





Local Government Energy Audit Report

Hausdoerffer & Phelps Halls May 6, 2021

Prepared for:

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Disclaimer

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

TRC 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.

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

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

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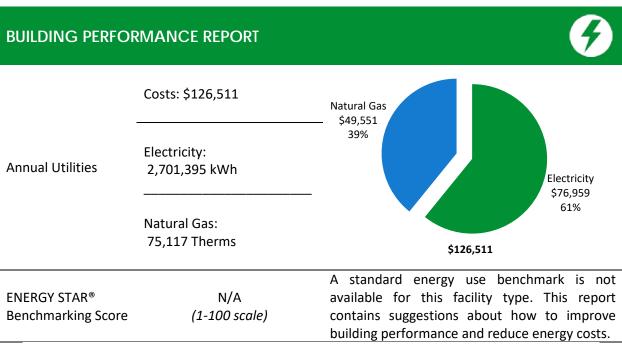
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1 EXECUTIVE SUMMARY

The New Jersey Board of Public Utilities (NJBPU) has sponsored this Local Government Energy Audit (LGEA) report for Hausdoerffer & Phelps Halls. 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.



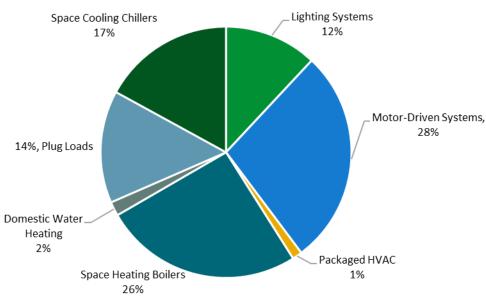


Figure 1 - Energy Use by System





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 200.0 \$123,107 160.2 Potential Rebates & Incentives¹ \$29,600 150.0 \$46,459 **Annual Cost Savings** 100.0 119.5 112.1 Electricity: 317,828 kWh Annual Energy Savings 50.0 Natural Gas: -452 Therms **Greenhouse Gas Emission Savings** 157 Tons 0.0 Your Building Before Your Building After Simple Payback 2.0 Years Upgrades Upgrades Site Energy Savings (all utilities) - Typical Building EUI 6% Scenario 2: Cost Effective Package² **Installation Cost** \$115,861 200.0 160.2 Potential Rebates & Incentives \$29,400 150.0 **Annual Cost Savings** \$45,928 100.0 119.5 112.2 Electricity: 314,219 kWh Annual Energy Savings 50.0 Natural Gas: -452 Therms **Greenhouse Gas Emission Savings** 156 Tons 0.0 Your Building Before Your Building After Simple Payback 1.9 Years Upgrades Upgrades Site Energy Savings (all utilities) 6% Typical Building EUI **On-site Generation Potential** Photovoltaic Medium

None

Combined Heat and Power

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

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





#	Energy Conservation Measure	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 (\$)		CO₂e Emissions Reduction (Ibs)
Lighting	Upgrades		198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
ECM 1	Retrofit Fixtures with LED Lamps	Yes	198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
Lighting	Control Measures		85,213	8.2	-20	\$12,407	\$48,182	\$18,770	\$29,412	2.4	83,514
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	22,264	3.4	-5	\$3,242	\$27,932	\$3,650	\$24,282	7.5	21,820
ECM 3	Install High/Low Lighting Controls	Yes	62,949	4.7	-14	\$9,165	\$20,250	\$15,120	\$5,130	0.6	61,694
Variable	Frequency Drive (VFD) Measures		3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634
ECM 4	Install VFDs on Constant Volume (CV) Fans	No	3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634
HVAC Sy	stem Improvements		0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
ECM 5	Install Pipe Insulation	Yes	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
Domest	ic Water Heating Upgrade		0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
ECM 6	Install Low-Flow DHW Devices	Yes	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
Food Se	rvice & Refrigeration Measures		3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
ECM 7	Vending Machine Control	Yes	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
Custom	Measures		27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
ECM 8	Sub Metering	Yes	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
	TOTALS (COST EFFECTIVE MEASURES)			32.0	-45	\$45,928	\$115,861	\$29,400	\$86,461	1.9	311,118
	TOTALS (ALL MEASURES)				-45	\$46,459	\$123,107	\$29,600	\$93,507	2.0	314,752

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

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**.

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





1.1 Planning Your Project

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

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

Pick Your Installation Approach

New Jersey'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.

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

	Energy Conservation Measure	SmartStart	Direct Install	Pay For Performance
ECM 1	Retrofit Fixtures with LED Lamps	Χ		Χ
ECM 2	Install Occupancy Sensor Lighting Controls	Χ		Χ
ECM 3	Install High/Low Lighting Controls	X		Χ
ECM 4	Install VFDs on Constant Volume (CV) Fans	Χ		Χ
ECM 5	Install Pipe Insulation	Χ		Χ
ECM 6	Install Low-Flow DHW Devices	Χ		Χ
ECM 7	Vending Machine Control	Χ		Χ
ECM 8	Sub Metering			

Figure 3 - Funding Options







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

	SmartStart Flexibility to install at your own pace	Direct Install Turnkey installation	Pay for Performance Whole building upgrades
Who should use it?	Buildings installing individual measures or small group of measures.	Small to mid-size facilities that can bundle multiple measures together. Average peak demand should be below 200 kW. Not suitable for significant building shell issues.	Mid to large size facilities looking to implement as many measures as possible at one time. Peak demand should be over 200 kW.
How does it work?	Use in-house staff or your preferred contractor.	Pre-approved contractors pass savings along to you via reduced material and labor costs.	Whole-building approach to energy upgrades designed to reduce energy use by at least 15%. The more you save, the higher the incentives.
What are the Incentives?	Fixed incentives for specific energy efficiency measures.	Incentives pay up to 70% of eligible costs, up to \$125,000 per project. You pay the remaining 30% directly to the contractor.	Incentives are paid out in three installments. The first installment is meant to help offset the costs of the initial engineering study. The subsequent incentives are paid based on the level of energy savings up to 50% of the total project cost. See Section 7.3 for all incentive details.
How do I participate?	Submit an application for the specific equipment to be installed.	Contact a participating contractor in your region.	Contact a pre-qualified Partner to develop your Energy Reduction Plan and set your energy savings targets.

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





Individual Measures with SmartStart

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

Turnkey Installation with Direct Install

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

Whole Building Approach with Pay for Performance

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

More Options from Around the State

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

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

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

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

Ongoing Electric Savings with Demand Response

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





2 FXISTING CONDITIONS

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

TRC 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 January 13, 2021, TRC performed an energy audit at The College of New Jersey's (TCNJ) Hausdoerffer & Phelps Halls located in Ewing, New Jersey. TRC met with Kevin to review the facility operations and help focus our investigation on specific energy-using systems.

Hausdoerffer & Phelps Halls, opened in 2009, were the first apartment complexes built on TCNJ's campus. Twin buildings, each building is a three-story 70,000 square foot structure with 40 air-conditioned apartments that house approximately 200 students. The units are mostly five bedrooms (three singles and one double), with a kitchenette, living room, bathroom, and an extra vanity sink. Other spaces include a large community lounge as well as a study lounge in the laundry area.

Lighting is provided by a combination of linear fluorescent T8 and compact fluorescent lamps. Heating and cooling are provided by an independent central air conditioning system. Each building has an elevator.



Aerial View - Phelps Hall





2.2 Building Occupancy

The buildings are occupied continuously year-round; however, weekend and summer occupancies vary. It should be noted that the energy and economic analysis for this building is based on the use of the building during the utility billing period, and that results will vary based on changes to building use patterns.

Building Name	Weekday/Weekend	Operating Schedule
Haveda suffer Q Dhalus Halla	Weekday	24/7
Hausdoerffer & Phelps Halls	Weekend	24/7

Figure 4 - Building Occupancy Schedule

2.3 Building Envelope

Building walls are made of concrete block over structural steel with brick veneer and concrete masonry units. The pitched roof sections are supported with steel trusses and wood decking and finished with asphalt shingles that are in good condition. The community room has a flat roof covered with a black membrane. The pitched roof sections enclose semi-conditioned spaces that house air handling units. The thermal barrier is between these spaces, and the conditioned spaces below.

The windows are double glazed and have aluminum frames with a fiberglass thermal break. The glass-to-frame seals are in good condition. The fixed window weather seals are in good condition, showing little signs of outside air infiltration. However, an area with a damaged fiberglass thermal break was noted and is recommended for repair. The entrance doors are fully glazed with aluminum frames. The exit doors are metal framed and in good condition. Overall, the building envelope appears in good condition.



Building Walls & Pitched Roof Sections









Brick Veneer & Concrete Unit Walls





Entrance Doors & Windows











Exterior Doors & Signs of Damaged Fiberglass Thermal Break

2.4 Lighting Systems

The primary interior lighting systems use 32-Watt linear fluorescent T8 lamps or compact fluorescent lamps (CFLs). Fixture types include 2- 3- or 4-lamp, 2- or 4-foot long troffer, recessed, or surface mounted fixtures and 2-foot fixtures with U-bend tube lamps. Both plug-in and screw-based compact fluorescent lamps are used.

Apartments are generally illuminated by a mix of linear and compact fluorescent fixtures. The corridors are lit with CFL biaxial lamps and plug in lamps mounted in recessed cans. The elevator lobbies are illuminated with recessed can CFLs. The electrical rooms, elevator rooms, IT rooms, and restrooms are illuminated using linear fluorescent fixtures.

All light fixtures are in good condition. Exit signs throughout the building are LED fixtures. Interior lighting levels were generally sufficient. Light fixtures in spaces are controlled manual wall mounted switches.

Exterior fixtures include recessed and wall mounted CFL fixtures, LED, and CFLs pole mounted fixtures and front underground mounted halogen floor lights. Exterior fixtures are controlled by a timeclock.











Linear Fluorescent Fixtures





2-Foot CFL Fixtures











CFL Lamps





LED Exit Sign & Wall Mounted CFL Fixture









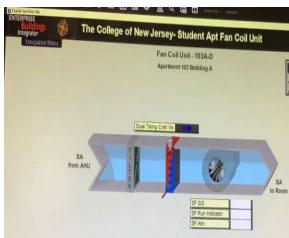
CFL & LED Fixtures

2.5 Air Handling Systems

Fan Coil Units

Building apartments and lobbies are conditioned using fan coil units that are equipped with supply fan motors and digitally controlled fan coil valves. They provide heating and cooling using hot and chilled water, which are generated from the heating and cooling plant described in Section 2.6.





Fan Coil Unit





Unitary Electric HVAC Equipment

The IT rooms are cooled with Liebert split system air conditioning units (AC). The units use a direct expansion cooling system. Each apartment building has four 1.67 ton and two 4.17 ton units. The units are in good condition and controlled by programmable thermostats.



Liebert Condensing Units





Indoor Evaporator & Programmable Thermostat

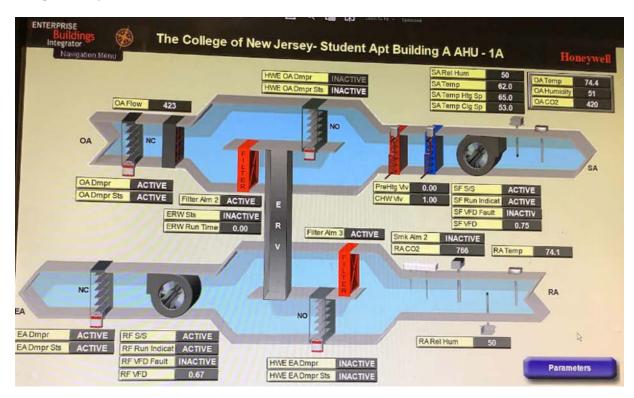




Air Handling Units (AHUs)

Each building is air conditioned by two large air handling units physically located in the penthouse, operating continuously for ventilation. Each unit is each equipped with variable speed controls for supply and return fan motors, a hot water heating coil, a chilled water-cooling coil, and an energy recovery ventilator (ERV)³.

Air distribution is provided to supply air registers by ducts concealed above the ceilings. Heated and cooled air is distributed through ducts to the fan coil units. The AHUs are controlled by the facility energy management system (EMS).



AHU-1A - EMS Diagram View

-

³ The ERV reclaims a portion of the energy wasted through exhaust during the heating and cooling processes. In the heating mode, as the wheel rotates into the incoming airstream, energy is release by the wheel to bring heat and humidity the incoming airstream closer to indoor conditions, reducing unit workload and energy consumed by the system.





2.6 Heating and Cooling System

Hot water and chilled water are supplied by two Broad central heating and air conditioning stations (#1 and #2) that consist of a boiler, an absorption chiller, and two cooling towers. The boiler and the chiller are co-located and part of an integral system. Each station has a 20 hp condenser water pump and a 15 hp variable speed pump that circulates either hot or chilled water. Each cooling tower is equipped with a 7.5 hp variable speed fan. The system also includes bromide and vacuum pumps that contribute to process functionality.

Based on temperature requirements, hot or chilled water is distributed to air handling units and to fan coil units in each apartment building using the same piping system. The conditioned water is provided to the units by two 15 hp variable speed pumps located in each mechanical room.

The Broad central air conditioning principle is based on the lithium bromide and water (LiBr+H2O) absorption system (chiller/heater).

The Cooling Cycle

In the cooling cycle, the lithium bromide (LiBr) solution absorbs the water vapor, then transfers the heat from the vapor to cooling or condensate, which is released to outside ambient air. The diluted solution absorbs the higher temperature and becomes concentrated as the splitting water evaporates again and the concentrated LiBr solution repeats the absorption process. The cooling water from the absorber passes through the copper tubes of the condenser, where it condenses the water vapor outside, and takes away the heat to the cooling tower.

The Heating Cycle

In the heating cycle, the combustion heats the LiBr solution to the boiling point. The vapor heats the heating water in the heat exchanger tubes, while condensate returns to the LiBr solution to repeat the heating process and continues the cycle.

Operations and Maintenance

Each station has its own internal control interface. Our site contact indicated that TCNJ has never requested assistance from Broad to setup the system. We noted some potential concerns with the equipment.

The metal piping system connecting the cooling towers to the chillers is corroded, and the recent cooling towers blowdown has revealed the presence of small metal pieces in the pipes that are harmful to the performance and even the life span of the chiller. We recommend a condition assessment be performed, especially a review of the metal piping system that connects the cooling towers to the chillers for possible replacement. Additionally, it is recommended that the cooling tower system be cleaned regularly and the heat exchanging tubes checked periodically and cleaned if necessary. According to the manufacturer, the initial filling of the chilled/heating water should be with soft water, and the system should experience a leakage rate of less than 10% every year. Large amounts of city makeup water will cause water system scaling.







Broad Central Air Conditioning Station

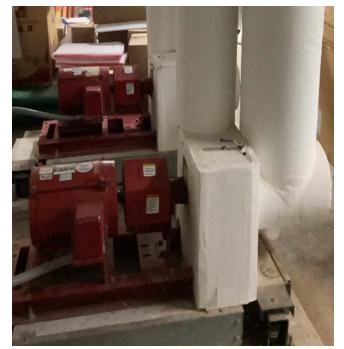




Station #1

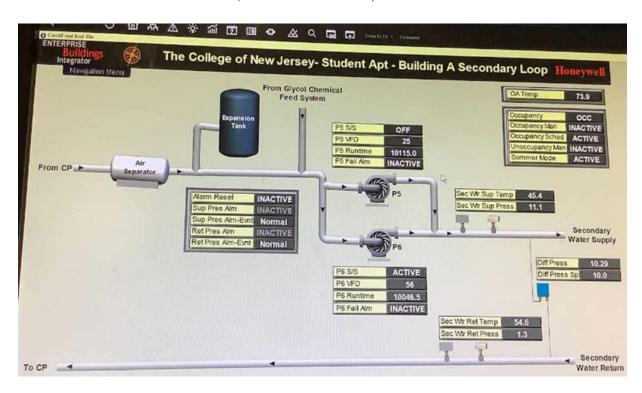








Hot/CHW Recirculation Pumps & VFDs



EMS Diagram - Hot/CHW Loop









Corroded Metal Pipes

2.7 Building EMS

A Honeywell EMS controls the HVAC equipment, the boilers, the chillers, the air handlers, and fan coil units. The EMS provides equipment scheduling control and monitors and controls space temperatures, supply air temperatures, humidity, heating water loop temperatures, and chilled water loop temperatures.



Main Page - EMS





2.8 Domestic Hot Water

Hot water is produced in each apartment building by a 300-gallon. 1.000 MBh gas-fired condensing storage water heater with a 95% efficiency physically located in the sprinkler room. Two fractional horsepower circulation pumps distribute water to end uses. The domestic pipes are partially insulated, and the insulation is in good condition. The water heaters are in good working condition.





Gas-Fired Water Heater, Pipes & Pumps

2.9 Plug Load & Vending Machines

Plug loads throughout the buildings include general café and office equipment. Laundry room washers and dryers are found in the buildings. There are typical dormitory plug load including residential style refrigerators, microwaves, electric range, portable computers, and other miscellaneous loads. Additionally, there several server closets in each apartment building.

Each building has a refrigerated vending machine and one non-refrigerated vending machine located in the first-floor corridor. Vending machines are not equipped with occupancy-based controls.





Washers & Vending Machines









Refrigerator & Electric Range

2.10 Water-Using Systems

Each apartment is equipped with restroom with a shower. Most of the toilet, urinal, and sinks have low flow devices. The showerheads are rated as low flow. Six sinks were identified with faucet flow rate of 2.2 gallons per minute (gpm) or higher.





Sink & Showerhead

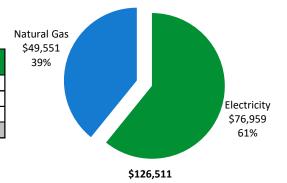




3 ENERGY USE AND COSTS

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

Utility Summary										
Fuel	Usage	Cost								
Electricity	2,701,395 kWh	\$76,959								
Natural Gas	75,117 Therms	\$49,551								
Total	\$126,511									



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

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





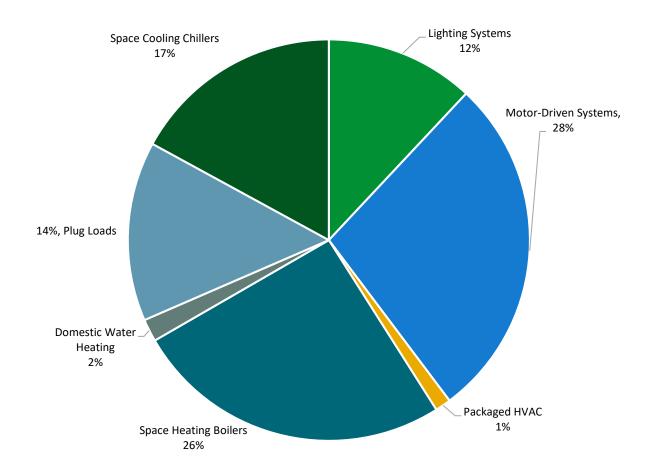


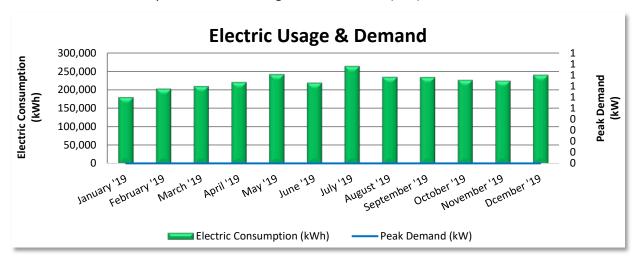
Figure 5 - Energy Balance





3.1 Electricity

PSE&G delivers electricity under rate class High Tension Service (HTS).



	Electric Billing Data												
Period Ending	Days in Period	Electric Usage (kWh)	Demand (kW)	Demand Cost	Total Electric Cost	TRC Estimated Usage?							
1/28/19	31	179,920	0	0	3,926	Yes							
2/28/19	31	203,067	0	0	4,996	Yes							
3/28/19	28	210,070	0	0	4,567	Yes							
4/28/19	31	220,711	0	0	4,968	Yes							
5/29/19	31	242,397	0	0	8,938	Yes							
6/27/19	29	219,025	0	0	6,960	Yes							
7/29/19	32	264,447	0	0	9,532	Yes							
8/27/19	29	234,887	0	0	6,669	Yes							
9/26/19	30	234,760	0	0	7,302	Yes							
10/25/19	29	226,861	0	0	6,296	Yes							
11/25/19	31	224,707	0	0	5,429	Yes							
12/11/19	33	240,543	0	0	7,376	Yes							
Totals	365	2,701,395	0	\$0	\$76,959								
Annual	365	2,701,395	0	\$0	\$76,959								

Notes:

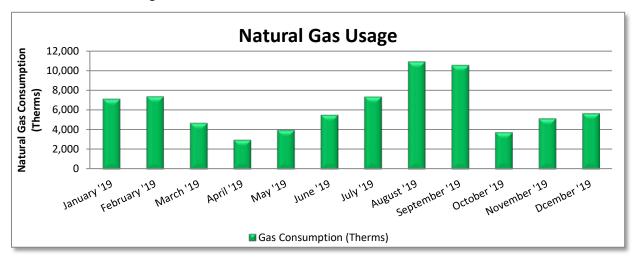
- Electric data has been estimated based on a campus wide approach and utilization of sub metered data. Please refer to the Powerhouse/Cogen Building report for details regarding utility baseline and campus building utility desegregation.
- The peak demand for this facility was unavailable because the building is served with electricity from the master meter.
- The average purchased electric cost over the past 12 months was \$0.147/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.
- Effectively all of the electricity generated on-site is used on-site.





3.2 Natural Gas

PSE&G delivers natural gas under rate class TSGNF.



Notes:

- Natural gas data has been estimated based on a campus wide approach. Please refer to the Powerhouse/Cogen Building report for details regarding the utility baseline and campus building utility desegregation analysis.
- The estimated summer gas use profile fits with the use of a gas fired absorption chiller for space conditioning in the cooling season. Winter gas use is primarily associated with space heating.
- The average gas cost for the past 12 months is \$0.660/therm, which is the blended rate used throughout the analysis.





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.

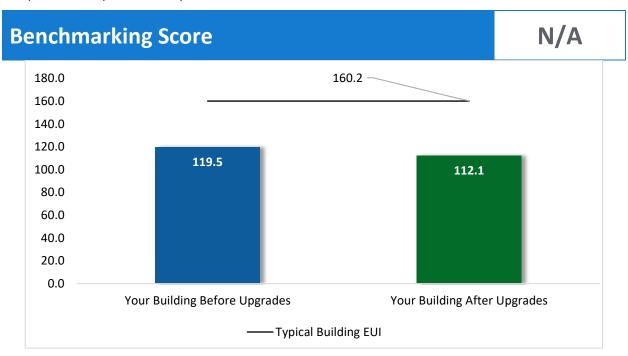


Figure 6 - Energy Use Intensity Comparison⁴

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

Benchmarking is provided for The College of New Jersey's campus. Please refer to the Powerhouse/Cogen report for additional details regarding the benchmarking approach within Portfolio Manager®.

⁴ 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 we have already entered the monthly utility data shown above for you. Account login information for your account will be sent via email.

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

For more information on ENERGY STAR® and Portfolio Manager®, visit their website⁵.

LGEA Report - The College of New Jersey Hausdoerffer & Phelps Halls

⁵ https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification/how-app-1.





4 FNFRGY CONSERVATION MEASURES

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

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

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 (\$)		CO ₂ e Emissions Reduction (lbs)
Lighting	Upgrades		198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
ECM 1	Retrofit Fixtures with LED Lamps	Yes	198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
Lighting	Control Measures		85,213	8.2	-20	\$12,407	\$48,182	\$18,770	\$29,412	2.4	83,514
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	22,264	3.4	-5	\$3,242	\$27,932	\$3,650	\$24,282	7.5	21,820
ECM 3	Install High/Low Lighting Controls	Yes	62,949	4.7	-14	\$9,165	\$20,250	\$15,120	\$5,130	0.6	61,694
Variable	Frequency Drive (VFD) Measures		3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634
ECM 4	Install VFDs on Constant Volume (CV) Fans	No	3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634
HVAC S	ystem Improvements		0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
ECM 5	Install Pipe Insulation	Yes	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
Domest	ic Water Heating Upgrade		0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
ECM 6	Install Low-Flow DHW Devices	Yes	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
Food Se	rvice & Refrigeration Measures		3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
ECM 7	Vending Machine Control	Yes	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
Custom	Measures		27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
ECM 8	Sub Metering	Yes	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
	TOTALS				-45	\$46,459	\$123,107	\$29,600	\$93,507	2.0	314,752

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

Figure 7 – All Evaluated ECMs

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





#	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 (\$)		CO ₂ e Emissions Reduction (lbs)
Lighting	Upgrades	198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
ECM 1	Retrofit Fixtures with LED Lamps	198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
Lighting	Control Measures	85,213	8.2	-20	\$12,407	\$48,182	\$18,770	\$29,412	2.4	83,514
ECM 2	Install Occupancy Sensor Lighting Controls	22,264	3.4	-5	\$3,242	\$27,932	\$3,650	\$24,282	7.5	21,820
ECM 3	Install High/Low Lighting Controls	62,949	4.7	-14	\$9,165	\$20,250	\$15,120	\$5,130	0.6	61,694
HVAC S	ystem Improvements	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
ECM 5	Install Pipe Insulation	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
Domest	ic Water Heating Upgrade	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
ECM 6	Install Low-Flow DHW Devices	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
Food Se	rvice & Refrigeration Measures	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
ECM 7	Vending Machine Control	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
Custom	Measures	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
ECM 8	Sub Metering	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
	TOTALS	314,219	32.0	-45	\$45,928	\$115,861	\$29,400	\$86,461	1.9	311,118

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

Figure 8 – Cost Effective ECMs

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





4.1 Lighting

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)		Annual Energy Cost Savings (\$)		Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)		CO₂e Emissions Reduction (lbs)
Lighting Upgrades		198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257
ECM 1	Retrofit Fixtures with LED Lamps	198,084	23.4	-45	\$28,848	\$61,743	\$10,446	\$51,297	1.8	194,257

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

ECM 1: Retrofit Fixtures with LED Lamps

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

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

Affected building areas: all areas with fluorescent fixtures with T8 tubes and CFLs.

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 (\$)		CO₂e Emissions Reduction (lbs)
Lighting	g Control Measures	85,213	8.2	-20	\$12,407	\$48,182	\$18,770	\$29,412	2.4	83,514
ECM 2	Install Occupancy Sensor Lighting Controls	22,264	3.4	-5	\$3,242	\$27,932	\$3,650	\$24,282	7.5	21,820
ECM 3	Install High/Low Lighting Controls	62,949	4.7	-14	\$9,165	\$20,250	\$15,120	\$5,130	0.6	61,694

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 2: 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.





A vacancy sensor turns the lights off when the space is not occupied but differs slightly from an occupancy sensor in that it does not automatically turn the lights on when the space is reoccupied. It requires a manual button press by the occupant to engage the lighting systems. Vacancy sensing maximizes the energy savings from the sensor because it's not always necessary to turn lights on when you walk into a room. Vacancy sensors should be used in cases where occupants are less likely to turn the lights on when temporarily entering a space, when adequate day light is available, or when lighting from adjacent spaces or emergency systems is adequate for the task at hand. Application examples for vacancy sensors may include dorm residential spaces and common areas such as conference rooms.

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: apartments, storage rooms, trash rooms, conference rooms, lounges, and laundry rooms.

ECM 3: 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.

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

Affected building areas: corridors, lobbies, and stairs.

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 an occupant approaches.





4.3 Variable Frequency Drives (VFD)

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)		Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)		CO₂e Emissions Reduction (Ibs)
Variable	e Frequency Drive (VFD) Measures	3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634
ECM 4	Install VFDs on Constant Volume (CV) Fans	3,609	1.2	0	\$531	\$7,246	\$200	\$7,046	13.3	3,634

Variable frequency drives control motors for fans, pumps, and process equipment based on the actual output required of the driven equipment. Energy savings result from more efficient control of motor energy usage when equipment operates at partial load. The magnitude of energy savings depends on the estimated amount of time that the motor would operate at partial load. For equipment with proposed VFDs, we have included replacing the controlled motor with a new inverter duty rated motor to conservatively account for the cost of an inverter duty rated motor.

ECM 4: Install VFDs on Constant Volume (CV) Fans

We evaluated installing VFDs to control constant volume exhaust fan motor speeds.

Energy savings result from reducing the fan speed (and power) when conditions allow for reduced air flow.

Affected areas: mechanical room exhaust fans.

4.4 HVAC Improvements

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Savings	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Net M&L	Payback	CO ₂ e Emissions Reduction (lbs)
HVAC S	ystem Improvements	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542
ECM 5	Install Pipe Insulation	0	0.0	13	\$87	\$173	\$60	\$113	1.3	1,542

ECM 5: 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.





4.5 Domestic Water Heating

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)		Annual Energy Cost Savings (\$)		Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)		CO₂e Emissions Reduction (lbs)
Domest	tic Water Heating Upgrade	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667
ECM 6	Install Low-Flow DHW Devices	0	0.0	6	\$38	\$43	\$24	\$19	0.5	667

ECM 6: 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

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.

4.6 Food Service & Refrigeration Measures

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)		Annual Energy Cost Savings (\$)		Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)		CO ₂ e Emissions Reduction (lbs)
Food Se	ervice & Refrigeration Measures	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936
ECM 7	Vending Machine Control	3,909	0.4	0	\$575	\$920	\$100	\$820	1.4	3,936

ECM 7: 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.





4.7 Custom Measures

#	Energy Conservation Measure	Annual Electric Savings (kWh)	_	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)		CO ₂ e Emissions Reduction (lbs)
Custom	Measures	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203
ECM 8	Sub Metering	27,014	0.0	0	\$3,974	\$4,800	\$0	\$4,800	1.2	27,203

ECM 8: Sub Metering

Facility staff expressed interest in utility sub metering key buildings which are currently served by a master meter and the central plant. Utility submeters alone do not save energy, but they are a useful tool under the right circumstances. Utility sub-meters can provide facility staff with real-time energy use data for specific buildings, information that enhances the potential for greater energy management activities. Revenue grade submeters are a tool that allow owners to bill tenants or departments for the energy consumed in the spaces they occupy. Better resolution on building system performance can lead to occupant behavioral changes which often result in reduced energy use.

A high-level evaluation of potential savings and costs is provided for demonstration purposes only. Based on industry standards and case studies, the potential energy savings may be up to 5% of existing energy usage. For the purposes of this report, a conservative assumed savings of 1% was applied to building allocated electrical consumption of the sub metered buildings based on the premise of occupant behavioral changes. For this building the following submeters are proposed: smart electric meter. Meter costs for the evaluation are based on average building use across the campus: smart electric meter \$2,400. The actual scope of work and implementation costs must be provided by a contractor in the future. This measure is recommended for implementation based on the initial energy and economic results but primarily for enhancing the potential for greater energy management activities.





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 between 5 to 20 percent 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, planned capital upgrades, and 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 will 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 can't manage what you don't measure. ENERGY STAR® Portfolio Manager® is an online tool that you can use to measure and track energy and water consumption, as well as greenhouse gas emissions⁶. Your account has already been established. Now you can continue to keep tabs on your energy performance every month.

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.

⁶ https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager.





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.

Thermostat Schedules and Temperature Resets



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

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.

Chiller Maintenance

Service chillers regularly to keep them operating properly. Chillers are responsible for a substantial portion of a commercial building's overall energy usage and when they do not work well, there is usually a noticeable increase in energy bills and increased occupant complaints. Regular diagnostics and service can save five to ten percent of the cost of operating your chiller. If you already have a maintenance contract in place, your existing service company should be able to provide these services.

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.





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 EMS 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.

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® website⁷ or download a copy of EPA's "WaterSense® at Work: Best Management

Practices for Commercial and Institutional Facilities"⁸ 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.

⁷ https://www.epa.gov/watersense.

⁸ https://www.epa.gov/watersense/watersense-work-0.





6 ON-SITE GENERATION

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





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 a PV array.

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

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

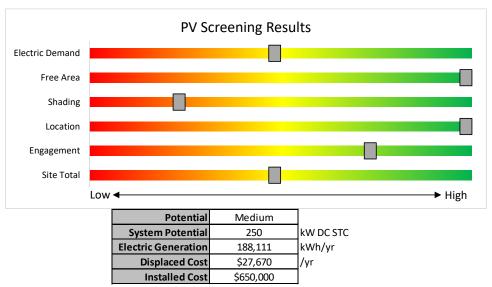


Figure 9 - Photovoltaic Screening

Transition Incentive (TI) Program

The TI program is a bridge between the Legacy SREC Program and a to-be determined Successor Incentive Program. The program is used to register the intent to install solar projects in New Jersey. Rebates are not available for solar projects, but owners of solar projects *must* register their projects prior to the start of construction to establish the project's eligibility to earn TRECs (Transition Incentive Renewable Energy Certificates). The Transition Incentive is structured as a factorized renewable energy certificate. The factors allow the TI Program to provide differentiated financial incentives for different types of solar installation.

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:

Transition Incentive (TI) Program: https://www.njcleanenergy.com/renewable-energy/programs/transition-incentive-program

- Basic Info on Solar PV in New Jersey: www.njcleanenergy.com/whysolar.
- **New Jersey Solar Market FAQs**: <u>www.njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-transition/solar-market-faqs.</u>
- Approved Solar Installers in the New Jersey Market: https://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 Low or infrequent thermal load, and lack of space for siting the equipment are the most significant factors contributing to the lack of CHP potential.

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

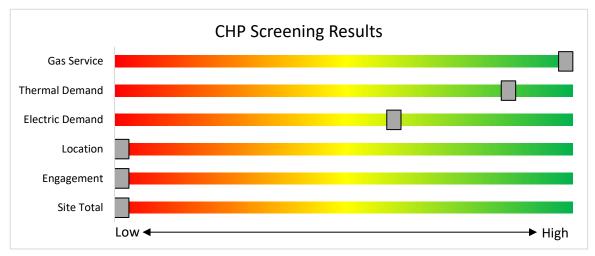


Figure 10 - Combined Heat and Power Screening

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





7 Project Funding and Incentives

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

	SmartStart Flexibility to install at your own pace	Direct Install Turnkey installation	Pay for Performance Whole building upgrades
Who should use it?	Buildings installing individual measures or small group of measures.	Small to mid-size facilities that can bundle multiple measures together. Average peak demand should be below 200 kW. Not suitable for significant building shell issues.	Mid to large size facilities looking to implement as many measures as possible at one time. Peak demand should be over 200 kW.
How does it work?	Use in-house staff or your preferred contractor.	Pre-approved contractors pass savings along to you via reduced material and labor costs.	Whole-building approach to energy upgrades designed to reduce energy use by at least 15%. The more you save, the higher the incentives.
What are the Incentives?	Fixed incentives for specific energy efficiency measures.	Incentives pay up to 70% of eligible costs, up to \$125,000 per project. You pay the remaining 30% directly to the contractor.	Incentives are paid out in three installments. The first installment is meant to help offset the costs of the initial engineering study. The subsequent incentives are paid based on the level of energy savings up to 50% of the total project cost. See Section 7.3 for all incentive details.
How do I participate?	Submit an application for the specific equipment to be installed.	Contact a participating contractor in your region.	Contact a pre-qualified Partner to develop your Energy Reduction Plan and set your energy savings targets.

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







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

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

Equipment with Prescriptive Incentives Currently Available:

Electric Chillers
Electric Unitary HVAC
Gas Cooling
Gas Heating
Gas Water Heating
Ground Source Heat Pumps
Lighting

Lighting Controls
Refrigeration Doors
Refrigeration Controls
Refrigerator/Freezer Motors
Food Service Equipment
Variable Frequency Drives

Incentives

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

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

How to Participate

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

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







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 over the recent 12-month period. You work directly with a preapproved 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.

Based on the site building and utility data provided, the facility does not meet the requirements of the current Direct Install program.

Incentives

The program pays up to 70 percent of the total installed cost of eligible measures, up to \$125,000 per project. Each entity is limited to incentives up to \$250,000 per fiscal year.

How to Participate

To participate in Direct Install, you will need to contact the participating contractor assigned to the region of the state where your facility is located. A complete list of Direct Install program partners is provided on the Direct Install website linked below. 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 percent of eligible costs are covered by the program, subject to program caps and eligibility, while the remaining 30 percent of the cost is paid to the contractor by the customer.

Detailed program descriptions and applications can be found at: www.njcleanenergy.com/DI.





7.3 Pay for Performance - Existing Buildings



Pay for Performance works for larger customers with a peak demand over 200 kW. The minimum installed scope of work must include at least two unique measures that results in at least 15 percent source energy savings, and lighting cannot make up the majority of the savings.

P4P is a generally a good option for medium-to-large sized facilities looking to implement as many measures as possible under a single project to achieve deep energy savings. This program 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.

For master metered campuses, such as The College of New Jersey, P4P eligibility is evaluated at the campus level. For the purposes of reporting P4P eligibility is being presented at all of the buildings. Final eligibility will be assessed once all of the reports are completed and will be addressed at the Exit Meeting. If the campus does not meet the 15% savings threshold based on measures identified during the LGEA Program process it is possible that additional measures could be identified at a later point in time, for example through further evaluation or the Energy Savings Improvement Program process.

Incentives

Incentives are based on estimated and achieved energy savings ranging from \$0.18-\$0.22/kWh and \$1.80-\$2.50/therm, capped at the lesser of 50% total project cost, or \$1 million per electric account and \$1 million per natural gas account, per fiscal year, not to exceed \$2 million per project. An incentive of \$0.15/square foot is also available to offset the cost of developing the Energy Reduction Plan (see below) contingent on the project moving forward with measure installation.

How to Participate

Contact one of the pre-approved consultants and contractors ("Partners"). Under direct contract to you, they will help further evaluate the measures identified in this report through development of the energy reduction plan), assist you in implementing selected measures, and verify actual savings one year after the installation. Your Partner will also help you apply for incentives.

Approval of the final scope of work is required by the program prior to installation. Installation can be done by the contractor of your choice (some P4P Partners are also contractors) or by internal staff, but the Partner remains involved throughout construction to ensure compliance with the program requirements.

Detailed program descriptions, instructions for applying, applications and list of Partners can be found at www.njcleanenergy.com/P4P.





7.4 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) ¹	Incentive (\$/kW)	% of Total Cost Cap per Project ³	\$ Cap per Project ³
Powered by non- renewable or renewable fuel source ⁴	≤500 kW	\$2,000	30-40% ²	\$2 million
Gas Internal Combustion Engine	>500 kW - 1 MW	\$1,000		
Gas Combustion Turbine	> 1 MW - 3 MW	\$550		
Microturbine Fuel Cells with Heat Recovery	>3 MW	\$350	30%	\$3 million
Waste Heat to	<1 MW	\$1,000	30%	\$2 million
Power*	> 1MW	\$500	30 /0	\$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 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.





7.5 Energy Savings Improvement Program

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

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

How to Participate

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

- (1) Use an energy services company or "ESCO."
- (2) Use independent engineers and other specialists, or your own qualified staff, to provide and manage the requirements of the program through bonds or lease obligations.
- (3) Use a hybrid approach of the two options described above where the ESCO is used for some services and independent engineers, or other specialists or qualified staff, are used to deliver other requirements of the program.

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

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

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





7.6 Transition Incentive (TI) Program

The TI program is a bridge between the Legacy SREC Program and a to-be determined Successor Incentive Program. The program is used to register the intent to install solar projects in New Jersey. Rebates are not available for solar projects, but owners of solar projects *must* register their projects prior to the start of construction to establish the project's eligibility to earn TRECs (Transition Incentive Renewable Energy Certificates). The Transition Incentive is structured as a factorized renewable energy certificate. The factors allow the TI Program to provide differentiated financial incentives for different types of solar installations. NJBPU calculates the value of a Transition Renewable Energy Certificate (TREC) by multiplying the base compensation rate (\$152/MWh) by the project's assigned factor (i.e. \$152 x 0.85 = \$129.20/MWh). The TREC factors are defined based on the chart below:

Project Type	Factor
Subsection (t): landfill, brownfield, areas of historic fill	1.00
Grid supply (Subsection (r)) rooftop	1.00
Net metered non-residential rooftop and carport	1.00
Community solar	0.85
Grid supply (Subsection (r)) ground mount	0.60
Net metered residential ground mount	0.60
Net metered residential rooftop and carport	0.60
Net metered non-residential ground mount	0.60

After the registration is accepted, construction is complete, and final paperwork has been submitted and is deemed complete, the project is issued a New Jersey certification number, which enables it to generate New Jersey TRECs.

Eligible projects may generate TRECs for 15 years following the commencement of commercial operations (also referred to as the "Transition Incentive Qualification Life"). After 15 years, projects may be eligible for a New Jersey Class I REC.

TRECs will be used by the identified compliance entities to satisfy a compliance obligation tied to a new Transition Incentive Renewable Portfolio Standard ("TI-RPS"), which will exist in parallel with, and completely separate from, the existing Solar RPS for Legacy SRECs. The TI-RPS is a carve-out of the current Class I RPS requirement. The creation of TRECs is based upon metered generation supplied to PJM-EIS General Attribute Tracking System ("GATS") by the owners of eligible facilities or their agents. GATS would create one TREC for each MWh of energy produced from a qualified facility.

TRECs will be purchased monthly by a TREC Administrator who will allocate the TRECs 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.

Solar projects help the State of New Jersey reach renewable energy goals outlined in the state's Energy Master Plan. The Transition Incentive Program online portal is now open to new applications effective May 1, 2020. There are instructions on "How and When to Transfer my SRP Registration to the Transition Incentive Program". If you are considering installing solar photovoltaics on your building, visit the following link for more information:

https://www.njcleanenergy.com/renewable-energy/programs/transition-incentive-program





8 PROJECT DEVELOPMENT

Energy conservation measures (ECMs) have been identified for your site and their energy and economic analyses are provided within this LGEA report. 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 includes the review of multiple bids for project work, incorporate potential operational & maintenance (O&M) cost savings and maximize your incentive potential.

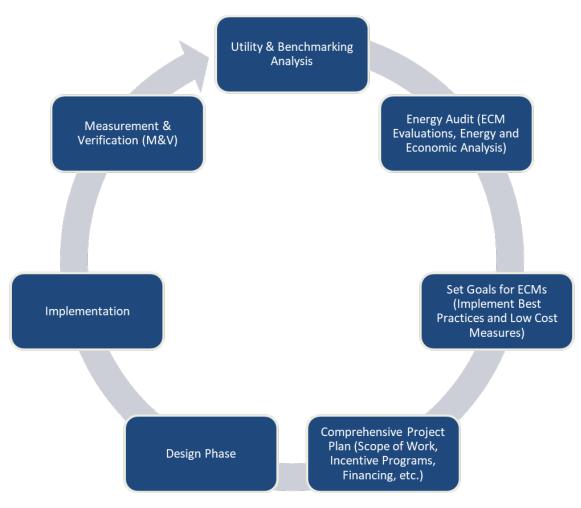


Figure 11 – Project Development Cycle





9 ENERGY PURCHASING AND PROCUREMENT STRATEGIES

9.1 Retail Electric Supply Options

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

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

A list of licensed third-party electric suppliers is available at the NJBPU website9.

9.2 Retail Natural Gas Supply Options

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

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

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

A list of licensed third-party natural gas suppliers is available at the NJBPU website 10.

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

¹⁰ www.state.nj.us/bpu/commercial/shopping.html.





APPENDIX A: EQUIPMENT INVENTORY & RECOMMENDATIONS

Lighting Inventory & Recommendations

Lighting Invent	tory &	<u>Recommendations</u>																			
	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Apt 102 (Hausdoerffer Hall)	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B102	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B102	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B102	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B103	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B103	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B103	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B103	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B104	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B104	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B104	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B104	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B105	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B105	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B105	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B105	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B106	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B106	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B106	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B106	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B118	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B118	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B118	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B118	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B119	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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
Apt B119	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B119	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B119	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B120	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B120	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B120	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B120	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B121	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B121	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B121	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B121	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B122	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B122	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B122	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B122	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B124	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B124	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	466	0	\$68	\$380	\$65	4.6
Apt B200	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B200	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B200	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B200	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B201	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B201	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B201	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B201	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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
Apt B202	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B202	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B202	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B202	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B203	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B203	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B203	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B203	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B204	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B204	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B204	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B204	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B205	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B205	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B205	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B205	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B206	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B206	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B206	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B206	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B213	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B213	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B213	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B213	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B214	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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
Apt B214	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B214	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B214	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B215	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B215	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B215	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B215	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B216	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B216	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B216	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B216	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B217	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B217	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B217	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B217	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B218	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B218	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B218	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B218	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B219	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B219	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B219	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B219	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B300	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B300	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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
Apt B300	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B300	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B301	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B301	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B301	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B301	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B302	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B302	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B302	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B302	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B303	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B303	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B303	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B303	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B304	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B304	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B304	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B304	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B305	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B305	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B305	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B305	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B306	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	s	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B306	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B306	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	mpact & Fi	nancial An	alysis			
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
Apt B306	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B313	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B313	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B313	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B313	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B314	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B314	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B314	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B314	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B315	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B315	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B315	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B315	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B316	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B316	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B316	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B316	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B317	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B317	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B317	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B317	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B318	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B318	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B318	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B318	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8





	Existin	g Conditions					Prop	osed Condition	าร						Energy In	npact & Fi	nancial An	alysis			
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
Apt B319	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B319	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B319	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B319	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt B100	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B100	2	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 2' Lamps	Occupancy Sensor	17	2,550	0.0	157	0	\$23	\$181	\$32	6.5
Apt B100	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	466	0	\$68	\$380	\$65	4.6
Apt B107	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B107	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B107	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt B107	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	3,696	0.0	122	0	\$18	\$37	\$10	1.5
Apt B117	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt B117	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt B117	2	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 2' Lamps	Occupancy Sensor	17	2,550	0.0	157	0	\$23	\$181	\$32	6.5
Apt B117	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	310	0	\$45	\$189	\$40	3.3
Conference Room 111B	4	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	3,696	1, 2	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	2,550	0.1	611	0	\$89	\$378	\$43	3.8
Corridor 2nd Floor (High Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 2nd Floor (High Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 2nd Floor (High Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 2nd Floor (High Side)	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 2nd Floor (Low Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 2nd Floor (Low Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 2nd Floor (Low Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 2nd Floor (Low Side)	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 3rd Floor (High Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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 3rd Floor (High Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 3rd Floor (High Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 3rd Floor (High Side)	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 3rd Floor (Low Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 3rd Floor (Low Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 3rd Floor (Low Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 3rd Floor (Low Side)	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 C102	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor C102	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor C102	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor C102	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 C103 (High Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor C103 (High Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor C103 (High Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor C103 (High Side)	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
Electrical Room 114	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room B110	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	2	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	171	0	\$25	\$73	\$20	2.1
Electrical Room B209	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room B210	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room B309	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room B310	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Elevator Lobby 1st Floor	4	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0
Elevator Lobby 1st Floor	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
Elevator Lobby 2nd Floor	4	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0
Elevator Lobby 3rd Floor	4	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Elevator Room B125	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	500	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	500	0.0	17	0	\$2	\$37	\$10	11.0
Exterior Entrance Recessed	5	Compact Fluorescent: (2) 26W Plug- In Lamps	Timeclock		52	4,380	1	Relamp	No	5	LED Lamps: G25 Lamps	Timeclock	36	4,380	0.0	342	0	\$50	\$252	\$20	4.6
Exterior Ground	4	Halogen Incandescent: Screw-In PAR Lamp	Timeclock		70	4,380	1	Relamp	No	4	LED Lamps: A21 Lamps	Timeclock	11	4,380	0.0	1,042	0	\$153	\$141	\$4	0.9
Exterior Pole	2	Compact Fluorescent: (1) 42W Plug- In Pole Mounted Lamp	Timeclock		42	4,380	1	Relamp	No	2	LED Lamps: LED Lamp	Timeclock	29	4,380	0.0	110	0	\$16	\$34	\$2	2.0
Exterior Pole	9	LED - Fixtures: Outdoor Pole/Arm- Mounted Area/Roadway Fixture	Timeclock		30	4,380		None	No	9	LED - Fixtures: Outdoor Pole/Arm- Mounted Area/Roadway Fixture	Timeclock	30	4,380	0.0	0	0	\$0	\$0	\$0	0.0
Exterior wall Pack	6	Compact Fluorescent: (2) 42W G25 Screw-In Lamps	Timeclock		84	4,380	1	Relamp	No	6	LED Lamps: G25 Lamps	Timeclock	59	4,380	0.0	662	0	\$97	\$303	\$24	2.9
Exterior Wall Pack	2	Compact Fluorescent: (2) 24W G25 Screw-In Lamps	Timeclock		48	4,380	1	Relamp	No	2	LED Lamps: G25 Lamps	Timeclock	34	4,380	0.0	126	0	\$19	\$101	\$8	5.0
Housing Keeping 115	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
Housing Keeping B211	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Housing Keeping B311	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
IDF Room	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room B207	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room B212	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room B307	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room B312	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
Kitchen 112B	4	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	6,283	1, 2	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	4,335	0.1	1,039	0	\$151	\$378	\$43	2.2
Kitchen Storage	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Laundry Room A113	12	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	4,805	1, 2	Relamp	Yes	12	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	3,315	0.3	2,385	-1	\$347	\$594	\$59	1.5
Living Room Apt B107	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt B117A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt B117B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt B124A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt B124B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt B124C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B100	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alvsis			
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours		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
Living Room B100B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B100C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B102A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B102B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B102C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B102C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B102D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B103A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B103B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B103C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B103C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B103D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B104A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B104B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B104C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B104C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B104D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B105A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B105B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B105C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B105C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B105D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B106A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B106B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B106C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Living Room B106C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B106D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B118A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B118B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B118C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B118C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B118D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B119A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B119B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B119C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B119C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B119D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B120A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B120B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B120C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B120C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B120D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B121A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B121B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B121C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B121C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B121D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B122A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B122B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B122C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alvsis			
	LAISTIII	5 conditions			Watts	Annual	1106						Watts	Annual		Total Annual	Total Annual	Total Annual	Estimated		Simple
Location	Fixture Quantity	Fixture Description	Control System	Light Level	per	Operating	ECM #	Fixture Recommendation	Add Controls?	Fixture Quantity	Fixture Description	Control System	per	Operating	Total Peak kW Savings	kWh	MMBtu	Energy Cost	M&L Cost	Total Incentives	Payback w/ Incentives
					Fixture	Hours							Fixture	Hours		Savings	Savings	Savings	(\$)		in Years
Living Room B122C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B122D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B200A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B200B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B200C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B200C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B200D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B201A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B201B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B201C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B201C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B201D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B202A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B202B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B202C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B202C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B202D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B203A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B203B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B203C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B203C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B203D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B204A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B204B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B204C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Living Room B204C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B204D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B205A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B205B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B205C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B205C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B205D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B206D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B213A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B213B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B213C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B213C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B213D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B214A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B214B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B214C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B214C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B214D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B215A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B215B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Living Room B215C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B215C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B215D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B216A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B216B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B216C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B216C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B216D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B217A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B217B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B217C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B217C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B217D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B218A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B218B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B218C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B218C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B218D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B219A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B219B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B219C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B219C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B219D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B300A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B300B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	nnact & Fi	nancial An	alvsis			
Location	Fixture Quantity	Fixture Description	Control System	Light Level	Watts per Fixture	Annual Operating Hours		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
Living Room B300C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B300C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B300D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B301A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B301B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B301C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B301C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B301D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B302A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B302B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B302C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B302C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B302D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B303A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B303B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B303C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B303C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B303D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B304A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B304B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B304C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B304C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B304D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B305A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B305B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	alysis			
	Fixture		Control	Light	Watts	Annual		Fixture	Add	Fixture		Control	Watts	Annual	Total Peak	Total Annual	Total Annual	Total Annual	Estimated	Total	Simple Payback w/
Location	Quantity	Fixture Description	System	Level	per Fixture	Operating Hours	ECM #	Recommendation	Controls?		Fixture Description	System	per Fixture	Operating Hours	kW Savings	kWh Savings	MMBtu Savings	Energy Cost Savings	M&L Cost (\$)		Incentives in Years
Living Room B305C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B305C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B305D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B306A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B306B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B306C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B306C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B306D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B313A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B313C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B313C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B313D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B314A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B314B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B314C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B314C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B314D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B315A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B315B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B315C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B315C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B315D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B316A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B316B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B316C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	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
Living Room B316C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B316D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B317A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B317B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B317C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B317C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B317D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B318A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B318B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B318C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B318C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B318D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B319A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B319B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B319C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B319C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room B319D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Lounge	13	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	7,392	1, 2	Relamp	Yes	13	LED Lamps: G25 Lamps	Occupancy Sensor	36	5,100	0.2	2,583	-1	\$376	\$926	\$87	2.2
Lounge	4	Compact Fluorescent: (8) 42W G25 Screw-In Lamps	Wall Switch	S	336	7,392	1, 2	Relamp	Yes	4	LED Lamps: G25 Lamps	Occupancy Sensor	235	5,100	0.5	5,136	-1	\$748	\$1,077	\$99	1.3
Lounge	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
Mail Room	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1, 2	Relamp	Yes	2	LED - Linear Tubes : (2) 4' Lamps	Occupancy Sensor	29	1,785	0.1	217	0	\$32	\$189	\$40	4.7
Main Entrance	3	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1,3	Relamp	Yes	3	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	707	0	\$103	\$376	\$117	2.5
Main Lobby	12	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1,3	Relamp	Yes	12	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,826	-1	\$411	\$1,055	\$48	2.4
Main Lobby	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
Main Office 111	6	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	s	80	2,218	1, 2	Relamp	Yes	6	LED Lamps : PL-L (Biax) Lamps	Occupancy Sensor	56	1,530	0.2	550	0	\$80	\$432	\$47	4.8





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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 Office 111A	4	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	2,218	1, 2	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	1,530	0.1	367	0	\$53	\$378	\$43	6.3
MDF Room B109	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	2,587	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,785	0.1	217	0	\$32	\$189	\$40	4.7
Mechanical Room B108	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	2,587	1	Relamp	No	5	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.1	427	0	\$62	\$183	\$50	2.1
Restroom - Unisex 112C	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	- Wall Switch	s	62	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	5,544	0.0	161	0	\$23	\$72	\$10	2.7
Restroom Apt B102	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B102	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B103	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B103	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B104	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B104	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B105	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B105	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B106	2	Compact Fluore scent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B106	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B107	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt B107	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B117	1	Compact Fluore scent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt B117	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B118	2	Compact Fluore scent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B118	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B119	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B119	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B120	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B120	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B121	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9





	Existin	g Conditions					Propo	osed Conditio	ns						Energy In	npact & Fir	nancial An	alysis			
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 Paybackw/ Incentives in Years
Restroom Apt B217	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B217	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B218	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B218	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B219	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B219	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B300	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B300	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B301	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B301	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B302	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B302	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B303	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B303	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B304	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B304	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B305	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B305	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B313	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B313	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B314	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B314	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B315	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B315	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B316	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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 Apt B316	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B317	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B317	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B318	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B318	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B319	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B319	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom B100	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom B100	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5, 544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Sprinkler Room B101	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,785	0.1	217	0	\$32	\$189	\$40	4.7
Stairs B1	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
Stairs B1	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs B3	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
Stairs B3	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs B3	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
Stairs B3	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Storage 112A	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	483	0.1	104	0	\$15	\$262	\$40	14.7
Storage B208	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	483	0.1	59	0	\$9	\$189	\$20	19.7
Storage B308	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	700	0.0	23	0	\$3	\$37	\$10	7.9
Trash Room B123	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	1,275	0.1	233	0	\$34	\$226	\$50	5.2
Trash Room B220	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6
Trash Room B320	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6
Apt A102 (Phelps Hall)	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A102	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy Ir	npact & Fi	nancial An	alysis			
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 Apt B316	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5, 544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B317	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B317	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B318	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B318	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B319	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B319	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom B100	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom B100	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Sprinkler Room B101	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,785	0.1	217	0	\$32	\$189	\$40	4.7
Stairs B1	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
Stairs B1	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs B3	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
Stairs B3	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs B3	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
Stairs B3	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Storage 112A	2	Linear Fluorescent - T8: 4' T8 (32W) - 4L	Switch	S	114	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	483	0.1	104	0	\$15	\$262	\$40	14.7
Storage B208	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	483	0.1	59	0	\$9	\$189	\$20	19.7
Storage B308	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	700	0.0	23	0	\$3	\$37	\$10	7.9
Trash Room B123	2	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	1,275	0.1	233	0	\$34	\$226	\$50	5.2
Trash Room B220	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6
Trash Room B320	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6
Apt A102 (Phelps Hall)	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A102	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1





	Existi	ng Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	nalysis			
Location	Fixture Quantit	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
Apt A102	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A102	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A103	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A103	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A103	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A103	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A104	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A104	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A104	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A104	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A105	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A105	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A105	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A105	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A106	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A106	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A106	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A106	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A118	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A118	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A118	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A118	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A119	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A119	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A119	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & F	inancial An	alysis			
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
Apt A119	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A120	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A120	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A120	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A120	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A121	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	s	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A121	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A121	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A121	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A122	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A122	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A122	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A122	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A124	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A124	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	466	0	\$68	\$380	\$65	4.6
Apt A200	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A200	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A200	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A200	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A201	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	s	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A201	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A201	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A201	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A202	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A202	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1





	Existir	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial A	nalysis			
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 Annua MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Paybackw/ Incentives in Years
Apt A202	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	5	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A202	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A203	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A203	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A203	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A203	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	5	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A204	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A204	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A204	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A204	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A205	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A205	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A205	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A205	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A206	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A206	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A206	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A206	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	5	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A213	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A213	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A213	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	5	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A213	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A214	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A214	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	5	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A214	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1





	Existi	ng Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	nalysis			
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Apt A214	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A215	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A215	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A215	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A215	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A216	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A216	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A216	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A216	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A217	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A217	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A217	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A217	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A218	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A218	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A218	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A218	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A219	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A219	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A219	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A219	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A300	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A300	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A300	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A300	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8





	Existi	ng Conditions					Prop	osed Conditic	ons						Energy In	npact & Fi	nancial Ar	nalysis			
Location	Fixture Quantit	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
Apt A301	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A301	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A301	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A301	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A302	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A302	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A302	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	5	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A302	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	5	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A303	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A303	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A303	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A303	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	5	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A304	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A304	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A304	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A304	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A305	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A305	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A305	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A305	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A306	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A306	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A306	1	Linear Fluorescent - T8: 2'T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A306	4	Linear Fluorescent - T8: 4'T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A313	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	nalysis			
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
Apt A313	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3, 696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A313	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A313	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A314	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A314	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3, 696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A314	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A314	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A315	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A315	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3, 696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A315	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A315	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A316	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A316	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A316	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A316	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A317	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A317	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A317	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A317	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A318	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A318	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A318	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A318	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A319	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A319	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1





	Existin	g Conditions					Propo	sed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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 kW h Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Apt A319	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A319	4	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	4	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	621	0	\$90	\$416	\$75	3.8
Apt A 100	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Cirdine	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A100	2	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 2' Lamps	Occupancy Sensor	17	2,550	0.0	157	0	\$23	\$181	\$32	6.5
Apt A100	3	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	3	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	466	0	\$68	\$380	\$65	4.6
Apt A 107	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A 107	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Cirdine	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A107	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	3,696	0.0	59	0	\$9	\$33	\$6	3.1
Apt A107	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	3,696	0.0	122	0	\$18	\$37	\$10	1.5
Apt A117	1	Compact Fluorescent: (1) 23W A19 Screw-In Lamp	Wall Switch	S	23	3,696	1	Relamp	No	1	LED Lamps: LED Lamp	Wall Switch	16	3,696	0.0	26	0	\$4	\$17	\$1	4.4
Apt A117	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	3,696	1	Relamp	No	1	LED Lamps: LED Cirdine	Wall Switch	21	3,696	0.0	33	0	\$5	\$25	\$5	4.1
Apt A117	2	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 2' Lamps	Occupancy Sensor	17	2,550	0.0	157	0	\$23	\$181	\$32	6.5
Apt A117	2	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	3,696	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	2,550	0.1	310	0	\$45	\$189	\$40	3.3
Conference Room 111A	4	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	7,392	1, 2	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	5,100	0.1	1,223	0	\$178	\$378	\$43	1.9
Corridor 2nd Floor (High Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 2nd Floor (High Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 2nd Floor (High Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 2nd Floor (High Side)	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 2nd Floor (Low Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 2nd Floor (Low Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 2nd Floor (Low Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 2nd Floor (Low Side)	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 3rd Floor (High Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 3rd Floor (High Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 3rd Floor (High Side)	9	Compact Fluorescent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fir	nancial An	alysis			
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 3rd Floor (High Side)	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 3rd Floor (Low Side)	24	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	s	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor 3rd Floor (Low Side)	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	s	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor 3rd Floor (Low Side)	9	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor 3rd Floor (Low Side)	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 C102	24	Compact Fluorescent: (2) 40W Biax	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor C102	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor C102	9	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor C102	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 C103 (High Side)	24	Compact Fluorescent: (2) 40W Biax	Wall Switch	S	80	8,760	1, 3	Relamp	Yes	24	LED Lamps: PL-L (Biax) Lamps	High/Low Control	56	6,044	0.7	8,696	-2	\$1,266	\$1,548	\$888	0.5
Corridor C103 (High	1	Compact Fluorescent: (2) 17W G25 Screw-In Lamps	Wall Switch	S	34	8,760	1, 3	Relamp	Yes	1	LED Lamps: G25 Lamps	High/Low Control	24	6,044	0.0	154	0	\$22	\$50	\$4	2.1
Corridor C103 (High Side)	9	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	S	52	8,760	1, 3	Relamp	Yes	9	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.2	2,120	0	\$309	\$904	\$351	1.8
Corridor C103 (High Side)	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
Electrical Room A114	1	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room A110	2	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	2	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	171	0	\$25	\$73	\$20	2.1
Electrical Room A209	1	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	s	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room A210	1	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room A309	1	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	s	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Electrical Room A310	1	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Elevator Lobby 1st Floor	4	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0
Elevator Lobby 1st Floor	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
Elevator Lobby 2nd Floor	4	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0
Elevator Lobby 3rd Floor	4	Compact Fluore scent: (2) 26W Plug- In Lamps	Wall Switch	s	52	8,760	1, 3	Relamp	Yes	4	LED Lamps: G25 Lamps	High/Low Control	36	6,044	0.1	942	0	\$137	\$427	\$16	3.0
Elevator Room B125	1	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	500	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	500	0.0	17	0	\$2	\$37	\$10	11.0
Exterior Entrance Recessed	5	Compact Fluore scent: (2) 26W Plug- In Lamps	Timeclock		52	4,380	1	Relamp	No	5	LED Lamps: G25 Lamps	Timeclock	36	4,380	0.0	342	0	\$50	\$252	\$20	4.6





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & F	inancial An	alysis			
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 Annua kWh Savings	l Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Exterior Ground	4	Halogen Incandescent: Screw-In PAR	Timeclock		70	4,380	1	Relamp	No	4	LED Lamps: A21 Lamps	Timeclock	11	4,380	0.0	1,042	0	\$153	\$141	\$4	0.9
Exterior Pole	2	Compact Fluorescent: (1) 42W Plug- In Pole Mounted Lamp	Timeclock		42	4,380	1	Relamp	No	2	LED Lamps: LED Lamp	Timeclock	29	4,380	0.0	110	0	\$16	\$34	\$2	2.0
Exterior Pole	9	LED - Fixtures: Outdoor Pole/Arm- Mounted Area/Roadway Fixture	Timeclock		30	4,380		None	No	9	LED - Fixtures: Outdoor Pole/Arm- Mounted Area/Roadway Fixture	Timeclock	30	4,380	0.0	0	0	\$0	\$0	\$0	0.0
Exterior wall Pack	6	Compact Fluorescent: (2) 42W G25 Screw-In Lamps	Timeclock		84	4,380	1	Relamp	No	6	LED Lamps: G25 Lamps	Timeclock	59	4,380	0.0	662	0	\$97	\$303	\$24	2.9
Exterior Wall Pack	2	Compact Fluorescent: (2) 24W G25 Screw-In Lamps	Timeclock		48	4,380	1	Relamp	No	2	LED Lamps: G25 Lamps	Timeclock	34	4,380	0.0	126	0	\$19	\$101	\$8	5.0
Housing Keeping A115	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
Housing Keeping A211	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Housing Keeping A311	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
IDF Room	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room A207	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room A212	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room A307	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
IDF Room A312	1	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	2,587	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.0	85	0	\$12	\$37	\$10	2.1
Kitchen 112A	4	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	s	80	6,283	1, 2	Relamp	Yes	4	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	4,335	0.1	1,039	0	\$151	\$378	\$43	2.2
Kitchen Storage	1	Linear Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	s	93	2,587	1	Relamp	No	1	LED - Linear Tubes: (3) 4' Lamps	Wall Switch	44	2,587	0.0	128	0	\$19	\$55	\$15	2.1
Laundry Room A113	12	Compact Fluorescent: (2) 40W Biax Lamps	Wall Switch	s	80	4,805	1, 2	Relamp	Yes	12	LED Lamps: PL-L (Biax) Lamps	Occupancy Sensor	56	3,315	0.3	2,385	-1	\$347	\$594	\$59	1.5
Living Room Apt B107	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt A117A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt A117B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt A124A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt A124B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room Apt A124C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A100	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 100B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A100C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existing	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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
Living Room A102A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A102B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A102C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A102C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A102D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A103A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A103B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A103C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A103C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A103D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A104A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A104B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A104C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A104C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A104D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A105A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A105B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A105C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A105C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A105D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A106A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A106B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A106C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A106C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A106D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existing	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	nalysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A118A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A118B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A118C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A118C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A118D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A119A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A119B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A119C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A119C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A119D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A120A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A120B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A120C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A120C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A120D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A121A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A121B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A121C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A121C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A121D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A122A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A122B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A122C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A122C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A122D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A200A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 200B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A200C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 200C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A200D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A201A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A201B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A201C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A201C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A201D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A202A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A202B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A202C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A202C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A202D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 203A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A203B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A203C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A203C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A203D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A204A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 204B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A204C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 204C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 204D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existing	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	alysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A205A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A205B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 205C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 205C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 205D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 206A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A 206B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A206C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A206C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A206D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A206D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A213A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A213B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A213C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A213C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A213D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A214A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A214B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A214C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A214C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A214D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A215A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A215B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A215C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A215C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A215D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A216A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A216B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A216C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A216C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A216D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A217A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A217B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A217C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A217C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A217D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A218A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A218B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A218C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A218C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A218D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A219A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A219B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A219C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A219C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A219D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A300A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A300B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room 300C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A300C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existing	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial Ar	nalysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A300D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A301A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A301B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A301C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A301C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A301D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A302A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A302B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A302C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A302C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A302D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A303A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A303B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A303C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A303C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A303D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A304A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A304B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A304C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A304C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A304D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A305A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A305B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A305C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A305C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Living Room A305D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A306A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A306B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A306C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A306C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A306D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A313A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A313C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A313C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A313D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A314A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A314B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A314C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A314C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A314D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A315A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A315B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A315C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A315C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A315D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A316A	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Relamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A316B	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A316C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	S	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A316C	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1
Living Room A316D	1	Compact Fluorescent: (1) 30W Circline/T9 Plug-In Lamp	Wall Switch	s	30	4,928	1	Re lamp	No	1	LED Lamps: LED Circline	Wall Switch	21	4,928	0.0	44	0	\$6	\$25	\$5	3.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & F	nancial An	alysis			
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
Mechanical Room B108	5	Linear Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	s	62	2,587	1	Relamp	No	5	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	2,587	0.1	427	0	\$62	\$183	\$50	2.1
Restroom - Unisex 112C	1	U-Bend Fluorescent - T8: U T8 (32W) - 2L	Wall Switch	s	62	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) U-Lamp	Wall Switch	33	5,544	0.0	161	0	\$23	\$72	\$10	2.7
Restroom Apt A102	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A102	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A103	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A103	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A104	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A104	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A105	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A105	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A106	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A106	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A107	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt A107	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A117	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt A117	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A118	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A118	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A119	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A119	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A120	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A120	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A121	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A121	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A122	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & F	inancial An	alysis			
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 Annua kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)		Simple Payback w/ Incentives in Years
Restroom Apt B121	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B122	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B122	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B124	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt B124	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B200	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B200	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B201	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B201	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B202	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B202	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B203	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B203	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B204	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B204	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B205	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B205	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B213	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B213	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B214	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B214	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B215	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B215	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt B216	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt B216	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1





	Existin	g Conditions					Prop	osed Conditio	ns						Energy In	npact & F	inancial An	alysis			
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 Annua kWh Savings	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)		Simple Payback w/ Incentives in Years
Restroom Apt A122	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A124	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom Apt A124	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A200	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A200	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A201	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A201	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A202	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A202	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A203	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A203	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A204	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A204	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A205	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A205	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A213	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A213	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A214	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A214	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A215	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A215	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A216	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A216	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A217	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A217	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1





	Existin	g Conditions					Prop	osed Conditio	ns						En ergy In	npact & Fi	nancial An	alysis			
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&LCost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Restroom Apt A218	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A218	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A219	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A219	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A300	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A300	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A301	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A301	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A302	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A302	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A303	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A303	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A304	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A304	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A305	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A305	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A313	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A313	1	Linear Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A314	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A314	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A315	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A315	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A316	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	s	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A316	1	Line ar Fluore scent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Re lamp	No	1	LED - Line ar Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A317	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Re lamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9





	Existi	ng Conditions					Prop	osed Conditio	ns						Energy In	npact & Fi	nancial An	alysis			
Location	Fixture Quantit	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 Apt A317	1	Line ar Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	s	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A318	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A318	1	Line ar Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom Apt A319	2	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	2	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	70	0	\$10	\$50	\$10	3.9
Restroom Apt A319	1	Line ar Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Restroom A 100	1	Compact Fluorescent: (1) 21W Circline/T9 Plug-In Lamp	Wall Switch	S	21	5,544	1	Relamp	No	1	LED Lamps: LED Circleline	Wall Switch	15	5,544	0.0	35	0	\$5	\$25	\$5	3.9
Restroom A 100	1	Line ar Fluorescent - T8: 2' T8 (17W) - 2L	Wall Switch	S	33	5,544	1	Relamp	No	1	LED - Linear Tubes: (2) 2' Lamps	Wall Switch	17	5,544	0.0	89	0	\$13	\$33	\$6	2.1
Sprinkler Room A 101	2	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	2,587	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,785	0.1	217	0	\$32	\$189	\$40	4.7
Stairs A1	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
Stairs A1	5	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs A3	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
Stairs A3	5	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Stairs A3	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
Stairs A3	5	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	8,760	1, 3	Relamp	Yes	5	LED - Linear Tubes: (2) 4' Lamps	High/Low Control	29	6,044	0.1	1,839	0	\$268	\$408	\$225	0.7
Storage 112A	2	Line ar Fluorescent - T8: 4' T8 (32W) - 4L	Wall Switch	S	114	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (4) 4' Lamps	Occupancy Sensor	58	483	0.1	104	0	\$15	\$262	\$40	14.7
Storage A 208	2	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	483	0.1	59	0	\$9	\$189	\$20	19.7
Storage A308	1	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	700	1	Relamp	No	1	LED - Linear Tubes: (2) 4' Lamps	Wall Switch	29	700	0.0	23	0	\$3	\$37	\$10	7.9
Trash Room A 123	2	Line ar Fluorescent - T8: 4' T8 (32W) - 3L	Wall Switch	S	93	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (3) 4' Lamps	Occupancy Sensor	44	1,275	0.1	233	0	\$34	\$226	\$50	5.2
Trash Room A220	2	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6
Trash Room A320	2	Line ar Fluorescent - T8: 4' T8 (32W) - 2L	Wall Switch	S	62	1,848	1, 2	Relamp	Yes	2	LED - Linear Tubes: (2) 4' Lamps	Occupancy Sensor	29	1,275	0.1	155	0	\$23	\$189	\$40	6.6





Motor Inventory & Recommendations

iviotor inventory	/ & Recommenda		g Conditions								Prop	osed Coi	nditions			Energy Im	pact & Fin	ancial Ana	lysis			
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	Install VFDs?	Number of VFDs	Total Peak kW Savings	Total Annual	Total Annual MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Ground Floor	Combustion Air Fan	2	Combustion Air Fan	1.5	86.5%	No			W	4,380		No	86.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Ground Floor	Condenser Water	2	Condenser Water Pump	20.0	93.0%	No			W	3,391		No	93.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Ground Floor	Cooling Towers	2	Cooling Tower Fan	7.5	91.0%	Yes			W	3,391		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical Room A/B108	Mechanical Room A/B108	2	Exhaust Fan	2.0	86.0%	No			W	2,745	4	No	86.5%	Yes	2	1.2	3,609	0	\$531	\$7,246	\$200	13.3
Ground Floor	HW/CHW Circulation Pump	2	Heating Hot Water Pump	15.0	92.4%	Yes			W	4,380		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Ground Floor	Vacuum Pumps	2	Process Pump	0.8	76.0%	No			W	2,745		No	76.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Mechanical Room A/B108	HW/CHW PUMP P5P6	4	Heating Hot Water Pump	15.0	91.0%	Yes			W	2,190		No	91.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Ground Floor	Chromide solution pump	4	Process Pump	1.5	84.0%	No			W	2,745		No	84.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Roof	Exhaust Fans	4	Exhaust Fan	0.8	70.0%	No			W	2,745		No	70.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Elevator Room A/B125	Elevators	2	Other	40.0	78.5%	No			W	500		No	78.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A	Apt Building A - AHU- 1A	1	Supply Fan	25.0	92.4%	Yes			W	8,760		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A	Apt Building A - AHU- 1A	1	Return Fan	10.0	91.5%	Yes			W	8,760		No	91.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building B	Apt Building A - AHU- 1B	1	Supply Fan	25.0	92.4%	Yes			W	8,760		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building B	Apt Building A - AHU- 1B	1	Return Fan	10.0	91.5%	Yes			W	8,760		No	91.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A	Apt Building A - AHU- 2A	1	Supply Fan	25.0	92.4%	Yes			W	8,760		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A	Apt Building A - AHU- 2A	1	Return Fan	10.0	91.5%	Yes			W	8,760		No	91.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building B	Apt Building A - AHU- 2B	1	Supply Fan	25.0	92.4%	Yes			W	8,760		No	92.4%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building B	Apt Building A - AHU- 2B	1	Return Fan	10.0	91.5%	Yes			W	8,760		No	91.5%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A/B	Hydronic Uinit Heaters	18	Supply Fan	0.1	65.0%	No			W	2,745		No	65.0%	No		0.0	0	0	\$0	\$0	\$0	0.0
Apt Building A	Fan Coil Units	205	Fan Coil Unit	0.1	65.0%	No			W	8,760		No	65.0%	No		0.0	0	0	\$0	\$0	\$0	0.0





		Existin	g Conditions								Prop	osed Co	nditions		Energy Im	pact & Fin	ancial Ana	llysis			
Location	Area(s)/System(s) Served	Motor Quantity	Motor Application		Full Load Efficiency		Manufacturer	Model	Remaining Useful Life	Annual Operating Hours	ECM#		Efficiency		Total Peak kW Savings	Total Annual	MMRtu	Energy Cost	Fetimated		Simple Payback w/ Incentives in Years
Apt Building B	Fan Coil Units	205	Fan Coil Unit	0.1	65.0%	No			W	8,760		No	65.0%	No	0.0	0	0	\$0	\$0	\$0	0.0
IT Rooms	IT Rooms - Liebert Indoor Units	2	Supply Fan	0.5	70.0%	No			W	8,760		No	70.0%	No	0.0	0	0	\$0	\$0	\$0	0.0
Sprinkler Room A/B101	Domestic Hot Water	2	Combustion Air Fan	0.5	70.0%	No			W	3,294		No	70.0%	No	0.0	0	0	\$0	\$0	\$0	0.0
Sprinkler Room A/B101	Domestic Hot Water	4	DHW Circulation Pump	0.1	65.0%	No			W	8,760		No	65.0%	No	0.0	0	0	\$0	\$0	\$0	0.0
IT Rooms	IT Rooms - Liebert Indoor Units	8	Supply Fan	0.3	65.0%	No			w	8,760		No	65.0%	No	0.0	0	0	\$0	\$0	\$0	0.0

Packaged HVAC Inventory & Recommendations

	io illivolitor y a																					
		Existing	g Conditions							Prop	osed Conditions					Energy Im	pact & Fir	nancial An	alysis			
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 System System To Efficiency Quantity System?	Co Cap per (T	oling Heating acity Capaci Unit per Unit ons) (MBh	cy Cooling Mode ty Efficiency it (SEER/IEER/) EER)	Heating Mode Efficiency	Total Peak kW Savings	Total Annual	Total Annua MMBtu Savings	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Roof Apt Buildings A/B	IT Rooms	8	Split-System	1.67		12.00	Liebert	PFH020A	W		No					0.0	0	0	\$0	\$0	\$0	0.0
Roof Apt Buildings A/B	IT Rooms	4	Split-System	4.17		12.00	Liebert	PFH050A	W		No					0.0	0	0	\$0	\$0	\$0	0.0

Space Heating Boiler Inventory & Recommendations

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		Existin	g Conditions					Proposed Co	ondition	ıs				Energy In	npact & Fin	ancial An	alysis			
Location	Area(s)/System(s) Served	System Quantity	System Type	Output Capacity per Unit (MBh)	Manufacturer	Model	Remaining Useful Life	ECM # Install High Efficienc System?	System y Quantity	System Type	Output Capacity per Unit (MBh)	Heating Efficiency	Heating Efficiency Units		Total Annual kWh Savings		Total Annual Energy Cost Savings		Total Incentives	Simple Payback w/ Incentives in Years
Ground Floor	Broad Boiler	2	Non-Condensing Hot Water Boiler	1,782	Broad	BZ30NC	W	No						0.0	0	0	\$0	\$0	\$0	0.0
Ground Floor	Broad Non Electric Chiller (Absorption)	2	Other	1,188	Broad	BZ30NC	W	No						0.0	0	0	\$0	\$0	\$0	0.0

Pipe Insulation Recommendations

		Reco	mmendati	ion Inputs	Energy Im	pact & Fin	ancial Ana	lysis			
Location	Area(s)/System(s) Affected	ECM#	Length of Uninsulated Pipe (ft)		Total Peak kW Savings	Total Annual	MMRtu	Total Annual Energy Cost Savings		Total Incentives	Simple Payback w/ Incentives in Years
Sprinkler Rooms	Domestic Hot Water	5	30	1.00	0.0	0	13	\$87	\$173	\$60	1.3

DHW Inventory & Recommendations

		Existin	g Conditions				Prop	osed Co	ndition	S				Energy Im	pact & Fin	ancial Ana	lysis			
Location	Area(s)/System(s) Served	System Quantity	System Type	Manufacturer	Model	Remaining Useful Life	ECIVI #	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 (\$)		Simple Payback w/ Incentives in Years
Sprinkler Room A/B101	Apt Buildings A/B	2	Storage Tank Water Heater (> 50 Gal)	PVi Turbopower	1250N 300A-TP	W		No						0.0	0	0	\$0	\$0	\$0	0.0





Low-Flow Device Recommendations

	Reco	mmeda	tion Inputs			Energy Im	pact & Fin	ancial Ana	lysis			
Location	ECM#	Device Quantity	Device Type	Existing Flow Rate (gpm)	Proposed Flow Rate (gpm)	Total Peak	Total Annual kWh Savings	MMRtu	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)	Total Incentives	Simple Payback w/ Incentives in Years
Restrooms	6	6	Faucet Aerator (Lavatory)	2.20	0.50	0.0	0	6	\$38	\$43	\$24	0.5

Plug Load Inventory

	Existin	g Conditions				
Location	Quantity	Equipment Description	Energy Rate (W)	ENERGY STAR Qualified?	Manufacturer	Model
Apt Buildings A/B	12	Desktop	120	Yes		
Apt Buildings A/B	96	Microwave	800	No		
Apt Buildings A/B	2	Combo Washing/Drying Machines	2,500	Yes		
Laundry Room A113	12	Washing Machines	1,300	No		
Laundry Room A113	12	Drying Machines	5,050	No		
Apt Buildings A/B	92	Refrigerator	220	No		
Apt Buildings A/B	88	Electric Range	2,600	No		
Apt Buildings A/B	2	Television	144	Yes		
Apt Buildings A/B	2	Printer	250	Yes		
Apt Buildings A/B	10	Server Closets	1,000	No		
Apt Buildings A/B	1	Misc Plug Loads	280,000	No		

Vending Machine Inventory & Recommendations

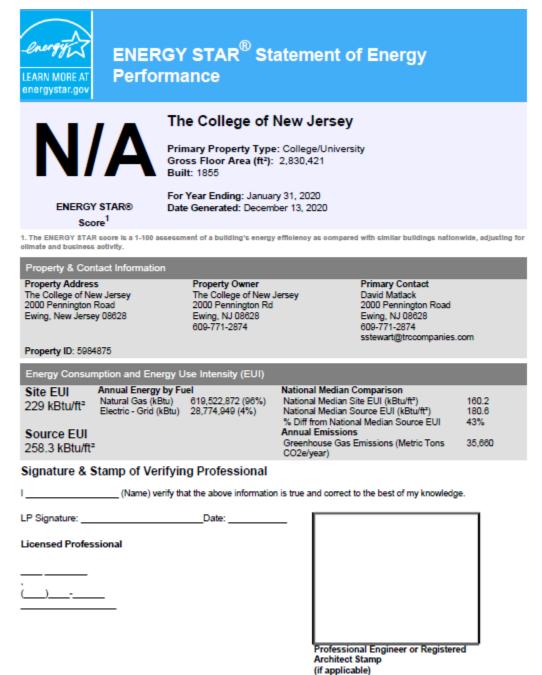
	Existing	g Conditions	Proposed	Conditions	Energy Im	pact & Fin	ancial Ana	lysis			
Location	Quantity	Vending Machine Type	ECM#	Install Controls?	Total Peak kW Savings	Total Annual	MMRtu	Total Annual Energy Cost Savings	Estimated M&L Cost (\$)		Simple Payback w/ Incentives in Years
Apt Buildings A/B	2	Refrigerated	7	Yes	0.4	3,224	0	\$474	\$460	\$100	0.8
Apt Buildings A/B	2	Non-Refrigerated	7	Yes	0.1	685	0	\$101	\$460	\$0	4.6





APPENDIX B: ENERGY STAR® STATEMENT OF ENERGY PERFORMANCE

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







APPENDIX C: GLOSSARY

TERM	DEFINITION
Blended Rate	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.
Btu	British thermal unit: a unit of energy equal to the amount of heat required to increase the temperature of one pound of water by one-degree Fahrenheit.
СНР	Combined heat and power. Also referred to as cogeneration.
СОР	Coefficient of performance: a measure of efficiency in terms of useful energy delivered divided by total energy input.
Demand Response	Demand response reduces or shifts electricity usage at or among participating buildings/sites during peak energy use periods in response to time-based rates or other forms of financial incentives.
DCV	Demand control ventilation: a control strategy to limit the amount of outside air introduced to the conditioned space based on actual occupancy need.
US DOE	United States Department of Energy
EC Motor	Electronically commutated motor
ЕСМ	Energy conservation measure
EER	Energy efficiency ratio: a measure of efficiency in terms of cooling energy provided divided by electric input.
EUI	Energy Use Intensity: measures energy consumption per square foot and is a standard metric for comparing buildings' energy performance.
Energy Efficiency	Reducing the amount of energy necessary to provide comfort and service to a building/area. Achieved through the installation of new equipment and/or optimizing the operation of energy use systems. Unlike conservation, which involves some reduction of service, energy efficiency provides energy reductions without sacrifice of service.
ENERGY STAR®	ENERGY STAR® is the government-backed symbol for energy efficiency. The ENERGY STAR® program is managed by the EPA.
EPA	United States Environmental Protection Agency
Generation	The process of generating electric power from sources of primary energy (e.g., natural gas, the sun, oil).
GHG	Greenhouse gas 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.
gpf	Gallons per flush
·	





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





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