

# *LGEA Presentation City of Pleasantville*

November 1, 2022



New Jersey's  
Clean Energy Program

*Lighting the way to New Jersey's Clean Energy Future*

# INTRODUCTIONS

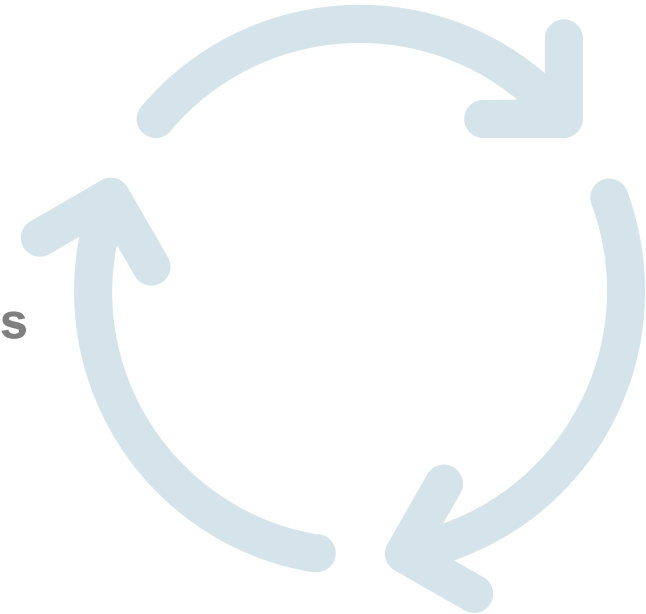
- *City of Pleasantville*
  - Linda Peyton – Business Administrator
  - James Hubbard – Public Works Director
  - Jim Rutala - Consultant
- *NJ Clean Energy Program*
  - Sarah Walters – LGEA Project Manager
  - Moussa Traore – LGEA Lead Auditor
  - Eduardo Garcia – LGEA Project Auditor
  - Meredith Coley – LGEA Account Manager
  - Michelle Rossi – ESIP Coordinator (BPU)
- *Utility Energy Efficiency Programs*
  - Nicholas Jackson – ACE
  - Jon Madingo - ACE

# AGENDA

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified & other recommendations
- Energy Savings Improvement Program (ESIP)
- Energy Efficiency Incentive Programs
- Questions regarding the draft audit report
- Next steps for City of Pleasantville

# LGEA PROCESS

- Application Approval
- Initial Call
- Facility Interviews
- Audit
- Benchmarking & Analysis
- Draft Reports
- LGEA Presentation
- Final Reports



# SITE VISIT & UTILITY ANALYSIS

## Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment
- Cooking & Refrigeration Equipment

## Utility Consumption:

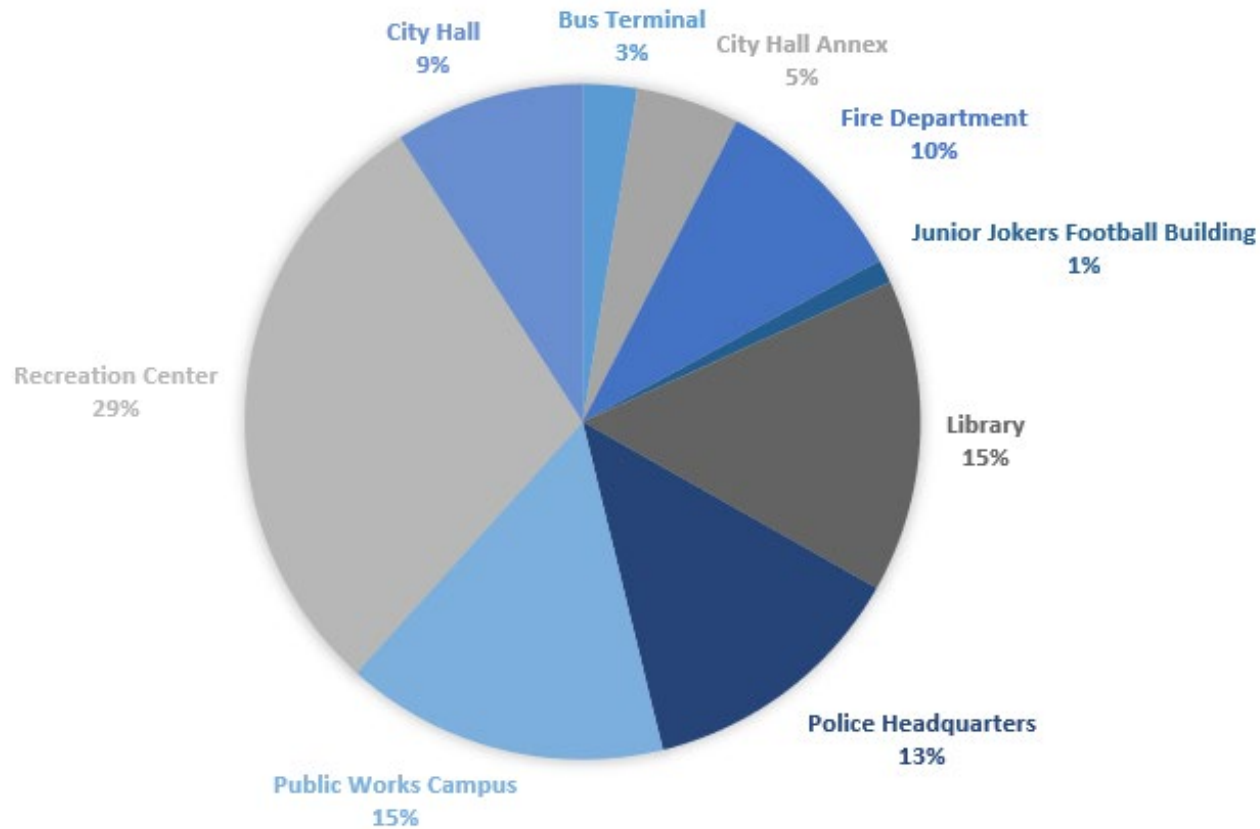
- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## Sites Visited/Analyzed

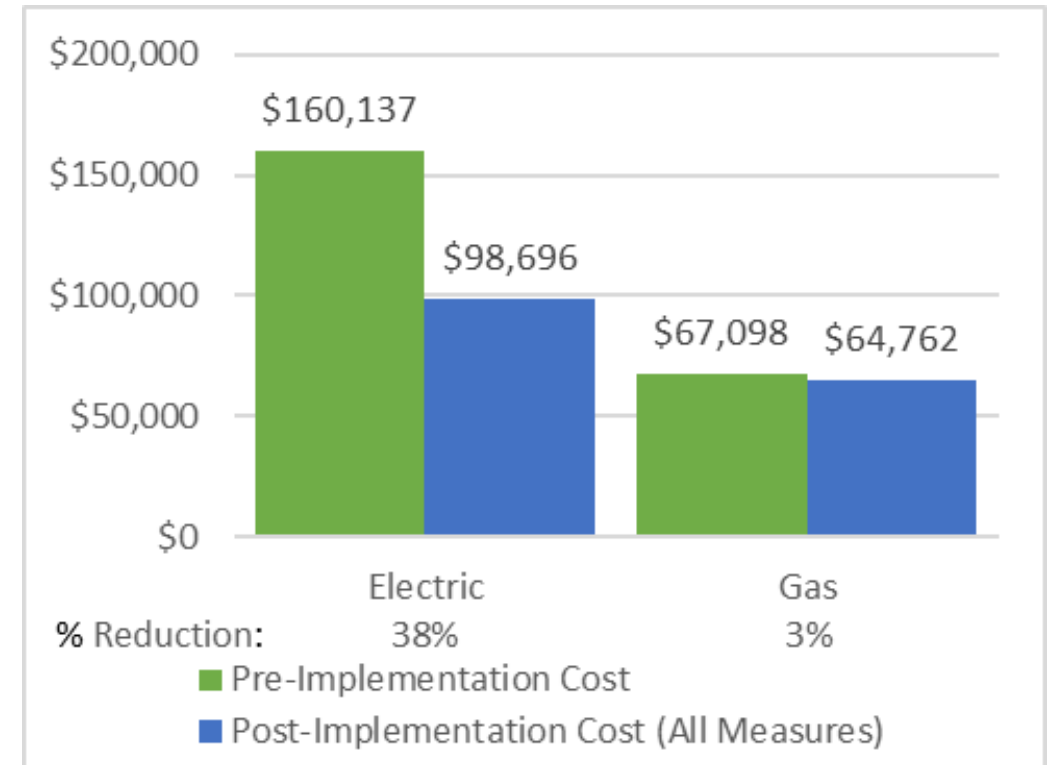
- Public Works Campus
  - Public Works, Garage, Sewer, K9
- Recreation Center
- Police Building
- City Hall
- Fire Department
- Junior Jokers Football Building
- Library
- City Hall Annex
- Bus Station

# UTILITY BREAKOUT

Percent of Total Annual Energy Costs



Pre & Post Implementation Cost



# BENCHMARKING

**ENERGY STAR® Statement of Energy Performance**

**37**  
ENERGY STAR® Score<sup>1</sup>

**Pleasantville City Hall**  
Primary Property Type: Office  
Gross Floor Area (ft²): 5,752  
Built: 1925  
For Year Ending: October 31, 2021  
Date Generated: July 05, 2022

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

**Property & Contact Information**

Property Address	Property Owner	Primary Contact
Pleasantville City Hall 18 N. First Street Pleasantville, New Jersey 08232	City of Pleasantville 18 N. First Street Pleasantville, NJ 08232 (609) 484-3603	Linda Peyton 18 N. First Street Pleasantville, NJ 08232 (609) 484-3603 lpeyton@pleasantvillenj.us

Property ID: 20805066

**Energy Consumption and Energy Use Intensity (EUI)**

Site EUI	Annual Energy by Fuel	National Median Comparison
112.3 kBtu/ft²	Natural Gas (kBtu) 368,364 (57%) Electric - Grid (kBtu) 277,683 (43%)	National Median Site EUI (kBtu/ft²) 96 National Median Source EUI (kBtu/ft²) 173 % Diff from National Median Source EUI 17%
Source EUI 202.4 kBtu/ft²		<b>Annual Emissions</b> Greenhouse Gas Emissions (Metric Tons CO2e/year)

**Signature & Stamp of Verifying Professional**

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

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

Licensed Professional

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

Professional Engineer or Registered Architect Stamp (if applicable)

**Site EUI**  
112.3 kBtu/ft²

**Source EUI**  
202.4 kBtu/ft²

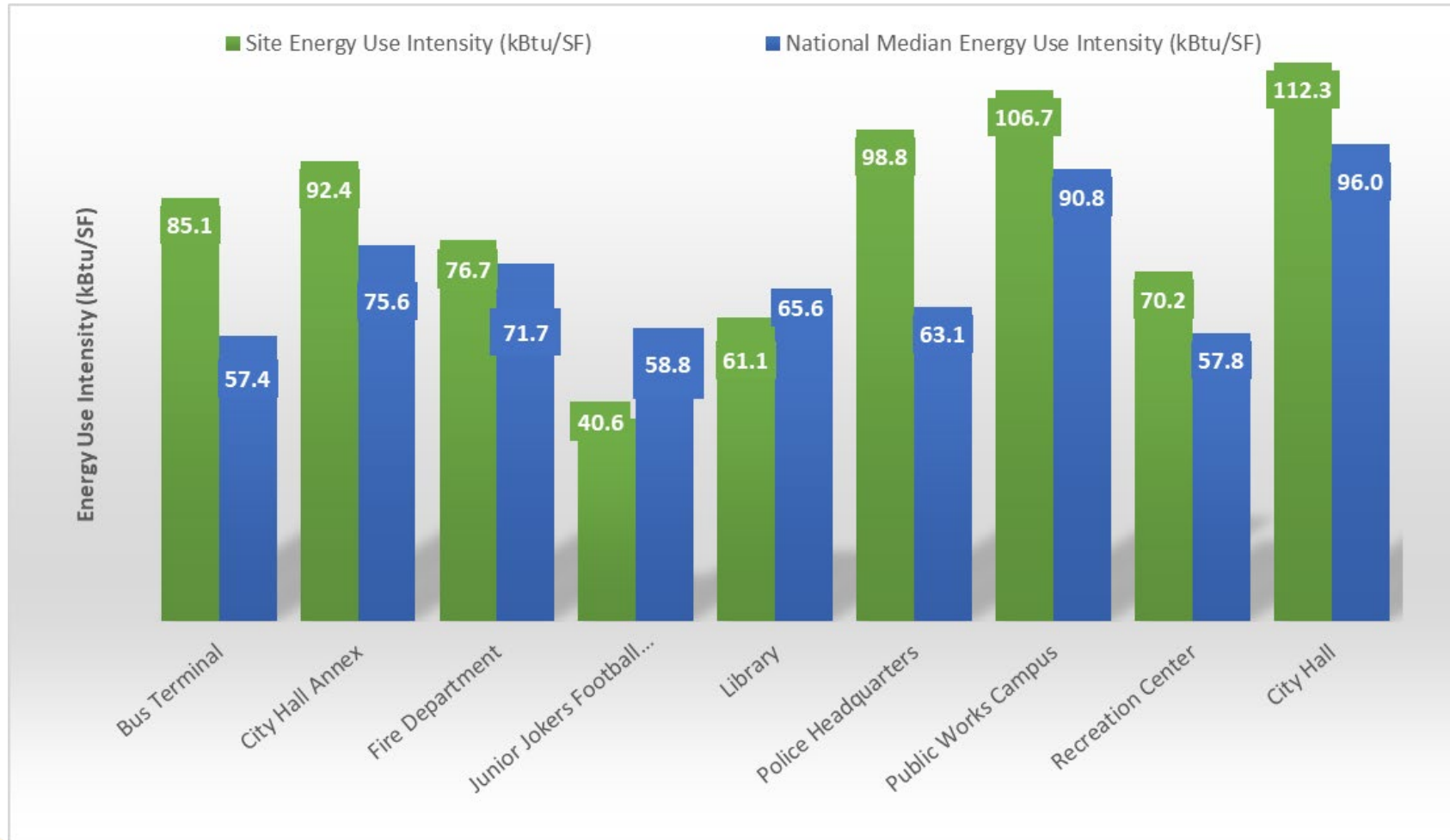
**National Median Comparison**

National Median Site EUI (kBtu/ft²)	96
National Median Source EUI (kBtu/ft²)	173
% Diff from National Median Source EUI	17%

Site Name	ENERGY STAR® Score
Public Works Campus	N/A
Recreation Center	N/A
Police Building	N/A
City Hall	37
Fire Department	N/A
Juniors Jokers Football Building	N/A
Library	N/A
City Hall Annex	33
Bus Station	N/A

ENERGY STAR® scores are percentile ranking from 1 (least efficient) to 100 (most efficient). It compares your building's energy performance to similar buildings nationwide.

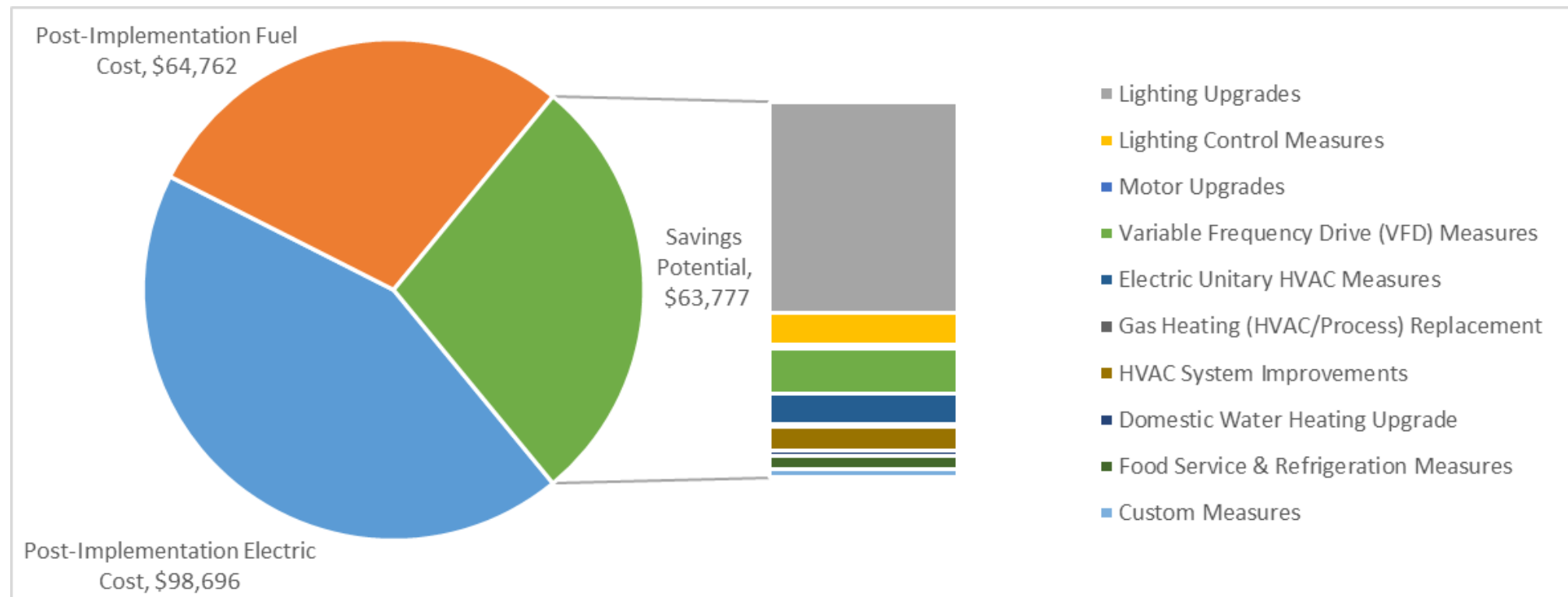
# BENCHMARKING





# ALL OPPORTUNITIES

## Savings Potential



# ALL OPPORTUNITIES

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>205,607</b>	<b>41.3</b>	<b>-39.9</b>	<b>\$35,846</b>	<b>\$68,878</b>	<b>\$11,067</b>	<b>\$57,811</b>	<b>1.6</b>	<b>202,378</b>
ECM 1	Install LED Fixtures	73,381	13.6	-13.0	\$13,238	\$31,659	\$3,550	\$28,109	2.1	72,373
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	3,261	1.6	-0.7	\$564	\$2,787	\$430	\$2,357	4.2	3,198
ECM 3	Retrofit Fixtures with LED Lamps	103,336	23.7	-20.7	\$17,664	\$30,812	\$7,087	\$23,725	1.3	101,635
ECM 4	Install LED Exit Signs	25,629	2.4	-5.4	\$4,380	\$3,621	\$0	\$3,621	0.8	25,172
<b>Lighting Control Measures</b>		<b>30,796</b>	<b>7.6</b>	<b>-6.6</b>	<b>\$5,339</b>	<b>\$25,826</b>	<b>\$6,615</b>	<b>\$19,211</b>	<b>3.6</b>	<b>30,242</b>
ECM 5	Install Occupancy Sensor Lighting Controls	24,269	6.3	-5.2	\$4,221	\$20,651	\$3,140	\$17,511	4.1	23,832
ECM 6	Install High/Low Lighting Controls	6,527	1.3	-1.4	\$1,118	\$5,175	\$3,475	\$1,700	1.5	6,410
<b>Motor Upgrades</b>		<b>3,729</b>	<b>0.7</b>	<b>0.0</b>	<b>\$604</b>	<b>\$2,439</b>	<b>\$0</b>	<b>\$2,439</b>	<b>4.0</b>	<b>3,755</b>
ECM 7	Premium Efficiency Motors	3,729	0.7	0.0	\$604	\$2,439	\$0	\$2,439	4.0	3,755
<b>Variable Frequency Drive (VFD) Measures</b>		<b>45,790</b>	<b>8.8</b>	<b>0.0</b>	<b>\$7,735</b>	<b>\$59,844</b>	<b>\$2,225</b>	<b>\$57,619</b>	<b>7.4</b>	<b>46,110</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	24,585	6.1	0.0	\$4,364	\$41,297	\$1,350	\$39,947	9.2	24,757
ECM 9	Install VFDs on Heating Water Pumps	21,204	2.7	0.0	\$3,371	\$18,546	\$875	\$17,671	5.2	21,353

# ALL OPPORTUNITIES

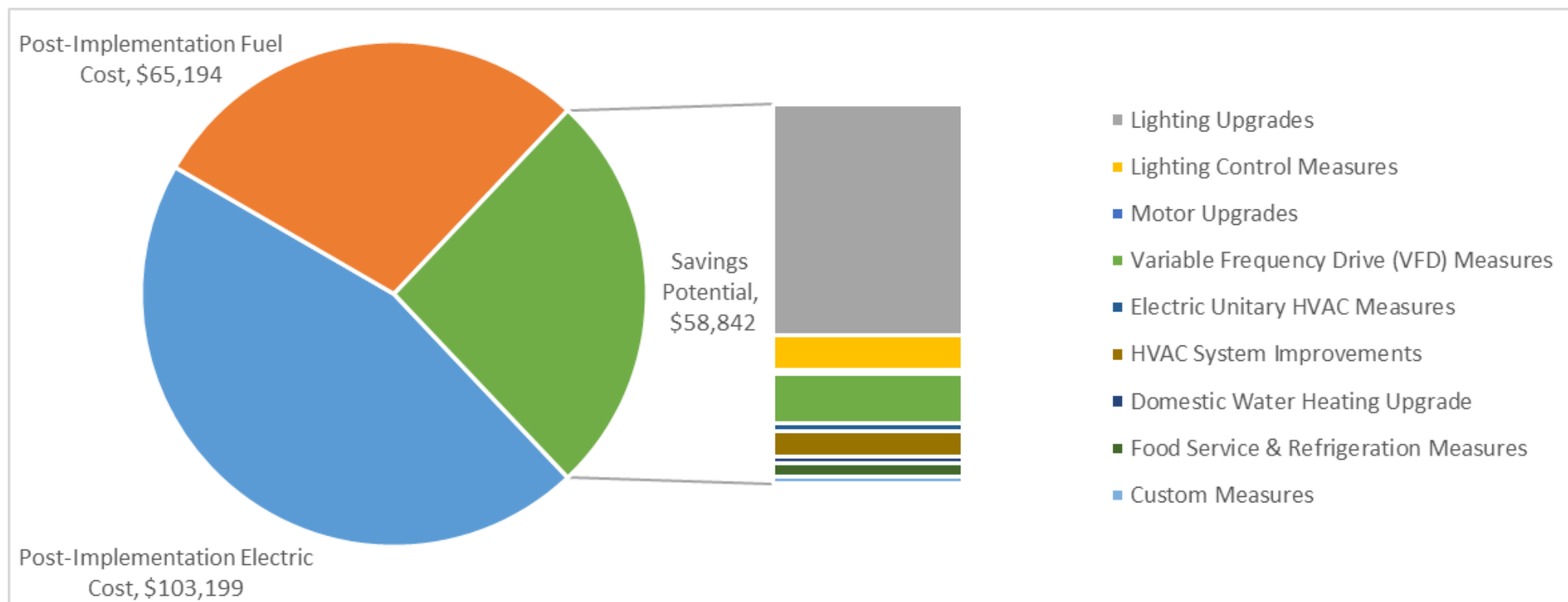
#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Electric Unitary HVAC Measures</b>		<b>29,687</b>	<b>18.5</b>	<b>7.3</b>	<b>\$5,240</b>	<b>\$154,533</b>	<b>\$8,210</b>	<b>\$146,323</b>	<b>27.9</b>	<b>30,746</b>
ECM 10	Install High Efficiency Air Conditioning Units	29,687	18.5	7.3	\$5,240	\$154,533	\$8,210	\$146,323	27.9	30,746
<b>Gas Heating (HVAC/Process) Replacement</b>		<b>0</b>	<b>0.0</b>	<b>21.0</b>	<b>\$289</b>	<b>\$14,026</b>	<b>\$0</b>	<b>\$14,026</b>	<b>48.6</b>	<b>2,463</b>
ECM 11	Install High Efficiency Unit Heaters	0	0.0	21.0	\$289	\$14,026	\$0	\$14,026	48.6	2,463
<b>HVAC System Improvements</b>		<b>9,614</b>	<b>0.0</b>	<b>141.6</b>	<b>\$4,120</b>	<b>\$3,067</b>	<b>\$482</b>	<b>\$2,585</b>	<b>0.6</b>	<b>26,259</b>
ECM 12	Install Programmable Thermostats	8,775	0.0	35.9	\$2,284	\$1,319	\$0	\$1,319	0.6	13,040
ECM 13	Install Pipe Insulation	839	0.0	105.7	\$1,836	\$1,748	\$482	\$1,266	0.7	13,219
<b>Domestic Water Heating Upgrade</b>		<b>3,186</b>	<b>0.0</b>	<b>27.9</b>	<b>\$1,001</b>	<b>\$2,266</b>	<b>\$528</b>	<b>\$1,739</b>	<b>1.7</b>	<b>6,474</b>
ECM 14	Install Low-Flow DHW Devices	3,186	0.0	27.9	\$1,001	\$2,266	\$528	\$1,739	1.7	6,474
<b>Food Service &amp; Refrigeration Measures</b>		<b>11,505</b>	<b>1.3</b>	<b>0.0</b>	<b>\$2,049</b>	<b>\$2,300</b>	<b>\$350</b>	<b>\$1,950</b>	<b>1.0</b>	<b>11,585</b>
ECM 15	Vending Machine Control	11,505	1.3	0.0	\$2,049	\$2,300	\$350	\$1,950	1.0	11,585
<b>Custom Measures</b>		<b>9,112</b>	<b>0.0</b>	<b>0.0</b>	<b>\$1,554</b>	<b>\$14,793</b>	<b>\$0</b>	<b>\$14,793</b>	<b>9.5</b>	<b>9,176</b>
ECM 16	Install Heat Pump Water Heater	9,112	0.0	0.0	\$1,554	\$14,793	\$0	\$14,793	9.5	9,176
<b>TOTALS</b>		<b>349,026</b>	<b>78.3</b>	<b>151.3</b>	<b>\$63,777</b>	<b>\$347,972</b>	<b>\$29,477</b>	<b>\$318,496</b>	<b>5.0</b>	<b>369,187</b>

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

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

# COST EFFECTIVE OPPORTUNITIES

## Savings Potential



# COST EFFECTIVE OPPORTUNITIES

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$) *	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs) **	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>205,607</b>	<b>41.3</b>	<b>-39.9</b>	<b>\$35,846</b>	<b>\$68,878</b>	<b>\$11,067</b>	<b>\$57,811</b>	<b>1.6</b>	<b>202,378</b>
ECM 1	Install LED Fixtures	73,381	13.6	-13.0	\$13,238	\$31,659	\$3,550	\$28,109	2.1	72,373
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<b>Lighting Control Measures</b>		<b>30,796</b>	<b>7.6</b>	<b>-6.6</b>	<b>\$5,339</b>	<b>\$25,826</b>	<b>\$6,615</b>	<b>\$19,211</b>	<b>3.6</b>	<b>30,242</b>
ECM 5	Install Occupancy Sensor Lighting Controls	24,269	6.3	-5.2	\$4,221	\$20,651	\$3,140	\$17,511	4.1	23,832
ECM 6	Install High/Low Lighting Controls	6,527	1.3	-1.4	\$1,118	\$5,175	\$3,475	\$1,700	1.5	6,410
<b>Motor Upgrades</b>		<b>3,729</b>	<b>0.7</b>	<b>0.0</b>	<b>\$604</b>	<b>\$2,439</b>	<b>\$0</b>	<b>\$2,439</b>	<b>4.0</b>	<b>3,755</b>
ECM 7	Premium Efficiency Motors	3,729	0.7	0.0	\$604	\$2,439	\$0	\$2,439	4.0	3,755
<b>Variable Frequency Drive (VFD) Measures</b>		<b>45,790</b>	<b>8.8</b>	<b>0.0</b>	<b>\$7,735</b>	<b>\$59,844</b>	<b>\$2,225</b>	<b>\$57,619</b>	<b>7.4</b>	<b>46,110</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	24,585	6.1	0.0	\$4,364	\$41,297	\$1,350	\$39,947	9.2	24,757
ECM 9	Install VFDs on Heating Water Pumps	21,204	2.7	0.0	\$3,371	\$18,546	\$875	\$17,671	5.2	21,353
<b>Electric Unitary HVAC Measures</b>		<b>6,171</b>	<b>3.1</b>	<b>0.0</b>	<b>\$1,143</b>	<b>\$19,173</b>	<b>\$1,422</b>	<b>\$17,751</b>	<b>15.5</b>	<b>6,215</b>
ECM 10	Install High Efficiency Air Conditioning Units	6,171	3.1	0.0	\$1,143	\$19,173	\$1,422	\$17,751	15.5	6,215
<b>HVAC System Improvements</b>		<b>9,614</b>	<b>0.0</b>	<b>141.6</b>	<b>\$4,120</b>	<b>\$3,067</b>	<b>\$482</b>	<b>\$2,585</b>	<b>0.6</b>	<b>26,259</b>
ECM 12	Install Programmable Thermostats	8,775	0.0	35.9	\$2,284	\$1,319	\$0	\$1,319	0.6	13,040
ECM 13	Install Pipe Insulation	839	0.0	105.7	\$1,836	\$1,748	\$482	\$1,266	0.7	13,219
<b>Domestic Water Heating Upgrade</b>		<b>3,186</b>	<b>0.0</b>	<b>27.9</b>	<b>\$1,001</b>	<b>\$2,266</b>	<b>\$528</b>	<b>\$1,739</b>	<b>1.7</b>	<b>6,474</b>
ECM 14	Install Low-Flow DHW Devices	3,186	0.0	27.9	\$1,001	\$2,266	\$528	\$1,739	1.7	6,474
<b>Food Service &amp; Refrigeration Measures</b>		<b>11,505</b>	<b>1.3</b>	<b>0.0</b>	<b>\$2,049</b>	<b>\$2,300</b>	<b>\$350</b>	<b>\$1,950</b>	<b>1.0</b>	<b>11,585</b>
ECM 15	Vending Machine Control	11,505	1.3	0.0	\$2,049	\$2,300	\$350	\$1,950	1.0	11,585
<b>Custom Measures</b>		<b>6,158</b>	<b>0.0</b>	<b>0.0</b>	<b>\$1,005</b>	<b>\$5,393</b>	<b>\$0</b>	<b>\$5,393</b>	<b>5.4</b>	<b>6,201</b>
ECM 16	Install Heat Pump Water Heater	6,158	0.0	0.0	\$1,005	\$5,393	\$0	\$5,393	5.4	6,201
<b>TOTALS</b>		<b>322,556</b>	<b>62.8</b>	<b>123.0</b>	<b>\$58,842</b>	<b>\$189,185</b>	<b>\$22,689</b>	<b>\$166,497</b>	<b>2.8</b>	<b>339,218</b>

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

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

# PUBLIC WORKS CAMPUS

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>18,310</b>	<b>5.4</b>	<b>-2</b>	<b>\$3,194</b>	<b>\$15,662</b>	<b>\$2,346</b>	<b>\$13,316</b>	<b>4.2</b>	<b>18,223</b>
ECM 1	Install LED Fixtures	Yes	12,612	2.2	-1	\$2,209	\$9,704	\$1,150	\$8,554	3.9	12,629
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	3,193	1.5	-1	\$552	\$2,703	\$420	\$2,283	4.1	3,131
ECM 3	Retrofit Fixtures with LED Lamps	Yes	2,505	1.6	-1	\$433	\$3,256	\$776	\$2,480	5.7	2,462
<b>Lighting Control Measures</b>			<b>2,103</b>	<b>1.4</b>	<b>0</b>	<b>\$363</b>	<b>\$3,493</b>	<b>\$790</b>	<b>\$2,703</b>	<b>7.4</b>	<b>2,062</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	1,888	1.2	0	\$326	\$2,818	\$405	\$2,413	7.4	1,851
ECM 5	Install High/Low Lighting Controls	Yes	216	0.2	0	\$37	\$675	\$385	\$290	7.8	211
<b>Unitary HVAC Measures</b>			<b>737</b>	<b>0.4</b>	<b>0</b>	<b>\$130</b>	<b>\$2,377</b>	<b>\$0</b>	<b>\$2,377</b>	<b>18.3</b>	<b>742</b>
ECM 6	Install High Efficiency Air Conditioning Units	No	737	0.4	0	\$130	\$2,377	\$0	\$2,377	18.3	742
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>21</b>	<b>\$289</b>	<b>\$14,026</b>	<b>\$0</b>	<b>\$14,026</b>	<b>48.6</b>	<b>2,463</b>
ECM 7	Install High Efficiency Unit Heaters	No	0	0.0	21	\$289	\$14,026	\$0	\$14,026	48.6	2,463
<b>HVAC System Improvements</b>			<b>136</b>	<b>0.0</b>	<b>25</b>	<b>\$371</b>	<b>\$462</b>	<b>\$132</b>	<b>\$330</b>	<b>0.9</b>	<b>3,097</b>
ECM 8	Install Pipe Insulation	Yes	136	0.0	25	\$371	\$462	\$132	\$330	0.9	3,097
<b>Domestic Water Heating Upgrade</b>			<b>102</b>	<b>0.0</b>	<b>4</b>	<b>\$68</b>	<b>\$229</b>	<b>\$55</b>	<b>\$174</b>	<b>2.6</b>	<b>527</b>
ECM 9	Install Low-Flow DHW Devices	Yes	102	0.0	4	\$68	\$229	\$55	\$174	2.6	527
<b>Food Service &amp; Refrigeration Measures</b>			<b>1,612</b>	<b>0.2</b>	<b>0</b>	<b>\$283</b>	<b>\$230</b>	<b>\$50</b>	<b>\$180</b>	<b>0.6</b>	<b>1,623</b>
ECM 10	Vending Machine Control	Yes	1,612	0.2	0	\$283	\$230	\$50	\$180	0.6	1,623
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>22,262</b>	<b>7.0</b>	<b>27</b>	<b>\$4,280</b>	<b>\$20,076</b>	<b>\$3,373</b>	<b>\$16,703</b>	<b>3.9</b>	<b>25,532</b>
<b>TOTALS (ALL MEASURES)</b>			<b>22,999</b>	<b>7.4</b>	<b>48</b>	<b>\$4,698</b>	<b>\$36,479</b>	<b>\$3,373</b>	<b>\$33,106</b>	<b>7.0</b>	<b>28,737</b>

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

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

# RECREATION CENTER

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>87,614</b>	<b>15.0</b>	<b>-18</b>	<b>\$15,947</b>	<b>\$24,672</b>	<b>\$3,422</b>	<b>\$21,250</b>	<b>1.3</b>	<b>86,116</b>
ECM 1	Install LED Fixtures	Yes	57,581	10.5	-12	\$10,480	\$18,267	\$2,000	\$16,267	1.6	56,588
ECM 2	Retrofit Fixtures with LED Lamps	Yes	24,413	4.0	-5	\$4,446	\$5,608	\$1,422	\$4,186	0.9	24,009
ECM 3	Install LED Exit Signs	Yes	5,620	0.5	-1	\$1,022	\$797	\$0	\$797	0.8	5,519
<b>Lighting Control Measures</b>			<b>12,070</b>	<b>2.1</b>	<b>-3</b>	<b>\$2,195</b>	<b>\$3,645</b>	<b>\$890</b>	<b>\$2,755</b>	<b>1.3</b>	<b>11,854</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	10,696	1.9	-2	\$1,945	\$2,970	\$350	\$2,620	1.3	10,504
ECM 5	Install High/Low Lighting Controls	Yes	1,375	0.2	0	\$250	\$675	\$540	\$135	0.5	1,350
<b>Variable Frequency Drive (VFD) Measures</b>			<b>4,770</b>	<b>1.1</b>	<b>0</b>	<b>\$886</b>	<b>\$9,030</b>	<b>\$225</b>	<b>\$8,805</b>	<b>9.9</b>	<b>4,804</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	4,770	1.1	0	\$886	\$9,030	\$225	\$8,805	9.9	4,804
<b>Unitary HVAC Measures</b>			<b>1,875</b>	<b>0.6</b>	<b>0</b>	<b>\$348</b>	<b>\$6,521</b>	<b>\$525</b>	<b>\$5,996</b>	<b>17.2</b>	<b>1,888</b>
ECM 7	Install High Efficiency Air Conditioning Units	No	1,875	0.6	0	\$348	\$6,521	\$525	\$5,996	17.2	1,888
<b>HVAC System Improvements</b>			<b>9,267</b>	<b>0.0</b>	<b>69</b>	<b>\$2,972</b>	<b>\$1,743</b>	<b>\$100</b>	<b>\$1,643</b>	<b>0.6</b>	<b>17,372</b>
ECM 8	Install Programmable Thermostats	Yes	8,775	0.0	36	\$2,284	\$1,319	\$0	\$1,319	0.6	13,040
ECM 9	Install Pipe Insulation	Yes	492	0.0	33	\$688	\$424	\$100	\$324	0.5	4,331
<b>Domestic Water Heating Upgrade</b>			<b>810</b>	<b>0.0</b>	<b>8</b>	<b>\$300</b>	<b>\$1,365</b>	<b>\$266</b>	<b>\$1,099</b>	<b>3.7</b>	<b>1,777</b>
ECM 10	Install Low-Flow DHW Devices	Yes	810	0.0	8	\$300	\$1,365	\$266	\$1,099	3.7	1,777
<b>Food Service &amp; Refrigeration Measures</b>			<b>3,909</b>	<b>0.4</b>	<b>0</b>	<b>\$726</b>	<b>\$920</b>	<b>\$100</b>	<b>\$820</b>	<b>1.1</b>	<b>3,936</b>
ECM 11	Vending Machine Control	Yes	3,909	0.4	0	\$726	\$920	\$100	\$820	1.1	3,936
<b>Custom Measures</b>			<b>2,954</b>	<b>0.0</b>	<b>0</b>	<b>\$549</b>	<b>\$9,400</b>	<b>\$0</b>	<b>\$9,400</b>	<b>17.1</b>	<b>2,975</b>
ECM 12	Install Heat Pump Water Heater	No	2,954	0.0	0	\$549	\$9,400	\$0	\$9,400	17.1	2,975
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>118,441</b>	<b>18.7</b>	<b>56</b>	<b>\$23,027</b>	<b>\$41,375</b>	<b>\$5,003</b>	<b>\$36,373</b>	<b>1.6</b>	<b>125,858</b>
<b>TOTALS (ALL MEASURES)</b>			<b>123,270</b>	<b>19.4</b>	<b>56</b>	<b>\$23,925</b>	<b>\$57,296</b>	<b>\$5,528</b>	<b>\$51,768</b>	<b>2.2</b>	<b>130,720</b>

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

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



# POLICE HEADQUARTERS

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>31,468</b>	<b>4.1</b>	<b>-7</b>	<b>\$4,837</b>	<b>\$4,551</b>	<b>\$787</b>	<b>\$3,764</b>	<b>0.8</b>	<b>30,917</b>
ECM 1	Install LED Fixtures	Yes	324	0.0	0	\$51	\$206	\$50	\$156	3.1	326
ECM 2	Retrofit Fixtures with LED Lamps	Yes	26,546	3.7	-6	\$4,080	\$3,694	\$737	\$2,957	0.7	26,075
ECM 3	Install LED Exit Signs	Yes	4,598	0.4	-1	\$707	\$652	\$0	\$652	0.9	4,515
<b>Lighting Control Measures</b>			<b>5,340</b>	<b>0.6</b>	<b>-1</b>	<b>\$821</b>	<b>\$4,348</b>	<b>\$1,350</b>	<b>\$2,998</b>	<b>3.7</b>	<b>5,244</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	3,784	0.4	-1	\$581	\$3,673	\$860	\$2,813	4.8	3,716
ECM 5	Install High/Low Lighting Controls	Yes	1,556	0.1	0	\$239	\$675	\$490	\$185	0.8	1,528
<b>Variable Frequency Drive (VFD) Measures</b>			<b>23,226</b>	<b>3.3</b>	<b>0</b>	<b>\$3,639</b>	<b>\$23,744</b>	<b>\$950</b>	<b>\$22,794</b>	<b>6.3</b>	<b>23,389</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	3,731	0.7	0	\$585	\$8,208	\$150	\$8,058	13.8	3,757
ECM 7	Install VFDs on Heating Water Pumps	Yes	19,495	2.5	0	\$3,054	\$15,536	\$800	\$14,736	4.8	19,632
<b>HVAC System Improvements</b>			<b>0</b>	<b>0.0</b>	<b>25</b>	<b>\$348</b>	<b>\$264</b>	<b>\$60</b>	<b>\$204</b>	<b>0.6</b>	<b>2,877</b>
ECM 8	Install Pipe Insulation	Yes	0	0.0	25	\$348	\$264	\$60	\$204	0.6	2,877
<b>Domestic Water Heating Upgrade</b>			<b>1,635</b>	<b>0.0</b>	<b>0</b>	<b>\$256</b>	<b>\$86</b>	<b>\$41</b>	<b>\$45</b>	<b>0.2</b>	<b>1,647</b>
ECM 9	Install Low-Flow DHW Devices	Yes	1,635	0.0	0	\$256	\$86	\$41	\$45	0.2	1,647
<b>Food Service &amp; Refrigeration Measures</b>			<b>1,551</b>	<b>0.2</b>	<b>0</b>	<b>\$243</b>	<b>\$460</b>	<b>\$50</b>	<b>\$410</b>	<b>1.7</b>	<b>1,562</b>
ECM 10	Vending Machine Control	Yes	1,551	0.2	0	\$243	\$460	\$50	\$410	1.7	1,562
<b>Custom Measures</b>			<b>4,892</b>	<b>0.0</b>	<b>0</b>	<b>\$766</b>	<b>\$3,323</b>	<b>\$0</b>	<b>\$3,323</b>	<b>4.3</b>	<b>4,926</b>
ECM 11	Install Heat Pump Water Heater	Yes	4,892	0.0	0	\$766	\$3,323	\$0	\$3,323	4.3	4,926
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>68,113</b>	<b>8.1</b>	<b>17</b>	<b>\$10,910</b>	<b>\$36,776</b>	<b>\$3,238</b>	<b>\$33,538</b>	<b>3.1</b>	<b>70,562</b>
<b>TOTALS (ALL MEASURES)</b>			<b>68,113</b>	<b>8.1</b>	<b>17</b>	<b>\$10,910</b>	<b>\$36,776</b>	<b>\$3,238</b>	<b>\$33,538</b>	<b>3.1</b>	<b>70,562</b>

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

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



# CITY HALL

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>18,700</b>	<b>5.5</b>	<b>-4</b>	<b>\$3,472</b>	<b>\$7,166</b>	<b>\$1,439</b>	<b>\$5,727</b>	<b>1.6</b>	<b>18,381</b>
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	68	0.1	0	\$13	\$84	\$10	\$74	5.9	67
ECM 2	Retrofit Fixtures with LED Lamps	Yes	14,469	5.1	-3	\$2,687	\$6,502	\$1,429	\$5,073	1.9	14,224
ECM 3	Install LED Exit Signs	Yes	4,163	0.4	-1	\$773	\$579	\$0	\$579	0.7	4,090
<b>Lighting Control Measures</b>			<b>2,945</b>	<b>1.0</b>	<b>-1</b>	<b>\$547</b>	<b>\$4,436</b>	<b>\$1,105</b>	<b>\$3,331</b>	<b>6.1</b>	<b>2,893</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	2,398	0.8	-1	\$445	\$3,086	\$405	\$2,681	6.0	2,356
ECM 5	Install High/Low Lighting Controls	Yes	547	0.1	0	\$101	\$1,350	\$700	\$650	6.4	537
<b>Variable Frequency Drive (VFD) Measures</b>			<b>3,327</b>	<b>1.1</b>	<b>0</b>	<b>\$628</b>	<b>\$6,640</b>	<b>\$250</b>	<b>\$6,390</b>	<b>10.2</b>	<b>3,350</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	3,327	1.1	0	\$628	\$6,640	\$250	\$6,390	10.2	3,350
<b>Unitary HVAC Measures</b>			<b>3,490</b>	<b>1.5</b>	<b>0</b>	<b>\$658</b>	<b>\$21,819</b>	<b>\$315</b>	<b>\$21,504</b>	<b>32.7</b>	<b>3,514</b>
ECM 7	Install High Efficiency Air Conditioning Units	No	3,490	1.5	0	\$658	\$21,819	\$315	\$21,504	32.7	3,514
<b>HVAC System Improvements</b>			<b>211</b>	<b>0.0</b>	<b>11</b>	<b>\$204</b>	<b>\$259</b>	<b>\$80</b>	<b>\$179</b>	<b>0.9</b>	<b>1,554</b>
ECM 8	Install Pipe Insulation	Yes	211	0.0	11	\$204	\$259	\$80	\$179	0.9	1,554
<b>Domestic Water Heating Upgrade</b>			<b>417</b>	<b>0.0</b>	<b>0</b>	<b>\$79</b>	<b>\$22</b>	<b>\$11</b>	<b>\$11</b>	<b>0.1</b>	<b>420</b>
ECM 9	Install Low-Flow DHW Devices	Yes	417	0.0	0	\$79	\$22	\$11	\$11	0.1	420
<b>Custom Measures</b>			<b>1,266</b>	<b>0.0</b>	<b>0</b>	<b>\$239</b>	<b>\$2,070</b>	<b>\$0</b>	<b>\$2,070</b>	<b>8.7</b>	<b>1,275</b>
ECM 10	Install Heat Pump Water Heater	Yes	1,266	0.0	0	\$239	\$2,070	\$0	\$2,070	8.7	1,275
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>26,866</b>	<b>7.6</b>	<b>7</b>	<b>\$5,168</b>	<b>\$20,593</b>	<b>\$2,885</b>	<b>\$17,708</b>	<b>3.4</b>	<b>27,873</b>
<b>TOTALS (ALL MEASURES)</b>			<b>30,356</b>	<b>9.1</b>	<b>7</b>	<b>\$5,826</b>	<b>\$42,412</b>	<b>\$3,200</b>	<b>\$39,213</b>	<b>6.7</b>	<b>31,387</b>

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

# FIRE DEPARTMENT

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>19,046</b>	<b>3.9</b>	<b>-3</b>	<b>\$3,309</b>	<b>\$7,650</b>	<b>\$1,162</b>	<b>\$6,488</b>	<b>2.0</b>	<b>18,776</b>
ECM 1	Install LED Fixtures	Yes	2,864	0.9	0	\$498	\$3,482	\$350	\$3,132	6.3	2,829
ECM 2	Retrofit Fixtures with LED Lamps	Yes	10,562	2.4	-2	\$1,837	\$3,372	\$812	\$2,560	1.4	10,428
ECM 3	Install LED Exit Signs	Yes	5,620	0.5	-1	\$974	\$797	\$0	\$797	0.8	5,519
<b>Lighting Control Measures</b>			<b>2,203</b>	<b>0.7</b>	<b>0</b>	<b>\$382</b>	<b>\$3,287</b>	<b>\$1,170</b>	<b>\$2,117</b>	<b>5.5</b>	<b>2,164</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	839	0.4	0	\$145	\$2,162	\$315	\$1,847	12.7	824
ECM 5	Install High/Low Lighting Controls	Yes	1,365	0.3	0	\$236	\$1,125	\$855	\$270	1.1	1,340
<b>Variable Frequency Drive (VFD) Measures</b>			<b>10,873</b>	<b>2.7</b>	<b>0</b>	<b>\$1,917</b>	<b>\$11,652</b>	<b>\$600</b>	<b>\$11,052</b>	<b>5.8</b>	<b>10,949</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	10,873	2.7	0	\$1,917	\$11,652	\$600	\$11,052	5.8	10,949
<b>Unitary HVAC Measures</b>			<b>2,674</b>	<b>3.4</b>	<b>5</b>	<b>\$541</b>	<b>\$27,090</b>	<b>\$1,580</b>	<b>\$25,510</b>	<b>47.1</b>	<b>3,268</b>
ECM 7	Install High Efficiency Air Conditioning Units	No	2,674	3.4	5	\$541	\$27,090	\$1,580	\$25,510	47.1	3,268
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>10</b>	<b>\$147</b>	<b>\$236</b>	<b>\$57</b>	<b>\$179</b>	<b>1.2</b>	<b>1,210</b>
ECM 8	Install Low-Flow DHW Devices	Yes	0	0.0	10	\$147	\$236	\$57	\$179	1.2	1,210
<b>Food Service &amp; Refrigeration Measures</b>			<b>2,821</b>	<b>0.3</b>	<b>0</b>	<b>\$497</b>	<b>\$460</b>	<b>\$100</b>	<b>\$360</b>	<b>0.7</b>	<b>2,840</b>
ECM 9	Vending Machine Control	Yes	2,821	0.3	0	\$497	\$460	\$100	\$360	0.7	2,840
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>34,943</b>	<b>7.6</b>	<b>6</b>	<b>\$6,252</b>	<b>\$23,285</b>	<b>\$3,089</b>	<b>\$20,196</b>	<b>3.2</b>	<b>35,939</b>
<b>TOTALS (ALL MEASURES)</b>			<b>37,617</b>	<b>11.0</b>	<b>11</b>	<b>\$6,793</b>	<b>\$50,375</b>	<b>\$4,669</b>	<b>\$45,706</b>	<b>6.7</b>	<b>39,207</b>

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

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

# JUNIOR JOKERS FOOTBALL BLDG

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>574</b>	<b>0.1</b>	<b>0</b>	<b>\$115</b>	<b>\$155</b>	<b>\$9</b>	<b>\$146</b>	<b>1.3</b>	<b>569</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	574	0.1	0	\$115	\$155	\$9	\$146	1.3	569
<b>Lighting Control Measures</b>			<b>94</b>	<b>0.0</b>	<b>0</b>	<b>\$19</b>	<b>\$232</b>	<b>\$40</b>	<b>\$192</b>	<b>10.3</b>	<b>92</b>
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	94	0.0	0	\$19	\$232	\$40	\$192	10.3	92
<b>Domestic Water Heating Upgrade</b>			<b>221</b>	<b>0.0</b>	<b>0</b>	<b>\$45</b>	<b>\$193</b>	<b>\$37</b>	<b>\$156</b>	<b>3.4</b>	<b>223</b>
ECM 3	Install Low-Flow DHW Devices	Yes	221	0.0	0	\$45	\$193	\$37	\$156	3.4	223
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>889</b>	<b>0.1</b>	<b>0</b>	<b>\$179</b>	<b>\$580</b>	<b>\$86</b>	<b>\$494</b>	<b>2.8</b>	<b>884</b>
<b>TOTALS (ALL MEASURES)</b>			<b>889</b>	<b>0.1</b>	<b>0</b>	<b>\$179</b>	<b>\$580</b>	<b>\$86</b>	<b>\$494</b>	<b>2.8</b>	<b>884</b>

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

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

# LIBRARY

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>19,981</b>	<b>5.3</b>	<b>-4</b>	<b>\$3,174</b>	<b>\$5,910</b>	<b>\$1,186</b>	<b>\$4,724</b>	<b>1.5</b>	<b>19,636</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	14,872	4.8	-3	\$2,363	\$5,186	\$1,186	\$4,000	1.7	14,619
ECM 2	Install LED Exit Signs	Yes	5,109	0.5	-1	\$811	\$724	\$0	\$724	0.9	5,017
<b>Lighting Control Measures</b>			<b>3,591</b>	<b>1.2</b>	<b>-1</b>	<b>\$570</b>	<b>\$4,616</b>	<b>\$875</b>	<b>\$3,741</b>	<b>6.6</b>	<b>3,527</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	3,055	1.0	-1	\$485	\$4,166	\$545	\$3,621	7.5	3,000
ECM 4	Install High/Low Lighting Controls	Yes	536	0.2	0	\$85	\$450	\$330	\$120	1.4	527
<b>Motor Upgrades</b>			<b>3,729</b>	<b>0.7</b>	<b>0</b>	<b>\$604</b>	<b>\$2,439</b>	<b>\$0</b>	<b>\$2,439</b>	<b>4.0</b>	<b>3,755</b>
ECM 5	Premium Efficiency Motors	Yes	3,729	0.7	0	\$604	\$2,439	\$0	\$2,439	4.0	3,755
<b>Unitary HVAC Measures</b>			<b>14,740</b>	<b>9.6</b>	<b>2</b>	<b>\$2,420</b>	<b>\$77,554</b>	<b>\$4,368</b>	<b>\$73,186</b>	<b>30.2</b>	<b>15,119</b>
ECM 6	Install High Efficiency Air Conditioning Units	No	14,740	9.6	2	\$2,420	\$77,554	\$4,368	\$73,186	30.2	15,119
<b>HVAC System Improvements</b>			<b>0</b>	<b>0.0</b>	<b>1</b>	<b>\$15</b>	<b>\$115</b>	<b>\$40</b>	<b>\$75</b>	<b>4.9</b>	<b>123</b>
ECM 7	Install Pipe Insulation	Yes	0	0.0	1	\$15	\$115	\$40	\$75	4.9	123
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>2</b>	<b>\$35</b>	<b>\$86</b>	<b>\$35</b>	<b>\$51</b>	<b>1.5</b>	<b>281</b>
ECM 8	Install Low-Flow DHW Devices	Yes	0	0.0	2	\$35	\$86	\$35	\$51	1.5	281
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>27,302</b>	<b>7.1</b>	<b>-1</b>	<b>\$4,397</b>	<b>\$13,166</b>	<b>\$2,136</b>	<b>\$11,030</b>	<b>2.5</b>	<b>27,322</b>
<b>TOTALS (ALL MEASURES)</b>			<b>42,042</b>	<b>16.7</b>	<b>1</b>	<b>\$6,817</b>	<b>\$90,720</b>	<b>\$6,504</b>	<b>\$84,216</b>	<b>12.4</b>	<b>42,441</b>

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

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

# CITY HALL ANNEX

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>4,546</b>	<b>1.4</b>	<b>-1</b>	<b>\$823</b>	<b>\$1,856</b>	<b>\$454</b>	<b>\$1,402</b>	<b>1.7</b>	<b>4,466</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	4,025	1.4	-1	\$729	\$1,784	\$454	\$1,330	1.8	3,955
ECM 2	Install LED Exit Signs	Yes	520	0.1	0	\$94	\$72	\$0	\$72	0.8	511
<b>Lighting Control Measures</b>			<b>1,035</b>	<b>0.3</b>	<b>0</b>	<b>\$187</b>	<b>\$1,080</b>	<b>\$140</b>	<b>\$940</b>	<b>5.0</b>	<b>1,017</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	1,035	0.3	0	\$187	\$1,080	\$140	\$940	5.0	1,017
<b>Variable Frequency Drive (VFD) Measures</b>			<b>3,593</b>	<b>0.7</b>	<b>0</b>	<b>\$665</b>	<b>\$8,777</b>	<b>\$200</b>	<b>\$8,577</b>	<b>12.9</b>	<b>3,618</b>
ECM 4	Install VFDs on Constant Volume (CV) Fans	Yes	1,884	0.5	0	\$349	\$5,766	\$125	\$5,641	16.2	1,897
ECM 5	Install VFDs on Heating Water Pumps	Yes	1,709	0.1	0	\$316	\$3,010	\$75	\$2,935	9.3	1,721
<b>Unitary HVAC Measures</b>			<b>6,171</b>	<b>3.1</b>	<b>0</b>	<b>\$1,143</b>	<b>\$19,172</b>	<b>\$1,422</b>	<b>\$17,750</b>	<b>15.5</b>	<b>6,215</b>
ECM 6	Install High Efficiency Air Conditioning Units	Yes	6,171	3.1	0	\$1,143	\$19,172	\$1,422	\$17,750	15.5	6,215
<b>HVAC System Improvements</b>			<b>0</b>	<b>0.0</b>	<b>11</b>	<b>\$210</b>	<b>\$223</b>	<b>\$70</b>	<b>\$153</b>	<b>0.7</b>	<b>1,237</b>
ECM 7	Install Pipe Insulation	Yes	0	0.0	11	\$210	\$223	\$70	\$153	0.7	1,237
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>2</b>	<b>\$38</b>	<b>\$29</b>	<b>\$14</b>	<b>\$14</b>	<b>0.4</b>	<b>222</b>
ECM 8	Install Low-Flow DHW Devices	Yes	0	0.0	2	\$38	\$29	\$14	\$14	0.4	222
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>15,346</b>	<b>5.5</b>	<b>11</b>	<b>\$3,066</b>	<b>\$31,138</b>	<b>\$2,300</b>	<b>\$28,837</b>	<b>9.4</b>	<b>16,776</b>
<b>TOTALS (ALL MEASURES)</b>			<b>15,346</b>	<b>5.5</b>	<b>11</b>	<b>\$3,066</b>	<b>\$31,138</b>	<b>\$2,300</b>	<b>\$28,837</b>	<b>9.4</b>	<b>16,776</b>

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

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



# BUS STATION

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			5,369	0.6	-1	\$975	\$1,255	\$262	\$993	1.0	5,294
ECM 1	Retrofit Fixtures with LED Lamps	Yes	5,369	0.6	-1	\$975	\$1,255	\$262	\$993	1.0	5,294
<b>Lighting Control Measures</b>			1,414	0.2	0	\$256	\$689	\$255	\$434	1.7	1,388
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	481	0.1	0	\$87	\$464	\$80	\$384	4.4	472
ECM 3	Install High/Low Lighting Controls	Yes	933	0.1	0	\$169	\$225	\$175	\$50	0.3	916
<b>Domestic Water Heating Upgrade</b>			0	0.0	1	\$34	\$22	\$11	\$11	0.3	167
ECM 4	Install Low-Flow DHW Devices	Yes	0	0.0	1	\$34	\$22	\$11	\$11	0.3	167
<b>Food Service &amp; Refrigeration Measures</b>			1,612	0.2	0	\$299	\$230	\$50	\$180	0.6	1,623
ECM 5	Vending Machine Control	Yes	1,612	0.2	0	\$299	\$230	\$50	\$180	0.6	1,623
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			8,394	1.0	0	\$1,564	\$2,196	\$578	\$1,618	1.0	8,472
<b>TOTALS (ALL MEASURES)</b>			8,394	1.0	0	\$1,564	\$2,196	\$578	\$1,618	1.0	8,472

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

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

# ENERGY EFFICIENT BEST PRACTICES

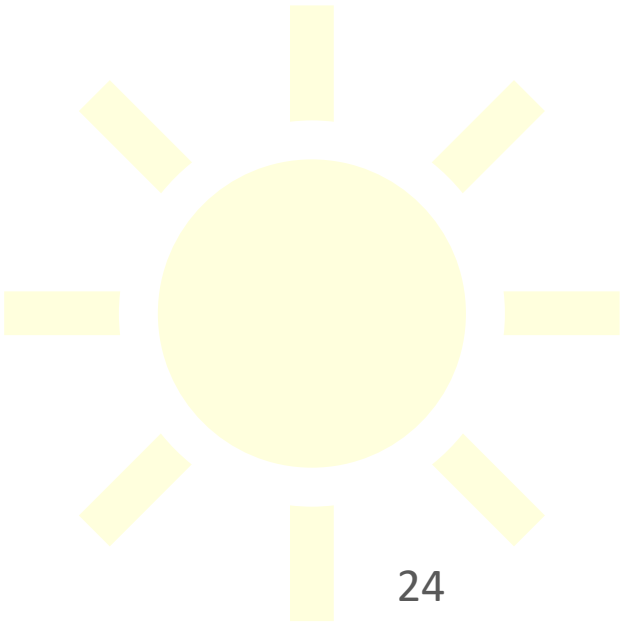
- Reduce Air Leakage
- Close Doors and Windows
- Develop a Lighting Maintenance Schedule
- Ensure Lighting Controls Are Operating Properly
- Use Fans to Reduce Cooling Load
- Use Window Treatments/Coverings
- Clean and/or Replace HVAC filters
- Check and Seal Duct Leakage
- Perform Proper Boiler Maintenance
- Perform Proper Water Heater Maintenance
- Plug Load Controls
- Water Conservation

***See individual reports for specific EE practices by building***

# SOLAR ENERGY GENERATION POTENTIAL

[NJCleanEnergy.com/renewable-energy](http://NJCleanEnergy.com/renewable-energy)

	Rec Center
<i>Potential:</i>	<b>MEDIUM</b>
<i>System Potential: (kW)</i>	85
<i>Electric Generation: (kWh per year)</i>	63,958
<i>Displaced Cost: (per year)</i>	\$11,880



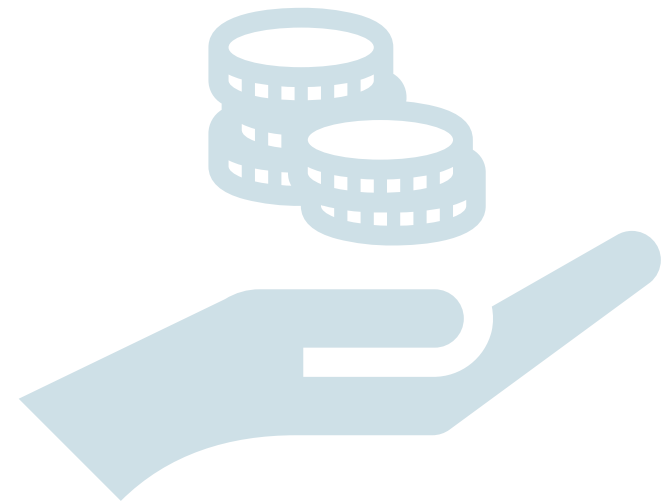


# FINANCING MECHANISM: ESIP

[NJCleanEnergy.com/ESIP](http://NJCleanEnergy.com/ESIP)

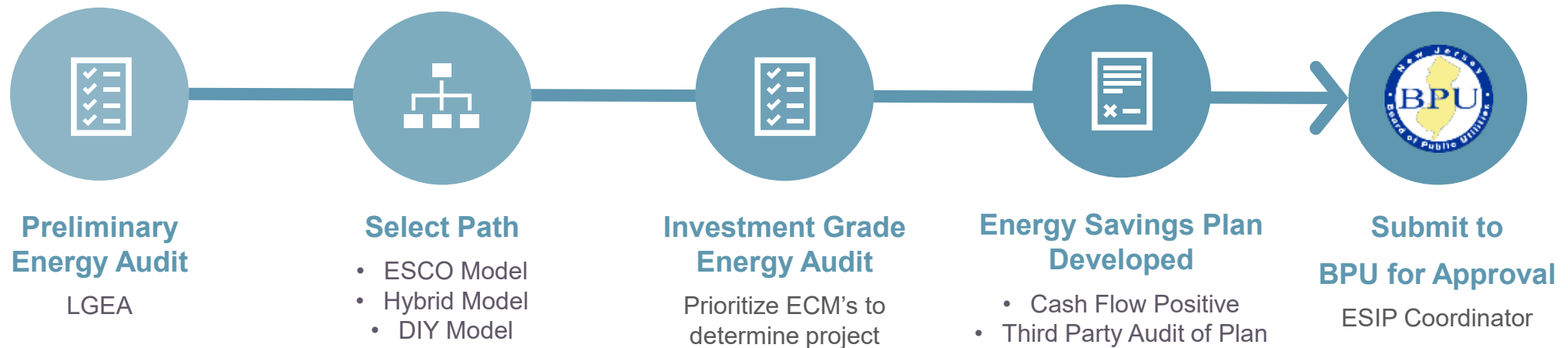
## ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

- Energy Performance Contracting – NJ ESIP
- Financing Mechanism that allows state entities to make energy efficiency improvements without impacting their budgets
- Administered by the NJBPU
- NJBPU Approved EE Incentive Programs: NJCEP or Utility
- Project is paid for with the value of its own energy savings
- 15 or 20 year self-funding loan
- Can be combined with Federal/State Pandemic Relief Funds
- No upfront capital expenses
- No referendum is required
- No impact to taxpayers



# FINANCING MECHANISM: ESIP

[NJCleanEnergy.com/EV](http://NJCleanEnergy.com/EV)



# ENERGY SAVINGS IMPROVEMENT PROGRAM

[NJCleanEnergy.com/ESIP](http://NJCleanEnergy.com/ESIP)

## FOR MORE INFORMATION

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# C&I TRANSITION OF ENERGY EFFICIENCY PROGRAMS

NJCleanEnergy.com/Transition

LOCAL  
GOVERNMENT  
CUSTOMERS

COMMERCIAL &  
INSTITUTIONAL  
CUSTOMERS

LARGE  
ENERGY  
CUSTOMERS

## EXISTING BUILDINGS

### MEASUREMENT & AUDITS

FREE Energy Audits



### RETROFITS

Prescriptive &  
Custom Rebates

Direct Install

Engineered Solutions

And more from  
your local utility!



Incentives up  
to \$4 million  
for eligible projects



## NEW CONSTRUCTION

Prescriptive & Custom  
Rebates for New  
Construction and  
Gut Rehabs

Pay for Performance  
incentives for  
buildings over  
50,000 sq. ft.



## DISTRIBUTED ENERGY RESOURCES

Combined Heat & Power  
and Fuel Cell Installation  
Incentives

Microgrid Development

Battery Storage

Muni EV Fleets



Key:

Programs run by investor-owned utility companies



Programs run by NJCEP



# UTILITY RUN ENERGY EFFICIENCY PROGRAMS

[NJCleanEnergy.com/Transition](http://NJCleanEnergy.com/Transition)

## **PRESCRIPTIVE & CUSTOM REBATES:**

- Individual high efficiency equipment rebates for renovation, remodeling, and equipment replacement
- Flexibility to do a little or a lot
- No size requirement

## **DIRECT INSTALL:**

- Turn-key retrofit program to replace outdated and inefficient equipment including, lighting, HVAC, refrigeration, etc.
- The facility must have an average electric peak demand <200kW in the previous year to qualify

## **ENGINEERED SOLUTIONS:**

- Comprehensive, whole-building approach to saving energy
- The facility must have an average electric peak demand >200kW in the previous year to qualify



# UTILITY RUN ENERGY EFFICIENCY PROGRAMS

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THANK YOU

