstart-buildings/tools-and-resources/tradeally/approved_vendorsearch/?id=60&start=1

6.2 Combined Heat and Power

Combined heat and power (CHP) generates electricity at the facility and puts waste heat energy to good use. Common types of CHP systems are reciprocating engines, microturbines, fuel cells, backpressure steam turbines, and (at large facilities) gas turbines.

CHP systems typically produce a portion of the electric power used on-site, with the balance of electric power needs supplied by the local utility company. The heat is used to supplement (or replace) existing boilers and provide space heating and/or domestic hot water heating. Waste heat can also be routed through absorption chillers for space cooling.

The key criteria used for screening is the amount of time that the CHP system would operate at full load and the facility's ability to use the recovered heat. Facilities with a continuous need for large quantities of waste heat are the best candidates for CHP.

A preliminary screening based on heating and electrical demand, siting, and interconnection shows that the facility has **low** potential for installing a cost-effective CHP system.

Based on a preliminary analysis, the facility does not appear to meet the minimum requirements for a cost-effective CHP installation. The lack of gas service, low or infrequent thermal load, and lack of space for siting the equipment are the most significant factors contributing to the lack of CHP potential.

The graphic below displays the results of the CHP potential screening conducted as a part of this audit. The position of each slider indicates the potential (potential increases to the right) that each factor contributes to the overall site potential.

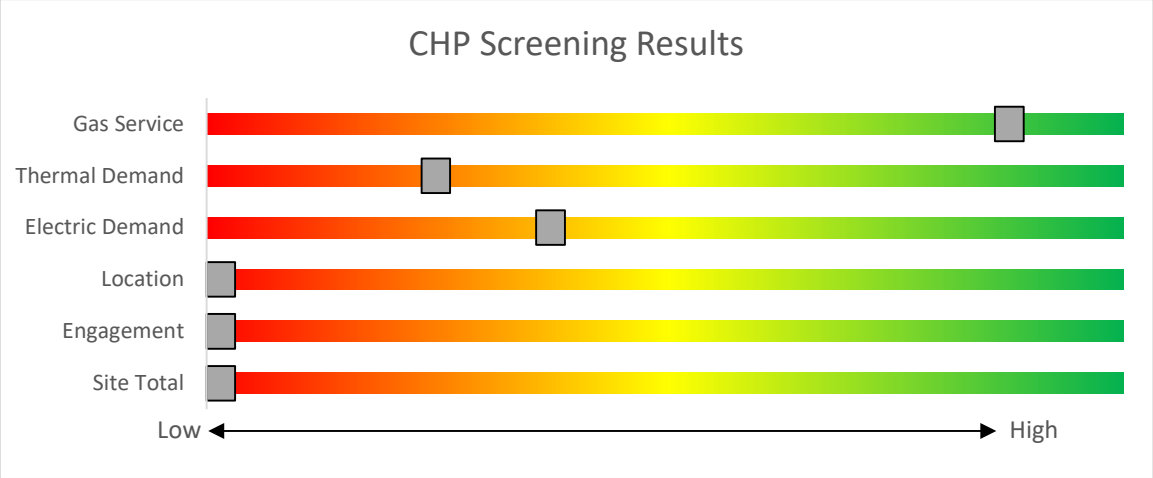


Figure 10 - Combined Heat and Power Screening

Find a qualified firm that specializes in commercial CHP cost assessment and installation: http://www.njcleanenergy.com/commercial-industrial/programs/nj-smartstart-buildings/tools-and-resources/tradeally/approved_vendorsearch/.

7 PROJECT FUNDING AND INCENTIVES

Ready to improve your building's performance? New Jersey Clean Energy Programs can help. Pick the program that works best for you. Incentive programs that may apply to this facility are identified in the Executive Summary. This section provides an overview of currently available in New Jersey Clean Energy Programs.

	SmartStart *Flexibility to install at your own pace*	**Direct Install** *Turnkey installation*	**Pay for Performance** *Whole building upgrades*
Who should use it?	Buildings installing individual measures or small group of measures.	Small to mid-size facilities that can bundle multiple measures together. Average peak demand should be below 200 kW. Not suitable for significant building shell issues.	Mid to large size facilities looking to implement as many measures as possible at one time. Peak demand should be over 200 kW.
How does it work?	Use in-house staff or your preferred contractor.	Pre-approved contractors pass savings along to you via reduced material and labor costs.	Whole-building approach to energy upgrades designed to reduce energy use by at least 15%. The more you save, the higher the incentives.
What are the Incentives?	Fixed incentives for specific energy efficiency measures.	Incentives pay up to 70% of eligible costs, up to $125,000 per project. You pay the remaining 30% directly to the contractor.	Up to 25% of installation cost, calculated based on level of energy savings per square foot.
How do I participate?	Submit an application for the specific equipment to be installed.	Contact a participating contractor in your region.	Contact a pre-qualified Partner to develop your Energy Reduction Plan and set your energy savings targets.
Take the next step by visiting **www.njcleanenergy.com** for program details, applications, and to contact a qualified contractor.			

7.1 SmartStart

SmartStart offers incentives for installing prescriptive and custom energy efficiency measures at your facility. This program provides an effective mechanism for securing incentives for energy efficiency measures installed individually or as part of a package of energy upgrades. This program serves most common equipment types and sizes.

SmartStart routinely adds, removes, or modifies incentives from year-to-year for various energy efficiency equipment based on market trends and new technologies.

Equipment with Prescriptive Incentives Currently Available:

Electric Chillers
Electric Unitary HVAC
Gas Cooling
Gas Heating
Gas Water Heating
Ground Source Heat Pumps
Lighting
Lighting Controls
Refrigeration Doors
Refrigeration Controls
Refrigerator/Freezer Motors
Food Service Equipment
Variable Frequency Drives

Incentives

The SmartStart Prescriptive program provides fixed incentives for specific energy efficiency measures. Prescriptive incentives vary by equipment type.

SmartStart Custom provides incentives for more unique or specialized technologies or systems that are not addressed through prescriptive incentives. Custom incentives are calculated at $0.16/kWh and $1.60/therm based on estimated annual savings. Incentives are capped at 50% of the total installed incremental project cost, or a project cost buy down to a one-year payback (whichever is less). Program incentives are capped at $500,000 per electric account and $500,000 per natural gas account, per fiscal year.

How to Participate

Submit an application for the specific equipment to be installed. Many applications are designed as rebates, although others require application approval prior to installation. You can work with your preferred contractor or use internal staff to install measures.

Visit www.njcleanenergy.com/SSB for a detailed program description, instructions for applying, and applications.

7.2 Energy Savings Improvement Program

The Energy Savings Improvement Program (ESIP) serves New Jersey's government agencies by financing energy projects. An ESIP is a type of performance contract, whereby school districts, counties, municipalities, housing authorities and other public and state entities enter in to contracts to help finance building energy upgrades. Annual payments are lower than the savings projected from the ECMs, ensuring that ESIP projects are cash flow positive for the life of the contract.

ESIP provides government agencies in New Jersey with a flexible tool to improve and reduce energy usage with minimal expenditure of new financial resources. NJCEP incentive programs described above can also be used to help further reduce the total project cost of eligible measures.

How to Participate

This LGEA report is the first step to participating in ESIP. Next, you will need to select an approach for implementing the desired ECMs:

(1) Use an energy services company or "ESCO."

(2) Use independent engineers and other specialists, or your own qualified staff, to provide and manage the requirements of the program through bonds or lease obligations.

(3) Use a hybrid approach of the two options described above where the ESCO is used for some services and independent engineers, or other specialists or qualified staff, are used to deliver other requirements of the program.

After adopting a resolution with a chosen implementation approach, the development of the energy savings plan (ESP) can begin. The ESP demonstrates that the total project costs of the ECMs are offset by the energy savings over the financing term, not to exceed 15 years. The verified savings will then be used to pay for the financing.

The ESIP approach may not be appropriate for all energy conservation and energy efficiency improvements. Carefully consider all alternatives to develop an approach that best meets your needs. A detailed program descriptions and application can be found at: www.njcleanenergy.com/ESIP.

ESIP is a program delivered directly by the NJBPU and is not an NJCEP incentive program. As mentioned above, you can use NJCEP incentive programs to help further reduce costs when developing the energy savings plan. Refer to the ESIP guidelines at the link above for further information and guidance on next steps.

7.3 SREC Registration Program

The SREC (Solar Renewable Energy Certificate) Registration Program (SRP) is used to register the intent to install solar projects in New Jersey. Rebates are not available for solar projects, but owners of solar projects *must* register their projects prior to the start of construction to establish the project's eligibility to earn SRECs. Registration of the intent to participate in New Jersey's solar marketplace provides market participants with information about the pipeline of anticipated new solar capacity and insight into future SREC pricing.

After the registration is accepted, construction is complete, and final paperwork has been submitted and is deemed complete, the project is issued a New Jersey certification number, which enables it to generate New Jersey SRECs. SREC's are generated once the solar project has been authorized to be energized by the Electric Distribution Company (EDC).

Each time a solar installation generates 1,000 kilowatt-hours (kWh) of electricity, an SREC is earned. Solar project owners report the energy production to the SREC Tracking System. This reporting allows SREC's to be placed in the customer's electronic account. SRECs can then be sold on the SREC Tracking System, providing revenue for the first 15 years of the project's life.

Electricity suppliers, the primary purchasers of SRECs, are required to pay a Solar Alternative Compliance Payment (SACP) if they do not meet the requirements of New Jersey's Solar Renewable Portfolio Standard. Purchasing SRECs can help them meet those requirements. As SRECs are traded in a competitive market, the price may vary significantly. The actual price of an SREC during a trading period fluctuates depending on supply and demand.

Information about the SRP can be found at: www.njcleanenergy.com/srec.

8 Energy Purchasing and Procurement Strategies

8.1 Retail Electric Supply Options

Energy deregulation in New Jersey has increased energy buyers' options by separating the function of electricity distribution from that of electricity supply. So, though you may choose a different company from which to buy your electric power, responsibility for your facility's interconnection to the grid and repair to local power distribution will still reside with the traditional utility company serving your region.

If your facility is not purchasing electricity from a third-party supplier, consider shopping for a reduced rate from third-party electric suppliers. If your facility already buys electricity from a third-party supplier, review and compare prices at the end of each contract year.

A list of licensed third-party electric suppliers is available at the NJBPU website[8].

8.2 Retail Natural Gas Supply Options

The natural gas market in New Jersey is also deregulated. Most customers that remain with the utility for natural gas service pay rates that are market-based and that fluctuate monthly. The utility provides basic gas supply service (BGSS) to customers who choose not to buy from a third-party supplier for natural gas commodity.

A customer's decision about whether to buy natural gas from a retail supplier typically depends on whether a customer prefers budget certainty and/or longer-term rate stability. Customers can secure longer-term fixed prices by signing up for service through a third-party retail natural gas supplier. Many larger natural gas customers may seek the assistance of a professional consultant to assist in their procurement process.

If your facility does not already purchase natural gas from a third-party supplier, consider shopping for a reduced rate from third-party natural gas suppliers. If your facility already purchases natural gas from a third-party supplier, review and compare prices at the end of each contract year.

A list of licensed third-party natural gas suppliers is available at the NJBPU website[9].

[8] www.state.nj.us/bpu/commercial/shopping.html.

[9] www.state.nj.us/bpu/commercial/shopping.html.

APPENDIX A: EQUIPMENT INVENTORY & RECOMMENDATIONS

Lighting Inventory & Recommendations

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Boiler room	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Boiler room	2	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	2	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Elec closet	2	Compact Fluorescent: 4 pin	Wall Switch	S	78	4,900	2	Relamp	No	2	LED Screw-In Lamps: Plug-in	Wall Switch	55	4,900	0.0	252	0	$33	$161	$0	4.9
Boiler room 2	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,900	2	Relamp	No	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,900	0.1	534	0	$69	$208	$30	2.6
Boiler room 2	2	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	2	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Storage room	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Storage room	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Chiller room	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Kitchen	29	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900	3	None	Yes	29	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.2	1,405	0	$181	$540	$70	2.6
Kitchen	3	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	3	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Kitchn office	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Kicthen restroom	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Dishwasher	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Kitchen hood	8	Compact Fluorescent: screw-in	Wall Switch	S	32	4,900	2	Relamp	No	8	LED Screw-In Lamps: Screw-in	Wall Switch	22	4,900	0.1	414	0	$53	$480	$8	8.8
Storage nm	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
lkitchen	5	LED - Fixtures: plug-in	Wall Switch	S	11	4,900		None	No	5	LED - Fixtures: plug-in	Wall Switch	11	4,900	0.0	0	0	$0	$0	$0	0.0
Wall in closet	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,900	2	Relamp	No	4	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,900	0.1	1,067	0	$138	$219	$60	1.2
staff café	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
staff café	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
staff restroom	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
staff restroom	36	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	36	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	872	0	$113	$810	$105	6.3
staff restroom	4	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	4	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
Café	36	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	36	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	872	0	$113	$810	$105	6.3
Café	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
2nd floor hallway	110	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	110	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
2nd floor hallway	14	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	14	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
2nd floor hallway	10	LED - Fixtures: plug-in	Occupancy Sensor	S	11	3,381		None	No	10	LED - Fixtures: plug-in	Occupancy Sensor	11	3,381	0.0	0	0	$0	$0	$0	0.0
Rooms 201	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
202	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
203	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
204	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
205	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
206	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Storage nm	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
207	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
207S	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,900	2	Relamp	No	4	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.1	711	0	$92	$146	$40	1.2
244	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
244	2	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	2	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Room D245	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Room D245	6	LED - Fixtures: plug-in	Wall Switch	S	11	4,900		None	No	6	LED - Fixtures: plug-in	Wall Switch	11	4,900	0.0	0	0	$0	$0	$0	0.0
D243	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
D242	10	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	10	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D241	14	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	14	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	339	0	$44	$270	$35	5.4
D241	1	LED - Fixtures: LED	Wall Switch	S	15	4,900		None	No	1	LED - Fixtures: LED	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D240	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D210	24	LED - Fixtures: plug-in	Occupancy Sensor	S	11	3,381		None	No	24	LED - Fixtures: plug-in	Occupancy Sensor	11	3,381	0.0	0	0	$0	$0	$0	0.0
D210	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D210	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D239	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
D238	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D237	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D237S	1	LED - Fixtures: plug-in	Wall Switch	S	11	4,900		None	No	1	LED - Fixtures: plug-in	Wall Switch	11	4,900	0.0	0	0	$0	$0	$0	0.0
D236S-2	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Women restroom	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Men restroom	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D234	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D235	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D235 I	14	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,900	2, 3	Relamp	Yes	14	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.4	3,169	-1	$409	$781	$175	1.5
D209	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D208	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Men restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D208S	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D211	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D211 common areas	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D246	22	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	22	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D247	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D248	24	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	24	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D212	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D212A	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D213	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D215S	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D214	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
Mech room	2	Compact Fluorescent: 4 pin	Occupancy Sensor	S	78	3,381	2	Relamp	No	2	LED Screw-In Lamps: Plug-in	Occupancy Sensor	55	3,381	0.0	174	0	$22	$109	$0	4.8
D215S	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
D216	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
D216S	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D218	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
D217	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
Storage Room	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D219	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D220	12	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	291	0	$38	$270	$35	6.3
D220S	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D221	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D221C	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D222	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D222S	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D224P	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D223	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D225	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D224	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D228P	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D226	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D227	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D228	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D229	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D230	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	15	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D229P	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
D230S	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Restroom	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0

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Restroom	1	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
D231J	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Girls restroom	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Girls restroom	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
D231J	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D232	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D233	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Stairwell	35	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	35	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Stairwell	7	Compact Fluorescent: 4 pin	Wall Switch	S	78	4,900	2	Relamp	No	7	LED Screw-In Lamps: Plug-in	Wall Switch	55	4,900	0.1	883	0	$114	$381	$0	3.3
Roof	2	Metal Halide: (1) 350W Lamp	Occupancy Sensor	S	400	3,381	1	Fixture Replacement	No	2	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Occupancy Sensor	120	3,381	0.4	2,083	0	$269	$1,932	$200	6.4
Courtyard	1	Compact Fluorescent: 4 pin	Wall Switch	S	78	4,900	2	Relamp	No	1	LED Screw-In Lamps: Plug-in	Wall Switch	55	4,900	0.0	126	0	$16	$54	$0	3.3
Main entrance	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Main Lobby	21	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	21	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Main Lobby	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Hallway A wing	7	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway A wing	73	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	73	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway A wing	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Hallway E wing	60	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	60	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway E wing	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Hallway C wing	108	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	108	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway C wing	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway C wing	8	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	8	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Hallway L wing	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Hallway L wing	18	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	18	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Hallway B wing	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

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Hallway B wing	2	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	2	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Main gym	5	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	5	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Main gym	60	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900	3	None	Yes	60	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.4	2,907	-1	$375	$1,080	$140	2.5
Girls lockeroom	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Coach office	7	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Coach office	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Coach office	15	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900	3	None	Yes	15	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.1	727	0	$94	$270	$35	2.5
Restroom	5	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	5	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Exit	6	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	6	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Trasnit Room	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,900	2	Relamp	No	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.1	534	0	$69	$110	$30	1.2
Trasnit Room	1	Linear Fluorescent - T8: 2' T8 (17W) - 4L	Wall Switch	S	63	4,900	2	Relamp	No	1	LED - Linear Tubes: (4) 2' Lamps	Wall Switch	34	4,900	0.0	156	0	$20	$65	$12	2.6
Boys lockeroom	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Boys lockeroom	21	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900	3	None	Yes	21	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.1	1,018	0	$131	$270	$35	1.8
Restroom	2	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	2	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Restroom	2	Compact Fluorescent: 4 pin	Wall Switch	S	78	4,900	2	Relamp	No	2	LED Screw-In Lamps: Plug-in	Wall Switch	23	4,900	0.1	589	0	$76	$109	$0	1.4
Coach office	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Restroom	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	8	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	8	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Exit	4	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	4	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Small gym girls lockeroom	6	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	S	29	3,381		None	No	6	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.0	0	0	$0	$0	$0	0.0
Small gym girls lockeroom	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Small gym girls lockeroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Restroom	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Restroom	2	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	2	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
Storage	2	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	2	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Coach office	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Coach office	2	LED - Fixtures: plug-in	Occupancy Sensor	S	11	3,381		None	No	2	LED - Fixtures: plug-in	Occupancy Sensor	11	3,381	0.0	0	0	$0	$0	$0	0.0
Storage	6	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	6	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Small gym	16	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900	3	None	Yes	16	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.1	775	0	$100	$270	$35	2.3
Small gym	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Boys lockeroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	19	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	19	3,381	0.0	0	0	$0	$0	$0	0.0
Boys lockeroom	12	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	S	29	3,381		None	No	12	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.0	0	0	$0	$0	$0	0.0
Boys lockeroom	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Boys lockeroom	1	LED - Fixtures: plug-in	Wall Switch	S	11	4,900		None	No	1	LED - Fixtures: plug-in	Wall Switch	11	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Exit	2	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	2	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Exit	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Auditorium	58	LED - Fixtures: plug-in	Wall Switch	S	11	4,900	3	None	Yes	58	LED - Fixtures: plug-in	Occupancy Sensor	11	3,381	0.1	1,066	0	$138	$1,080	$140	6.8
Auditorium	7	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	7	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Auditorium	8	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	8	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Auditorium Stage	10	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	10	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Auditorium	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Auditorium	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Auditorium	4	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	4	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	23	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	23	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
UNSURE	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
UNSURE	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	10	LED - Fixtures: plug-in	Wall Switch	S	11	4,900		None	No	10	LED - Fixtures: plug-in	Wall Switch	11	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
UNSURE	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Break Room	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Copy room	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Closet	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Nurse office	7	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	7	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Nurse office	16	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	388	0	$50	$270	$35	4.7
Library entrace	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	135	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	135	4,900	0.0	0	0	$0	$0	$0	0.0
Library entrace	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Restroom	2	Linear Fluorescent - T8: 2' T8 (17W) - 1L	Wall Switch	S	12	4,900	2	Relamp	No	2	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	38	0	$5	$33	$6	5.4
D115A	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Main storage	84	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	84	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.3	2,035	0	$263	$1,890	$0	7.2
Main storage	2	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	2	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Main storage	56	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	56	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.2	1,357	0	$175	$1,080	$0	6.2
G123	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G118	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	13	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	13	3,381	0.0	0	0	$0	$0	$0	0.0
G117	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G119	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	16	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

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Storage	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
G120	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G122	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G121	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
D114-5	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Elevator Room	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L102	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	12	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	12	3,381	0.0	0	0	$0	$0	$0	0.0
L101	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L103	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	32	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	32	3,381	0.0	0	0	$0	$0	$0	0.0
L104	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L105	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L106	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L107	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L108	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L109	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L110	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Elec Room	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
L111	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
L112	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C129	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C128	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C127	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C126	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C124	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C123	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

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Closet	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	7	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
C122	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C121	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C120	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C119	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Storage	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
C118A	1	LED - Fixtures: Panel 4ft	Occupancy Sensor	S	50	3,381		None	No	1	LED - Fixtures: Panel 4ft	Occupancy Sensor	50	3,381	0.0	0	0	$0	$0	$0	0.0
C118A	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C117	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C116	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C115	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C114	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C113	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C111	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C110	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C109	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Womens restroom	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Mens restroom	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C106	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C106	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C104	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C103	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C102	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
C101	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Boys restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Boys restroom	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
Closet	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Girls restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Girls restroom	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
B107	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
B106	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
B105	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
B104	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G116	24	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	24	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Womens restroom	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Womens restroom	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Closet	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,900		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,900	0.0	0	0	$0	$0	$0	0.0
Closet	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
G115	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Closet	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
G114	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Closet	24	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	24	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	581	0	$75	$540	$0	7.2
G113	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Basil Room	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Custodian office	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Restroom	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Custodian office	2	LED - Fixtures: Panel 4ft	Wall Switch	S	50	4,900		None	No	2	LED - Fixtures: Panel 4ft	Wall Switch	50	4,900	0.0	0	0	$0	$0	$0	0.0
G112	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G014	13	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	13	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G111	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	8	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

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G109	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G108	18	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	18	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G107	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G106	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G106	1	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	1	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
G105	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Closet	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G104	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	11	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G103	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G102	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
G101	28	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	28	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	678	0	$88	$540	$70	5.4
Closet	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Closet	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Heat exachanger	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
TV Studio	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
TV studio	4	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	4	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
TV studio	20	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	485	0	$63	$270	$35	3.8
Security office	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Security office	1	Compact Fluorescent: 4 pin	Wall Switch	S	78	4,900	2	Relamp	No	1	LED Screw-In Lamps: Plug-in	Wall Switch	23	4,900	0.0	294	0	$38	$54	$0	1.4
Storage room	14	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,900	2, 3	Relamp	Yes	14	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	3,381	0.4	3,169	-1	$409	$781	$140	1.6
B103	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
B100	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
B101	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Boys restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A106	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0

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Closet	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Mens restroom	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Mens restroom	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
Athletic office	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	26	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
SAC office	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Elec closet	11	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	11	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A105	19	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	19	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	460	0	$59	$270	$35	4.0
A105	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A103	34	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	34	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	824	0	$106	$540	$70	4.4
A103 office	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A101	50	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	50	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.2	1,211	0	$156	$1,080	$140	6.0
Womens restroom	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	4	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A113	3	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	3	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
A113	20	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	20	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	485	0	$63	$270	$35	3.8
Closet	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
IT office	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Break room	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Main server	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A100	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A100	16	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900	3	None	Yes	16	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	227	0	$29	$270	$35	8.0
A113A	1	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
A113A	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	10	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Mens restroom	34	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	34	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	824	0	$106	$540	$70	4.4
A102	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
A102	46	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	46	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	1,114	0	$144	$810	$105	4.9

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A104	32	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900	3	None	Yes	32	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.1	775	0	$100	$540	$70	4.7
A104	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Office	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Storagr	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	5	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Elec room	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Parking lot	8	High-Pressure Sodium: (1) 400W Lamp	Daylight Dimming	S	465	2,940	1	Fixture Replacement	No	8	LED - Fixtures: Parking Garage Fixture	Daylight Dimming	140	2,940	1.3	7,656	0	$1,004	$5,381	$800	4.6
Pole lights	2	Metal Halide: (1) 150W Lamp	Daylight Dimming	S	190	2,940	1	Fixture Replacement	No	2	LED - Fixtures: Outdoor Pole/Arm-Mounted Area/Roadway Fixture	Daylight Dimming	57	2,940	0.1	782	0	$103	$1,861	$200	16.2
Wall pack	4	Metal Halide: (1) 150W Lamp	Daylight Dimming	S	190	2,940	1	Fixture Replacement	No	4	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Daylight Dimming	57	2,940	0.3	1,564	0	$205	$3,864	$400	16.9
Custodian office	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Girls restroom	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	3	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A108	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A107	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A110	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A109	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A111	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A112	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	12	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Iss offcie	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	6	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Iss offcie	3	Exit Signs: LED - 2 W Lamp	None	S	6	8,760		None	No	3	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	$0	$0	$0	0.0
Guidance office	17	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	17	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Guidance office	5	LED - Fixtures: plug-in	Occupancy Sensor	S	11	3,381		None	No	5	LED - Fixtures: plug-in	Occupancy Sensor	11	3,381	0.0	0	0	$0	$0	$0	0.0
A113	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
A114	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	9	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Small guidance	6	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	6	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Small guidance	10	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	10	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Small guidance	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Occupancy Sensor	S	93	3,381	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	3,381	0.0	184	0	$24	$55	$15	1.7

	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	Watts per Fixture	Annual Operating Hours	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Restroom	3	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	S	9	4,900		None	No	3	LED - Linear Tubes: (1) 2' Lamp	Wall Switch	9	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Office	4	LED - Fixtures: Panel 4ft	Wall Switch	S	50	4,900		None	No	4	LED - Fixtures: Panel 4ft	Wall Switch	50	4,900	0.0	0	0	$0	$0	$0	0.0
Storage	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	S	15	4,900		None	No	2	LED - Linear Tubes: (1) 4' Lamp	Wall Switch	15	4,900	0.0	0	0	$0	$0	$0	0.0
Womens restroom	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	S	15	3,381		None	No	1	LED - Linear Tubes: (1) 4' Lamp	Occupancy Sensor	15	3,381	0.0	0	0	$0	$0	$0	0.0
Womens restroom	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	S	9	3,381		None	No	1	LED - Linear Tubes: (1) 2' Lamp	Occupancy Sensor	9	3,381	0.0	0	0	$0	$0	$0	0.0
Wall pack	6	Metal Halide: (1) 400W Lamp	Timeclock	S	458	4,380	1	Fixture Replacement	No	6	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	137	4,380	1.0	8,425	0	$1,105	$5,796	$600	4.7
Wall pack	10	High-Pressure Sodium: (1) 150W Lamp	Timeclock	S	188	4,380	1	Fixture Replacement	No	10	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	56	4,380	0.7	5,764	0	$756	$9,660	$1,000	11.5
Wall pack	3	High-Pressure Sodium: (1) 400W Lamp	Timeclock	S	465	4,380	1	Fixture Replacement	No	3	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	140	4,380	0.5	4,277	0	$561	$2,898	$300	4.6
Wall pack	3	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	S	75	4,380		None	No	3	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	75	4,380	0.0	0	0	$0	$0	$0	0.0
Wall pack	5	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	S	55	4,380		None	No	5	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	55	4,380	0.0	0	0	$0	$0	$0	0.0
Wall pack	8	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	S	11	4,380		None	No	8	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	11	4,380	0.0	0	0	$0	$0	$0	0.0
Wall pack	5	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	S	15	4,380		None	No	5	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	15	4,380	0.0	0	0	$0	$0	$0	0.0
Recessed	32	LED - Fixtures: Downlight Recessed	Timeclock	S	25	4,380		None	No	32	LED - Fixtures: Downlight Recessed	Timeclock	25	4,380	0.0	0	0	$0	$0	$0	0.0

Motor Inventory & Recommendations

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Boiler room	Combustion system	2	Air Compressor	15.0	90.2%	No	W	6,978		No	90.2%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Feed water	3	Process Pump	0.8	74.0%	No	W	2,745		No	74.0%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Hot water system (3,4)	2	Heating Hot Water Pump	5.0	87.5%	Yes	W	2,745		No	87.5%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Hot water system (1,2,5,6)	4	Heating Hot Water Pump	15.0	93.0%	Yes	W	3,391		No	93.0%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Hot water system (7,8)	2	Heating Hot Water Pump	7.5	91.0%	Yes	W	3,391		No	91.0%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Sump pump	2	Process Pump	0.5	78.2%	No	W	2,745		No	78.2%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Hot water return	3	Heating Hot Water Pump	3.0	89.5%	No	W	2,745		No	89.5%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Condensate pump	2	Process Pump	1.0	85.5%	No	W	2,745		No	85.5%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room 2	Combustion system	2	Process Pump	1.5	70.0%	No	W	2,745		No	70.0%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	DHW booster pump	2	Process Pump	0.2	60.0%	No	W	2,745		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room	Compressed Air	1	Air Compressor	5.0	87.5%	No	W	6,978		No	87.5%	No		0.0	0	0	$0	$0	$0	0.0
Boiler room 2	Hot water system	2	Heating Hot Water Pump	10.0	91.7%	Yes	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Storage room	Air combustion	1	Process pump	0.3	60.0%	No	W	2,745		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Storage room	Air combustion	1	Process Pump	0.5	60.0%	No	W	2,745		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Chiller room	Guidance	1	Supply Fan	2.0	86.5%	Yes	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Chiller room	Guidance	1	Water Supply Pump	0.5	60.0%	No	W	2,745		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Room D238	Room D238	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Science lab	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallways	5	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Elevator Room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Hallway	4	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Art room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Computer room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway/restroom	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	8	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Nurse's office	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Old audits	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Library	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Kitchen Exhaust	1	Kitchen Hood Exhaust Fan	0.3	60.0%	No	W	5,250		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Dishwasher	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Girls locker room	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Girls locker room	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Shower room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Hallway	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Power room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	New classroom	4	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Shop	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Storage room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	2	Exhaust Fan	0.2	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Boys locker room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Boys locker room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Trainers room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Main gym	4	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Small Gym	4	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Small gym girls locker room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Closet	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Small gym boys locker room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Science lab	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Office	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A104	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	3	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A112	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A102	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Storage room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	IT room	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A101	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A101	2	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	A105	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Main Office	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Restroom	1	Exhaust Fan	0.1	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	G101	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Heat exchanger room	Heat exchanger room	2	Heating Hot Water Pump	3.0	89.5%	No	W	2,745		No	89.5%	No		0.0	0	0	$0	$0	$0	0.0
Heat exchanger room	Heat exchanger room	1	Process Pump	0.8	60.0%	No	W	2,745		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Room G114	Room G114	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Elevator room	Elevator	1	Other	15.0	92.4%	No	W	3,391		No	92.4%	No		0.0	0	0	$0	$0	$0	0.0

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
A105	A105	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
A101	A101	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
A102	A102	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
School	School	113	Supply Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
School	School	4	Supply Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Attic	AHU C1	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Attic	AHU C2	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Attic	AHU C3	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Attic	AHU C4	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Main gym locker	Main gym locker - C5	1	Supply Fan	1.5	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Main gym locker	Main gym locker - C6	1	Supply Fan	1.5	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
ACU X1	Guidance offices	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
ACU X2	TV studio	1	Supply Fan	3.0	89.5%	No	W	3,000		No	89.5%	No		0.0	0	0	$0	$0	$0	0.0
ACU EX1	Room B102	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Small gymnasium	Small Gymnasium	2	Supply Fan	3.0	89.5%	No	W	3,000		No	89.5%	No		0.0	0	0	$0	$0	$0	0.0
Mechanical room	Boiler feed water pump	3	Boiler Feed Water Pump	0.8	74.0%	No	W	2,745		No	74.0%	No		0.0	0	0	$0	$0	$0	0.0
Room 2075	D245	1	Supply Fan	0.8	74.0%	No	W	3,000		No	74.0%	No		0.0	0	0	$0	$0	$0	0.0
Media center	Media center	1	Supply Fan	15.0	92.4%	Yes	W	3,391		No	92.4%	No		0.0	0	0	$0	$0	$0	0.0
Roof RTU 1, 2	L101, D251,B104, D233	5	Supply Fan	1.7	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Auditorium	2	Supply Fan	15.0	92.4%	No	W	3,391		No	92.4%	No		0.0	0	0	$0	$0	$0	0.0

		Existing Conditions							Proposed Conditions					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Full Load Efficiency	VFD Control?	Remaining Useful Life	Annual Operating Hours	ECM #	Install High Efficiency Motors?	Full Load Efficiency	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Auditorium	2	Exhaust Fan	7.5	91.7%	No	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Library	1	Supply Fan	5.0	87.5%	No	W	3,000		No	87.5%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria A	1	Supply Fan	10.0	91.7%	No	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria A	1	Exhaust Fan	10.0	91.7%	No	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria B	1	Supply Fan	10.0	91.7%	No	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria B	1	Exhaust Fan	10.0	91.7%	No	W	3,391		No	91.7%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Teachers cafeteria	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Roof	Weight room	2	Supply Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	G105	1	Supply Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	G114	1	Supply Fan	1.0	85.5%	No	W	3,000		No	85.5%	No		0.0	0	0	$0	$0	$0	0.0
Roof	G114	1	Exhaust Fan	0.5	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	IT Room	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Roof	IT Room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Roof	IT Room	1	Supply Fan	2.0	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0
Roof	IT Room	1	Exhaust Fan	0.3	60.0%	No	W	3,000		No	60.0%	No		0.0	0	0	$0	$0	$0	0.0
Main office	Main Office	1	Supply Fan	1.5	86.5%	No	W	3,000		No	86.5%	No		0.0	0	0	$0	$0	$0	0.0

Electric HVAC Inventory & Recommendations

		Existing Conditions					Proposed Conditions								Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (MBh)	Remaining Useful Life	ECM #	Install High Efficiency System?	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (MBh)	Cooling Mode Efficiency (SEER/EER)	Heating Mode Efficiency (COP)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Room 2075	D245	1	Packaged AC	5.00		B	NR	Yes	1	Packaged AC	5.00		14.00		0.9	1,102	0	$145	$11,345	$460	75.3
D245	D245	1	Window AC	1.00		W		No							0.0	0	0	$0	$0	$0	0.0
D234	D234	1	Window AC	1.00		B	NR	Yes	1	Window AC	1.00		12.00		0.1	144	0	$19	$1,089	$0	57.5
D211	D211	1	Window AC	1.50		B	NR	Yes	1	Window AC	1.50		12.00		0.1	217	0	$28	$1,633	$0	57.5
D221C	D221C	1	Packaged Terminal AC	1.50		W		No							0.0	0	0	$0	$0	$0	0.0
D230 S	D230 S	1	Packaged AC	7.50		W		No							0.0	0	0	$0	$0	$0	0.0
Roof - RTU 1	L101, D251	1	Packaged AC	7.00		B	NR	Yes	1	Packaged AC	7.00		11.50		0.2	199	0	$26	$12,475	$511	458.0
Roof - RTU 2	B104, D233	1	Packaged AC	7.00		B	NR	Yes	1	Packaged AC	7.00		11.50		0.2	199	0	$26	$12,475	$511	458.0
Roof	Science lab	7	Split-System AC	4.00		B	NR	Yes	7	Split-System AC	4.00		14.00		4.8	12,480	0	$1,636	$41,894	$2,576	24.0
Roof	C11A, C121	1	Split-System AC	7.50		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Office	1	Split-System AC	1.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Nurse's office	1	Split-System AC	5.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	D245	1	Split-System AC	5.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Auditorium	1	Packaged AC	50.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Library	1	Packaged AC	40.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Kitchen office	1	Split-System AC	0.75		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria A	1	Packaged AC	20.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Cafeteria B	1	Packaged AC	20.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Teachers cafeteria	1	Packaged AC	4.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Weight room	1	Packaged AC	7.00		B	NR	Yes	1	Packaged AC	7.00		11.50		0.3	417	0	$55	$12,475	$511	218.6

		Existing Conditions					Proposed Conditions								Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (kBtu/hr)	Remaining Useful Life	ECM #	Install High Efficiency System?	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (kBtu/hr)	Cooling Mode Efficiency (SEER/EER)	Heating Mode Efficiency (COP)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	G105	1	Packaged AC	5.00		B	NR	Yes	1	Packaged AC	5.00		14.00		0.7	857	0	$112	$11,345	$460	96.8
Roof	C106	1	Packaged AC	5.00		B	NR	Yes	1	Packaged AC	5.00		14.00		0.7	857	0	$112	$11,345	$460	96.8
Roof	C107	1	Packaged AC	7.00		B	NR	Yes	1	Packaged AC	7.00		11.50		0.3	417	0	$55	$12,475	$511	218.6
Roof	C106	1	Split-System AC	10.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Mechanical room	2	Split-System AC	20.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	G107	1	Split-System AC	7.50		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	G108	1	Split-System AC	5.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	G114	1	Split-System AC	5.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	D236	1	Split-System AC	3.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	D238	1	Split-System AC	3.00		B	NR	Yes	1	Split-System AC	3.00		14.00		0.7	857	0	$112	$4,489	$276	37.5
Roof	CST room	1	Split-System AC	4.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	A104	1	Split-System AC	14.00		B	NR	Yes	1	Split-System AC	14.00		11.50		0.1	155	0	$20	$16,238	$1,106	743.8
Roof	Office	1	Packaged AC	6.25		B	NR	Yes	1	Split-System AC	6.25		11.50		0.4	499	0	$65	$7,274	$456	104.2
Roof	Hallway	1	Packaged AC	3.00		B	NR	Yes	1	Split-System AC	3.00		14.00		0.4	514	0	$67	$4,489	$276	62.5
Roof	A100	1	Packaged AC	6.25		B	NR	Yes	1	Split-System AC	6.25		11.50		0.4	499	0	$65	$7,274	$456	104.2
Roof	IT Room	1	Packaged AC	6.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	IT Room	1	Packaged AC	6.00		W		No							0.0	0	0	$0	$0	$0	0.0
Roof	Server room	1	Split-System AC	3.00		W		No							0.0	0	0	$0	$0	$0	0.0
Courtyard	C114	1	Packaged AC	3.00		N		No							0.0	0	0	$0	$0	$0	0.0
Courtyard	C115	1	Split-System AC	3.00		N		No							0.0	0	0	$0	$0	$0	0.0

		Existing Conditions					Proposed Conditions								Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (kBtu/hr)	Remaining Useful Life	ECM #	Install High Efficiency System?	System Quantity	System Type	Cooling Capacity per Unit (Tons)	Heating Capacity per Unit (kBtu/hr)	Cooling Mode Efficiency (SEER/EER)	Heating Mode Efficiency (COP)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Courtyard	C116	1	Split-System AC	5.00		B	NR	Yes	1	Split-System AC	5.00		14.00		0.8	941	0	$123	$7,481	$460	56.9
Courtyard	Main Office	1	Split-System AC	7.50		W		No							0.0	0	0	$0	$0	$0	0.0
L112	L112	1	Window AC	1.00		W		No							0.0	0	0	$0	$0	$0	0.0
G116	G116	1	Split-System AC	5.00		W		No							0.0	0	0	$0	$0	$0	0.0
G113	G113	1	Window AC	2.00		B	NR	Yes	1	Window AC	2.00		12.00		0.1	289	0	$38	$2,178	$0	57.5
Custodian Office	Custodian Office	1	Window AC	0.50		W		No							0.0	0	0	$0	$0	$0	0.0
Atheletic office	Atheletic office	1	Window AC	1.00		W		No							0.0	0	0	$0	$0	$0	0.0
Atheletic office	Atheletic office	1	Window AC	1.50		W		No							0.0	0	0	$0	$0	$0	0.0
SAC Office	SAC Office	1	Window AC	1.50		W		No							0.0	0	0	$0	$0	$0	0.0
Room 103	Room 103	1	Split-System AC	2.00		B	NR	Yes	1	Split-System AC	2.00		14.00		0.3	411	0	$54	$2,992	$184	52.1
TSS room	TSS room	1	Split-System AC	3.00		B	NR	Yes	1	Split-System AC	2.00		14.00		0.9	1,131	0	$148	$2,992	$184	18.9
Main office	Main Office	1	Packaged AC	7.50		W		No							0.0	0	0	$0	$0	$0	0.0
Main gym locker	Main gym locker	1	Electric Resistance Heat		245.67	W		No							0.0	0	0	$0	$0	$0	0.0
Main gym locker room	Main gym locker	1	Electric Resistance Heat		204.73	W		No							0.0	0	0	$0	$0	$0	0.0
G117, G121 and G119	G117, G121 and G119	3	Packaged AC	3.00		W		No							0.0	0	0	$0	$0	$0	0.0

Fuel Heating Inventory & Recommendations

		Existing Conditions				Proposed Conditions							Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Output Capacity per Unit (MBh)	Remaining Useful Life	ECM #	Install High Efficiency System?	System Quantity	System Type	Output Capacity per Unit (MBh)	Heating Efficiency	Heating Efficiency Units	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	G114	1	Furnace	125.00	N		No						0.0	0	0	$0	$0	$0	0.0
Roof	Office	1	Furnace	166.00	W		No						0.0	0	0	$0	$0	$0	0.0
Roof	Hallway	1	Furnace	97.20	W		No						0.0	0	0	$0	$0	$0	0.0
Boiler room1	New Wing	3	Condensing Hot Water Boiler	2,850.00	N		No						0.0	0	0	$0	$0	$0	0.0
Boiler room1	Old wing	2	Forced Draft Steam Boiler	8,840.00	N		No						0.0	0	0	$0	$0	$0	0.0
Boiler room 2	Main Gym, Section of C-wing	2	Condensing Hot Water Boiler	1,873.00	W		No						0.0	0	0	$0	$0	$0	0.0
Roof	Kitchen	1	Furnace	200.00	W		No						0.0	0	0	$0	$0	$0	0.0

Demand Control Ventilation Recommendations

		Recommendation Inputs					Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Affected	ECM #	Number of Zones	Cooling Capacity of Controlled System (Tons)	Electric Heating Capacity of Controlled System (kBtu/hr)	Output Heating Capacity of Controlled System (MBh)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Auditorium	NR	2.00	50.00			0.0	1,475	0	$193	$2,719	$0	14.1
Roof	Library	NR	2.00	40.00			0.0	360	0	$47	$2,719	$0	57.6
Roof	Cafeteria A	NR	2.00	20.00			0.0	600	0	$79	$2,719	$0	34.6
Roof	Cafeteria B	NR	2.00	20.00			0.0	600	0	$79	$2,719	$0	34.6

DHW Inventory & Recommendations

		Existing Conditions			Proposed Conditions							Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Remaining Useful Life	ECM #	Replace?	System Quantity	System Type	Fuel Type	System Efficiency	Efficiency Units	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Boiler room 1	G wing	1	Storage Tank Water Heater (> 50 Gal)	N		No						0.0	0	0	$0	$0	$0	0.0
Boiler room 2	Section C - wing	1	Storage Tank Water Heater (> 50 Gal)	W		No						0.0	0	0	$0	$0	$0	0.0
Storage room	Boys locker room	1	Storage Tank Water Heater (> 50 Gal)	B	NR	Yes	1	Storage Tank Water Heater (> 50 Gal)	Natural Gas	93.00%	Et	0.0	0	36	$347	$50,611	$1,768	141.0
Storage room	Girls locker room	1	Storage Tank Water Heater (> 50 Gal)	B	NR	Yes	1	Storage Tank Water Heater (> 50 Gal)	Natural Gas	93.00%	Et	0.0	0	36	$347	$50,611	$1,768	141.0
Storage room	Kitchen	1	Storage Tank Water Heater (> 50 Gal)	W		No						0.0	0	0	$0	$0	$0	0.0
Room 103	Room 103	1	Storage Tank Water Heater (> 50 Gal)	W		No						0.0	0	0	$0	$0	$0	0.0

Walk-In Cooler/Freezer Inventory & Recommendations

	Existing Conditions		Proposed Conditions				Energy Impact & Financial Analysis						
Location	Cooler/ Freezer Quantity	Case Type/Temperature	ECM #	Install EC Evaporator Fan Motors?	Install Electric Defrost Control?	Install Evaporator Fan Control?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Kitchen	1	Medium Temp Freezer (0F to 30F)	4	Yes	No	No	0.1	791	0	$104	$910	$0	8.8
Kitchen	1	Cooler (35F to 55F)	4	Yes	No	No	0.0	264	0	$35	$607	$0	17.6

Commercial Refrigerator/Freezer Inventory & Recommendations

	Existing Conditions			Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Refrigerator/ Freezer Type	ENERGY STAR Qualified?	ECM #	Install ENERGY STAR Equipment?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Kitchen	4	Stand-Up Refrigerator, Solid Door (16 - 30 cu. ft.)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	4	Stand-Up Refrigerator, Solid Door (16 - 30 cu. ft.)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	1	Stand-Up Refrigerator, Solid Door (16 - 30 cu. ft.)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Cafeteria	2	Stand-Up Refrigerator, Solid Door (16 - 30 cu. ft.)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Cafeteria	6	Stand-Up Refrigerator, Solid Door (16 - 30 cu. ft.)	Yes		No	0.0	0	0	$0	$0	$0	0.0

Commercial Ice Maker Inventory & Recommendations

	Existing Conditions			Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Ice Maker Type	ENERGY STAR Qualified?	ECM #	Install ENERGY STAR Equipment?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Kitchen	1	Self-Contained Unit (≥175 lbs/day), Batch	Yes		No	0.0	0	0	$0	$0	$0	0.0
Trainer Room	1	Remote Condensing Unit (≥1,000 lbs/day), Batch	Yes		No	0.0	0	0	$0	$0	$0	0.0

Cooking Equipment Inventory & Recommendations

	Existing Conditions			Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Equipment Type	High Efficiency Equipement?	ECM #	Install High Efficiency Equipment?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Kitchen	1	Insulated Food Holding Cabinet (1/2 Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	1	Insulated Food Holding Cabinet (1/2 Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	3	Insulated Food Holding Cabinet (1/2 Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	4	Gas Convection Oven (Half Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	2	Gas Convection Oven (Half Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	1	Gas Combination Oven/Steam Cooker (<15 Pans)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	1	Gas Fryer	Yes		No	0.0	0	0	$0	$0	$0	0.0
Kitchen	1	Gas Steamer	Yes		No	0.0	0	0	$0	$0	$0	0.0
Cafeteria	2	Insulated Food Holding Cabinet (1/2 Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Cafeteria	6	Gas Combination Oven/Steam Cooker (<15 Pans)	Yes		No	0.0	0	0	$0	$0	$0	0.0
Cafeteria	1	Insulated Food Holding Cabinet (1/2 Size)	Yes		No	0.0	0	0	$0	$0	$0	0.0

Dishwasher Inventory & Recommendations

	Existing Conditions					Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Dishwasher Type	Water Heater Fuel Type	Booster Heater Fuel Type	ENERGY STAR Qualified?	ECM #	Install ENERGY STAR Equipment?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Payback w/ Incentives in Years
Dishwasher room - Kitchen	1	Single Tank Conveyor (High Temp)	Electric	N/A	Yes		No	0.0	0	0	$0	$0	$0	0.0

Plug Load Inventory

	Existing Conditions			
Location	Quantity	Equipment Description	Energy Rate (W)	ENERGY STAR Qualified?
Kitchen	3	Coffee Machine	400.0	Yes
Union two HS	26	Microwave	1,000.0	Yes
Union two HS	19	Copy Machine	260.0	Yes
Union two HS	21	Wall TV	120.0	Yes
Union two HS	12	Small freezer	80.0	Yes
Union two HS	9	Coffee machine	400.0	Yes
Union two HS	471	Desktop computers	145.0	Yes
Union two HS	50	Printers	60.0	Yes
Union two HS	5	Refrigerators	220.0	Yes
Union two HS	9	Toaster	1,200.0	Yes
Cooking class	3	Electric range	3,000.0	Yes
Cooking class	32	Electric washing machine	900.0	Yes
Cooking class	2	Electric dryer	1,500.0	Yes
Cooking class	3	Commercial microwave	1,000.0	Yes
Cooking class	2	Refrigeration	260.0	Yes
Art class	1	Kiln	11,000.0	Yes
Wood shop	2	Drill press	1,140.0	Yes
Wood shop	2	Band saw	1,200.0	Yes
Wood shop	2	Table saw	1,800.0	Yes
Wood shop	1	Disc sander	1,200.0	Yes

Vending Machine Inventory & Recommendations

	Existing Conditions		Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Vending Machine Type	ECM #	Install Controls?	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Total Installation Cost	Total Incentives	Simple Payback w/ Incentives in Years
Staff cafeteria	1	Refrigerated	5	Yes	0.2	1,612	0	$211	$230	$0	1.1
Cafeteria	2	Refrigerated	5	Yes	0.4	3,224	0	$423	$460	$0	1.1
Hallway	2	Refrigerated	5	Yes	0.4	3,224	0	$423	$460	$0	1.1
Main Gym	1	Refrigerated	5	Yes	0.2	1,612	0	$211	$230	$0	1.1
A113	1	Refrigerated	5	Yes	0.2	1,612	0	$211	$230	$0	1.1

APPENDIX B: ENERGY STAR® STATEMENT OF ENERGY PERFORMANCE

EUI is presented in terms of *site energy* and *source energy*. Site energy is the amount of fuel and electricity consumed by a building as reflected in utility bills. Source energy includes fuel consumed to generate electricity consumed at the site, factoring in electric production and distribution losses for the region.

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ENERGY STAR® Statement of Energy Performance

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ENERGY STAR® Score[1]

Union High School

Primary Property Type: K-12 School
Gross Floor Area (ft²): 358,161
Built: 1956

For Year Ending: September 30, 2017
Date Generated: October 22, 2018

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
Union High School 2350 North Third Street Union, California 07083	_____ , (___)___-_____	___ _____ , (___)___-_____ _____

Property ID: 6455032

Energy Consumption and Energy Use Intensity (EUI)

Site EUI
52.1 kBtu/ft²

Source EUI
95.1 kBtu/ft²

Annual Energy by Fuel	
Electric - Grid (kBtu)	8,272,912 (44%)
Natural Gas (kBtu)	10,379,684 (56%)

National Median Comparison	
National Median Site EUI (kBtu/ft²)	67.7
National Median Source EUI (kBtu/ft²)	123.7
% Diff from National Median Source EUI	-23%
Annual Emissions	
Greenhouse Gas Emissions (Metric Tons CO2e/year)	1,390

Signature & Stamp of Verifying Professional

I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

Licensed Professional

___ _____
,
(___)___-_____
_____

Professional Engineer Stamp

APPENDIX C: GLOSSARY

TERM	DEFINITION
Blended Rate	Used to calculate financial savings. The blended rate is calculated by dividing the amount of your bill by the total energy use. For example, if your bill is $22,217.22, and you used 266,400 kilowatt-hours, your blended rate is 8.3 cents per kilowatt-hour.
BTU	A British thermal unit is the amount of heat required to increase the temperature of one pound water by one-degree Fahrenheit. Commonly used to measure natural gas consumption.
Demand Response	Demand response reduces or shifts electricity usage at or among participating buildings/sites during peak energy use periods in response to time-based rates or other forms of financial incentives.
Energy Efficiency	Reducing the amount of energy necessary to provide comfort and service to a building/area. Achieved through the installation of new equipment and/or optimizing energy management systems.
Generation	The process of generating electric power from sources of primary energy (e.g., natural gas, the sun, oil).
HVAC	Heating, ventilation, and air conditioning.
kW	Kilowatt. Equal to 1,000 Watts.
Load	The total amount of power used by a building system at any given time.
Measure	A single activity, or installation of a single type of equipment, that is implemented in a building system to reduce total energy consumption.
MMBtu	One million British thermal units.
psig	Pounds per square inch.
Plug Load	Refers to the amount of energy used in a space by products that are powered by means of an ordinary AC plug.
Simple Payback	The amount of time needed to recoup the funds expended in an investment, or to reach the break-even point.
Temperature Setpoint	The temperature at which a temperature regulating device (thermostat, for example) has been set.
Turnkey	Provision of a complete product or service that is ready for immediate use
Watt (W)	Unit of power commonly used to measure electricity use.