



# Local Government Energy Audit Report

Atlantic County Criminal Courthouse

April 30, 2024

*Prepared for:*

Atlantic County

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Mays Landing, New Jersey 08330

*Prepared by:*

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## Disclaimer

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The goal of this audit report is to identify potential energy efficiency opportunities and help prioritize specific measures for implementation. 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 reviewed the energy conservation measures and estimates of energy savings 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 material and labor costs primarily on RS Means cost manuals as well as on our experience at similar facilities. This approach is based on standard cost estimating manuals and is vendor neutral. Cost estimates include material and labor pricing associated with one for one equipment replacements. Cost estimates do not include demolition or removal of hazardous waste. The actual implementation costs for energy savings projects are anticipated to be significantly higher based on the specific conditions at your site(s). We strongly recommend that you work with your design engineer or contractor to develop actual project costs for your specific scope of work for the installation of high efficiency equipment. We encourage you to obtain multiple estimates when considering measure installations. Actual installation costs can vary widely based on selected products and installers. TRC and NJBPU do not guarantee cost estimates and shall in no event be held liable should actual installed costs vary from these material and labor estimates.

Incentive values provided in this report are estimated based on previously run state efficiency programs. Incentive levels are not guaranteed. The NJBPU reserves the right to extend, modify, or terminate programs without prior notice. Please review all available utility 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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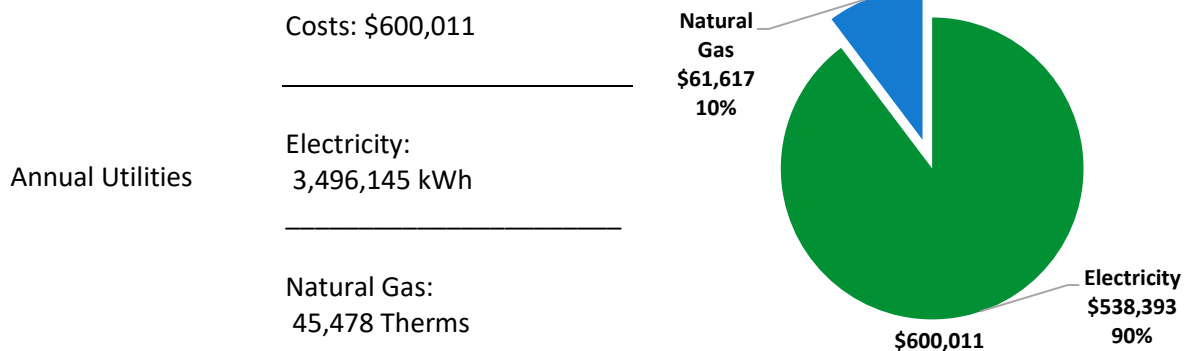
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# 1 EXECUTIVE SUMMARY

The New Jersey Board of Public Utilities (NJBPB) has sponsored this Local Government Energy Audit (LGEA) report for Atlantic County Criminal Courthouse. 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 conducted this study as part of a comprehensive effort to assist New Jersey school districts and local governments in controlling their energy costs and to help protect our environment by reducing statewide energy consumption.

## BUILDING PERFORMANCE REPORT



ENERGY STAR®  
Benchmarking Score

47  
(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.

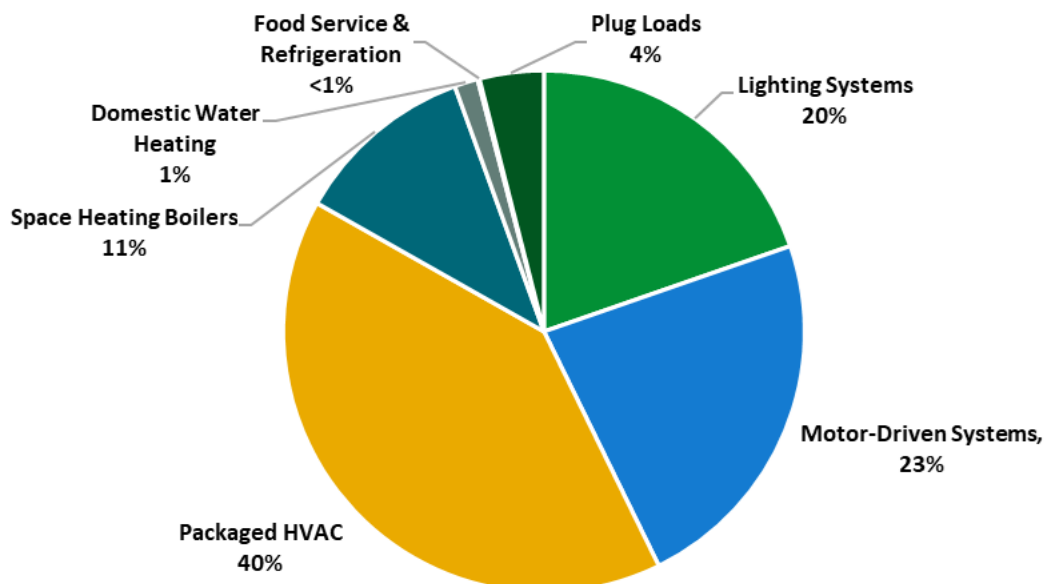


Figure 1 - Energy Use by System

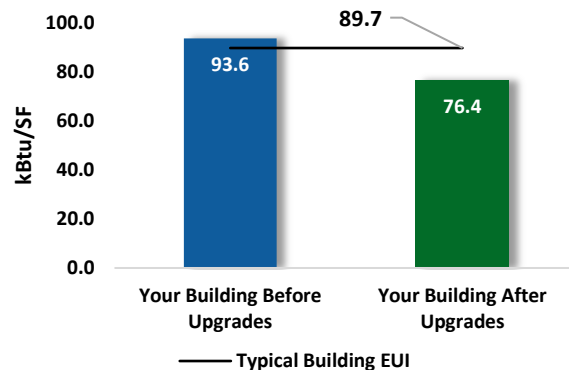
## POTENTIAL IMPROVEMENTS



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.

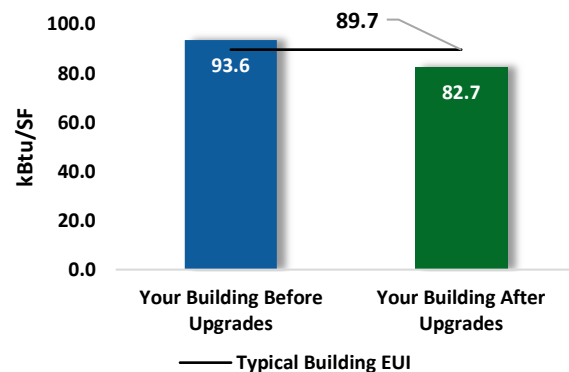
### Scenario 1: Full Package (All Evaluated Measures)

Installation Cost	\$1,400,781
Potential Rebates & Incentives <sup>1</sup>	\$116,949
Annual Cost Savings	\$134,246
Annual Energy Savings	Electricity: 864,132 kWh Natural Gas: 866 Therms
Greenhouse Gas Emission Savings	440 Tons
Simple Payback	9.6 Years
Site Energy Savings (All Utilities)	18%



### Scenario 2: Cost Effective Package<sup>2</sup>

Installation Cost	\$245,965
Potential Rebates & Incentives	\$60,780
Annual Cost Savings	\$90,288
Annual Energy Savings	Electricity: 596,994 kWh Natural Gas: -1,215 Therms
Greenhouse Gas Emission Savings	293 Tons
Simple Payback	2.1 Years
Site Energy Savings (all utilities)	12%



### On-site Generation Potential

Photovoltaic	Medium
Combined Heat and Power	None

<sup>1</sup> Incentives are based on previously run state rebate programs. Contact your utility provider for current program incentives that may apply.

<sup>2</sup> 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	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>409,378</b>	<b>79.5</b>	<b>-86</b>	<b>\$61,883</b>	<b>\$132,431</b>	<b>\$24,736</b>	<b>\$107,695</b>	<b>1.7</b>	<b>402,221</b>
ECM 1	Install LED Fixtures	Yes	7,563	0.0	0	\$1,165	\$4,113	\$1,100	\$3,013	2.6	7,616
ECM 2	Retrofit Fixtures with LED Lamps	Yes	401,815	79.5	-86	\$60,719	\$128,318	\$23,636	\$104,682	1.7	394,605
<b>Lighting Control Measures</b>			<b>168,703</b>	<b>32.1</b>	<b>-36</b>	<b>\$25,493</b>	<b>\$107,357</b>	<b>\$35,670</b>	<b>\$71,687</b>	<b>2.8</b>	<b>165,676</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	112,384	23.0	-24	\$16,982	\$70,682	\$9,070	\$61,612	3.6	110,367
ECM 4	Install High/Low Lighting Controls	Yes	56,320	9.1	-12	\$8,511	\$36,675	\$26,600	\$10,075	1.2	55,309
<b>Motor Upgrades</b>			<b>551</b>	<b>0.1</b>	<b>0</b>	<b>\$85</b>	<b>\$3,276</b>	<b>\$0</b>	<b>\$3,276</b>	<b>38.6</b>	<b>555</b>
ECM 5	Premium Efficiency Motors	No	551	0.1	0	\$85	\$3,276	\$0	\$3,276	38.6	555
<b>Unitary HVAC Measures</b>			<b>266,587</b>	<b>106.6</b>	<b>67</b>	<b>\$41,956</b>	<b>\$1,065,740</b>	<b>\$50,515</b>	<b>\$1,015,225</b>	<b>24.2</b>	<b>276,251</b>
ECM 6	Install High Efficiency Air Conditioning Units	No	266,587	106.6	67	\$41,956	\$1,065,740	\$50,515	\$1,015,225	24.2	276,251
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>141</b>	<b>\$1,917</b>	<b>\$85,800</b>	<b>\$5,654</b>	<b>\$80,146</b>	<b>41.8</b>	<b>16,567</b>
ECM 7	Install High Efficiency Hot Water Boilers	No	0	0.0	141	\$1,917	\$85,800	\$5,654	\$80,146	41.8	16,567
<b>HVAC System Improvements</b>			<b>4,967</b>	<b>0.0</b>	<b>0</b>	<b>\$765</b>	<b>\$716</b>	<b>\$120</b>	<b>\$596</b>	<b>0.8</b>	<b>5,001</b>
ECM 8	Install Pipe Insulation	Yes	4,967	0.0	0	\$765	\$716	\$120	\$596	0.8	5,001
<b>Domestic Water Heating Upgrade</b>			<b>2,085</b>	<b>0.0</b>	<b>0</b>	<b>\$321</b>	<b>\$108</b>	<b>\$54</b>	<b>\$54</b>	<b>0.2</b>	<b>2,100</b>
ECM 9	Install Low-Flow DHW Devices	Yes	2,085	0.0	0	\$321	\$108	\$54	\$54	0.2	2,100
<b>Food Service &amp; Refrigeration Measures</b>			<b>7,817</b>	<b>0.9</b>	<b>0</b>	<b>\$1,204</b>	<b>\$1,840</b>	<b>\$200</b>	<b>\$1,640</b>	<b>1.4</b>	<b>7,872</b>
ECM 10	Vending Machine Control	Yes	7,817	0.9	0	\$1,204	\$1,840	\$200	\$1,640	1.4	7,872
<b>Custom Measures</b>			<b>4,044</b>	<b>0.0</b>	<b>0</b>	<b>\$622</b>	<b>\$3,513</b>	<b>\$0</b>	<b>\$3,513</b>	<b>5.6</b>	<b>4,072</b>
ECM 11	Replace Electric Water Heater with Heat Pump Water Heater	Yes	4,044	0.0	0	\$622	\$3,513	\$0	\$3,513	5.6	4,072
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>596,994</b>	<b>112.4</b>	<b>-121</b>	<b>\$90,288</b>	<b>\$245,965</b>	<b>\$60,780</b>	<b>\$185,185</b>	<b>2.1</b>	<b>586,942</b>
<b>TOTALS (ALL MEASURES)</b>			<b>864,132</b>	<b>219.2</b>	<b>87</b>	<b>\$134,246</b>	<b>\$1,400,781</b>	<b>\$116,949</b>	<b>\$1,283,832</b>	<b>9.6</b>	<b>880,315</b>

\* - All incentives presented in this table are included as placeholders for planning purposes and are based on previously run state rebate programs. Contact your utility provider for details on current programs.

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

Figure 2 – Evaluated Energy Improvements

For more detail on each evaluated energy improvement and a break out of cost-effective improvements, see **Section 4: Energy Conservation Measures**.



## 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

Utility-run energy efficiency programs and New Jersey's 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.

### Options from Your Utility Company

#### *Prescriptive and Custom Rebates*

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 Prescriptive and Custom Rebates 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 may be required for some incentives. Contact your utility company for more details prior to project installation.

#### *Direct Install*

The Direct Install program provides turnkey installation of multiple measures through an authorized contractor. This program can provide incentives up to 70% or 80% of the cost of selected measures. A Direct Install contractor will assess and verify individual measure eligibility and perform the installation work. The Direct Install program is available to sites with an average peak demand of less than 200 kW.

#### *Engineered Solutions*

The Engineered Solutions program provides tailored energy-efficiency assistance and turnkey engineering services to municipalities, universities, schools, hospitals, and healthcare facilities (MUSH), non-profit entities, and multifamily buildings. The program provides all professional services from audit, design, construction administration, to commissioning and measurement and verification for custom whole-building energy-efficiency projects. Engineered Solutions 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.

For more details on these programs please contact your utility provider.

## **Options from New Jersey's Clean Energy Program**

### *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 and Power (CHP)*

The CHP program provides incentives for combined heat and power (i.e., 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.

### *Successor Solar Incentive Program (SuSI)*

New Jersey is committed to supporting solar energy. Solar projects help the state reach the renewable goals outlined in the state's Energy Master Plan. The SuSI program is used to register and certify solar projects in New Jersey. Rebates are not available, but certified solar projects are able to earn one SREC II (Solar Renewable Energy Certificates II) for each megawatt-hour of solar electricity produced from a qualifying solar facility.

### *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 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.

### *Large Energy User Program (LEUP)*

LEUP is designed to promote self-investment in energy efficiency. It incentivizes owners/users of buildings to upgrade or install energy conserving measures in existing buildings to help offset the capital costs associated with the project. The efficiency upgrades are customized to meet the requirements of the customers' existing facilities, while advancing the State's energy efficiency, conservation, and greenhouse gas reduction goals.

For more details on these programs please visit [New Jersey's Clean Energy Program website](https://www.njcleanenergy.com/) .



## 2 EXISTING CONDITIONS

The New Jersey Board of Public Utilities (NJBPB) has sponsored this Local Government Energy Audit (LGEA) report for Atlantic County Criminal Courthouse. 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.

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 June 14, 2023, TRC performed an energy audit at Atlantic County Criminal Courthouse located in Mays Landing, New Jersey. TRC met with Norberto Ruiz to review the facility operations and help focus our investigation on specific energy-using systems.

Atlantic County Criminal Courthouse is a three-story, 176,000 square foot building built in 2005. Spaces include classrooms, computer labs, offices, conference rooms, lounges, multipurpose rooms, court rooms, holding cells, a sally port, garages, kitchens, cafeterias, corridors, stairwells, atriums, restrooms, locker rooms, weight rooms, storage rooms, and electrical and mechanical spaces.

Lighting for the facility is provided mainly by linear fluorescent T8 fixtures. Seven packaged rooftop units and two boilers provide cooling and heating to most spaces. There are 11 passenger elevators located in the facility. The facility has one generator to provide emergency backup electricity.

### 2.2 Building Occupancy

The facility is occupied year-round from 8:30 AM until 4:30 PM on weekdays, with a typical occupancy of 272 staff. The facility has limited use on weekends.

Building Name	Weekday/Weekend	Operating Schedule
Atlantic County Criminal Courthouse	Weekday	8:30 AM - 4:30 PM
	Weekend	Limited Usage

*Figure 3 - Building Occupancy Schedule*

### 2.3 Building Envelope

Building walls are concrete block over structural steel with a brick and block facade. The roof is primarily flat and partially covered with stone ballast, with a small metal pitched section above the atrium and covering some of the rooftop units. The roof is in good condition and houses a section of solar photovoltaic (PV) arrays.

The windows are double glazed and have aluminum frames with thermal breaks. The glass-to-frame seals are in fair condition. The operable window weather seals are in good condition, showing little evidence of excessive wear. Exterior doors are metal and glass with metal frames and are in good condition with undamaged door seals. Overall, the building envelope appears in good condition.



*Building Walls and Windows*



*Building Windows*





*Entrance Doors*



*Exit Doors*



*Roof*

## 2.4 Lighting Systems

The primary interior lighting system uses 32-Watt fluorescent T8 lamps. Fixture types include 2-lamp, 3-lamp, and 4-lamp, 4-foot long recessed, surface mounted, and pendant fixtures with linear and U-bend tube lamps. Typically, T8 fluorescent lamps use electronic ballasts.

Linear lamps in some areas have been replaced over time with LED tube lamps, and there are a few screw-in LED lamps. Courtrooms #6 and #8 are illuminated by LED fixtures. Compact fluorescent lamps (CFL) are also used in some spaces. Typically, CFLs at this site use between 26-Watts and 42-Watts. Exit signs use LED sources.

Interior light fixtures are controlled by manual wall switches. All light fixtures are in good condition. Interior lighting levels were generally sufficient.

Exterior fixtures use metal halide (MH), high-pressure sodium (HPS), and LED lamps. Pole lighting is mainly provided by LED sources. Exterior fixtures are controlled by a mix of timers and photocells.



*Fluorescent T8 Fixtures*





*CFL Lamps*



*Exterior MH Fixture*



*LED Fixtures*

## 2.5 Air Handling Systems

### **Unitary Electric HVAC Equipment**

The communications office is cooled using a 1-ton EMI mini split air conditioning (AC) unit with an estimated efficiency of 10 EER. The unit is thermostatically controlled and in fair condition.

Electric room 2152 is conditioned using a Daikin mini split heat pump (HP) unit. The unit has a cooling capacity of 2 tons with a cooling efficiency of 20 EER, and a heating capacity of 25.4 MBH with a heating efficiency of 10.6 HSPF. Installed in 2016, the unit is thermostatically controlled and in good condition.

The forensic testing area is conditioned by a 4-ton Lennox split AC system (AC-2) with an efficiency of 11.5 EER and is equipped with an estimated 0.5 hp supply fan. Original to the building, the unit is in fair condition and is monitored and controlled using the facility BAS.

Some offices and server rooms throughout the facility are cooled using five portable AC units. Cooling capacities range from 0.5 tons to 2.0 tons, with efficiencies between 8.8 EER and 9.0 EER. The units are thermostatically controlled and in good condition.



*Mini-split Units*

### **Unitary Heating Equipment**

The sally port is heated using two, 10 kW electric resistance heaters, and the main lobby is heated using two, 15 kW electric resistance heaters. The units are in good condition and are controlled by manual dial thermostats.



*Electric Resistance Heaters*

### **Packaged Rooftop Units (RTUs)**

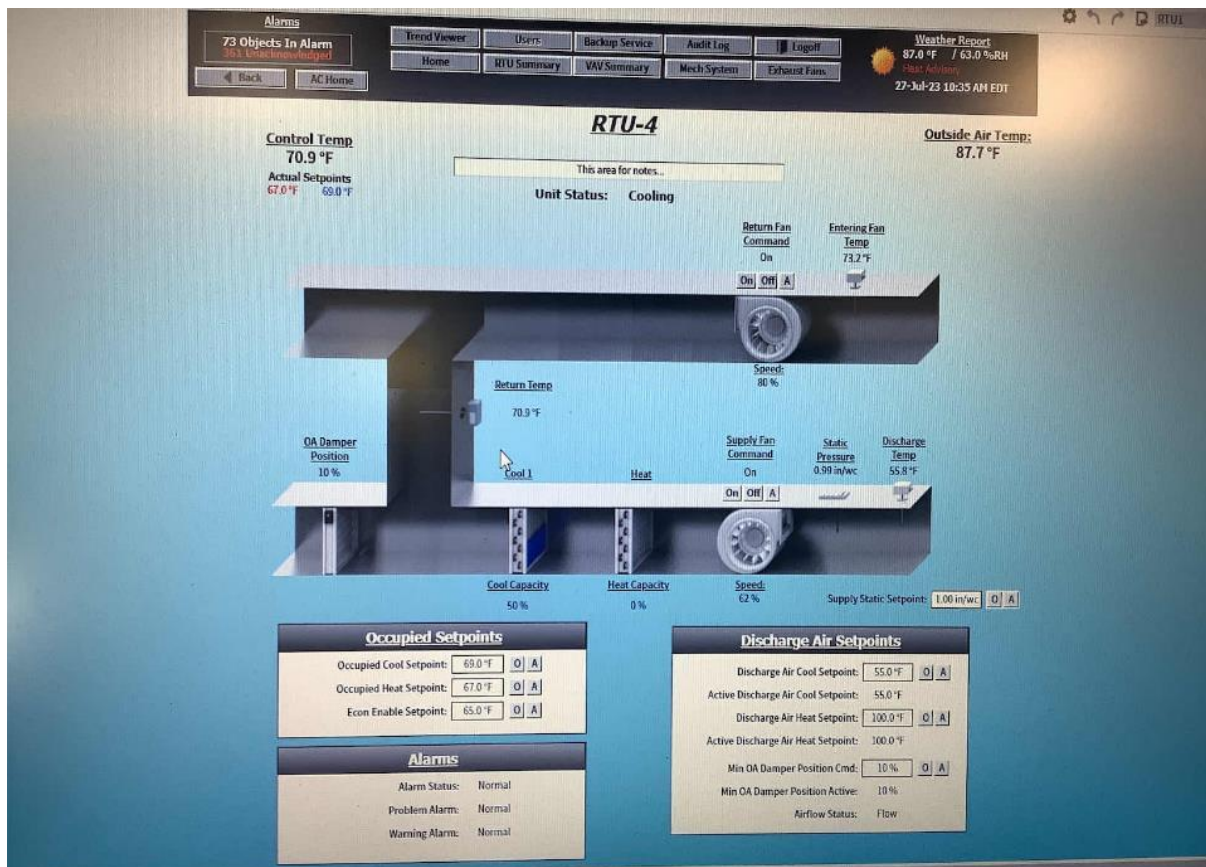
The facility is served by a total of seven packaged rooftop units (RTUs). Units are equipped with gas-fired furnaces and DX cooling coils to provide heating and cooling to spaces as noted below. Fans are driven by VFD controlled motors. The units are controlled and monitored by the onsite EMS. Refer to Appendix A for detailed information about each unit.

<b>Units</b>	<b>Area Served</b>	<b>Heating Capacity (MBh)</b>	<b>Cooling Capacity (Tons)</b>	<b>Supply Fan (hp)</b>	<b>Return Fan (hp)</b>
RTU-1	Front Prosecutors Office	500	80	40	15.0
RTU-2	Back Prosecutors Office	500	90	30	10.0
RTU-3	Courthouse	800	240	50	20.0
RTU-4	Courthouse	500	50	20	5.0
RTU-5	Courthouse	500	50	30	7.5
RTU-6	Courthouse	500	50	30	7.5
RTU-7	Courthouse	500	75	30	5.0





Packaged Rooftop Unit



Packaged Rooftop Unit EMS Diagram View

## 2.6 Heating Hot Water Systems

The building's heating system consists of two Raypak gas-fired hot water boilers each with an output capacity of 1,285 MBh. The burners are fully modulating with a nominal efficiency of 84%. The boilers are configured in an automated control scheme and controlled by the facility's BAS. Both boilers are required under high load conditions. Installed in 2005, the boilers are in good condition. There is a service contract in place.

The boilers are configured in a constant flow primary distribution with one, 1.5 hp constant speed hot water pump connected to each boiler (BP-1 and BP-2), and two, 5 hp VFD controlled hot water pumps (HWP-3 and HWP-4) operating with a lead-lag control scheme. The boilers provide hot water to fan coil units, radiators, and unit heaters throughout the facility.

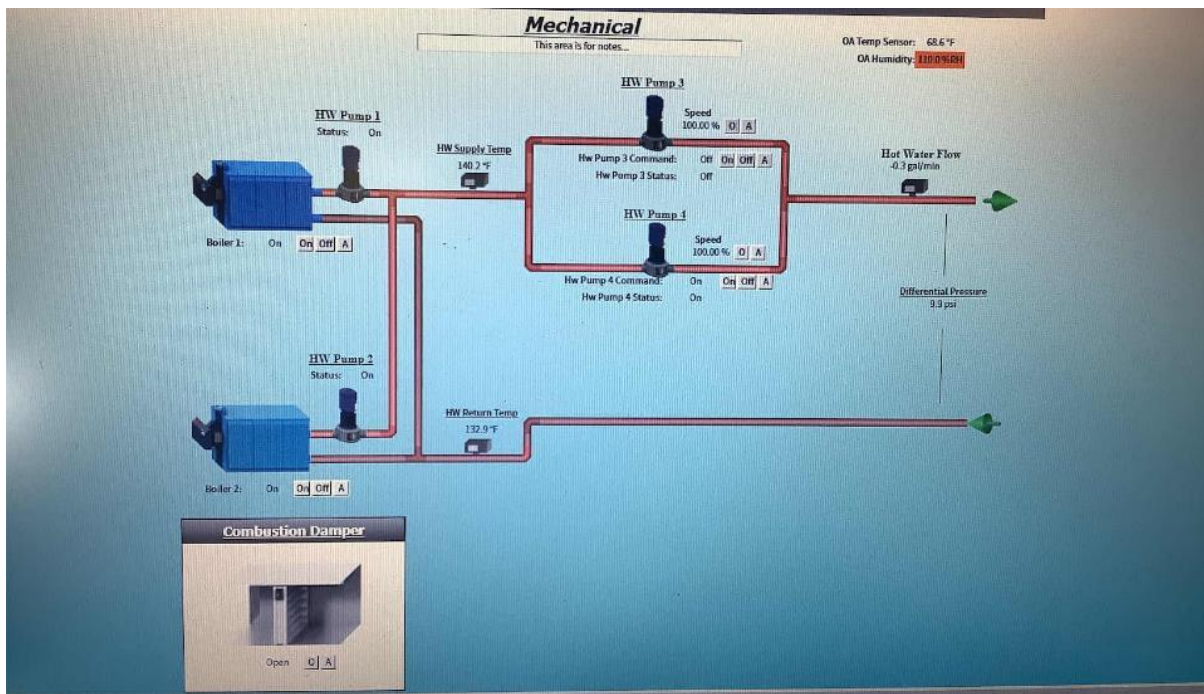


*Hot Water Boiler*





*Heating Hot Water Pumps*

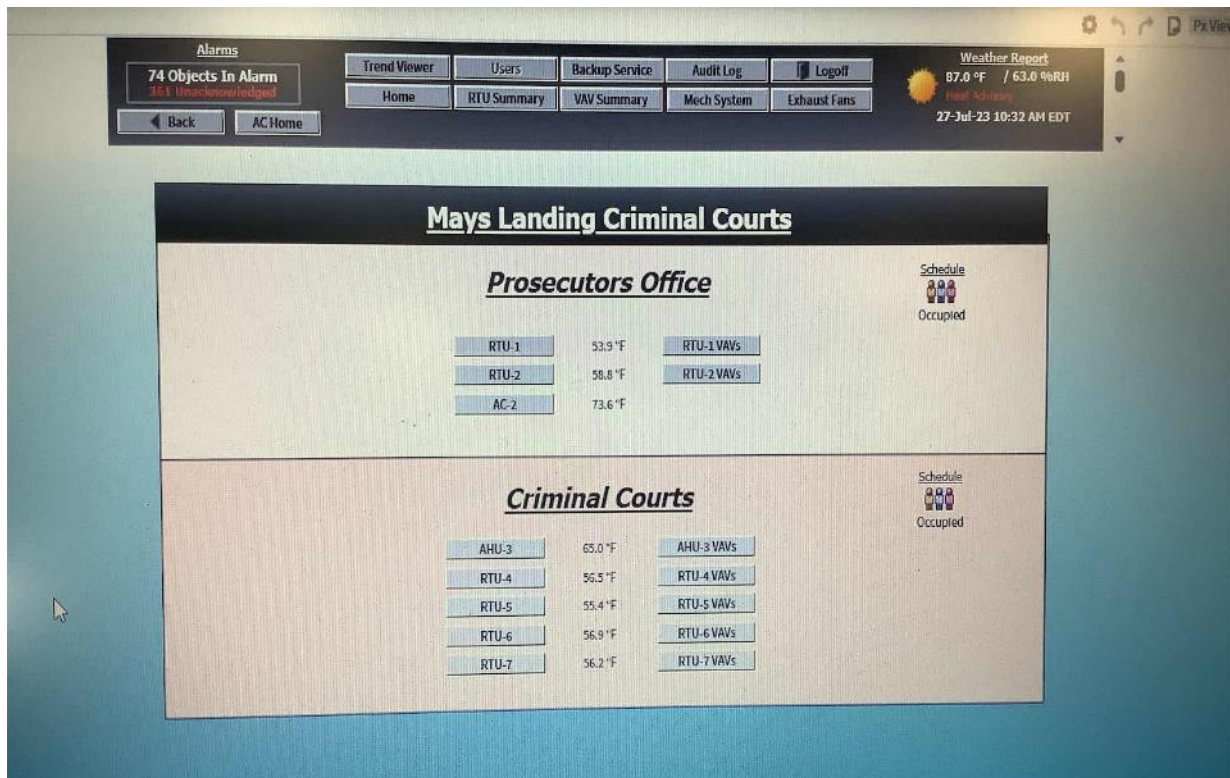


*Heating Hot Water System EMS Diagram View*



## 2.7 Building Automation System (BAS)

A Johnson Controls BAS controls the HVAC equipment, boilers, and air handlers. The BAS provides equipment scheduling control and monitors and controls space temperatures, supply air temperatures, humidity, and heating water loop temperatures.



*Building Energy Management System for Atlantic County Criminal Courthouse*

## 2.8 Domestic Hot Water

Hot water for the facility is produced by 32 electric instantaneous water heaters and 11 electric storage water heaters. The instantaneous water heaters each have a 5.5 kW capacity. The electric storage water heaters range in capacity from 4.5 kW to 9 kW, with storage capacities between 28 gallons and 50 gallons. Two fractional hp circulation pumps distribute water to end uses. The circulation pumps operate continuously.

The units are in good condition. The domestic hot water pipes are partially insulated, and the insulation that was observed is in good condition. Section 4 includes a discussion about replacing some of the electric storage water heaters with heat pump water heaters. Refer to Appendix A for detailed information about each unit.



*Water Heaters*

## 2.9 Refrigeration

Cafeteria 1588 has two stand-up refrigerators with glass doors. Equipment is standard efficiency and in good condition.

Visit [https://www.energystar.gov/products/commercial\\_food\\_service\\_equipment](https://www.energystar.gov/products/commercial_food_service_equipment) for the latest information on high efficiency food service equipment.



*Stand-up Refrigerators*

## 2.10 Plug Load and Vending Machines

The location is doing a great job managing the electrical plug loads. This report makes additional suggestions for ECMs in this area as well as energy efficient best practices.

There are 502 computer workstations throughout the facility. Plug loads throughout the building include general cafe and office equipment. There are classroom typical loads such as projectors and smartboards, and typical office loads such as copiers, printers, microwaves, televisions, and mini fridges.

There are 15 residential-style refrigerators throughout the building that are used to store food and drinks. These vary in condition and efficiency.

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





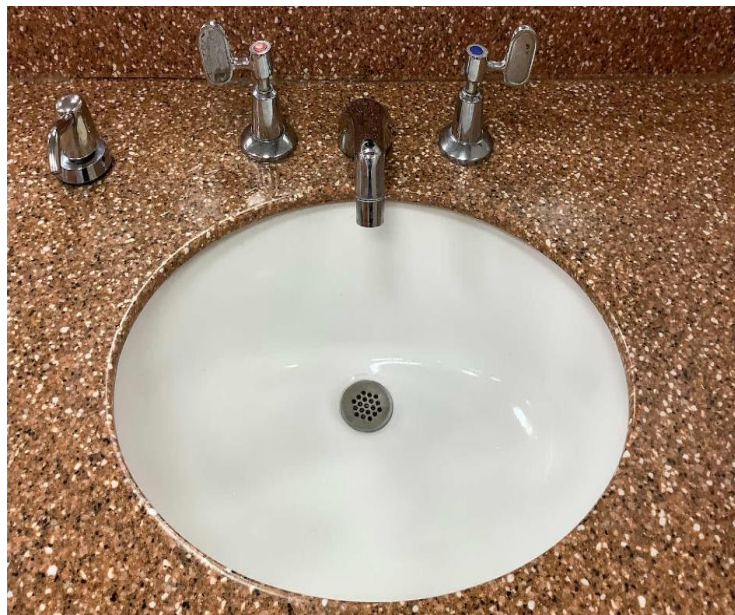
*Vending Machines*



*Residential-style Refrigerator*

## 2.11 Water-Using Systems

There are 53 restrooms with toilets, urinals, and sinks. Some restrooms contained low-flowing fixtures, while others had faucet flow rates of 2.2 gallons per minute (gpm) or higher.



*Typical Restroom Sink*

## 2.12 On-Site Generation

Atlantic County Criminal Courthouse has a photovoltaic (PV) array located on the roof and additional arrays mounted on parking lot canopies surrounding the facility. The total array size and install date were not provided by the applicant. This system provides approximately 33% of the electricity used.

Atlantic County Criminal Courthouse has an emergency generator that, in the event of a power outage, serves the entire building and is only used for emergency needs.

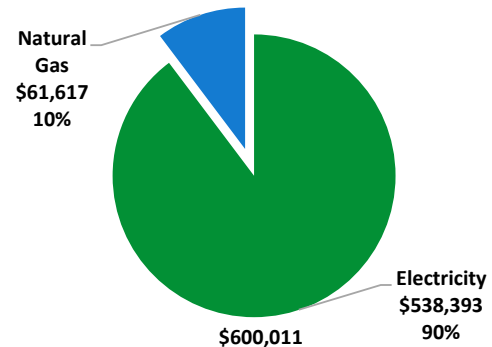


*Rooftop Solar Panels*

### 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	3,496,145 kWh	\$538,393
Natural Gas	45,478 Therms	\$61,617
Total		\$600,011



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.



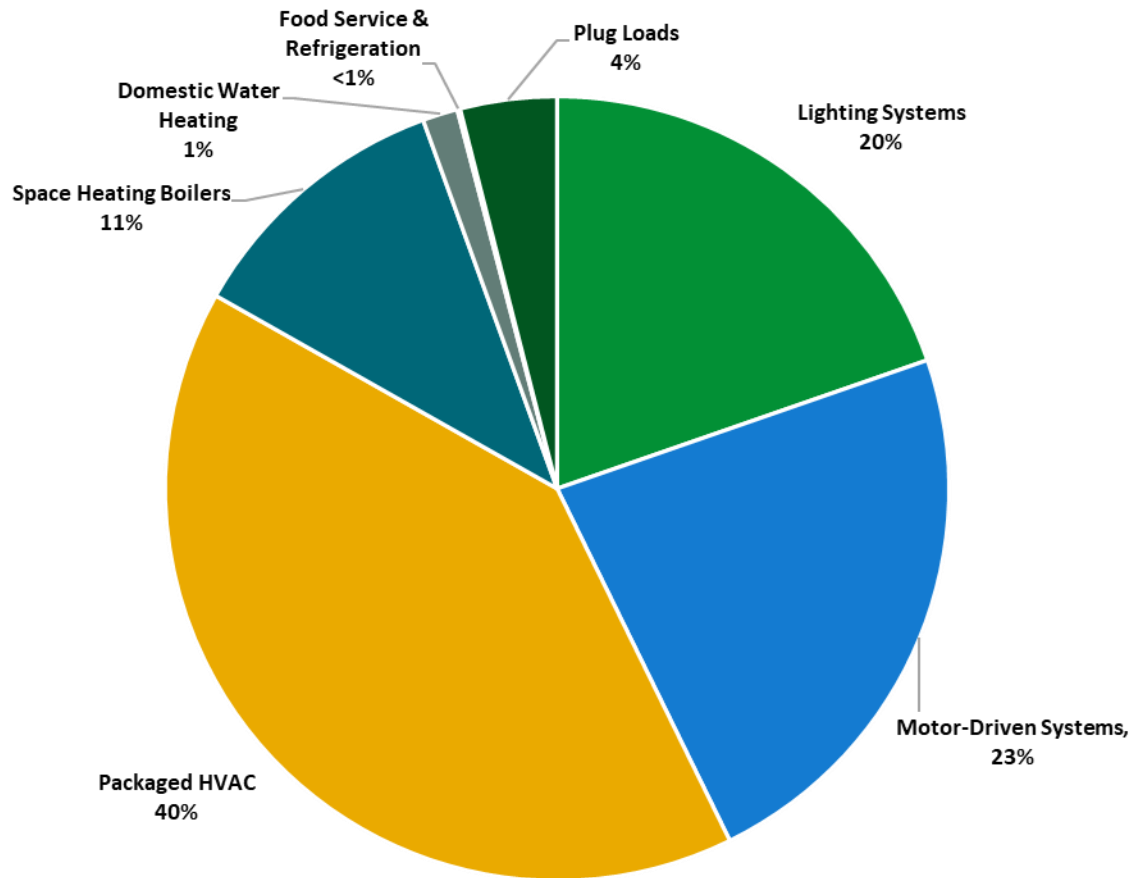
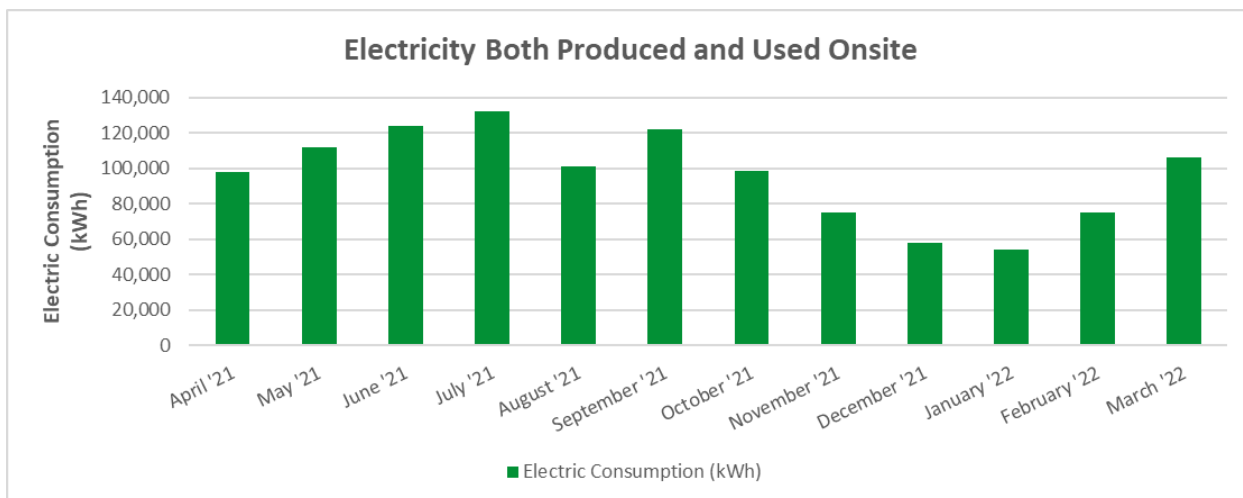
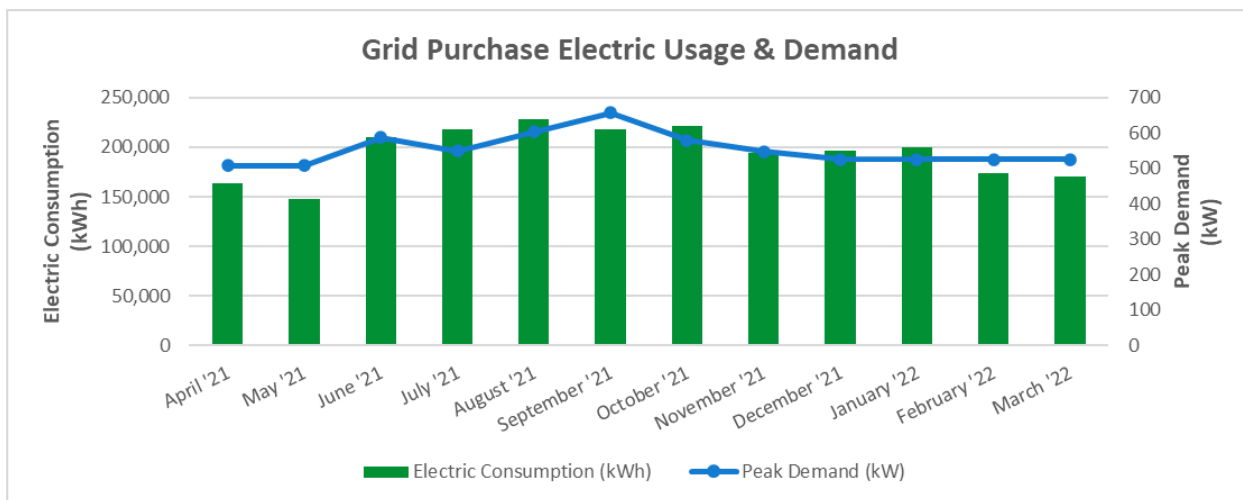
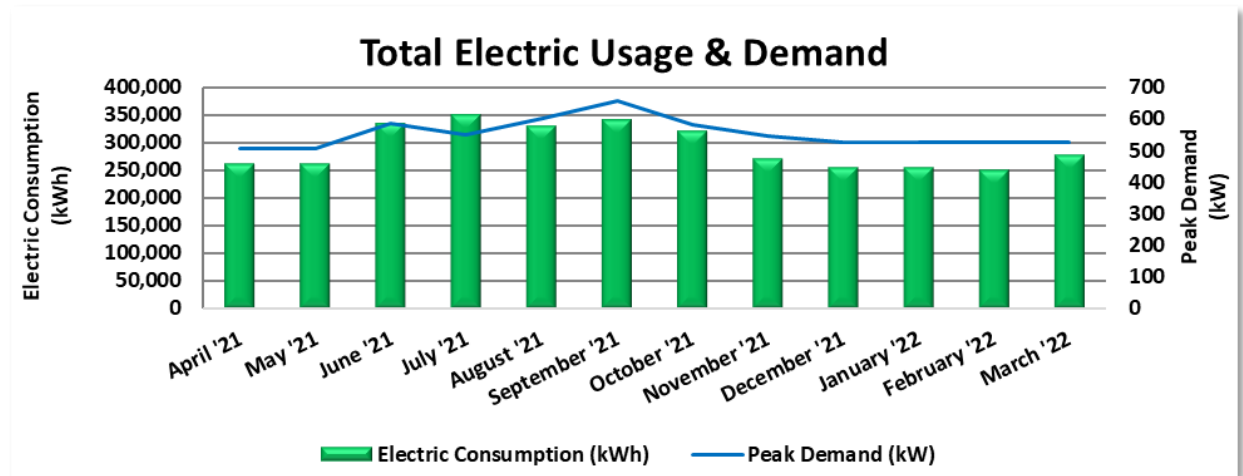


Figure 4 - Energy Balance

### 3.1 Electricity

Atlantic City Electric delivers electricity under rate class Annual General Service Secondary (GSS), with electric production provided by Constellation New Energy, a third-party supplier.



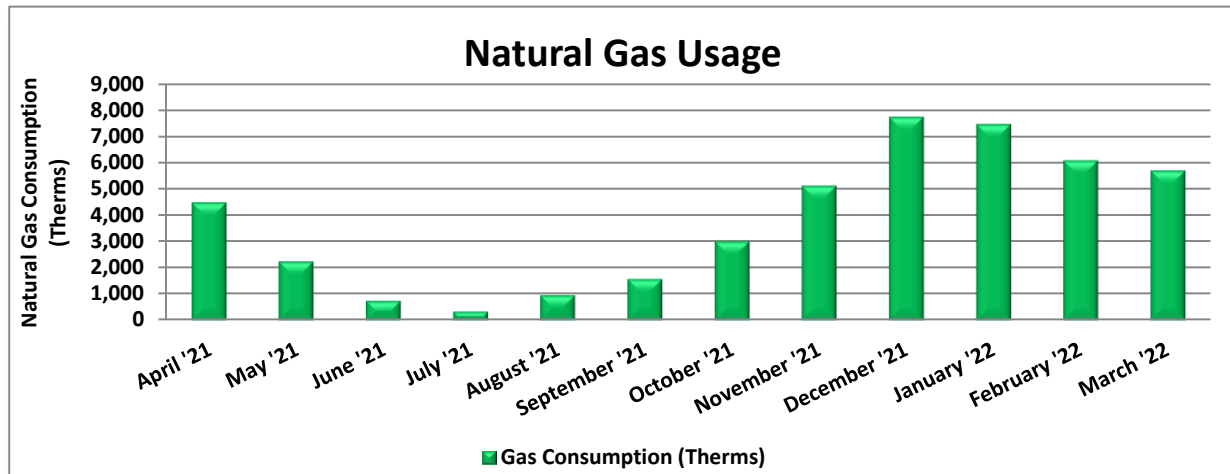
Electric Billing Data					
Period Ending	Days in Period	Electric Usage (kWh)	Demand (kW)	Demand Cost	Total Electric Cost
4/29/21	30	261,555	507	\$5,755	\$41,833
5/27/21	28	259,690	507	\$5,373	\$38,701
6/29/21	33	334,427	587	\$7,331	\$48,622
7/29/21	30	349,618	550	\$6,240	\$48,647
8/31/21	33	328,673	603	\$6,815	\$50,506
9/29/21	29	339,435	657	\$7,451	\$54,769
10/28/21	29	319,257	580	\$6,369	\$46,827
11/29/21	32	268,959	547	\$6,640	\$42,460
12/29/21	30	254,172	525	\$5,976	\$37,430
1/30/22	32	253,843	525	\$6,979	\$38,733
2/27/22	28	249,220	525	\$6,142	\$41,171
3/30/22	31	277,296	525	\$6,800	\$48,696
<b>Totals</b>	<b>365</b>	<b>3,496,145</b>	<b>657</b>	<b>\$77,871</b>	<b>\$538,393</b>
<b>Annual</b>	<b>365</b>	<b>3,496,145</b>	<b>657</b>	<b>\$77,871</b>	<b>\$538,393</b>

Notes:

- Peak demand of 657 kW occurred in September '21.
- Average demand over the past 12 months was 553 kW.
- The average electric cost over the past 12 months was \$0.154/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 first graph shows combined electricity consumption, the second graph shows energy consumed from the grid, and the third graph reflects energy produced by the solar panels and consumed on site.
- The solar meter does not capture kW load and is therefore not displayed on the third graph.

## 3.2 Natural Gas

South Jersey Gas delivers natural gas under rate class General Service Gas FT (GSGFT), with natural gas supply provided by UGI Energy Services LLC, a third-party supplier.



Gas Billing Data			
Period Ending	Days in Period	Natural Gas Usage (Therms)	Natural Gas Cost
5/10/21	32	4,486	\$5,967
6/8/21	29	2,250	\$3,014
7/12/21	34	753	\$1,047
8/11/21	30	340	\$493
9/10/21	30	957	\$1,311
10/11/21	31	1,574	\$2,158
11/8/21	28	3,009	\$4,110
12/8/21	30	5,124	\$6,953
1/11/22	34	7,737	\$10,425
2/7/22	27	7,466	\$10,127
3/7/22	28	6,080	\$8,255
4/8/22	32	5,702	\$7,757
<b>Totals</b>	<b>365</b>	<b>45,478</b>	<b>\$61,617</b>
<b>Annual</b>	<b>365</b>	<b>45,478</b>	<b>\$61,617</b>

### Notes:

- The average gas cost for the past 12 months is \$1.355/therm, which is the blended rate used throughout the analysis.
- Summer gas use is higher than expected because gas use is limited to space heating.

### 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 country, 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.

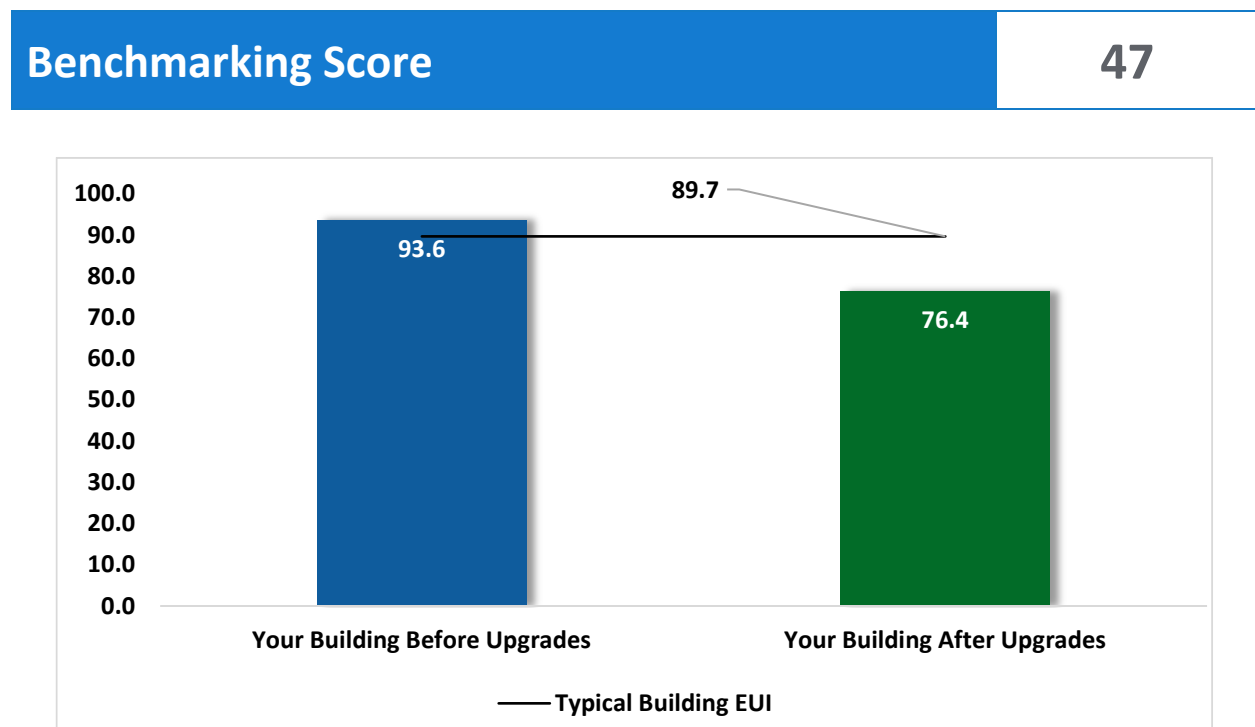


Figure 5 - Energy Use Intensity Comparison<sup>3</sup>

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. Several factors can cause a building to vary from 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.

<sup>3</sup> Based on all evaluated ECMs



### **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 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](#).



## 4 ENERGY CONSERVATION MEASURES

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The goal of this audit report is to identify and evaluate potential energy efficiency improvements and provide information about the cost effectiveness of those improvements. Most energy conservation measures have received preliminary analysis of feasibility, which identifies expected ranges of savings. 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's 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 in this report are based on the previously run state rebate program SmartStart, which has been retired. Now, all investor-owned gas and electric utility companies are offering complementary energy efficiency programs directly to their customers. Some measures and proposed upgrades may be eligible for higher incentives than those shown below. The incentives in the summary tables should be used for high-level planning purposes. To verify incentives, reach out to your utility provider or visit the [NJCEP website](#) for more information.

For a detailed list of the locations and recommended energy conservation measures for all inventoried equipment, see Appendix A: Equipment Inventory & Recommendations.

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>409,378</b>	<b>79.5</b>	<b>-86</b>	<b>\$61,883</b>	<b>\$132,431</b>	<b>\$24,736</b>	<b>\$107,695</b>	<b>1.7</b>	<b>402,221</b>
ECM 1	Install LED Fixtures	Yes	7,563	0.0	0	\$1,165	\$4,113	\$1,100	\$3,013	2.6	7,616
ECM 2	Retrofit Fixtures with LED Lamps	Yes	401,815	79.5	-86	\$60,719	\$128,318	\$23,636	\$104,682	1.7	394,605
<b>Lighting Control Measures</b>			<b>168,703</b>	<b>32.1</b>	<b>-36</b>	<b>\$25,493</b>	<b>\$107,357</b>	<b>\$35,670</b>	<b>\$71,687</b>	<b>2.8</b>	<b>165,676</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	112,384	23.0	-24	\$16,982	\$70,682	\$9,070	\$61,612	3.6	110,367
ECM 4	Install High/Low Lighting Controls	Yes	56,320	9.1	-12	\$8,511	\$36,675	\$26,600	\$10,075	1.2	55,309
<b>Motor Upgrades</b>			<b>551</b>	<b>0.1</b>	<b>0</b>	<b>\$85</b>	<b>\$3,276</b>	<b>\$0</b>	<b>\$3,276</b>	<b>38.6</b>	<b>555</b>
ECM 5	Premium Efficiency Motors	No	551	0.1	0	\$85	\$3,276	\$0	\$3,276	38.6	555
<b>Unitary HVAC Measures</b>			<b>266,587</b>	<b>106.6</b>	<b>67</b>	<b>\$41,956</b>	<b>\$1,065,740</b>	<b>\$50,515</b>	<b>\$1,015,225</b>	<b>24.2</b>	<b>276,251</b>
ECM 6	Install High Efficiency Air Conditioning Units	No	266,587	106.6	67	\$41,956	\$1,065,740	\$50,515	\$1,015,225	24.2	276,251
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>141</b>	<b>\$1,917</b>	<b>\$85,800</b>	<b>\$5,654</b>	<b>\$80,146</b>	<b>41.8</b>	<b>16,567</b>
ECM 7	Install High Efficiency Hot Water Boilers	No	0	0.0	141	\$1,917	\$85,800	\$5,654	\$80,146	41.8	16,567
<b>HVAC System Improvements</b>			<b>4,967</b>	<b>0.0</b>	<b>0</b>	<b>\$765</b>	<b>\$716</b>	<b>\$120</b>	<b>\$596</b>	<b>0.8</b>	<b>5,001</b>
ECM 8	Install Pipe Insulation	Yes	4,967	0.0	0	\$765	\$716	\$120	\$596	0.8	5,001
<b>Domestic Water Heating Upgrade</b>			<b>2,085</b>	<b>0.0</b>	<b>0</b>	<b>\$321</b>	<b>\$108</b>	<b>\$54</b>	<b>\$54</b>	<b>0.2</b>	<b>2,100</b>
ECM 9	Install Low-Flow DHW Devices	Yes	2,085	0.0	0	\$321	\$108	\$54	\$54	0.2	2,100
<b>Food Service &amp; Refrigeration Measures</b>			<b>7,817</b>	<b>0.9</b>	<b>0</b>	<b>\$1,204</b>	<b>\$1,840</b>	<b>\$200</b>	<b>\$1,640</b>	<b>1.4</b>	<b>7,872</b>
ECM 10	Vending Machine Control	Yes	7,817	0.9	0	\$1,204	\$1,840	\$200	\$1,640	1.4	7,872
<b>Custom Measures</b>			<b>4,044</b>	<b>0.0</b>	<b>0</b>	<b>\$622</b>	<b>\$3,513</b>	<b>\$0</b>	<b>\$3,513</b>	<b>5.6</b>	<b>4,072</b>
ECM 11	Replace Electric Water Heater with Heat Pump Water Heater	Yes	4,044	0.0	0	\$622	\$3,513	\$0	\$3,513	5.6	4,072
<b>TOTALS</b>			<b>864,132</b>	<b>219.2</b>	<b>87</b>	<b>\$134,246</b>	<b>\$1,400,781</b>	<b>\$116,949</b>	<b>\$1,283,832</b>	<b>9.6</b>	<b>880,315</b>

\* - All incentives presented in this table are included as placeholders for planning purposes and are based on previously run state rebate programs. Contact your utility provider for details on current programs.

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

Figure 6 – All Evaluated ECMs

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>409,378</b>	<b>79.5</b>	<b>-86</b>	<b>\$61,883</b>	<b>\$132,431</b>	<b>\$24,736</b>	<b>\$107,695</b>	<b>1.7</b>	<b>402,221</b>
ECM 1	Install LED Fixtures	7,563	0.0	0	\$1,165	\$4,113	\$1,100	\$3,013	2.6	7,616
ECM 2	Retrofit Fixtures with LED Lamps	401,815	79.5	-86	\$60,719	\$128,318	\$23,636	\$104,682	1.7	394,605
<b>Lighting Control Measures</b>		<b>168,703</b>	<b>32.1</b>	<b>-36</b>	<b>\$25,493</b>	<b>\$107,357</b>	<b>\$35,670</b>	<b>\$71,687</b>	<b>2.8</b>	<b>165,676</b>
ECM 3	Install Occupancy Sensor Lighting Controls	112,384	23.0	-24	\$16,982	\$70,682	\$9,070	\$61,612	3.6	110,367
ECM 4	Install High/Low Lighting Controls	56,320	9.1	-12	\$8,511	\$36,675	\$26,600	\$10,075	1.2	55,309
<b>HVAC System Improvements</b>		<b>4,967</b>	<b>0.0</b>	<b>0</b>	<b>\$765</b>	<b>\$716</b>	<b>\$120</b>	<b>\$596</b>	<b>0.8</b>	<b>5,001</b>
ECM 8	Install Pipe Insulation	4,967	0.0	0	\$765	\$716	\$120	\$596	0.8	5,001
<b>Domestic Water Heating Upgrade</b>		<b>2,085</b>	<b>0.0</b>	<b>0</b>	<b>\$321</b>	<b>\$108</b>	<b>\$54</b>	<b>\$54</b>	<b>0.2</b>	<b>2,100</b>
ECM 9	Install Low-Flow DHW Devices	2,085	0.0	0	\$321	\$108	\$54	\$54	0.2	2,100
<b>Food Service &amp; Refrigeration Measures</b>		<b>7,817</b>	<b>0.9</b>	<b>0</b>	<b>\$1,204</b>	<b>\$1,840</b>	<b>\$200</b>	<b>\$1,640</b>	<b>1.4</b>	<b>7,872</b>
ECM 10	Vending Machine Control	7,817	0.9	0	\$1,204	\$1,840	\$200	\$1,640	1.4	7,872
<b>Custom Measures</b>		<b>4,044</b>	<b>0.0</b>	<b>0</b>	<b>\$622</b>	<b>\$3,513</b>	<b>\$0</b>	<b>\$3,513</b>	<b>5.6</b>	<b>4,072</b>
ECM 11	Replace Electric Water Heater with Heat Pump Water Heater	4,044	0.0	0	\$622	\$3,513	\$0	\$3,513	5.6	4,072
<b>TOTALS</b>		<b>596,994</b>	<b>112.4</b>	<b>-121</b>	<b>\$90,288</b>	<b>\$245,965</b>	<b>\$60,780</b>	<b>\$185,185</b>	<b>2.1</b>	<b>586,942</b>

\* - All incentives presented in this table are included as placeholders for planning purposes and are based on previously run state rebate programs. Contact your utility provider for details on current programs.

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

Figure 7 – 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 M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>409,378</b>	<b>79.5</b>	<b>-86</b>	<b>\$61,883</b>	<b>\$132,431</b>	<b>\$24,736</b>	<b>\$107,695</b>	<b>1.7</b>	<b>402,221</b>
ECM 1	Install LED Fixtures	7,563	0.0	0	\$1,165	\$4,113	\$1,100	\$3,013	2.6	7,616
ECM 2	Retrofit Fixtures with LED Lamps	401,815	79.5	-86	\$60,719	\$128,318	\$23,636	\$104,682	1.7	394,605

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 is 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 fixtures containing high-intensity discharge (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 retrofit 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 fixtures.

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:** exterior MH & HPS fixtures

### **ECM 2: Retrofit Fixtures with LED Lamps**

Replace fluorescent, CFL, 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. Be sure to specify replacement lamps that are compatible with existing dimming controls, where applicable. In some circumstances, you may need to upgrade your dimming system for optimum performance.

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:** all areas with fluorescent fixtures with T8 tubes, CFLs, and incandescent lamps



## 4.2 Lighting Controls

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Control Measures</b>		<b>168,703</b>	<b>32.1</b>	<b>-36</b>	<b>\$25,493</b>	<b>\$107,357</b>	<b>\$35,670</b>	<b>\$71,687</b>	<b>2.8</b>	<b>165,676</b>
ECM 3	Install Occupancy Sensor Lighting Controls	112,384	23.0	-24	\$16,982	\$70,682	\$9,070	\$61,612	3.6	110,367
ECM 4	Install High/Low Lighting Controls	56,320	9.1	-12	\$8,511	\$36,675	\$26,600	\$10,075	1.2	55,309

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 that 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:** offices, conference rooms, classrooms, computer labs, courtrooms, cafeterias, kitchens, lounges, libraries, restrooms, locker rooms, gymnasiums, multipurpose rooms, garages, and storage rooms

### **ECM 4: Install High/Low Lighting Controls**

Install occupancy sensors to provide dual level lighting control for lighting fixtures in spaces that are infrequently occupied but may require some level of continuous lighting for safety or security reasons.

Lighting fixtures with these controls operate at default low levels when the area is unoccupied to provide minimal lighting to meet security or safety code requirements for egress. Sensors detect occupancy using ultrasonic and/or infrared sensors. When an occupant enters the space, the lighting fixtures switch to full lighting levels. Fixtures automatically switch back to low level after a predefined period of vacancy. In parking lots and parking garages with significant ambient lighting, this control can sometimes be combined with photocell controls to turn the lights off when there is sufficient daylight.

The controller lowers the light level by dimming the fixture output. Therefore, the controlled fixtures need to have a dimmable ballast or driver. This will need to be considered when selecting retrofit lamps and bulbs for the areas proposed for high/low control.

For this type of measure the occupancy sensors will generally be ceiling or fixture mounted. Sufficient sensor coverage must be provided to ensure that lights turn on in each area as occupants approach the area.

This measure provides energy savings by reducing the light fixture power draw when reduced light output is appropriate.

**Affected Building Areas:** hallways, stairwells, and lobbies

## 4.3 Motors

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Motor Upgrades</b>		<b>551</b>	<b>0.1</b>	<b>0</b>	<b>\$85</b>	<b>\$3,276</b>	<b>\$0</b>	<b>\$3,276</b>	<b>38.6</b>	<b>555</b>
ECM 5	Premium Efficiency Motors	551	0.1	0	\$85	\$3,276	\$0	\$3,276	38.6	555

### ECM 5: Premium Efficiency Motors

We evaluated replacing standard efficiency motors with IHP 2014 efficiency motors. This evaluation assumes that existing motors will be replaced with motors of equivalent size and type. In some cases, additional savings may be possible by downsizing motors to better meet the motor's current load requirements.

**Affected Motors:**

Location	Area(s)/System(s) Served	Motor Quantity	Motor Application	HP Per Motor	Additional Motor Description
Mechanical 1665	Boilers	2	Heating Hot Water Pump	1.5	BP-1 & BP-2
Mechanical 1665	Heating System	2	Heating Hot Water Pump	5.0	HWP-3 & HWP-4

Savings are based on the difference between baseline and proposed efficiencies and the assumed annual operating hours. The base case motor energy consumption is estimated using the efficiencies found on nameplates or estimated based on the age of the motor and our best estimates of motor run hours. Efficiencies of proposed motor upgrades are obtained from the current *New Jersey's Clean Energy Program Protocols to Measure Resource Savings*.

## 4.4 Unitary HVAC

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Unitary HVAC Measures</b>		<b>266,587</b>	<b>106.6</b>	<b>67</b>	<b>\$41,956</b>	<b>\$1,065,740</b>	<b>\$50,515</b>	<b>\$1,015,225</b>	<b>24.2</b>	<b>276,251</b>
ECM 6	Install High Efficiency Air Conditioning Units	266,587	106.6	67	\$41,956	\$1,065,740	\$50,515	\$1,015,225	24.2	276,251

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 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 rooftop units and split systems are eventually replaced, consider purchasing equipment that exceeds the minimum efficiency required by building codes.

## ECM 6: Install High Efficiency Air Conditioning Units

We evaluated replacing standard efficiency packaged air conditioning units with high efficiency packaged air conditioning units. Some of the replacement units will incorporate efficient gas furnaces. 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 and heating load, and the estimated annual operating hours.

**Affected Units:** RTUs 1-7, AC-2, and the communications office mini-split AC unit

## 4.5 Gas-Fired Heating

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
	<b>Gas Heating (HVAC/Process) Replacement</b>	<b>0</b>	<b>0.0</b>	<b>141</b>	<b>\$1,917</b>	<b>\$85,800</b>	<b>\$5,654</b>	<b>\$80,146</b>	<b>41.8</b>	<b>16,567</b>
ECM 7	Install High Efficiency Hot Water Boilers	0	0.0	141	\$1,917	\$85,800	\$5,654	\$80,146	41.8	16,567

## ECM 7: Install High Efficiency Hot Water Boilers

We evaluated replacing older inefficient hot water boilers with high efficiency hot water boilers. Energy savings results from improved combustion efficiency and reduced standby losses at low loads.

For the purposes of this analysis, we evaluated the replacement of boilers on a one-for-one basis with equipment of the same capacity. We recommend that you work with your mechanical design team to select boilers that are sized appropriately for the heating load. In many cases installing multiple modular boilers, rather than one or two large boilers, will result in higher overall plant efficiency while providing additional system redundancy.

Replacing the boilers has a long payback and may not be justifiable based simply on energy considerations. However, the boilers have reached the end of their normal useful life. Typically, the marginal cost of purchasing high efficiency boilers can be justified by the marginal savings from the improved efficiency. When the boiler is eventually replaced, consider purchasing boilers that exceed the minimum efficiency required by building codes. We also recommend working with your mechanical design team to determine whether the heating system can operate with return water temperatures below 130°F, which would allow the use of condensing boilers.

## 4.6 HVAC Improvements

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>HVAC System Improvements</b>		<b>4,967</b>	<b>0.0</b>	<b>0</b>	<b>\$765</b>	<b>\$716</b>	<b>\$120</b>	<b>\$596</b>	<b>0.8</b>	<b>5,001</b>
ECM 8	Install Pipe Insulation	4,967	0.0	0	\$765	\$716	\$120	\$596	0.8	5,001

### ECM 8: Install Pipe Insulation

Install insulation on domestic hot water system piping. Distribution system losses are dependent on system fluid temperature, the size of the distribution system, and the level of insulation of the piping. Significant energy savings can be achieved when insulation has not been well maintained. When the insulation is exposed to water, when the insulation has been removed from some areas of the pipe, or when valves have not been properly insulated system efficiency can be significantly reduced. This measure saves energy by reducing heat transfer in the distribution system.

**Affected Systems:** domestic hot water piping for systems in janitorial 102, 202, 1516, 1722, 2518, 2702, and office 1122

## 4.7 Domestic Water Heating

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Domestic Water Heating Upgrade</b>		<b>2,085</b>	<b>0.0</b>	<b>0</b>	<b>\$321</b>	<b>\$108</b>	<b>\$54</b>	<b>\$54</b>	<b>0.2</b>	<b>2,100</b>
ECM 9	Install Low-Flow DHW Devices	2,085	0.0	0	\$321	\$108	\$54	\$54	0.2	2,100

### ECM 9: Install Low-Flow DHW Devices

Install low-flow devices to reduce overall hot water demand. The following low-flow devices are recommended to reduce hot water usage:

Device	Flow Rate
Faucet aerators (lavatory)	0.5 gpm
Faucet aerator (kitchen)	1.5 gpm
Showerhead	2.0 gpm
Pre-rinse spray valve (kitchen)	1.28 gpm

Low-flow devices reduce the overall water flow from the fixture, while still providing adequate pressure for washing. Additional cost savings may result from reduced water usage.



## 4.8 Food Service & Refrigeration Measures

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Food Service &amp; Refrigeration Measures</b>		<b>7,817</b>	<b>0.9</b>	<b>0</b>	<b>\$1,204</b>	<b>\$1,840</b>	<b>\$200</b>	<b>\$1,640</b>	<b>1.4</b>	<b>7,872</b>
ECM 10	Vending Machine Control	7,817	0.9	0	\$1,204	\$1,840	\$200	\$1,640	1.4	7,872

### ECM 10: 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.

## 4.9 Custom Measures

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Custom Measures</b>		<b>4,044</b>	<b>0.0</b>	<b>0</b>	<b>\$622</b>	<b>\$3,513</b>	<b>\$0</b>	<b>\$3,513</b>	<b>5.6</b>	<b>4,072</b>
ECM 11	Replace Electric Water Heater with Heat Pump Water Heater	4,044	0.0	0	\$622	\$3,513	\$0	\$3,513	5.6	4,072

### ECM 11: Replace Electric Water Heater with Heat Pump Water Heater

A typical electric water heater uses electric resistance coils to heat water at a coefficient of performance (COP) of 1. Air source heat pump water heaters (HPWH) use a refrigeration cycle to transfer heat from the surrounding air to the domestic water. The typical average COP for a HPWH is about 2.5, so they require significantly less electricity to produce the same amount of hot water as a traditional electric water heater. There are two types of HPWH, those integrated with the heat pump and storage tank in the same unit, and those that are split into two sections (with the storage tank separate from the heat pump). The following addresses integrated HPWH.

HPWH reject cold air. As such, they need to be installed in an unconditioned space of about 750 cubic feet with good ventilation. Ideal locations are garages, large enclosed, unconditioned storage areas, or areas with excess heat such as a furnace or boiler room.<sup>4</sup> The HPWH will also produce condensate so accommodations for draining the condensate need to be provided.

Most HPWH operate effectively down to an air temperature of 40 °F. Below that temperature, an electric resistance booster heater is typically required to achieve full heating capacity. It is critical that the HPWH controls are set up so that the electric resistance heat only engages when the air temperature is too cold for the HPWH to extract heat from it. HPWHs have a slow recovery. During periods of high demand, the

<sup>4</sup><https://basc.pnnl.gov/code-compliance/heat-pump-water-heaters-code-compliance-brief#:~:text=HPWH%20must%20have%20unrestricted%20airflow,depending%20on%20size%20of%20system>

electric resistance heating element, if enabled, may be energized to maintain set point, thus reducing the overall efficiency of the unit. It is recommended that a careful analysis of the hot water demand be conducted to determine if the application makes economic sense, and the HPWH heating capacity and storage are properly sized.

HPWH operate most effectively when the temperature difference between the incoming and outgoing water is high. Generally, this means that cold make-up water should be piped to the bottom of the tank and return water should be piped to the top of the tank in order to maintain stratification within the storage tank. Water should be drawn from the bottom of the tank to be heated. If there is a DHW recirculation pump, it should only be operated during high hot water demand periods.

**Affected Systems:** Two domestic tank water heaters in Mechanical 1723. These systems were selected based on an assessment of system characteristics, usage patterns, and available space and ventilation.

## 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.

Operation and maintenance (O&M) plans enhance the operational efficiency of HVAC and other energy intensive systems and could save 5%–20% of the energy usage in your building without substantial capital investment. A successful plan includes your records of energy usage trends and costs, building equipment lists, current maintenance practices, and planned capital upgrades, and it incorporates your ideas for improved building operation. Your plan will address goals for energy-efficient operation, provide detail on how to reach the goals, and outline procedures for measuring and reporting whether goals have been achieved.

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 cannot manage what you do not 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<sup>5</sup>. Your account has already been established. Now you can continue to keep tabs on your energy performance every month.

### **Weatherization**

Caulk or weather strip leaky doors and windows to reduce drafts and loss of heated or cooled air. Sealing cracks and openings can reduce heating and cooling costs, improve building durability, and create a healthier indoor environment. Materials used may include caulk, polyurethane foam, and other weather-stripping materials. There is an energy savings opportunity by reducing the uncontrolled air exchange between the outside and inside of the building. Blower door assisted comprehensive building air sealing will reduce the amount of air exchange, which will in turn reduce the load on the buildings heating and cooling equipment, providing energy savings and increased occupant comfort.

### **Doors and Windows**

Close exterior doors and windows in heated and cooled areas. Leaving doors and windows open leads to a loss of heat during the winter and chilled air during the summer. Reducing air changes per hour can lead to increased occupant comfort as well as heating and cooling savings, especially when combined with proper HVAC controls and adequate ventilation.

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<sup>5</sup> <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>.

## **Lighting Maintenance**



- Clean lamps, reflectors and lenses of dirt, dust, oil, and smoke buildup every six to twelve months. Light levels decrease over time due to lamp aging, lamp and ballast failure, and buildup of dirt and dust. Together, this can reduce total light output by up to 60% while still drawing full power.
- In addition to routine cleaning, developing a maintenance schedule can ensure that maintenance is performed regularly, and it can reduce the overall cost of fixture re-lamping and re-ballasting. Group re-lamping and re-ballasting maintains lighting levels and minimizes the number of site visits by a lighting technician or contractor, decreasing the overall cost of maintenance.

## **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. Adjust exterior lighting time clock controls seasonally as needed to match your lighting requirements.

## **Motor Maintenance**

Motors have many moving parts. As these parts degrade over time, the efficiency of the motor is reduced. Routine maintenance prevents damage to motor components. Routine maintenance should include cleaning surfaces and ventilation openings on motors to prevent overheating, lubricating moving parts to reduce friction, inspecting belts and pulleys for wear and to ensure they are at proper alignment and tension, and cleaning and lubricating bearings. Consult a licensed technician to assess these and other motor maintenance strategies.

## **Fans to Reduce Cooling Load**

Install ceiling fans to supplement your cooling system. Thermostat settings can typically be increased by 4°F with no change in overall occupant comfort due to the wind chill effect of moving air.

## **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°F-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.

## **Economizer Maintenance**

Economizers can significantly reduce cooling system load. A malfunctioning economizer can increase the amount of heating and mechanical cooling required by introducing excess amounts of cold or hot outside air. Common economizer malfunctions include broken outdoor thermostat or enthalpy control or dampers that are stuck or improperly adjusted.



Periodic inspection and maintenance will keep economizers working in sync with the heating and cooling system. This maintenance should be part of annual system maintenance, and it should include proper setting of the outdoor thermostat/enthalpy control, inspection of control and damper operation, lubrication of damper connections, and adjustment of minimum damper position.

### **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.

### **HVAC Filter Cleaning and Replacement**

Air filters should be checked regularly (often monthly) and cleaned or replaced when appropriate. Air filters reduce indoor air pollution, increase occupant comfort, and help keep equipment operating efficiently. If the building has a building management system, consider installing a differential pressure switch across filters to send an alarm about premature fouling or overdue filter replacement. Over time, filters become less, and less effective as particulate buildup increases. Dirty filters also restrict air flow through the air conditioning or heat pump system, which increases the load on the distribution fans.

### **Ductwork Maintenance**

Duct maintenance has two primary goals: keep the ducts clean to avoid air quality problems and seal leaks to save energy. Check for cleanliness, obstructions that block airflow, water damage, and leaks. Ducts should be inspected at least every two years.

The biggest symptoms of clogged air ducts are differing temperatures throughout the building and areas with limited airflow from supply registers. If a particular air duct is clogged, then air flow will only be cut off to some rooms in the building—not all of them. The reduced airflow will make it more difficult for those areas to reach the temperature setpoint, which will cause the HVAC system to run longer to cool or heat that area properly. If you suspect clogged air ducts, ensure that all areas in front of supply registers are clear of items that may block or restrict air flow, and you should check for fire dampers or balancing dampers that have failed closed.

Duct leakage in commercial buildings can account for 5%–25% of the supply airflow. In the case of rooftop air handlers, duct leakage can occur to the outside of the building wasting conditioned air. Check ductwork for leakage. Eliminating duct leaks can improve ventilation system performance and reduce heating and cooling system operation.

Distribution system losses are dependent on-air system temperature, the size of the distribution system, and the level of insulation of the ductwork. Significant energy savings can be achieved when insulation has not been well maintained. When the insulation is missing or worn, the system efficiency can be significantly reduced. This measure saves energy by reducing heat transfer in the distribution system.

### **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 and efficiently. Boilers should be cleaned according to the manufacturer's instructions to remove soot and scale from the boiler tubes to improve heat transfer.

### **Label HVAC Equipment**

For improved coordination in maintenance practices, we recommend labeling or re-labeling the site HVAC equipment. Maintain continuity in labeling by following labeling conventions as indicated in the facility drawings or BAS building equipment list. Use weatherproof or heatproof labeling or stickers for permanence, but do not cover over original equipment nameplates, which should be kept clean and readable whenever possible. Besides equipment, label piping for service and direction of flow when possible. Ideally, maintain a log of HVAC equipment, including nameplate information, asset tag designation, areas served, installation year, service dates, and other pertinent information.

This investment in your equipment will enhance collaboration and communication between your staff and your contracted service providers and may help you with regulatory compliance.

### **Optimize HVAC Equipment Schedules**

Energy management systems (BAS) typically provide advanced controls for building HVAC systems, including chillers, boilers, air handling units, rooftop units and exhaust fans. The BAS monitors and reports operational status, schedules equipment start and stop times, locks out equipment operation based on outside air or space temperature, and often optimizes damper and valve operation based on complex algorithms. These BAS features, when in proper adjustment, can improve comfort for building occupants and save substantial energy.

Know your BAS scheduling capabilities. Regularly monitor HVAC equipment operating schedules and match them to building operating hours in order to eliminate unnecessary equipment operation and save energy. Monitoring should be performed often at sites with frequently changing usage patterns – daily in some cases. We recommend using the *optimal start* feature of the BAS (if available) to optimize the building warmup sequence. Most BAS scheduling programs provide for holiday schedules, which can be used during reduced use or shutdown periods. Finally, many systems are equipped with a one-time override function, which can be used to provide additional space conditioning due to a one-time, special event. When available this override feature should be used rather than changing the base operating schedule.

### **Water Heater Maintenance**

The lower the supply water temperature that is used for hand washing sinks, the less energy is needed to heat the water. Reducing the temperature results in energy savings and the change is often unnoticeable to users. Be sure to review the domestic water temperature requirements for sterilizers and dishwashers as you investigate reducing the supply water temperature.

Also, 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.

### **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<sup>6</sup> or download a copy of EPA's "WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities"<sup>7</sup> 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.

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<sup>6</sup> <https://www.epa.gov/watersense>.

<sup>7</sup> <https://www.epa.gov/watersense/watersense-work-0>.

## 6 ON-SITE GENERATION

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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, 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.



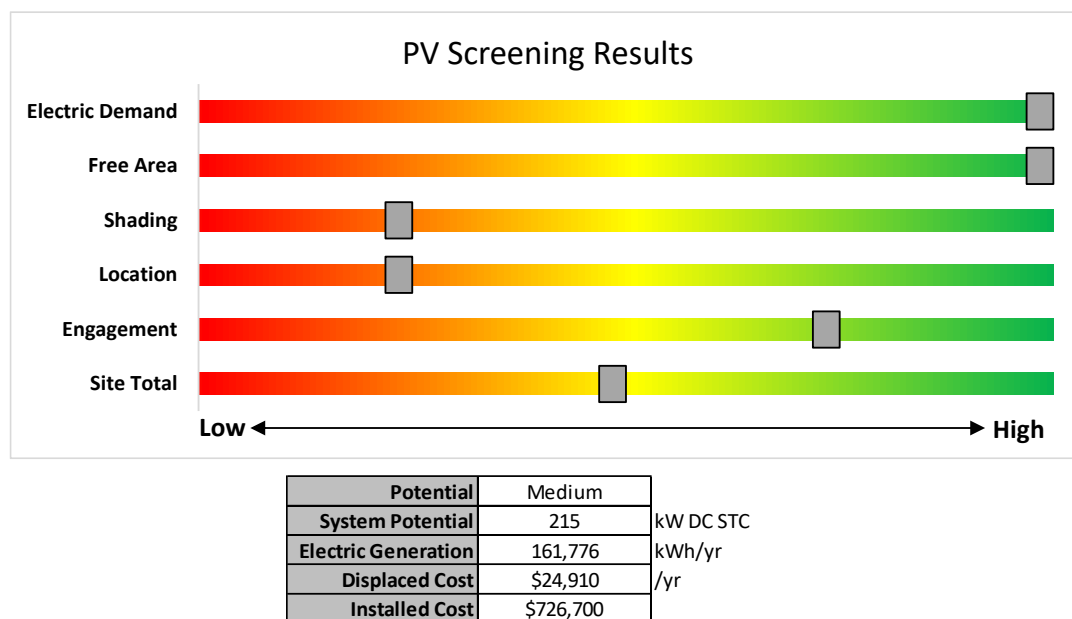
## 6.1 Solar Photovoltaic

Photovoltaic (PV) panels convert sunlight into electricity. Individual panels are combined into an array that produces direct current (DC) electricity. The DC current 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 medium potential for installing an additional PV array.

The amount of free area, ease of installation (location), and the lack of shading elements contribute to the medium potential. An additional PV array located in the parking lot 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 8 - Photovoltaic Screening*

### **Successor Solar Incentive Program (SuSI)**

The SuSI program replaces the SREC Registration Program (SRP) and the Transition Incentive (TI) program. The SuSI program is used to register and certify solar projects in New Jersey. Rebates are not available for solar projects. Solar projects may qualify to earn SREC- IIs (Solar Renewable Energy Certificates-II), however, the project owners *must* register their solar projects prior to the start of construction to establish the project's eligibility.

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:

**Successor Solar Incentive Program (SuSI):** <https://www.njcleanenergy.com/renewable-energy/programs/susi-program>

- **Basic Info on Solar PV in NJ:** [www.njcleanenergy.com/whysolar](http://www.njcleanenergy.com/whysolar)
- **NJ Solar Market FAQs:** [www.njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-transition/solar-market-faqs](http://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](http://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 no 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.

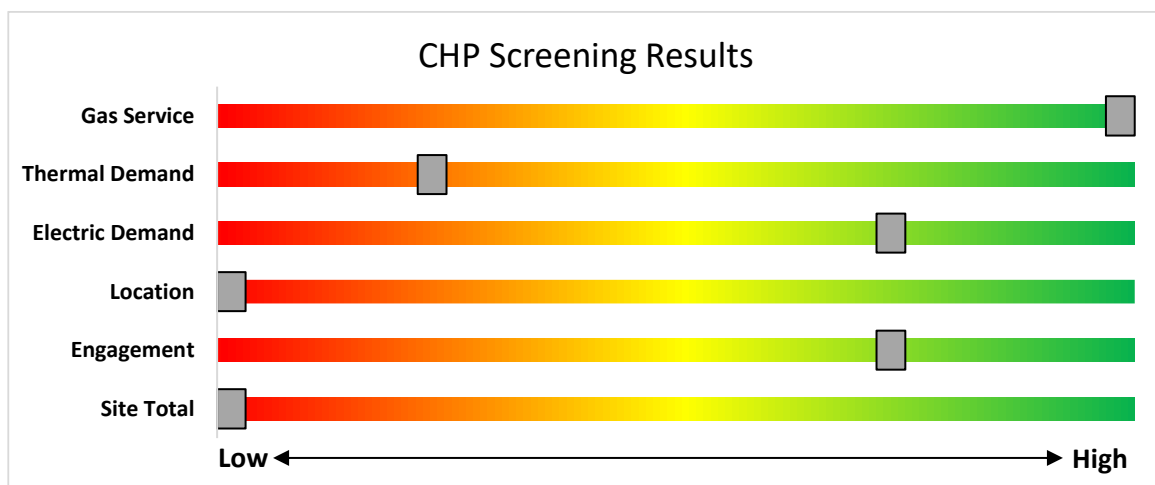


Figure 9 - Combined Heat and Power Screening

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/](http://www.njcleanenergy.com/commercial-industrial/programs/nj-smartstart-buildings/tools-and-resources/tradeally/approved_vendorsearch/).

## 7 ELECTRIC VEHICLES (EV)

All electric vehicles (EVs) have an electric motor instead of an internal combustion engine. EVs function by plugging into a charge point, taking electricity from the grid, and then storing it in rechargeable batteries. Although electricity production may contribute to air pollution, the U.S. EPA categorizes all-electric vehicles as zero-emission vehicles because they produce no direct exhaust or tailpipe emissions.

EVs are typically more expensive than similar conventional and hybrid vehicles, although some cost can be recovered through fuel savings, federal tax credit, or state incentives.

### 7.1 Electric Vehicle Charging

EV charging stations provide a means for electric vehicle operators to recharge their batteries at a facility. While many EV drivers charge at home, others do not have access to regular home charging, and the ability to charge at work or in public locations is critical to making EVs practical for more drivers. Charging can also be used for electric fleet vehicles, which can reduce fuel and maintenance costs for fleets that replace gas or diesel vehicles with EVs.

EV charging comes in three main types. For this assessment, the screening considers addition of Level 2 charging, which is most common at workplaces and other public locations. Depending on the site type and usage, other levels of charging power may be more appropriate.

The preliminary assessment of EV charging at the facility shows that there is high potential for adding EV chargers to the facility's parking, based on potential costs of installation and other site factors.

The primary costs associated with installing EV charging are the charger hardware and the cost to extend power from the facility to parking spaces. This may include upgrades to electric panels to serve increased loads.

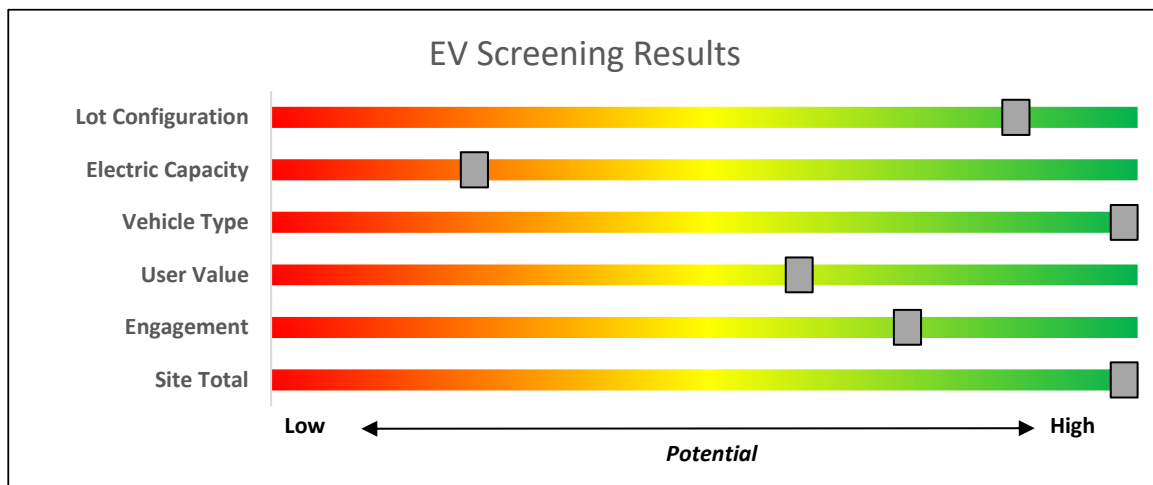
The type and size of the parking area impact the costs and feasibility of adding EV charging. Parking structure installations can be less costly than surface lot installations as power may be readily available, and equipment and wiring can be surface mounted. Parking lot installations often require trenching through concrete or asphalt surface. Large parking areas provide greater flexibility in charger siting than smaller lots.

The location and capacity of facility electric panels also impact charger installation costs. A Level 2 charger generally requires a dedicated 208-240V, 40 Amp circuit. The electric panel nearest the planned installation may not have available capacity and may need to be upgraded to serve new EV charging loads. Alternatively, chargers could be powered from a more distant panel. The distance from the panel to the location of charging stations ties directly to costs, as conduits, cables, and potential trenching costs all increase on a per-foot basis. The more charging stations planned, the more likely it is that additional electrical capacity will be needed.

Other factors to consider when planning for EV charging at a facility include who the intended users are, how long they park vehicles at the site, and whether they will need to pay for the electricity they use.



The graphic below displays the results of the EV charging assessment conducted as part of this audit. The position of each slider indicates the impact each factor has on the feasibility of installing EV charging at the site.



*Figure 10 – EV Charger Screening*

### Electric Vehicle Programs Available

New Jersey is leading the way on electric vehicle (EV) adoption on the East Coast. There are several programs designed to encourage EV adoption in New Jersey, which is crucial to reaching a 100% clean energy future.

NJCEP offers a variety of EV programs for vehicles, charging stations, and fleets. Certain EV charging stations that receive electric utility service from Atlantic City Electric Company (ACE) or Public Service Electric & Gas Company (PSE&G), may be eligible for additional electric vehicle charging incentives directly from the utility. Projects may be eligible for both the incentives offered by this BPU program and incentives offered by ACE or PSE&G, up to 90% of the combined charger purchase and installation costs. Please check ACE or PSE&G program eligibility requirements before purchasing EV charging equipment, as additional conditions on types of eligible chargers may apply for utility incentives.

Both Jersey Central Power & Light (JCP&L) and Rockland Electric (RECO) have filed proposals for EV charging programs. BPU staff is currently reviewing those proposals.

For more information and to keep up to date on all EV programs please visit <https://www.njcleanenergy.com/commercial-industrial/programs/electric-vehicle-programs>.



## 8 PROJECT FUNDING AND INCENTIVES

Ready to improve your building's performance? New Jersey's Clean Energy Programs and Utility Energy Efficiency Programs can help. Pick the program that works best for you. This section provides an overview of currently available incentive programs in.



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**Program areas to be served by the Utilities:**

- Existing Buildings (residential, commercial, industrial, government)
- Efficient Products
  - HVAC
  - Appliance Rebates
  - Appliance Recycling

**Proposed New Programs & Features:**

- Dedicated multi-family program
- More financing options
- Quick home energy check-ups



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**Program areas staying with NJCEP:**

- New Construction (residential, commercial, industrial, government)
- Large Energy Users
- Combined Heat & Power & Fuel Cells
- State Facilities
- Local Government Energy Audits
- Energy Savings Improvement Program
- Solar & Community Solar

## 8.1 Utility Energy Efficiency Programs

The Clean Energy Act, signed into law by Governor Murphy in 2018, requires New Jersey's investor-owned gas and electric utilities to reduce their customers' use by set percentages over time. To help reach these targets the New Jersey Board of Public Utilities approved a comprehensive suite of energy efficiency programs to be run by the utility companies.

### **Prescriptive and Custom**

The Prescriptive and Custom rebate program through your utility provider 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.

#### **Equipment Examples**

*Lighting*

*Lighting Controls*

*HVAC Equipment*

*Refrigeration*

*Gas Heating*

*Gas Cooling*

*Commercial Kitchen Equipment*

*Food Service Equipment*

*Variable Frequency Drives*

*Electronically Commutate Motors*

*Variable Frequency Drives*

*Plug Loads Controls*

*Washers and Dryers*

*Agricultural*

*Water Heating*

The Prescriptive program provides fixed incentives for specific energy efficiency measures. Prescriptive incentives vary by equipment type. The Custom program provides incentives for more unique or specialized technologies or systems that are not addressed through prescriptive incentives.

### **Direct Install**

Direct Install is a turnkey program available to existing small to medium-sized facilities with an average peak electric demand that does not exceed 200 kW or less over the recent 12-month period. You work directly with a pre-approved contractor who will perform a free energy assessment at your facility, identify specific eligible measures, and provide a clear scope of work for installation of selected measures. Energy efficiency measures may include lighting and lighting controls, refrigeration, HVAC, motors, variable speed drives, and controls

#### **Incentives**

The program pays up to 70% of the total installed cost of eligible measures.

#### **How to Participate**

To participate in Direct Install, you will work with a participating contractor. The contractor will be paid the measure incentives directly by the program, which will pass on to you in the form of reduced material and implementation costs. This means up to 70% of eligible costs are covered by the Direct Install program, subject to program rules and eligibility, while the remaining percent of the cost is paid to the contractor by the customer.

## **Engineered Solutions**

The Engineered Solutions Program provides tailored energy-efficiency assistance and services to municipalities, universities, schools, hospitals and healthcare facilities (MUSH), non-profit entities, and multifamily buildings. Customers receive expert guided services, including investment-grade energy auditing, engineering design, installation assistance, construction administration, commissioning, and measurement and verification (M&V) services to support the implementation of cost-effective and comprehensive efficiency projects. Engineered Solutions is generally a good option for medium to large sized facilities with a peak demand over 200 kW looking to implement as many measures as possible under a single project to achieve deep energy savings. Engineered Solutions has an added benefit of addressing measures that may not qualify for other programs. Many facilities pursuing an Energy Savings Improvement Program loan also use this program. Incentives for this program are based on project scope and energy savings achieved.

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For more information on any of these programs, contact your local utility provider or visit <https://www.njcleanenergy.com/transition>.

## 8.2 New Jersey's Clean Energy Programs

Save money while saving the planet! New Jersey's Clean Energy Program is a statewide program that offers incentives, programs, and services that benefit New Jersey residents, businesses, educational, non-profit, and government entities to help them save energy, money, and the environment.

### **Large Energy Users**

The Large Energy Users Program (LEUP) is designed to foster self-directed investment in energy projects. This program is offered to New Jersey's largest energy customers that annually contribute at least \$200,000 to the NJCEP aggregate of all buildings/sites. This equates to roughly \$5 million in energy costs in the prior fiscal year.

#### **Incentives**

Incentives are based on the specifications below. The maximum incentive per entity is the lesser of:

- \$4 million
- 75% of the total project(s) cost
- 90% of total NJCEP fund contribution in previous year
- \$0.33 per projected kWh saved; \$3.75 per projected Therm saved annually

#### **How to Participate**

To participate in LEUP, you will first need submit an enrollment application. This program requires all qualified and approved applicants to submit an energy plan that outlines the proposed energy efficiency work for review and approval. Applicants may submit a Draft Energy Efficiency Plan (DEEP), or a Final Energy Efficiency Plan (FEED). Once the FEED is approved, the proposed work can begin.

Detailed program descriptions, instructions for applying, and applications can be found at [www.njcleanenergy.com/LEUP](http://www.njcleanenergy.com/LEUP).

## **Combined Heat and Power**

The Combined Heat & Power (CHP) program provides incentives for eligible CHP or waste heat to power (WHP) projects. Eligible CHP or WHP projects must achieve an annual system efficiency of at least 65% (lower heating value, or LHV), based on total energy input and total utilized energy output. Mechanical energy may be included in the efficiency evaluation.

### **Incentives**

Eligible Technologies	Size (Installed Rated Capacity) <sup>1</sup>	Incentive (\$/kW)	% of Total Cost Cap per Project <sup>3</sup>	\$ Cap per Project <sup>3</sup>		
Powered by non-renewable or renewable fuel source <sup>4</sup>	≤500 kW	\$2,000	30-40% <sup>2</sup>	\$2 million		
Gas Internal Combustion Engine	>500 kW - 1 MW	\$1,000				
Gas Combustion Turbine	> 1 MW - 3 MW	\$550	30%	\$3 million		
Microturbine	>3 MW	\$350				
Fuel Cells with Heat Recovery						
Waste Heat to Power*	<1 MW	\$1,000	30%	\$2 million		
	> 1MW	\$500		\$3 million		

\*Waste Heat to Power: Powered by non-renewable fuel source, heat recovery or other mechanical recovery from existing equipment utilizing new electric generation equipment (e.g. steam turbine).

Check the NJCEP website for details on program availability, current incentive levels, and requirements.

### **How to Participate**

You will work with a qualified developer or consulting firm to complete the CHP application. Once the application is approved the project can be installed. Information about the CHP program can be found at [www.njcleanenergy.com/CHP](http://www.njcleanenergy.com/CHP).



## Successor Solar Incentive Program (SuSI)

The SuSI program replaces the SREC Registration Program (SRP) and the Transition Incentive (TI) program. The program is used to register and certify 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 SREC-IIs (Solar Renewable Energy Certificates-II). SuSI consists of two sub-programs. The Administratively Determined Incentive (ADI) Program and the Competitive Solar Incentive (CSI) Program.

### **Administratively Determined Incentive (ADI) Program**

The ADI Program provides administratively set incentives for net metered residential projects, net metered non-residential projects 5 MW or less, and all community solar projects.

After the registration is accepted, construction is complete, and a complete final as-built packet has been submitted, the project is issued a New Jersey certification number, which enables it to generate New Jersey SREC- IIs.

Market Segments	Size MW dc	Incentive Value (\$/SREC II)	Public Entities Incentive Value - \$20 Adder (\$/SRECII)
Net Metered Residential	All types and sizes	\$90	N/A
Small Net Metered Non-Residential located on Rooftop, Carport, Canopy and Floating Solar	Projects smaller than 1 MW	\$100	\$120
Large Net Metered Non-Residential located on Rooftop, Carport, Canopy and Floating Solar	Projects 1 MW to 5 MW	\$90	\$110
Small Net Metered Non-Residential Ground Mount	Projects smaller than 1 MW	\$85	\$105
Large Net Metered Non-Residential Ground Mount	Projects 1 MW to 5 MW	\$80	\$100
LMI Community Solar	Up to 5 MW	\$90	N/A
Non-LMI Community Solar	Up to 5 MW	\$70	N/A
Interim Subsection (t)	All types and sizes	\$100	N/A

Eligible projects may generate SREC-IIs for 15 years following the commencement of commercial operations which is defined as permission to operate (PTO) from the Electric Distribution Company. After 15 years, projects may be eligible for a NJ Class I REC.

SREC-IIs will be purchased monthly by the SREC-II Program Administrator who will allocate the SREC-IIs to the Load Serving Entities (BGS Providers and Third-Party Suppliers) annually based on their market share of retail electricity sold during the relevant Energy Year.

The ADI Program online portal is now open to new registrations.

### **Competitive Solar Incentive Program**

The Competitive Solar Incentive (CSI) Program will provide competitively set incentives for grid supply projects and net metered non-residential projects greater than 5MW (dc). The program is currently under development. For updates, please continue to check the [Solar Proceedings](#) page on the New Jersey's Clean Energy Program website.

Solar projects help the State of New Jersey reach renewable energy goals outlined in the state's Energy Master Plan.

If you are considering installing solar photovoltaics on your building, visit the following link for more information: <https://njcleanenergy.com/renewable-energy/programs/susi-program>.

## **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 into contracts to help finance building energy upgrades. Annual payments are lower than the savings projected from the energy conservation measures (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.

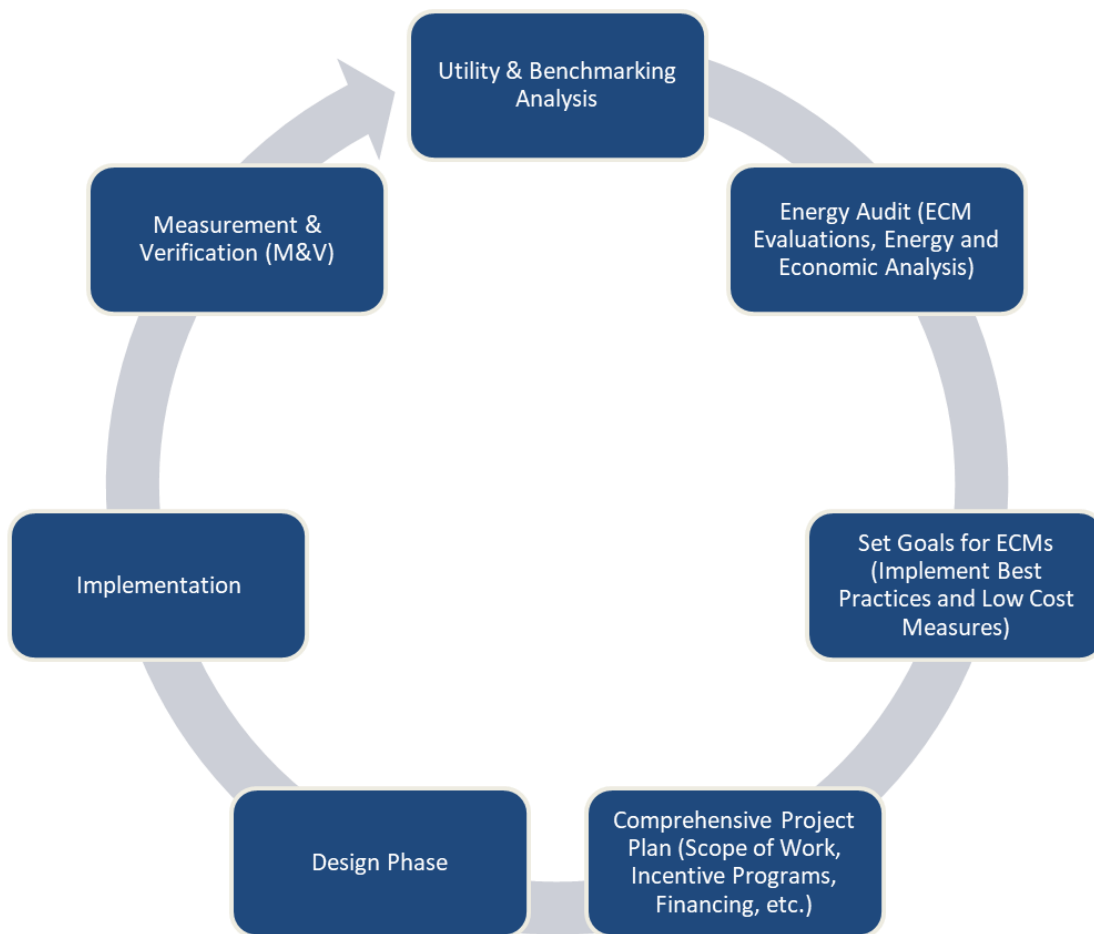
After adopting a resolution with a chosen implementation approach, the development of the energy savings plan can begin. The ESP demonstrates that the total project costs of the ECMs are offset by the energy savings over the financing term, not to exceed 15 years. The verified savings will then be used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

## 9 PROJECT DEVELOPMENT

Energy conservation measures (ECMs) have been identified for your site, and their energy and economic analyses are provided within this LGEA report. Note that some of the identified projects may be mutually exclusive, such as replacing equipment versus upgrading motors or controls. The next steps with project development are to set goals and create a comprehensive project plan. The graphic below provides an overview of the process flow for a typical energy efficiency or renewable energy project. We recommend implementing as many ECMs as possible prior to undertaking a feasibility study for a renewable project. The cyclical nature of this process flow demonstrates the ongoing work required to continually improve building energy efficiency over time. If your building(s) scope of work is relatively simple to implement or small in scope, the measurement and verification (M&V) step may not be required. It should be noted through a typical project cycle, there will be changes in costs based on specific scopes of work, contractor selections, design considerations, construction, etc. The estimated costs provided throughout this LGEA report demonstrate the unburdened turn-key material and labor cost only. There will be contingencies and additional costs at the time of implementation. We recommend comprehensive project planning that includes the review of multiple bids for project work, incorporates potential operations and maintenance (O&M) cost savings, and maximizes your incentive potential.



*Figure 11 – Project Development Cycle*

## 10 ENERGY PURCHASING AND PROCUREMENT STRATEGIES

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### 10.1 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. 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<sup>8</sup>.

### 10.2 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 fluctuate monthly. The utility provides basic gas supply service 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<sup>9</sup>.

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<sup>8</sup> [www.state.nj.us/bpu/commercial/shopping.html](http://www.state.nj.us/bpu/commercial/shopping.html).

<sup>9</sup> [www.state.nj.us/bpu/commercial/shopping.html](http://www.state.nj.us/bpu/commercial/shopping.html).



APPENDIX A: EQUIPMENT INVENTORY & RECOMMENDATIONS

Lighting Inventory & Recommendations

Location	Existing Conditions						Proposed Conditions								Energy Impact & Financial Analysis						
	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Cafeteria 1171	10	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	10	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.6	2,830	-1	\$428	\$818	\$185	1.5
Cafeteria 1588	1	Exit Signs: LED - 2 W Lamp	None		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
Cafeteria 1588	12	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	12	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.7	3,396	-1	\$513	\$927	\$215	1.4
Conference - Interview Room #1	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Interview Room #2	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Interview Room #3	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Interview Room #4	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Interview Room #5	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Interview Room #6	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160		None	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Conference 1081	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Conference 1528	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference 1612/1613	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Conference 1612/1613	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Copy Room - 1588	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,160		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Corridor - 1st Floor Public Jury Assembly	12	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	5,096	2, 4	Relamp	Yes	12	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	3,516	0.4	2,732	-1	\$413	\$774	\$444	0.8
Corridor - 1st Floor Public Jury Assembly	23	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	23	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.5	3,351	-1	\$506	\$1,475	\$851	1.2
Corridor - C1	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	1	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	74	0	\$11	\$0	\$0	0.0
Corridor - C1	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.3	1,733	0	\$262	\$499	\$250	1.0
Corridor - C2	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,040	0	\$157	\$389	\$150	1.5
Corridor - C6	7	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	5,096	2, 4	Relamp	Yes	7	LED - Linear Tubes: (4) 4' Lamps	High/Low Control	58	3,516	0.5	2,850	-1	\$431	\$961	\$385	1.3
Corridor - D1	5	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (4) 4' Lamps	High/Low Control	58	3,516	0.3	2,036	0	\$308	\$590	\$275	1.0
Corridor - Forensics 1124	8	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	8	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.3	1,727	0	\$261	\$1,030	\$360	2.6
Corridor - Holding Cells	14	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	14	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,039	0	\$157	\$675	\$490	1.2
Corridor - ID Bureau	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	5,096	4	None	Yes	1	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.0	56	0	\$9	\$0	\$0	0.0
Corridor - ID Bureau	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,387	0	\$210	\$444	\$200	1.2



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Corridor - ID Bureau	2	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.1	432	0	\$65	\$370	\$90	4.3
Corridor - Prisoner Elevator 11	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	1	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	74	0	\$11	\$0	\$0	0.0
Corridor - Prisoner Elevator 11	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	693	0	\$105	\$335	\$100	2.2
Corridor - Prisoner Elevator 9	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	693	0	\$105	\$335	\$100	2.2
Corridor - Prosecutors 1st Floor	5	Exit Signs: LED - 2 W Lamp	None		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
Corridor - Prosecutors 1st Floor	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	1	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	347	0	\$52	\$55	\$15	0.8
Corridor - Prosecutors 1st Floor	52	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	52	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	1.8	11,227	-2	\$1,697	\$5,793	\$2,340	2.0
Corridor - Prosecutors Elevator 2	4	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	4	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.1	864	0	\$131	\$515	\$180	2.6
Corridor - Sheriff Admin	11	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	11	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.4	2,375	-1	\$359	\$1,247	\$495	2.1
Corridor C5	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	1	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	74	0	\$11	\$0	\$0	0.0
Corridor C5	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	693	0	\$105	\$335	\$100	2.2
Corridor Probation	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	693	0	\$105	\$335	\$100	2.2
Corridor Probation	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.2	1,511	0	\$228	\$957	\$315	2.8
Corridor to Multipurpose	13	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	13	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.3	1,894	0	\$286	\$1,000	\$481	1.8
Corridor to Multipurpose	2	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	2	LED Lamps: PL-L (Bi-ax) Lamps	High/Low Control	118	3,516	0.2	953	0	\$144	\$333	\$78	1.8
Corridor to Probation 1st Floor	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Corridor to Probation 1st Floor	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	5,096	4	None	Yes	1	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.0	56	0	\$9	\$0	\$0	0.0
Corridor to Probation 1st Floor	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.3	1,733	0	\$262	\$499	\$250	1.0
Corridor to Probation 1st Floor	12	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	12	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.4	2,591	-1	\$392	\$1,320	\$540	2.0
Courtroom - Jury Assembly Room	36	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	36	LED Lamps: PL-L (Bi-ax) Lamps	Occupancy Sensor	56	2,870	1.3	6,690	-1	\$1,011	\$1,782	\$177	1.6
Courtroom - Jury Assembly Room	45	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	45	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	1.1	5,352	-1	\$809	\$1,935	\$195	2.2
Courtroom - Jury Assembly Room	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom - Jury Assembly Room	2	Exit Signs: LED - 2 W Lamp	None		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
Electrical Room - Prosecutors 106	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Electrical Room 101	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	236	0	\$36	\$416	\$75	9.6

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Electrical Room 105	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Electrical Room 1512	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$60	6.4
Electrical Room 1622	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Electrical Room 1665	6	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.2	354	0	\$53	\$489	\$95	7.4
Electrical Room 303	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
File Room 1639	6	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	S	58	4,160	3	None	Yes	6	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.1	485	0	\$73	\$270	\$35	3.2
Garage - Loading Dock 1664	8	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.3	1,509	0	\$228	\$562	\$115	2.0
Garage - Receiving 1009	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.1	665	0	\$100	\$262	\$60	2.0
Garage - Sally Port	12	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	12	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	727	0	\$110	\$270	\$35	2.1
Garage Forensics 1022	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Gym - Weight Room 1067	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.1	665	0	\$100	\$262	\$60	2.0
Janitorial 102	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Janitorial 1516	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	1,300	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	1,300	0.0	21	0	\$3	\$25	\$2	7.2
Janitorial 1652	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$60	6.4
Janitorial 1722	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Kitchen 1638	2	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	S	58	4,160	3	None	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.0	162	0	\$24	\$116	\$20	3.9
Lobby - Elevators 1st Floor	14	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	14	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.3	2,040	0	\$308	\$1,025	\$518	1.6
Lobby - Elevators 1st Floor	2	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	2	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.2	953	0	\$144	\$333	\$78	1.8
Lobby - Probation	4	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	4	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.1	864	0	\$131	\$515	\$180	2.6
Lounge - Officers Sally Port	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,415	0	\$214	\$544	\$110	2.0
Lounge 1587	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.1	665	0	\$100	\$262	\$60	2.0
Lounge 1669	10	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	10	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.4	1,887	0	\$285	\$635	\$135	1.8
Main Lobby - 1st Floor	36	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	36	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.8	5,245	-1	\$793	\$2,250	\$1,332	1.2
Main Lobby - 1st Floor	6	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	5,096	2, 4	Relamp	Yes	6	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	73	3,516	0.3	1,771	0	\$268	\$525	\$234	1.1
Main Lobby - 1st Floor	10	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	10	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.8	4,765	-1	\$720	\$990	\$390	0.8

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Main Lobby - Prosecutors 1st Floor	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,387	0	\$210	\$444	\$200	1.2
Main Vestibule - Prosecutors	2	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.1	432	0	\$65	\$370	\$90	4.3
Mechanical - Elevator 304	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.1	139	0	\$21	\$110	\$30	3.8
Mechanical - Elevator 307	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.1	139	0	\$21	\$110	\$30	3.8
Mechanical - Elevator 308	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	2	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.1	93	0	\$14	\$73	\$20	3.8
Mechanical 107	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	3	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.1	139	0	\$21	\$110	\$30	3.8
Mechanical 1665	1	Exit Signs: LED - 2 W Lamp	None		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
Mechanical 1665	8	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	8	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.2	371	0	\$56	\$292	\$80	3.8
Mechanical 1723	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Mechanical 1724	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Multipurpose 1011	12	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	12	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.4	2,115	0	\$320	\$1,140	\$155	3.1
Multipurpose 1507	13	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	13	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.3	1,546	0	\$234	\$595	\$61	2.3
Multipurpose 1507	13	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	13	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	1.0	5,057	-1	\$764	\$972	\$87	1.2
Multipurpose 1507	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Office - 1003	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1018	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Office - 1033	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1034	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1035	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1036	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Office - 1040	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Office - 1041	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1044	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1054	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1055	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 1056	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1057	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1058	19	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	19	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.1	5,377	-1	\$812	\$1,581	\$355	1.5
Office - 1059	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1064	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1065	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1074	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1075	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1076	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1078	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1079	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1080	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1082	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1083	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 1106	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1107	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1108	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1109	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1110	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1111	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1112	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	566	0	\$86	\$380	\$65	3.7
Office - 1122	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1125	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1126	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1127	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 1128	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1132	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	566	0	\$86	\$380	\$65	3.7
Office - 1143	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1145	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1146	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1154	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1155	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1156	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1157	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1159	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1160	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1162	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1522	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1523	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1524	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1525	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1527	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1532	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1534	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1535	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1537	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1538	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1540	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	130	0	\$20	\$72	\$10	3.2
Office - 1542	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - 1543	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 1544	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Office - 1544	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Office - 1566	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1567	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1584	4	Compact Fluorescent: (2) 40W Bi axial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	4	LED Lamps: PL-L (Bi ax) Lamps	Occupancy Sensor	56	2,870	0.1	743	0	\$112	\$378	\$43	3.0
Office - 1585	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1586	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1589	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1590	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 1592	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,160		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - 1597	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1598	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160		None	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - 1601	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	566	0	\$86	\$380	\$65	3.7
Office - 1602	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	130	0	\$20	\$72	\$10	3.2
Office - 1616	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 1617	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,160		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - 1617	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1618	1	Compact Fluorescent: (2) 26W Double Bi axial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 1618	3	Compact Fluorescent: (2) 26W Double Bi axial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	3	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.1	357	0	\$54	\$345	\$41	5.6
Office - 1618	8	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.3	1,410	0	\$213	\$850	\$115	3.4
Office - 1621	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1636	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 1642	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 1651	2	Compact Fluorescent: (2) 26W Double Bi axial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.0	238	0	\$36	\$166	\$24	4.0
Office - Central Records 1172	23	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	23	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.3	6,509	-1	\$984	\$1,800	\$415	1.4

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - Clerical 1592	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.0	121	0	\$18	\$116	\$20	5.2
Office - Clerical 1592	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Clerical 1592	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,415	0	\$214	\$544	\$110	2.0
Office - Communications	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Office - Finance	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.0	121	0	\$18	\$116	\$20	5.2
Office - Finance	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Office - Finance #1	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - ID Bureau 1632	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.0	121	0	\$18	\$116	\$20	5.2
Office - ID Bureau 1632	6	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,698	0	\$257	\$599	\$125	1.8
Office - Interview Rooms	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.0	121	0	\$18	\$116	\$20	5.2
Office - Interview Rooms	10	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	10	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.6	2,830	-1	\$428	\$818	\$185	1.5
Office - Jury Management	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160		None	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Jury Management	7	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	1,981	0	\$299	\$653	\$140	1.7
Office - Jury Management Front	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160		None	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Jury Management Front	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Office - Major Crimes	25	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	25	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.4	7,074	-2	\$1,069	\$1,909	\$445	1.4
Office - Probation Cubicals	36	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	36	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	2.0	10,187	-2	\$1,539	\$2,782	\$645	1.4
Office - Prosecutors 1032	26	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	26	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.4	7,357	-2	\$1,112	\$1,964	\$460	1.4
Office - Prosecutors 1032	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	130	0	\$20	\$72	\$10	3.2
Office - Prosecutors Intelligence Unit	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Office - Sally Port	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	1,132	0	\$171	\$489	\$95	2.3
Office - Sheriffs Front	6	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	6	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.1	714	0	\$108	\$420	\$47	3.5
Office - Sheriffs Front	1	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2	Relamp	No	1	LED Lamps: PL-L (Biax) Lamps	Wall Switch	118	4,160	0.0	225	0	\$34	\$54	\$4	1.5
Office - Sheriffs Front	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Sheriffs Front	2	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	353	0	\$53	\$261	\$40	4.1

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - Special Investigations 1153	19	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	19	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.1	5,377	-1	\$812	\$1,581	\$355	1.5
Office - Victim Witness 1072	11	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	11	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.6	3,113	-1	\$470	\$872	\$200	1.4
Office - Warrant Unit	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Warrant Unit	18	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	18	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.0	5,094	-1	\$770	\$1,526	\$340	1.5
Restroom - Female C1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - Female Jury Assembly	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Female Probation	2	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	92	0	\$14	\$116	\$20	6.9
Restroom - Female Probation	4	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	705	0	\$107	\$560	\$75	4.6
Restroom - Female Prosecutors 1st Floor	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Restroom - Female Public 1st Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Male C1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - Male Jury Assembly	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Male Probation	2	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	92	0	\$14	\$116	\$20	6.9
Restroom - Male Probation	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Restroom - Male Prosecutors 1st Floor	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Restroom - Male Public 1st Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Prosecutors Lobby 1st Floor	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	5,096	0.0	83	0	\$12	\$25	\$2	1.8
Restroom - Sally Port Lounge	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Restroom - Warrant Unit	1	LED Lamps: (1) 9W A19 Screw-In Lamp	Wall Switch	S	9	4,160		None	No	1	LED Lamps: (1) 9W A19 Screw-In Lamp	Wall Switch	9	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Stairs - Prosecutors #1	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch		62	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	3,516	0.2	1,155	0	\$175	\$408	\$225	1.0
Stairs - Prosecutors #2	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch		62	5,096	2, 4	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	3,516	0.1	693	0	\$105	\$335	\$135	1.9
Stairs #2	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch		62	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	3,516	0.2	1,155	0	\$175	\$408	\$225	1.0
Stairs #3	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch		62	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	3,516	0.2	1,155	0	\$175	\$408	\$225	1.0
Stairs #4	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch		62	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	3,516	0.2	1,155	0	\$175	\$408	\$225	1.0
Storage - 1014	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Storage - 1023	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.2	265	0	\$40	\$434	\$45	9.7
Storage - 1025	2	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	897	0.1	110	0	\$17	\$261	\$20	14.5
Storage - 1045	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Storage - 1066	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage - 1068	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	118	0	\$18	\$189	\$20	9.5
Storage - 1094	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.2	354	0	\$53	\$489	\$60	8.0
Storage - 1533	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	1,300	0.0	41	0	\$6	\$72	\$10	10.2
Storage - 1563	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8
Storage - 1569	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8
Storage - 1572	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8
Storage - 1573	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8
Storage - 1620	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Storage - 1637	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8
Storage - 1643	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage - 1645	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	S	58	1,300		None	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	0	0	\$0	\$0	\$0	0.0
Storage - 1667	10	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	10	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.4	590	0	\$89	\$635	\$100	6.0
Storage - Interview Room #1	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Storage - Interview Room #2	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Storage - Interview Room #3	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Storage - Probation Cubicals	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage Evidence	15	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2, 3	Relamp	Yes	15	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.8	1,326	0	\$200	\$1,092	\$225	4.3
Telephone/Server Room 1668	7	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.3	1,321	0	\$200	\$526	\$105	2.1
Conference - Jury Deliberation 2646	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 2646	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	4,160	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.0	121	0	\$18	\$116	\$20	5.2
Conference - Jury Deliberation 2646	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Conference - Jury Deliberation 2667	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 2667	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,415	0	\$214	\$544	\$110	2.0
Conference - Jury Deliberation 2676	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 2676	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference 2005	10	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	10	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	1,189	0	\$180	\$520	\$55	2.6
Conference 2005	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference 2042	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Conference 2085	10	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	10	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	1,189	0	\$180	\$520	\$55	2.6
Conference 2085	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference 2146	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Conference 2509	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Conference 2642	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2643	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2657	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Conference 2662	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2663	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2672	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2673	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2692	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2693	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference 2703	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Conference 2704	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Corridor - 2nd Floor Public Courts	57	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	57	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	1.3	8,304	-2	\$1,255	\$3,675	\$2,109	1.2
Corridor - 2nd Floor Public Courts	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	5,096	2, 4	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	73	3,516	0.2	1,181	0	\$178	\$425	\$156	1.5
Corridor - 2nd Floor Public Courts	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.5	2,859	-1	\$432	\$549	\$234	0.7



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Corridor - Elevator #2 2nd Floor	3	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	3	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.1	437	0	\$66	\$300	\$111	2.9
Corridor — Employees Entrance 2nd Floor	2	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	5,096	4	None	Yes	2	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.0	113	0	\$17	\$225	\$70	9.1
Corridor — Employees Entrance 2nd Floor	13	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	13	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.7	4,506	-1	\$681	\$1,387	\$650	1.1
Corridor — Employees Entrance 2nd Floor	16	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	16	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.6	3,455	-1	\$522	\$1,834	\$720	2.1
Corridor - Holding Cells to Court 1 & 2	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	1	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	74	0	\$11	\$0	\$0	0.0
Corridor - Holding Cells to Court 1 & 2	6	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	6	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.3	2,080	0	\$314	\$554	\$300	0.8
Corridor - Holding Cells to Court 3 & 4	4	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	4	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	297	0	\$45	\$225	\$140	1.9
Corridor - Holding Cells to Court 3 & 4	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,040	0	\$157	\$389	\$150	1.5
Corridor - Judges Chamber 2nd Floor	10	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	5,096	4	None	Yes	10	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.1	563	0	\$85	\$450	\$350	1.2
Corridor - Judges Chamber 2nd Floor	9	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	9	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.5	3,120	-1	\$471	\$943	\$450	1.0
Corridor - Judges Chamber 2nd Floor	9	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	9	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.5	3,120	-1	\$471	\$943	\$450	1.0
Corridor - Judges Chamber 2nd Floor	20	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	20	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.7	4,318	-1	\$653	\$2,349	\$900	2.2
Corridor - Prosecutors 2nd Floor	24	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	24	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.6	3,496	-1	\$528	\$1,500	\$888	1.2
Courtroom #1	51	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	51	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	1.2	6,065	-1	\$917	\$2,355	\$242	2.3
Courtroom #1	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #1	8	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	8	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.6	3,112	-1	\$470	\$702	\$67	1.4
Courtroom #1	12	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	12	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.4	2,115	0	\$320	\$1,140	\$155	3.1
Courtroom #2	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3
Courtroom #2	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #2	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5
Courtroom #2	3	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	3	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	138	0	\$21	\$270	\$35	11.3
Courtroom #2	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Courtroom #3	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3
Courtroom #3	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #3	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Courtroom #3	8	LED - Fixtures: Ambient 2x2 Fixture	Wall Switch	S	40	4,160	3	None	Yes	8	LED - Fixtures: Ambient 2x2 Fixture	Occupancy Sensor	40	2,870	0.1	446	0	\$67	\$270	\$35	3.5
Courtroom #4	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3
Courtroom #4	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #4	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5
Courtroom #4	8	LED - Fixtures: Ambient 2x2 Fixture	Wall Switch	S	40	4,160	3	None	Yes	8	LED - Fixtures: Ambient 2x2 Fixture	Occupancy Sensor	40	2,870	0.1	446	0	\$67	\$270	\$35	3.5
Electrical Room 201	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	236	0	\$36	\$416	\$75	9.6
Electrical Room 205	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Electrical Room 206	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Electrical Room 2152	2	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	897	0.1	110	0	\$17	\$261	\$40	13.3
Electrical Room 2574	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Electrical Room 2624	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Electrical Room 2632	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$60	6.4
Electrical Room 403	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	236	0	\$36	\$416	\$75	9.6
Gym - Weight Room 2533	14	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	14	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.8	3,962	-1	\$599	\$1,037	\$245	1.3
Janitorial 202	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Janitorial 2518	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	1,300	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	1,300	0.0	21	0	\$3	\$25	\$2	7.2
Janitorial 2702	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Kitchen - Executive Suite	4	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.3	1,330	0	\$201	\$562	\$115	2.2
Lobby - Courtroom #1	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #2	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #3	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #4	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Elevators 2nd Floor	14	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	14	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.3	2,040	0	\$308	\$1,025	\$518	1.6
Lobby - Elevators 2nd Floor	2	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	2	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.2	953	0	\$144	\$333	\$78	1.8
Locker Room - Female 2nd Floor	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.1	665	0	\$100	\$262	\$60	2.0

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Locker Room - Female 2nd Floor	3	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	529	0	\$80	\$487	\$65	5.3
Locker Room - Male 2nd Floor	8	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	2,870	0.5	2,659	-1	\$402	\$854	\$195	1.6
Locker Room - Male 2nd Floor	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Lounge - 2033	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Lounge 2505	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Lounge 2542	10	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	10	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.6	2,830	-1	\$428	\$818	\$185	1.5
Lounge 2631	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Lounge 2631	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Main Lobby - 2nd Floor	34	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	34	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.8	4,953	-1	\$748	\$2,200	\$1,258	1.3
Main Lobby - 2nd Floor	8	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	5,096	2, 4	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	73	3,516	0.4	2,361	-1	\$357	\$850	\$312	1.5
Main Lobby - 2nd Floor	4	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.3	1,906	0	\$288	\$441	\$156	1.0
Mechanical 2623	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Office - 2007	4	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	2,870	0.1	743	0	\$112	\$378	\$43	3.0
Office - 2008	4	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	2,870	0.1	743	0	\$112	\$378	\$43	3.0
Office - 2009	5	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	5	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	2,870	0.2	929	0	\$140	\$405	\$45	2.6
Office - 2009	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Office - 2009	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 2016	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2017	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2018	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2020	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Office - 2022	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2024	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2035	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2036	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 2037	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2038	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2039	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2040	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2053	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2054	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2055	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2056	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2057	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2058	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2062	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2063	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2064	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2065	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2066	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2067	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2068	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2069	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2073	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2074	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2082	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2083	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2091	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2092	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2093	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 2094	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2095	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2096	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2097	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2098	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2111	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2112	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2113	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2114	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2115	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2117	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2118	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2119	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2122	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2123	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2124	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2125	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2126	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2132	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2133	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2134	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2135	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2136	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2137	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2138	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - 2139	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2145	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2147	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2152	17	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	17	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.6	2,996	-1	\$453	\$1,772	\$240	3.4
Office - 2507	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2536	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2537	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2551	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	1,132	0	\$171	\$489	\$95	2.3
Office - 2552	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2553	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2554	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2555	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2564	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2565	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2567	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2568	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 2569	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 2570	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 2571	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 2583	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 2584	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - Administration 2142	12	LED - Fixtures: Ambient 2x2 Fixture	Wall Switch	S	40	4,160	3	None	Yes	12	LED - Fixtures: Ambient 2x2 Fixture	Occupancy Sensor	40	2,870	0.1	669	0	\$101	\$270	\$35	2.3
Office - Administration 2142	38	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	38	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	2.1	10,753	-2	\$1,625	\$2,891	\$675	1.4
Office - Executive Suite 2011	9	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	9	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	1,070	0	\$162	\$495	\$53	2.7
Office - Executive Suite 2011	2	Exit Signs: LED - 2 W Lamp	None		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

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - Executive Suite 2011	12	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	12	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.7	3,396	-1	\$513	\$927	\$215	1.4
Office - Executive Suite 2011	4	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	705	0	\$107	\$560	\$75	4.6
Office - Fugitive Unit	7	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	1,981	0	\$299	\$653	\$140	1.7
Office - Judge 2592	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Office - Judge 2592	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Office - Judge 2603	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 2603	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 2603	3	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	3	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	138	0	\$21	\$270	\$35	11.3
Office - Judge 2603	4	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	705	0	\$107	\$560	\$75	4.6
Office - Judge 2607	6	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	6	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.1	714	0	\$108	\$420	\$47	3.5
Office - Judge 2607	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Judge 2607	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Judge 2607	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Office - Judge 2613	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 2613	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 2613	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Judge 2613	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Office - Judge 2617	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 2617	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Judge 2617	2	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	92	0	\$14	\$116	\$20	6.9
Office - Judge 2617	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Office - Mail Room 2588	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Mail Room 2588	3	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	529	0	\$80	\$487	\$65	5.3
Office - Open Prosecutors 2nd Floor	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.0	238	0	\$36	\$166	\$24	4.0
Office - Open Prosecutors 2nd Floor	35	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	35	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.9	9,904	-2	\$1,497	\$2,727	\$630	1.4

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - Open Prosecutors 2nd Floor	24	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	24	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.8	4,230	-1	\$639	\$2,279	\$310	3.1
Office - Pretrial Services	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - Pretrial Services	20	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	20	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.1	5,660	-1	\$855	\$1,635	\$370	1.5
Office - Recovery Court	4	Exit Signs: LED - 2 W Lamp	None		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
Office - Recovery Court	7	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.1	322	0	\$49	\$270	\$35	4.8
Office - Recovery Court	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - Recovery Court	22	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	22	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	1.2	6,226	-1	\$941	\$1,745	\$400	1.4
Office - Recovery Court	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Office - Screening	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Office - Weight Room	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Restroom - 2505	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	130	0	\$20	\$72	\$10	3.2
Restroom - 2592 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2646 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2646 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2667 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2667 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2676 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 2676 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - Executive Suite	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - Female Employees 2nd Floor	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Restroom - Female Prosecutors 2nd Floor	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Restroom - Female Public 2nd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Male Employees 2nd Floor	5	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	881	0	\$133	\$632	\$85	4.1
Restroom - Male Prosecutors 2nd Floor	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Restroom - Male Public 2nd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Storage 2155	3	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	897	0.1	165	0	\$25	\$487	\$30	18.3
Storage 2519	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	1,300	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	1,300	0.0	21	0	\$3	\$25	\$2	7.2
Storage 2538	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage 2539	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$40	7.1
Storage 2545	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage 2596	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	1,300	3	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.0	38	0	\$6	\$116	\$0	20.3
Storage 2596	6	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	6	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.4	623	0	\$94	\$708	\$120	6.2
Storage 2651	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$40	7.1
Storage 2681	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5
Storage 404	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	118	0	\$18	\$189	\$20	9.5
Classroom 3101	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,058	0	\$160	\$705	\$95	3.8
Computer Lab 3013	4	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.1	476	0	\$72	\$370	\$43	4.5
Computer Lab 3013	6	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,698	0	\$257	\$599	\$125	1.8
Conference - 3069	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - 3069	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference - 3112	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3113	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3127	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Conference - 3132	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3133	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3142	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3143	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3162	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - 3163	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Conference - Jury Deliberation 3067	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Conference - Jury Deliberation 3067	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference - Jury Deliberation 3116	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 3116	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Conference - Jury Deliberation 3137	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 3137	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,415	0	\$214	\$544	\$110	2.0
Conference - Jury Deliberation 3146	8	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	951	0	\$144	\$470	\$51	2.9
Conference - Jury Deliberation 3146	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Copy Room 3066	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Corridor - 3rd Floor Public Courts	48	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	48	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	1.1	6,993	-1	\$1,057	\$3,000	\$1,776	1.2
Corridor - 3rd Floor Public Courts	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	5,096	2, 4	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	73	3,516	0.2	1,181	0	\$178	\$425	\$156	1.5
Corridor - 3rd Floor Public Courts	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.5	2,859	-1	\$432	\$549	\$234	0.7
Corridor - Employees Entrance 3rd Floor	6	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	6	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	0.2	1,295	0	\$196	\$660	\$270	2.0
Corridor - Holding Cells to Court 5 & 6	2	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	148	0	\$22	\$225	\$70	6.9
Corridor - Holding Cells to Court 5 & 6	5	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	5	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.3	1,733	0	\$262	\$499	\$250	1.0
Corridor - Holding Cells to Court 7 & 8	4	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	4	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.0	297	0	\$45	\$225	\$140	1.9
Corridor - Holding Cells to Court 7 & 8	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.2	1,040	0	\$157	\$389	\$150	1.5
Corridor - Judges Chambers 3rd Floor	6	Exit Signs: LED - 2 W Lamp	None		6	8,760		None	No	6	Exit Signs: LED - 2 W Lamp	None	6	8,760	0.0	0	0	\$0	\$0	\$0	0.0
Corridor - Judges Chambers 3rd Floor	8	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	5,096	4	None	Yes	8	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	594	0	\$90	\$450	\$280	1.9
Corridor - Judges Chambers 3rd Floor	10	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	10	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.6	3,466	-1	\$524	\$998	\$500	1.0
Corridor - Judges Chambers 3rd Floor	31	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	5,096	2, 4	Relamp	Yes	31	LED - Linear Tubes: (2) U-Lamp	High/Low Control	33	3,516	1.1	6,693	-1	\$1,011	\$3,596	\$1,395	2.2
Courtroom #5	51	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	51	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	1.2	6,065	-1	\$917	\$2,355	\$242	2.3
Courtroom #5	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #5	8	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	8	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.6	3,112	-1	\$470	\$702	\$67	1.4
Courtroom #5	12	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	12	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.4	2,115	0	\$320	\$1,140	\$155	3.1
Courtroom #6	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Courtroom #6	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #6	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5
Courtroom #6	8	LED - Fixtures: Ambient 2x2 Fixture	Wall Switch	S	40	4,160	3	None	Yes	8	LED - Fixtures: Ambient 2x2 Fixture	Occupancy Sensor	40	2,870	0.1	446	0	\$67	\$270	\$35	3.5
Courtroom #7	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3
Courtroom #7	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #7	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5
Courtroom #7	8	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.3	1,410	0	\$213	\$850	\$115	3.4
Courtroom #8	39	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	39	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.9	4,638	-1	\$701	\$1,785	\$183	2.3
Courtroom #8	4	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	4,160	2, 3	Relamp	Yes	4	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	73	2,870	0.2	964	0	\$146	\$470	\$51	2.9
Courtroom #8	6	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	118	2,870	0.5	2,334	0	\$353	\$594	\$59	1.5
Courtroom #8	8	LED - Fixtures: Ambient 2x2 Fixture	Wall Switch	S	40	4,160	3	None	Yes	8	LED - Fixtures: Ambient 2x2 Fixture	Occupancy Sensor	40	2,870	0.1	446	0	\$67	\$270	\$35	3.5
Electrical Room 3050	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$60	6.4
Electrical Room 3094	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	1,300		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	0	0	\$0	\$0	\$0	0.0
Electrical Room 3102	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$60	6.4
Electrical Room 504	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	177	0	\$27	\$380	\$65	11.8
Janitorial 503	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	897	0.1	236	0	\$36	\$416	\$75	9.6
Lobby - Courtroom #5	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #6	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #7	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Courtroom #8	2	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	2	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.0	291	0	\$44	\$275	\$74	4.6
Lobby - Elevators 3rd Floor	14	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	14	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.3	2,040	0	\$308	\$1,025	\$518	1.6
Lobby - Elevators 3rd Floor	2	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	2	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.2	953	0	\$144	\$333	\$78	1.8
Main Lobby - 3rd Floor	6	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	5,096	2, 4	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	3,516	0.2	1,366	0	\$206	\$387	\$222	0.8
Main Lobby - 3rd Floor	33	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	5,096	2, 4	Relamp	Yes	33	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	37	3,516	0.8	4,808	-1	\$726	\$2,175	\$1,221	1.3
Main Lobby - 3rd Floor	8	Compact Fluorescent: (4) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	104	5,096	2, 4	Relamp	Yes	8	LED Lamps: GX23 (Plug-In) Lamps	High/Low Control	73	3,516	0.4	2,361	-1	\$357	\$850	\$312	1.5



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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Main Lobby - 3rd Floor	4	Compact Fluorescent: (4) 42W Triple Biaxial Plug-In Lamps	Wall Switch	S	168	5,096	2, 4	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	High/Low Control	118	3,516	0.3	1,906	0	\$288	\$441	\$156	1.0
Main Lobby - 3rd Floor	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	5,096	2, 4	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	High/Low Control	44	3,516	0.1	693	0	\$105	\$335	\$100	2.2
Mechanical 3093	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,300	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	1,300	0.0	46	0	\$7	\$37	\$10	3.8
Office - 3022	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3023	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3024	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3033	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - 3034	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3034	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	4,160	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	4,160	0.0	252	0	\$38	\$73	\$20	1.4
Office - 3035	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3042	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 3043	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 3044	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - 3055	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3056	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,870	0.1	377	0	\$57	\$189	\$40	2.6
Office - 3063	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	1,132	0	\$171	\$489	\$95	2.3
Office - 3064	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	S	29	4,160		None	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - 3067	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.1	566	0	\$86	\$226	\$50	2.1
Office - 3173	6	Compact Fluorescent: (2) 40W Biaxial Plug-In Lamps	Wall Switch	S	80	4,160	2, 3	Relamp	Yes	6	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	2,870	0.2	1,115	0	\$168	\$432	\$47	2.3
Office - Criminal Division 3rd Floor	7	Exit Signs: LED - 2 W Lamp	None		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
Office - Criminal Division 3rd Floor	4	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	4	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	184	0	\$28	\$270	\$35	8.5
Office - Criminal Division 3rd Floor	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	4,160	2	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	4,160	0.0	148	0	\$22	\$37	\$10	1.2
Office - Criminal Division 3rd Floor	66	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	66	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	3.7	18,677	-4	\$2,822	\$4,965	\$1,165	1.3
Office - Criminal Division 3rd Floor	20	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	20	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.7	3,525	-1	\$533	\$1,989	\$270	3.2
Office - Judge 3073	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1

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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Office - Judge 3073	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 3073	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Office - Judge 3073	7	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	1,981	0	\$299	\$653	\$140	1.7
Office - Judge 3077	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 3077	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 3077	2	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160	3	None	Yes	2	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.0	92	0	\$14	\$116	\$20	6.9
Office - Judge 3077	6	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	6	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.3	1,698	0	\$257	\$599	\$125	1.8
Office - Judge 3083	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 3083	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 3083	3	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	3	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	849	0	\$128	\$434	\$80	2.8
Office - Judge 3083	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	4,160	0.0	222	0	\$34	\$55	\$15	1.2
Office - Judge 3087	7	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	7	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.2	832	0	\$126	\$445	\$49	3.1
Office - Judge 3087	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Office - Judge 3087	8	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	8	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.4	2,264	0	\$342	\$708	\$155	1.6
Restroom - 3067 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3067 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3116 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3116 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3137 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3137 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3146 #1	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - 3146 #2	1	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2	Relamp	No	1	LED Lamps: GX23 (Plug-In) Lamps	Wall Switch	37	4,160	0.0	67	0	\$10	\$25	\$2	2.3
Restroom - Female Employees 3rd Floor	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0
Restroom - Female Employees 3rd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6
Restroom - Female Public 3rd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6

	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years	
Restroom - Male Employees 3rd Floor	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	S	33	4,160		None	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	4,160	0.0	0	0	\$0	\$0	\$0	0.0	
Restroom - Male Employees 3rd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6	
Restroom - Male Public 3rd Floor	7	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	S	62	4,160	2, 3	Relamp	Yes	7	LED - Linear Tubes: (2) U-Lamp	Occupancy Sensor	33	2,870	0.2	1,234	0	\$186	\$777	\$105	3.6	
Server Room 3015	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	4,160	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	2,870	0.2	1,132	0	\$171	\$489	\$95	2.3	
Staff Lounge 3001	14	Compact Fluorescent: (2) 26W Double Biaxial Plug-In Lamps	Wall Switch	S	52	4,160	2, 3	Relamp	Yes	14	LED Lamps: GX23 (Plug-In) Lamps	Occupancy Sensor	37	2,870	0.3	1,665	0	\$252	\$620	\$63	2.2	
Storage 3039	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$40	7.1	
Storage 3045	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	S	44	1,300	3	None	Yes	1	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.0	19	0	\$3	\$0	\$0	0.0	
Storage 3045	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.1	177	0	\$27	\$226	\$30	7.3	
Storage 3057	4	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2, 3	Relamp	Yes	4	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	897	0.2	354	0	\$53	\$489	\$60	8.0	
Storage 3065	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,300	2	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	1,300	0.0	69	0	\$11	\$55	\$15	3.8	
Storage 3121	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2, 3	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	897	0.1	208	0	\$31	\$262	\$40	7.1	
Storage 3151	1	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	1,300	2	Relamp	No	1	LED - Linear Tubes: (4) 4' Lamps	Wall Switch	58	1,300	0.0	79	0	\$12	\$73	\$20	4.5	
Exterior Flag Pole Lighting	2	Metal Halide: (1) 70W Lamp	Timeclock		95	5,110	1	Fixture Replacement	No	2	LED - Fixtures: Outdoor Pole/Arm-Mounted Area/Roadway Fixture	Timeclock	21	5,110	0.0	756	0	\$116	\$404	\$200	1.7	
Exterior Perimeter Lighting	15	High-Pressure Sodium: (1) 70W Lamp	Timeclock		95	5,110	1	Fixture Replacement	No	15	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	21	5,110	0.0	5,672	0	\$873	\$3,091	\$750	2.7	
Exterior Perimeter Lighting	4	LED Lamps: (1) 58W Corn Bulb Screw-In Lamp	Timeclock		58	5,110		None	No	4	LED Lamps: (1) 58W Corn Bulb Screw-In Lamp	Timeclock	58	5,110	0.0	0	0	\$0	\$0	\$0	0.0	
Exterior Perimeter Lighting	12	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Photocell		13	4,380		None	No	12	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Photocell	13	4,380	0.0	0	0	\$0	\$0	\$0	0.0	
Exterior Perimeter Lighting	16	LED - Fixtures: Wall Pack	Photocell		50	4,380		None	No	16	LED - Fixtures: Wall Pack	Photocell	50	4,380	0.0	0	0	\$0	\$0	\$0	0.0	
Exterior Perimeter Lighting	3	Metal Halide: (1) 70W Lamp	Timeclock		95	5,110	1	Fixture Replacement	No	3	LED - Fixtures: Outdoor Wall-Mounted Area Fixture	Timeclock	21	5,110	0.0	1,134	0	\$175	\$618	\$150	2.7	
Exterior Pole Lighting	14	LED Lamps: (1) 48W Corn Bulb Screw-In Lamp	Timeclock		48	5,110		None	No	14	LED Lamps: (1) 48W Corn Bulb Screw-In Lamp	Timeclock	48	5,110	0.0	0	0	\$0	\$0	\$0	0.0	
Exterior Pole Lighting	25	LED - Fixtures: Outdoor Pole/Arm-Mounted Area/Roadway Fixture	Photocell		100	4,380		None	No	25	LED - Fixtures: Outdoor Pole/Arm-Mounted Area/Roadway Fixture	Photocell	100	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?	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Roof - Prosecutors	RTU-1 - Front Prosecutors Office	1	Supply Fan	40.0	93.0%	Yes	McQuay		B	5,096		No	93.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof - Prosecutors	RTU-1 - Front Prosecutors Office	1	Return Fan	15.0	91.0%	Yes	McQuay		B	5,096		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof - Prosecutors	RTU-2 - Back Prosecutors Office	1	Supply Fan	30.0	92.4%	Yes	McQuay		B	5,096		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof - Prosecutors	RTU-2 - Back Prosecutors Office	1	Return Fan	10.0	89.5%	Yes	McQuay		B	5,096		No	89.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-3 - Courthouse	1	Supply Fan	50.0	93.0%	Yes	Governair		B	5,096		No	93.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-3 - Courthouse	1	Return Fan	20.0	91.0%	Yes	Governair		B	5,096		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-4 - Courthouse	1	Supply Fan	20.0	91.0%	Yes	McQuay		B	5,096		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-4 - Courthouse	1	Return Fan	5.0	87.5%	Yes	McQuay		B	5,096		No	87.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-5 - Courthouse	1	Supply Fan	30.0	92.4%	Yes	McQuay		B	5,096		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-5 - Courthouse	1	Return Fan	7.5	88.5%	Yes	McQuay		B	5,096		No	88.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-6 - Courthouse	1	Supply Fan	30.0	92.4%	Yes	McQuay		B	5,096		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-6 - Courthouse	1	Return Fan	7.5	88.5%	Yes	McQuay		B	5,096		No	88.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-7 - Courthouse	1	Supply Fan	30.0	92.4%	Yes	McQuay		B	5,096		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	RTU-7 - Courthouse	1	Return Fan	5.0	87.5%	Yes	McQuay		B	5,096		No	87.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Unit Heaters	9	Supply Fan	0.1	60.0%	No			W	5,096		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Stairwells	Fan Coil Units	9	Fan Coil Unit	0.1	60.0%	No			W	5,096		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Prosecutors Office	AC-2 - Forensic Testing Area	1	Supply Fan	0.5	65.0%	No	Lennox		B	2,745		No	65.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	1.5	84.0%	No			W	5,096		No	84.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	2.0	84.0%	No			W	5,096		No	84.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.8	78.0%	No			W	5,096		No	78.0%	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?	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Roof	Exhaust System	1	Exhaust Fan	1.5	84.0%	No			W	5,096		No	84.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	1.0	82.5%	No			W	5,096		No	82.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.3	62.5%	No			W	5,096		No	62.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.8	78.0%	No			W	5,096		No	78.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.5	75.0%	No			W	5,096		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.1	60.0%	No			W	5,096		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust System	1	Exhaust Fan	0.8	78.0%	No			W	5,096		No	78.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical 1665	Boilers	2	Heating Hot Water Pump	1.5	84.0%	No	Baldor		B	2,745	5	Yes	86.5%	No		0.0	159	0	\$24	\$1,257	\$0	51.5
Mechanical 1665	Heating System	2	Heating Hot Water Pump	5.0	87.5%	Yes	Baldor		B	2,745	5	Yes	89.5%	No		0.1	392	0	\$60	\$2,019	\$0	33.4
Janitorial 2518	Domestic Hot Water	1	DHW Circulation Pump	0.1	60.0%	No	Taco		W	8,760		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 503	Domestic Hot Water	1	DHW Circulation Pump	0.1	60.0%	No	Taco		W	8,760		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Garage - Loading Dock 1664	Garage Door Lift	1	Other	0.5	75.0%	No			W	550		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Garage - Receiving 1009	Garage Door Lift	1	Other	0.5	75.0%	No			W	550		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Garage - Sally Port	Garage Door Lift	2	Other	0.5	75.0%	No			W	550		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Garage Forensics 1022	Garage Door Lift	1	Other	0.5	75.0%	No			W	550		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical 107	Elevator 1	1	Other	40.0	93.0%	No	US Motors		W	550		No	93.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical 107	Elevator 2	1	Other	20.0	91.0%	No	US Motors		W	550		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 304	Elevator 3	1	Other	25.0	91.7%	No	US Motors		W	550		No	91.7%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 304	Elevator 4	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 304	Elevator 5	1	Other	30.0	92.4%	No	US Motors		W	550		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?	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Mechanical - Elevator 304	Elevator 6	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 304	Elevator 7	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 307	Elevator 8	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 307	Elevator 9	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 307	Elevator 10	1	Other	50.0	93.0%	No	US Motors		W	550		No	93.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical - Elevator 308	Elevator 11	1	Other	30.0	92.4%	No	US Motors		W	550		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Exterior	Compactor	2	Other	10.0	89.5%	No			B	730		No	89.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Fan Powered VAVs	45	Supply Fan	0.5	75.0%	No			W	5,096		No	75.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Fan Powered VAVs	17	Supply Fan	0.3	62.5%	No			W	5,096		No	62.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Fan Powered VAVs	9	Supply Fan	0.2	60.0%	No			W	5,096		No	60.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Fan Powered VAVs	14	Supply Fan	1.0	82.5%	No			W	5,096		No	82.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Various	Fan Powered VAVs	3	Supply Fan	0.8	78.0%	No			W	5,096		No	78.0%	No		0.0	0	0	\$0	\$0	\$0	0.0



Packaged 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)	Cooling Mode Efficiency (SEER/IEER/EER)	Heating Mode Efficiency	Manufacturer	Model	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/IEER/EER)	Heating Mode Efficiency	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Roof - Prosecutors	RTU-1 - Front Prosecutors Office	1	Package Unit	80.00	500.00	10.27	0.8 Et	McQuay	RPS080CLA	B	6	Yes	1	Package Unit	80.00	500.00	12.00	0.82 Et	6.7	16,822	9	\$2,709	\$132,850	\$6,160	46.8
Roof - Prosecutors	RTU-2 - Back Prosecutors Office	1	Package Unit	90.00	500.00	10.09	0.8 Et	McQuay	RPS090CLA	B	6	Yes	1	Package Unit	90.00	500.00	12.00	0.82 Et	8.5	21,253	9	\$3,392	\$149,628	\$6,930	42.1
Roof	RTU-3 - Courthouse	1	Package Unit	240.00	800.00	8.52	0.8 Et	Governair	TL10-24044-E	B	6	Yes	1	Package Unit	240.00	800.00	12.00	0.82 Et	49.0	122,593	14	\$19,069	\$401,294	\$18,480	20.1
Roof	RTU-4 - Courthouse	1	Package Unit	50.00	500.00	9.23	0.8 Et	McQuay	RPS050CLA	B	6	Yes	1	Package Unit	50.00	500.00	12.50	0.82 Et	8.5	21,268	9	\$3,394	\$82,517	\$4,250	23.1
Roof	RTU-5 - Courthouse	1	Package Unit	50.00	500.00	9.23	0.8 Et	McQuay	RPS050CLA	B	6	Yes	1	Package Unit	50.00	500.00	12.50	0.82 Et	8.5	21,268	9	\$3,394	\$82,517	\$4,250	23.1
Roof	RTU-6 - Courthouse	1	Package Unit	50.00	500.00	9.23	0.8 Et	McQuay	RPS050CLA	B	6	Yes	1	Package Unit	50.00	500.00	12.50	0.82 Et	8.5	21,268	9	\$3,394	\$82,517	\$4,250	23.1
Roof	RTU-7 - Courthouse	1	Package Unit	75.00	500.00	8.41	0.8 Et	McQuay	RPS075CLA	B	6	Yes	1	Package Unit	75.00	500.00	12.00	0.82 Et	16.0	40,003	9	\$6,279	\$124,461	\$5,775	18.9
Garage - Sally Port	Garage - Sally Port	2	Electric Resistance Heat		34.12		1 COP	Qmark		W		No							0.0	0	0	\$0	\$0	\$0	0.0
Main Lobby - 1st Floor	Main Lobby - 1st Floor	2	Electric Resistance Heat		51.18		1 COP	QMark	MUH152	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Office - Sally Port	Office - Sally Port	1	Window AC	0.97		8.80		Friedrich	P12B-A	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Telephone/Server Room 1668	Telephone/Server Room 1668	1	Window AC	2.00		8.80		MovinCool	Classic Plus 26	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Office - 3022	Office - 3022	1	Window AC	0.46		8.90		Hisense	AP08C	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Office - Criminal Division 3rd Floor	Office - Criminal Division 3rd Floor	1	Window AC	2.00		8.80		Tripp Lite	SRCOOL24K	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Server Room 3015	Server Room 3015	1	Window AC	1.00		8.90		Frigidaire	FFPA1222R1	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Roof	Office - Communications	1	Ductless Mini-Split AC	1.00		10.00		EMI		B	6	Yes	1	Ductless Mini-Split AC	1.00		18.00		0.3	667	0	\$103	\$2,543	\$0	24.8
Roof - Prosecutors	Electrical Room 2152	1	Ductless Mini-Split HP	2.00	25.40	20.00	10.6 HSPF	Daikin	RXS24LVJU	W		No							0.0	0	0	\$0	\$0	\$0	0.0
Roof - Prosecutors	AC-2 - Forensic Testing Area	1	Split-System	4.00		11.55		Lennox	HS29-048-2P	B	6	Yes	1	Split-System	4.00		16.00		0.6	1,445	0	\$222	\$7,415	\$420	31.4

Space Heating Boiler 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)	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Mechanical 1665	Heating System	2	Non-Condensing Hot Water Boiler	1,285	Raypak	H9-1532	B	7	Yes	2	Condensing Hot Water Boiler	1,285	91.00%	Et	0.0	0	141	\$1,917	\$85,800	\$5,654	41.8

### Pipe Insulation Recommendations

		Recommendation Inputs			Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Affected	ECM #	Length of Uninsulated Pipe (ft)	Pipe Diameter (in)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Janitorial 102	Domestic Hot Water	8	10	0.75	0.0	828	0	\$127	\$119	\$20	0.8
Janitorial 1516	Domestic Hot Water	8	10	0.75	0.0	828	0	\$127	\$119	\$20	0.8
Janitorial 1722	Domestic Hot Water	8	5	0.75	0.0	414	0	\$64	\$60	\$10	0.8
Office - 1122	Domestic Hot Water	8	10	0.75	0.0	828	0	\$127	\$119	\$20	0.8
Janitorial 202	Domestic Hot Water	8	5	0.75	0.0	414	0	\$64	\$60	\$10	0.8
Janitorial 2518	Domestic Hot Water	8	10	0.75	0.0	828	0	\$127	\$119	\$20	0.8
Janitorial 2702	Domestic Hot Water	8	10	0.75	0.0	828	0	\$127	\$119	\$20	0.8

### DHW Inventory & Recommendations

		Existing Conditions					Proposed Conditions							Energy Impact & Financial Analysis						
Location	Area(s)/System(s) Served	System Quantity	System Type	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Various	Domestic Hot Water - Instantaneous Heaters	32	Tankless Water Heater	Eemax	SP55	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 102	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LD30R33B090	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 1516	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE230S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 1652	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE330S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 1722	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE130L3-3NHWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Mechanical 1723	Domestic Hot Water	2	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE230S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Office - 1122	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE230LN3-3NCWW	N		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 202	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	RE340S6	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 2518	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE250S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 2702	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE240S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0
Janitorial 503	Domestic Hot Water	1	Storage Tank Water Heater (≤ 50 Gal)	Bradford White	LE240S3-3NCWW	W		No						0.0	0	0	\$0	\$0	\$0	0.0



Low-Flow Device Recommendations

Recommendation Inputs						Energy Impact & Financial Analysis						
Location	ECM #	Device Quantity	Device Type	Existing Flow Rate (gpm)	Proposed Flow Rate (gpm)	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Atlantic County Criminal Courthouse	9	15	Faucet Aerator (Lavatory)	2.20	0.50	0.0	2,085	0	\$321	\$108	\$54	0.2

Commercial Refrigerator/Freezer Inventory & Recommendations

Existing Conditions						Proposed Conditions		Energy Impact & Financial Analysis						
Location	Quantity	Refrigerator/ Freezer Type	Manufacturer	Model	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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Cafeteria 1588	1	Stand-Up Refrigerator, Glass Door (31 - 50 cu. ft.)	True	GDM33	No		No	0.0	0	0	\$0	\$0	\$0	0.0
Cafeteria 1588	1	Stand-Up Refrigerator, Glass Door (31 - 50 cu. ft.)	True	GDM41	No		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?	Manufacturer	Model
Atlantic County Criminal Courthouse	4	Clothes Dryer	1,800	No		
Atlantic County Criminal Courthouse	1	Clothes Washer	1,200	No		
Atlantic County Criminal Courthouse	35	Coffee Machine	500	No		
Atlantic County Criminal Courthouse	502	Desktop	120	No		
Atlantic County Criminal Courthouse	32	Microwave	1,000	No		
Atlantic County Criminal Courthouse	17	Paper Shredder	200	No		
Atlantic County Criminal Courthouse	105	Printer (Medium/Small)	450	No		
Atlantic County Criminal Courthouse	30	Printer/Copier (Large)	600	No		
Atlantic County Criminal Courthouse	2	Projector	240	No		
Atlantic County Criminal Courthouse	22	Refrigerator (Mini)	174	No		
Atlantic County Criminal Courthouse	15	Refrigerator (Residential)	340	No		
Atlantic County Criminal Courthouse	4	Smart Board	215	No		
Atlantic County Criminal Courthouse	21	Television	224	No		
Atlantic County Criminal Courthouse	5	Toaster	600	No		
Atlantic County Criminal Courthouse	9	Toaster Oven	600	No		
Atlantic County Criminal Courthouse	15	Water Cooler	192	No		
Atlantic County Criminal Courthouse	10	Water Fountain	370	No		
Atlantic County Criminal Courthouse	2	Treadmill	2,000	No		
Atlantic County Criminal Courthouse	2	Server	4,000	No		





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	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Cafeteria 1171	1	Non-Refrigerated	10	Yes	0.0	343	0	\$53	\$230	\$0	4.4
Cafeteria 1588	1	Non-Refrigerated	10	Yes	0.0	343	0	\$53	\$230	\$0	4.4
Courtroom - Jury Assembly Room	1	Non-Refrigerated	10	Yes	0.0	343	0	\$53	\$230	\$0	4.4
Staff Lounge 3001	1	Non-Refrigerated	10	Yes	0.0	343	0	\$53	\$230	\$0	4.4
Cafeteria 1171	1	Refrigerated	10	Yes	0.2	1,612	0	\$248	\$230	\$50	0.7
Cafeteria 1588	1	Refrigerated	10	Yes	0.2	1,612	0	\$248	\$230	\$50	0.7
Courtroom - Jury Assembly Room	1	Refrigerated	10	Yes	0.2	1,612	0	\$248	\$230	\$50	0.7
Staff Lounge 3001	1	Refrigerated	10	Yes	0.2	1,612	0	\$248	\$230	\$50	0.7

Custom (High Level) Measure Analysis


Electric Tank Water Heater to HPWH

NOTE: HPWH calculation should not be used for existing water heaters with a storage capacity greater than 120 gal.

Existing Conditions						Proposed Conditions				Energy Impact & Financial Analysis										
Description	Area(s)/System(s) Served	SF of Area Served	Fuel Type	Input Capacity per Unit (kW)	Tank Capacity per Unit (Gal)	Description	COP	Tank Capacity per Unit (Gal)	Estimated Unit Cost	Total Peak kW Savings	Total Annual kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Base Incentives	Enhanced Incentives	Total Incentives	Total Net Cost	Payback w/o Incentives in Years	Payback w/ Incentives in Years
Storage Tank Water Heater (≤50 Gal)	Mechanical 1723	5,000	Electric	4.5	30	Heat Pump Water Heater	2.5	30	\$1,756.63	0.00	2,022	0	\$311	\$1,757	\$0	\$0	\$0	\$1,757	5.65	5.65
Storage Tank Water Heater (≤50 Gal)	Mechanical 1723	5,000	Electric	4.5	30	Heat Pump Water Heater	2.5	30	\$1,756.63	0.00	2,022	0	\$311	\$1,757	\$0	\$0	\$0	\$1,757	5.65	5.65
			Electric																	

## APPENDIX B: ENERGY STAR STATEMENT OF ENERGY PERFORMANCE

Energy use intensity (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.


ENERGY STAR® Statement of Energy Performance

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**ENERGY STAR® Score<sup>1</sup>**

**Atlantic County Criminal Courthouse**

**Primary Property Type:** Courthouse  
**Gross Floor Area (ft²):** 176,000  
**Built:** 2005

**For Year Ending:** February 28, 2022  
**Date Generated:** August 25, 2023

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			
<b>Property Address</b> Atlantic County Criminal Courthouse 4997 Unami Boulevard Mays Landing, New Jersey 08330	<b>Property Owner</b> Atlantic County 1227 Drexel Avenue Atlantic City, NJ 08401 (609) 343-2284	<b>Primary Contact</b> Jerry Griffin 1227 Drexel Avenue Atlantic City, NJ 08401 (609) 343-2284 griffin_jerry@aclink.org	
<b>Property ID:</b> 25082966			

Energy Consumption and Energy Use Intensity (EUI)			
<b>Site EUI</b> 92.6 kBtu/ft²	<b>Annual Energy by Fuel</b> Electric - Solar (kBtu) 3,887,927 (24%) Electric - Grid (kBtu) 7,959,125 (49%) Natural Gas (kBtu) 4,453,597 (27%)	<b>National Median Comparison</b> National Median Site EUI (kBtu/ft²) 89.7 National Median Source EUI (kBtu/ft²) 169.8 % Diff from National Median Source EUI 3%	
<b>Source EUI</b> 175.3 kBtu/ft²	<b>Annual Emissions</b> Total (Location-Based) GHG Emissions (Metric Tons CO2e/year) 930		

### Signature & Stamp of Verifying Professional

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

LP Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Licensed Professional**

\_\_\_\_\_  
 (\_\_\_\_) \_\_\_\_\_  
 \_\_\_\_\_



**Professional Engineer or Registered Architect Stamp (if applicable)**

## APPENDIX C: GLOSSARY

TERM	DEFINITION
<b>Blended Rate</b>	Used to calculate fiscal savings associated with measures. 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.
<b>Btu</b>	<i>British thermal unit</i> : a unit of energy equal to the amount of heat required to increase the temperature of one pound of water by one-degree Fahrenheit.
<b>CHP</b>	<i>Combined heat and power</i> . Also referred to as cogeneration.
<b>COP</b>	<i>Coefficient of performance</i> : a measure of efficiency in terms of useful energy delivered divided by total energy input.
<b>Demand Response</b>	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.
<b>DCV</b>	<i>Demand control ventilation</i> : a control strategy to limit the amount of outside air introduced to the conditioned space based on actual occupancy need.
<b>US DOE</b>	<i>United States Department of Energy</i>
<b>EC Motor</b>	<i>Electronically commutated motor</i>
<b>ECM</b>	<i>Energy conservation measure</i>
<b>EER</b>	<i>Energy efficiency ratio</i> : a measure of efficiency in terms of cooling energy provided divided by electric input.
<b>EUI</b>	<i>Energy Use Intensity</i> : measures energy consumption per square foot and is a standard metric for comparing buildings' energy performance.
<b>Energy Efficiency</b>	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 the operation of energy use systems. Unlike conservation, which involves some reduction of service, energy efficiency provides energy reductions without sacrifice of service.
<b>ENERGY STAR</b>	ENERGY STAR is the government-backed symbol for energy efficiency. The ENERGY STAR program is managed by the EPA.
<b>EPA</b>	<i>United States Environmental Protection Agency</i>
<b>Generation</b>	The process of generating electric power from sources of primary energy (e.g., natural gas, the sun, oil).
<b>GHG</b>	<i>Greenhouse gas</i> gases that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.
<b>gpf</b>	<i>Gallons per flush</i>

<b>gpm</b>	<i>Gallon per minute</i>
<b>HID</b>	<i>High intensity discharge</i> : high-output lighting lamps such as high-pressure sodium, metal halide, and mercury vapor.
<b>hp</b>	<i>Horsepower</i>
<b>HPS</b>	<i>High-pressure sodium</i> : a type of HID lamp.
<b>HSPF</b>	<i>Heating seasonal performance factor</i> : a measure of efficiency typically applied to heat pumps. Heating energy provided divided by seasonal energy input.
<b>HVAC</b>	<i>Heating, ventilating, and air conditioning</i>
<b>IHP 2014</b>	US DOE Integral Horsepower rule. The current ruling regarding required electric motor efficiency.
<b>IPLV</b>	<i>Integrated part load value</i> : a measure of the part load efficiency usually applied to chillers.
<b>kBtu</b>	One thousand British thermal units
<b>kW</b>	<i>Kilowatt</i> : equal to 1,000 Watts.
<b>kWh</b>	<i>Kilowatt-hour</i> : 1,000 Watts of power expended over one hour.
<b>LED</b>	<i>Light emitting diode</i> : a high-efficiency source of light with a long lamp life.
<b>LGEA</b>	<i>Local Government Energy Audit</i>
<b>Load</b>	The total power a building or system is using at any given time.
<b>Measure</b>	A single activity, or installation of a single type of equipment, which is implemented in a building system to reduce total energy consumption.
<b>MH</b>	<i>Metal halide</i> : a type of HID lamp.
<b>MBh</b>	<i>Thousand Btu per hour</i>
<b>MBtu</b>	<i>One thousand British thermal units</i>
<b>MMBtu</b>	<i>One million British thermal units</i>
<b>MV</b>	<i>Mercury Vapor</i> : a type of HID lamp.
<b>NJBPU</b>	<i>New Jersey Board of Public Utilities</i>
<b>NJCEP</b>	<i>New Jersey's Clean Energy Program</i> : NJCEP is a statewide program that offers financial incentives, programs and services for New Jersey residents, business owners and local governments to help them save energy, money, and the environment.
<b>psig</b>	Pounds per square inch gauge
<b>Plug Load</b>	Refers to the amount of power used in a space by products that are powered by means of an ordinary AC plug.
<b>PV</b>	<i>Photovoltaic</i> : refers to an electronic device capable of converting incident light directly into electricity (direct current).

<b>SEER</b>	<i>Seasonal energy efficiency ratio</i> : a measure of efficiency in terms of annual cooling energy provided divided by total electric input.
<b>SEP</b>	<i>Statement of energy performance</i> : a summary document from the ENERGY STAR Portfolio Manager.
<b>Simple Payback</b>	The amount of time needed to recoup the funds expended in an investment or to reach the break-even point between investment and savings.
<b>SREC (II)</b>	<i>Solar renewable energy credit</i> : a credit you can earn from the state for energy produced from a photovoltaic array.
<b>T5, T8, T12</b>	A reference to a linear lamp diameter. The number represents increments of 1/8 <sup>th</sup> of an inch.
<b>Temperature Setpoint</b>	The temperature at which a temperature regulating device (thermostat, for example) has been set.
<b>therm</b>	100,000 Btu. Typically used as a measure of natural gas consumption.
<b>tons</b>	A unit of cooling capacity equal to 12,000 Btu/hr.
<b>Turnkey</b>	Provision of a complete product or service that is ready for immediate use.
<b>VAV</b>	<i>Variable air volume</i>
<b>VFD</b>	<i>Variable frequency drive</i> : a controller used to vary the speed of an electric motor.
<b>WaterSense®</b>	The symbol for water efficiency. The WaterSense® program is managed by the EPA.
<b>Watt (W)</b>	Unit of power commonly used to measure electricity use.