

# *LGEA Presentation*

## *City of Vineland*

August 16th, 2022



New Jersey's  
Clean Energy Program

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

# INTRODUCTIONS

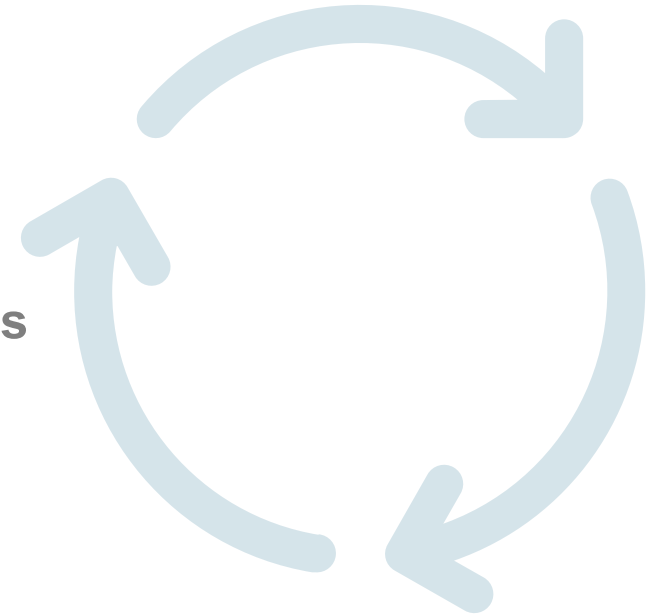
- *City of Vineland*
  - Ariana McTamney – Green Team Coordinator
  - Diane Amico – Chairperson, City of Vineland Environmental Commission
- *NJ Clean Energy Program*
  - Sarah Walters – LGEA Project Manager
  - Moussa Traore – LGEA Lead Auditor
  - Eduardo Garcia – LGEA Project Auditor
  - Michelle Rossi – ESIP Coordinator (BPU)
  - Arif Welcher – Government/Business Manager (BPU)
- *Utility Energy Efficiency Programs*
  - Kim Bodine – South Jersey Gas
  - Kim Byk – South Jersey Gas
  - Kim Pelosi – South Jersey Gas

# 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 Vineland

# 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:

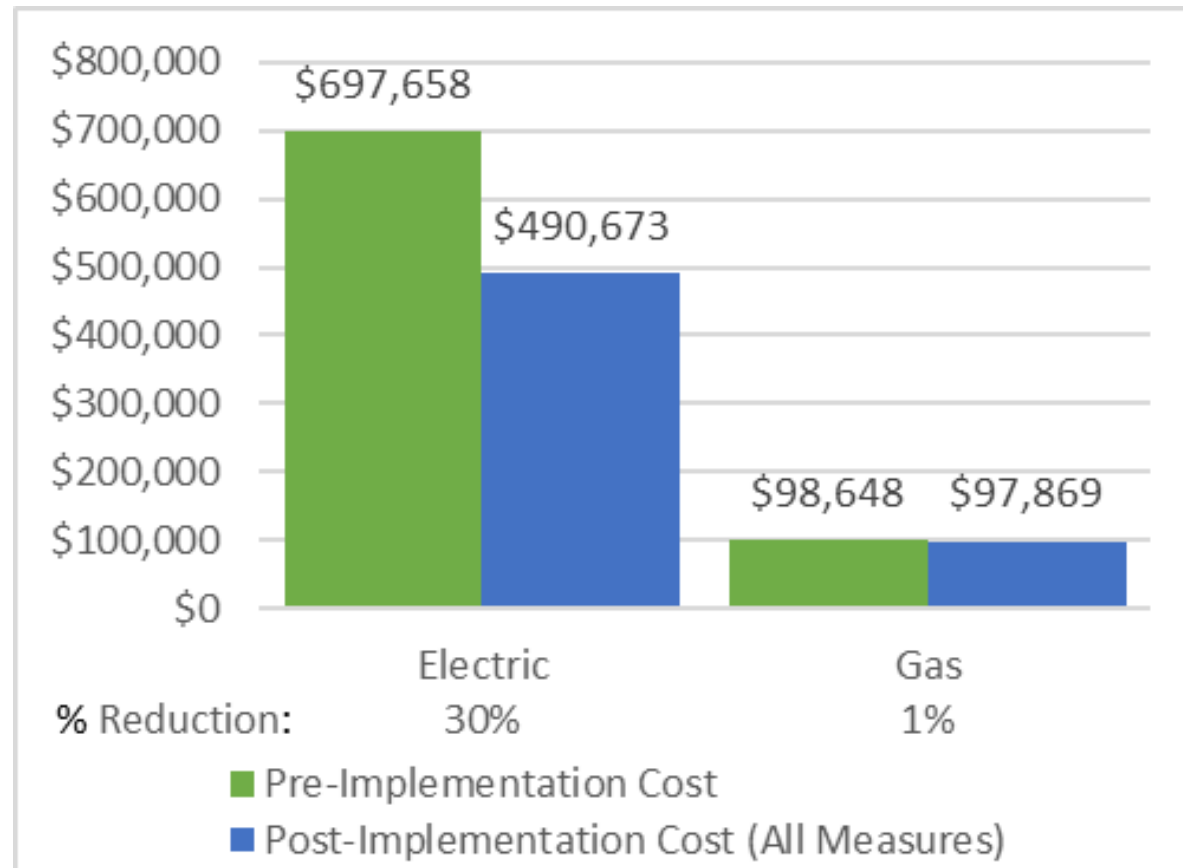
- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## Sites Visited/Analyzed

- Vineland City Hall
- Vineland Police Building/Station
- Vineland Senior Center
- Courthouse
- Carl V. Arthur Rec Center
- EMS Station #3
- EMS Station #4
- Fire Station #1
- Fire Station/EMS Department #2
- Fire Station #3
- Fire Station #4
- Fire Station #5

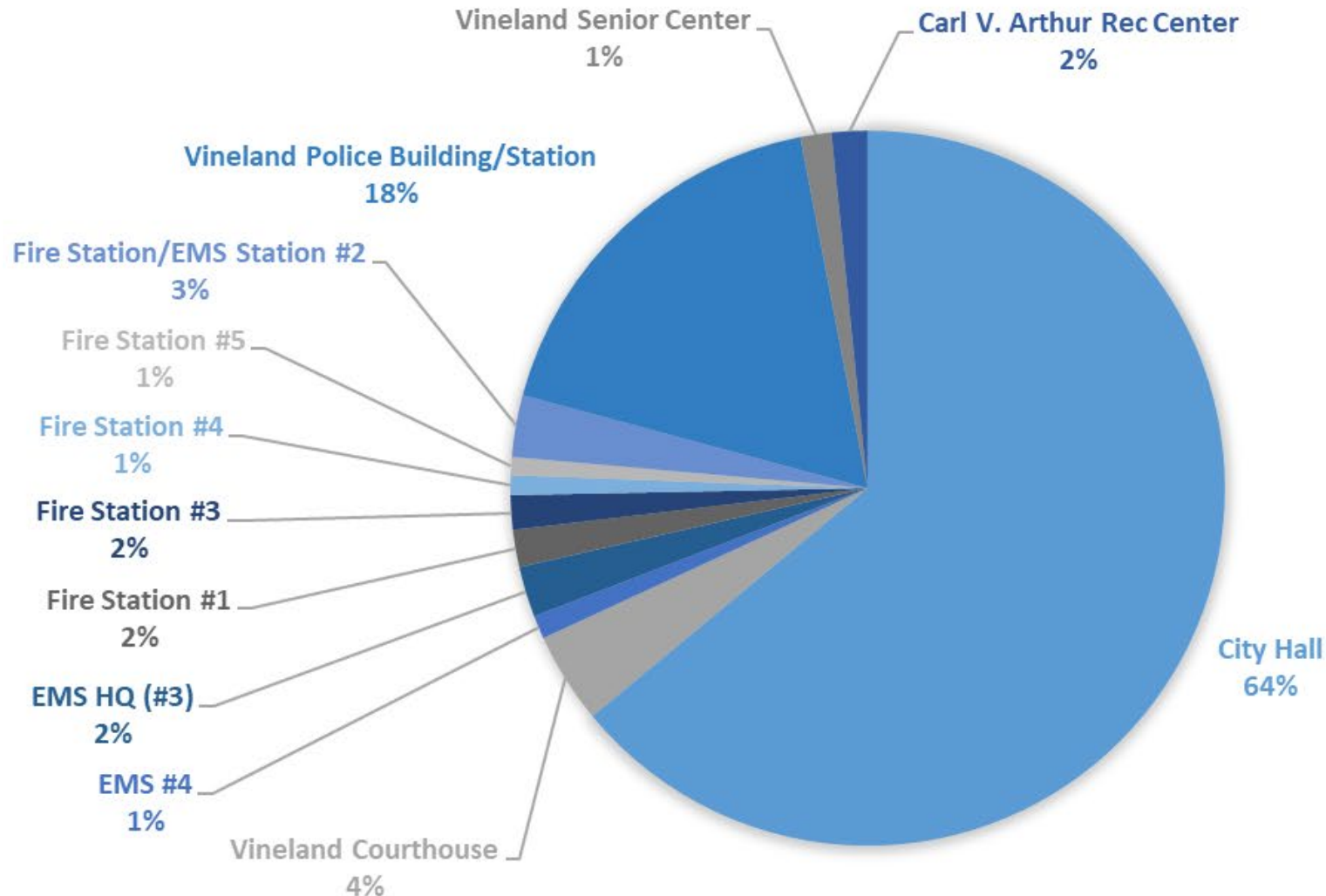
# UTILITY BREAKOUT

Pre & Post Implementation Cost



# UTILITY BREAKOUT

## PERCENT OF TOTAL ANNUAL ENERGY COSTS



# BENCHMARKING

**ENERGY STAR® Statement of Energy Performance**

**N/A** Fire Station #5

Primary Property Type: Fire Station  
Gross Floor Area (ft²): 4,047  
Built: 1996

For Year Ending: June 30, 2021  
Date Generated: March 23, 2022

ENERGY STAR® Score<sup>1</sup>

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

**Property & Contact Information**

<b>Property Address</b> Fire Station #5 4450 Italia Avenue Vineland, New Jersey 08380	<b>Property Owner</b> City of Vineland 640 E Wood Street Vineland, NJ 08380 856 794 4000	<b>Primary Contact</b> Ariana McTamney 640 E Wood Street Vineland, NJ 08380 856 794 4000 amctamney@vinelandcity.org
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Property ID: 19069075

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

<b>Site EUI</b> 63.5 kBtu/ft²	<b>Annual Energy by Fuel</b> Electric - Grid (kBtu) 55,718 (22%) Natural Gas (kBtu) 201,134 (78%)	<b>National Median Comparison</b> National Median Site EUI (kBtu/ft²) 87.3 National Median Source EUI (kBtu/ft²) 124.9 % Diff from National Median Source EUI -27%
<b>Source EUI</b> 90.7 kBtu/ft²	<b>Annual Emissions</b> Greenhouse Gas Emissions (Metric Tons CO2e/year) 18	

**Site EUI**  
63.5 kBtu/ft²

**Source EUI**  
90.7 kBtu/ft²

**National Median Comparison**

National Median Site EUI (kBtu/ft²)	87.3
National Median Source EUI (kBtu/ft²)	124.9
% Diff from National Median Source EUI	-27%

Site Name	ENERGY STAR® Score
City Hall	N/A
Vineland Courthouse	83
EMS #4	N/A
EMS HQ (#3)	N/A
Fire Station #1	N/A
Fire Station #3	N/A
Fire Station #4	N/A
Fire Station #5	N/A
Fire Station/EMS Station #2	N/A
Vineland Police Building/Station	N/A
Vineland Senior Center	N/A
Carl V. Arthur Rec Center	N/A

**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

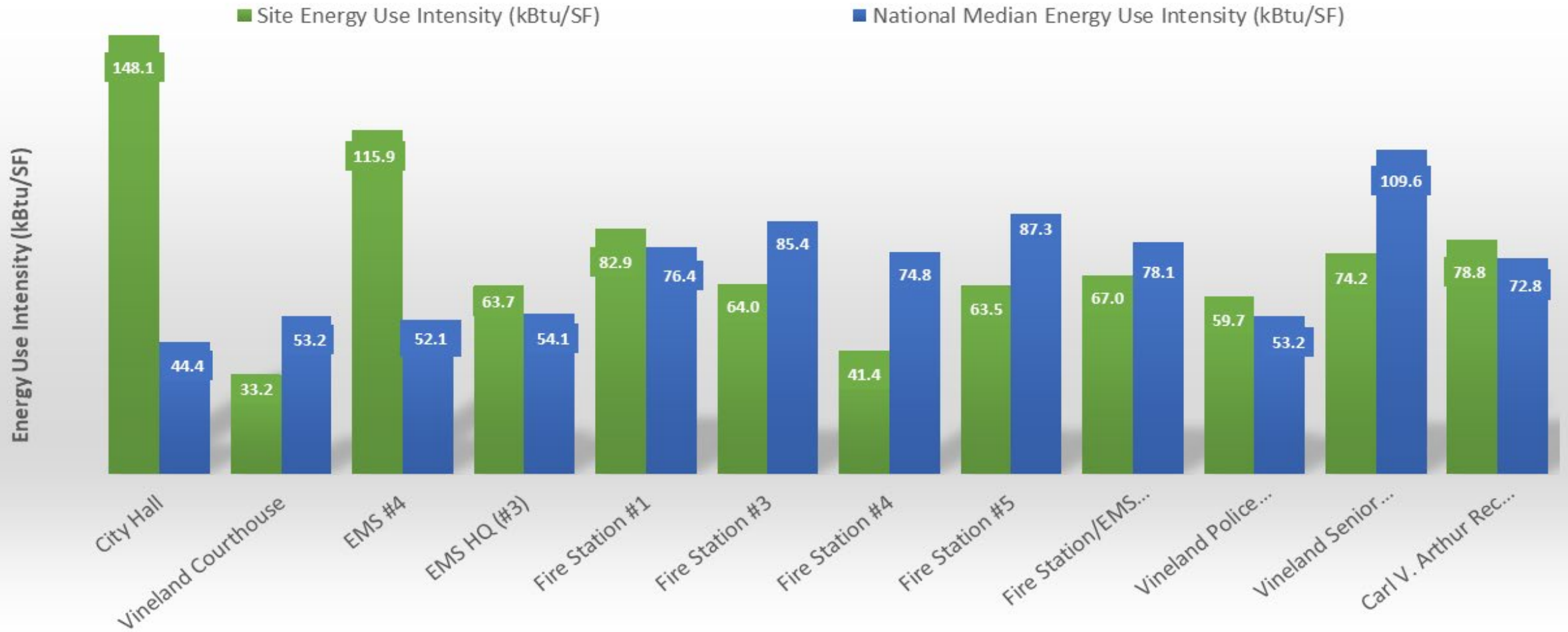
\_\_\_\_\_  
( ) \_\_\_\_\_

Professional Engineer or Registered Architect Stamp (if applicable)

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.

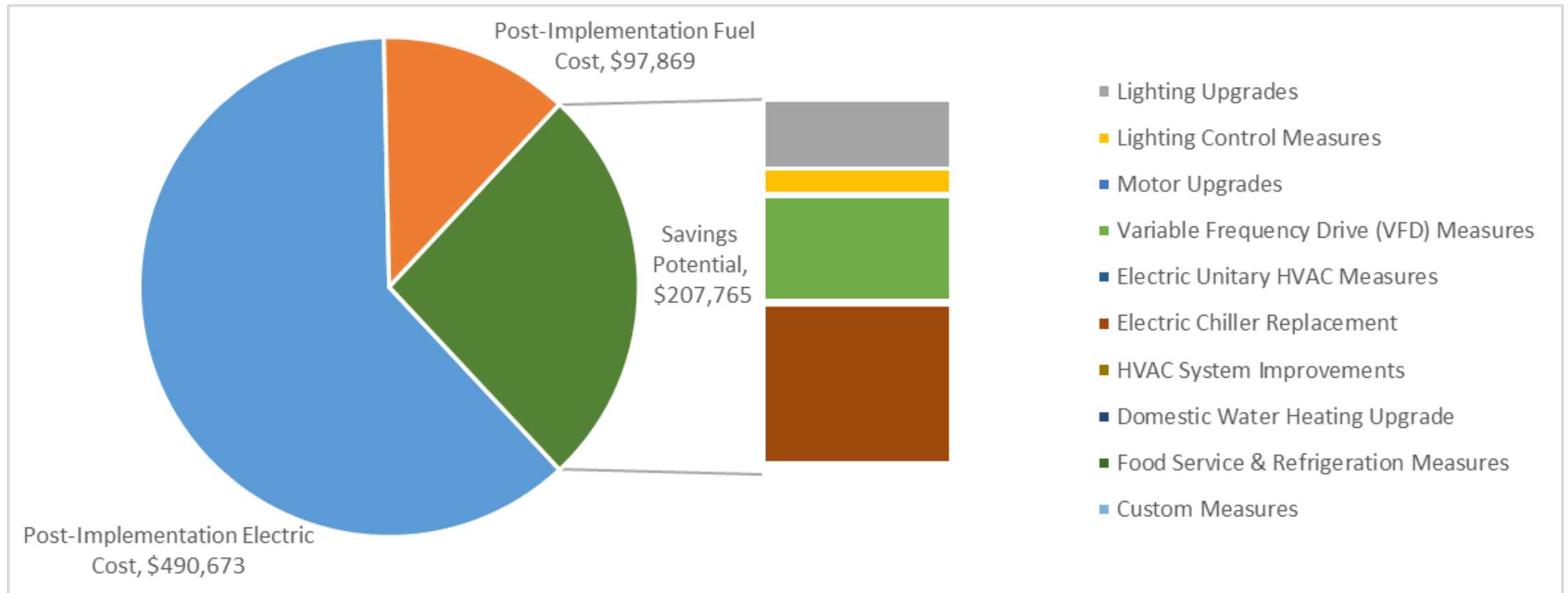


# BENCHMARKING



# 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>257,934</b>	<b>46.1</b>	<b>-52.7</b>	<b>\$38,371</b>	<b>\$90,060</b>	<b>\$0</b>	<b>\$90,060</b>	<b>2.3</b>	<b>253,571</b>
ECM 1	Install LED Fixtures	4,829	0.9	-0.2	\$820	\$5,906	\$0	\$5,906	7.2	4,835
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	38	0.1	0.0	\$6	\$129	\$0	\$129	19.9	37
ECM 3	Retrofit Fixtures with LED Lamps	211,563	41.2	-43.6	\$30,788	\$78,160	\$0	\$78,160	2.5	207,936
ECM 4	Install LED Exit Signs	41,505	3.9	-8.8	\$6,756	\$5,866	\$0	\$5,866	0.9	40,763
<b>Lighting Control Measures</b>		<b>95,252</b>	<b>16.1</b>	<b>-20.0</b>	<b>\$13,716</b>	<b>\$60,061</b>	<b>\$0</b>	<b>\$60,061</b>	<b>4.4</b>	<b>93,578</b>
ECM 5	Install Occupancy Sensor Lighting Controls	93,964	16.0	-19.7	\$13,527	\$57,811	\$0	\$57,811	4.3	92,312
ECM 6	Install High/Low Lighting Controls	1,288	0.1	-0.3	\$190	\$2,250	\$0	\$2,250	11.9	1,266
<b>Motor Upgrades</b>		<b>9,591</b>	<b>2.1</b>	<b>0.0</b>	<b>\$1,363</b>	<b>\$11,280</b>	<b>\$0</b>	<b>\$11,280</b>	<b>8.3</b>	<b>9,658</b>
ECM 7	Premium Efficiency Motors	9,591	2.1	0.0	\$1,363	\$11,280	\$0	\$11,280	8.3	9,658
<b>Variable Frequency Drive (VFD) Measures</b>		<b>406,619</b>	<b>57.2</b>	<b>0.0</b>	<b>\$58,240</b>	<b>\$132,821</b>	<b>\$0</b>	<b>\$132,821</b>	<b>2.3</b>	<b>409,462</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	342,457	51.0	0.0	\$49,070	\$76,852	\$0	\$76,852	1.6	344,851
ECM 9	Install VFDs on Chilled Water Pumps	35,197	6.1	0.0	\$5,002	\$11,576	\$0	\$11,576	2.3	35,443
ECM 10	Install VFDs on Heating Water Pumps	12,828	1.0	0.0	\$1,874	\$21,451	\$0	\$21,451	11.4	12,917
ECM 11	Install VFDs on Cooling Tower Fans	16,137	-0.9	0.0	\$2,293	\$22,942	\$0	\$22,942	10.0	16,250

# ALL OPPORTUNITIES

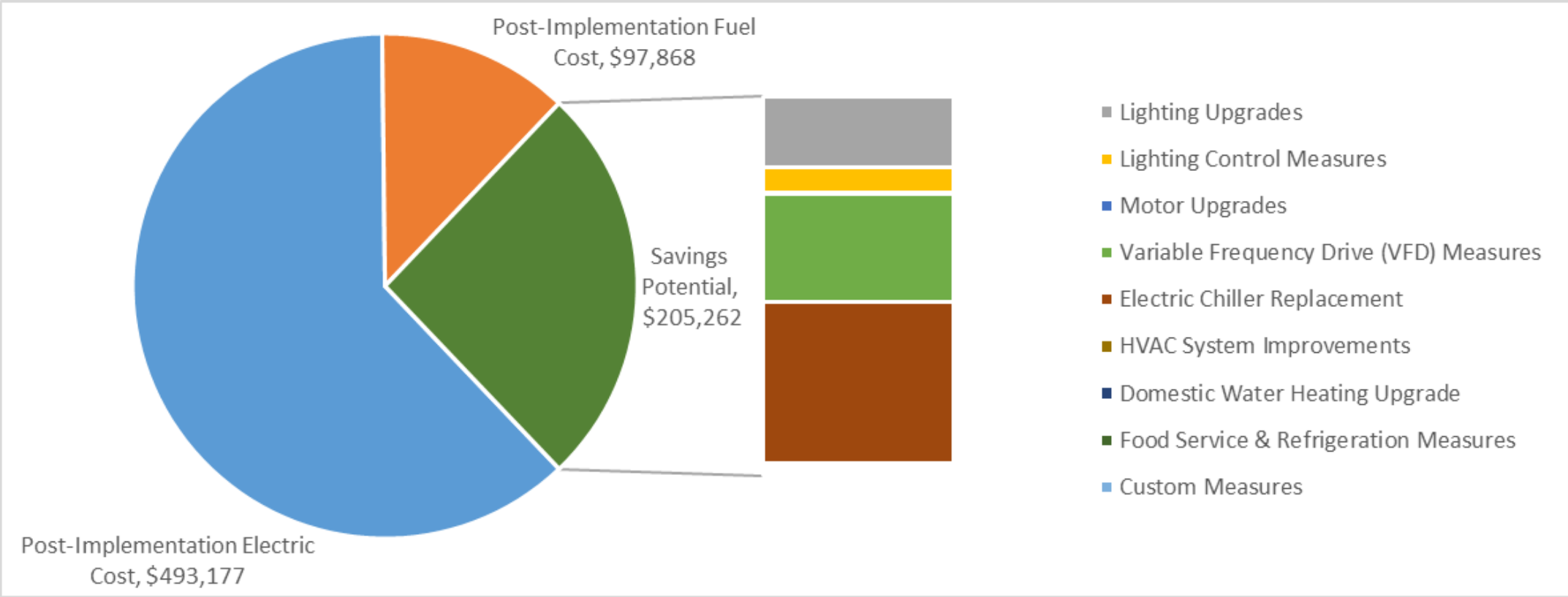
#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Electric Unitary HVAC Measures</b>		<b>12,982</b>	<b>4.5</b>	<b>0.1</b>	<b>\$2,063</b>	<b>\$47,900</b>	<b>\$0</b>	<b>\$47,900</b>	<b>23.2</b>	<b>13,087</b>
ECM 12	Install High Efficiency Air Conditioning Units	12,982	4.5	0.1	\$2,063	\$47,900	\$0	\$47,900	23.2	13,087
<b>Electric Chiller Replacement</b>		<b>616,171</b>	<b>39.2</b>	<b>0.0</b>	<b>\$87,569</b>	<b>\$246,310</b>	<b>\$0</b>	<b>\$246,310</b>	<b>2.8</b>	<b>620,480</b>
ECM 13	Install High Efficiency Chillers	616,171	39.2	0.0	\$87,569	\$246,310	\$0	\$246,310	2.8	620,480
<b>HVAC System Improvements</b>		<b>3,367</b>	<b>0.0</b>	<b>47.9</b>	<b>\$1,192</b>	<b>\$1,101</b>	<b>\$180</b>	<b>\$921</b>	<b>0.8</b>	<b>9,002</b>
ECM 14	Install Pipe Insulation	3,367	0.0	47.9	\$1,192	\$1,101	\$180	\$921	0.8	9,002
<b>Domestic Water Heating Upgrade</b>		<b>6,981</b>	<b>0.0</b>	<b>82.1</b>	<b>\$2,213</b>	<b>\$2,865</b>	<b>\$602</b>	<b>\$2,263</b>	<b>1.0</b>	<b>16,642</b>
ECM 15	Install Low-Flow DHW Devices	6,981	0.0	82.1	\$2,213	\$2,865	\$602	\$2,263	1.0	16,642
<b>Food Service &amp; Refrigeration Measures</b>		<b>4,180</b>	<b>0.5</b>	<b>0.0</b>	<b>\$638</b>	<b>\$2,396</b>	<b>\$0</b>	<b>\$2,396</b>	<b>3.8</b>	<b>4,209</b>
ECM 16	Replace Refrigeration Equipment	1,017	0.1	0.0	\$176	\$1,706	\$0	\$1,706	9.7	1,024
ECM 17	Vending Machine Control	3,163	0.4	0.0	\$462	\$690	\$0	\$690	1.5	3,185
<b>Custom Measures</b>		<b>16,882</b>	<b>0.0</b>	<b>0.0</b>	<b>\$2,399</b>	<b>\$9,400</b>	<b>\$0</b>	<b>\$9,400</b>	<b>3.9</b>	<b>17,000</b>
ECM 18	Install Heat Pump Water Heater	16,882	0.0	0.0	\$2,399	\$9,400	\$0	\$9,400	3.9	17,000
<b>TOTALS</b>		<b>1,429,959</b>	<b>165.7</b>	<b>57.5</b>	<b>\$207,765</b>	<b>\$604,194</b>	<b>\$782</b>	<b>\$603,412</b>	<b>2.9</b>	<b>1,446,689</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>257,934</b>	<b>46.1</b>	<b>-52.7</b>	<b>\$38,371</b>	<b>\$90,060</b>	<b>\$0</b>	<b>\$90,060</b>	<b>2.3</b>	<b>253,571</b>
ECM 1	Install LED Fixtures	4,829	0.9	-0.2	\$820	\$5,906	\$0	\$5,906	7.2	4,835
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	38	0.1	0.0	\$6	\$129	\$0	\$129	19.9	37
ECM 3	Retrofit Fixtures with LED Lamps	211,563	41.2	-43.6	\$30,788	\$78,160	\$0	\$78,160	2.5	207,936
ECM 4	Install LED Exit Signs	41,505	3.9	-8.8	\$6,756	\$5,866	\$0	\$5,866	0.9	40,763
<b>Lighting Control Measures</b>		<b>93,873</b>	<b>14.7</b>	<b>-19.7</b>	<b>\$13,476</b>	<b>\$55,287</b>	<b>\$0</b>	<b>\$55,287</b>	<b>4.1</b>	<b>92,224</b>
ECM 5	Install Occupancy Sensor Lighting Controls	92,585	14.5	-19.4	\$13,287	\$53,037	\$0	\$53,037	4.0	90,958
ECM 6	Install High/Low Lighting Controls	1,288	0.1	-0.3	\$190	\$2,250	\$0	\$2,250	11.9	1,266
<b>Motor Upgrades</b>		<b>9,591</b>	<b>2.1</b>	<b>0.0</b>	<b>\$1,363</b>	<b>\$11,280</b>	<b>\$0</b>	<b>\$11,280</b>	<b>8.3</b>	<b>9,658</b>
ECM 7	Premium Efficiency Motors	9,591	2.1	0.0	\$1,363	\$11,280	\$0	\$11,280	8.3	9,658
<b>Variable Frequency Drive (VFD) Measures</b>		<b>405,470</b>	<b>56.3</b>	<b>0.0</b>	<b>\$58,040</b>	<b>\$128,937</b>	<b>\$0</b>	<b>\$128,937</b>	<b>2.2</b>	<b>408,305</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	341,308	50.1	0.0	\$48,871	\$72,968	\$0	\$72,968	1.5	343,694
ECM 9	Install VFDs on Chilled Water Pumps	35,197	6.1	0.0	\$5,002	\$11,576	\$0	\$11,576	2.3	35,443
ECM 10	Install VFDs on Heating Water Pumps	12,828	1.0	0.0	\$1,874	\$21,451	\$0	\$21,451	11.4	12,917
ECM 11	Install VFDs on Cooling Tower Fans	16,137	-0.9	0.0	\$2,293	\$22,942	\$0	\$22,942	10.0	16,250
<b>Electric Chiller Replacement</b>		<b>616,171</b>	<b>39.2</b>	<b>0.0</b>	<b>\$87,569</b>	<b>\$246,310</b>	<b>\$0</b>	<b>\$246,310</b>	<b>2.8</b>	<b>620,480</b>
ECM 13	Install High Efficiency Chillers	616,171	39.2	0.0	\$87,569	\$246,310	\$0	\$246,310	2.8	620,480
<b>HVAC System Improvements</b>		<b>3,367</b>	<b>0.0</b>	<b>47.9</b>	<b>\$1,192</b>	<b>\$1,101</b>	<b>\$180</b>	<b>\$921</b>	<b>0.8</b>	<b>9,002</b>
ECM 14	Install Pipe Insulation	3,367	0.0	47.9	\$1,192	\$1,101	\$180	\$921	0.8	9,002
<b>Domestic Water Heating Upgrade</b>		<b>6,981</b>	<b>0.0</b>	<b>82.1</b>	<b>\$2,213</b>	<b>\$2,865</b>	<b>\$602</b>	<b>\$2,263</b>	<b>1.0</b>	<b>16,642</b>
ECM 15	Install Low-Flow DHW Devices	6,981	0.0	82.1	\$2,213	\$2,865	\$602	\$2,263	1.0	16,642
<b>Food Service &amp; Refrigeration Measures</b>		<b>4,180</b>	<b>0.5</b>	<b>0.0</b>	<b>\$638</b>	<b>\$2,396</b>	<b>\$0</b>	<b>\$2,396</b>	<b>3.8</b>	<b>4,209</b>
ECM 16	Replace Refrigeration Equipment	1,017	0.1	0.0	\$176	\$1,706	\$0	\$1,706	9.7	1,024
ECM 17	Vending Machine Control	3,163	0.4	0.0	\$462	\$690	\$0	\$690	1.5	3,185
<b>Custom Measures</b>		<b>16,882</b>	<b>0.0</b>	<b>0.0</b>	<b>\$2,399</b>	<b>\$9,400</b>	<b>\$0</b>	<b>\$9,400</b>	<b>3.9</b>	<b>17,000</b>
ECM 18	Install Heat Pump Water Heater	16,882	0.0	0.0	\$2,399	\$9,400	\$0	\$9,400	3.9	17,000
<b>TOTALS</b>		<b>1,414,450</b>	<b>158.9</b>	<b>57.7</b>	<b>\$205,262</b>	<b>\$547,637</b>	<b>\$782</b>	<b>\$546,855</b>	<b>2.7</b>	<b>1,431,091</b>

# VINELAND 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>165,023</b>	<b>23.6</b>	<b>-34</b>	<b>\$22,999</b>	<b>\$54,883</b>	<b>\$0</b>	<b>\$54,883</b>	<b>2.4</b>	<b>162,143</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	158,259	22.9	-33	\$22,057	\$53,941	\$0	\$53,941	2.4	155,497
ECM 2	Install LED Exit Signs	Yes	6,764	0.7	-1	\$943	\$941	\$0	\$941	1.0	6,646
<b>Lighting Control Measures</b>			<b>76,558</b>	<b>9.4</b>	<b>-16</b>	<b>\$10,670</b>	<b>\$34,136</b>	<b>\$0</b>	<b>\$34,136</b>	<b>3.2</b>	<b>75,219</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	75,782	9.3	-16	\$10,561	\$32,786	\$0	\$32,786	3.1	74,456
ECM 4	Install High/Low Lighting Controls	Yes	777	0.1	0	\$108	\$1,350	\$0	\$1,350	12.5	763
<b>Motor Upgrades</b>			<b>9,591</b>	<b>2.1</b>	<b>0</b>	<b>\$1,363</b>	<b>\$11,280</b>	<b>\$0</b>	<b>\$11,280</b>	<b>8.3</b>	<b>9,658</b>
ECM 5	Premium Efficiency Motors	Yes	9,591	2.1	0	\$1,363	\$11,280	\$0	\$11,280	8.3	9,658
<b>Variable Frequency Drive (VFD) Measures</b>			<b>382,179</b>	<b>51.8</b>	<b>0</b>	<b>\$54,314</b>	<b>\$104,111</b>	<b>\$0</b>	<b>\$104,111</b>	<b>1.9</b>	<b>384,851</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	320,176	45.8	0	\$45,503	\$51,533	\$0	\$51,533	1.1	322,415
ECM 7	Install VFDs on Chilled Water Pumps	Yes	35,197	6.1	0	\$5,002	\$11,576	\$0	\$11,576	2.3	35,443
ECM 8	Install VFDs on Heating Water Pumps	Yes	10,668	0.8	0	\$1,516	\$18,061	\$0	\$18,061	11.9	10,743
ECM 9	Install VFDs on Cooling Tower Fans	Yes	16,137	-0.9	0	\$2,293	\$22,942	\$0	\$22,942	10.0	16,250
<b>Electric Chiller Replacement</b>			<b>616,171</b>	<b>39.2</b>	<b>0</b>	<b>\$87,569</b>	<b>\$246,310</b>	<b>\$0</b>	<b>\$246,310</b>	<b>2.8</b>	<b>620,480</b>
ECM 10	Install High Efficiency Chillers	Yes	616,171	39.2	0	\$87,569	\$246,310	\$0	\$246,310	2.8	620,480
<b>HVAC System Improvements</b>			<b>1,914</b>	<b>0.0</b>	<b>0</b>	<b>\$272</b>	<b>\$72</b>	<b>\$0</b>	<b>\$72</b>	<b>0.3</b>	<b>1,928</b>
ECM 11	Install Pipe Insulation	Yes	1,914	0.0	0	\$272	\$72	\$0	\$72	0.3	1,928
<b>Domestic Water Heating Upgrade</b>			<b>4,072</b>	<b>0.0</b>	<b>14</b>	<b>\$760</b>	<b>\$452</b>	<b>\$104</b>	<b>\$348</b>	<b>0.5</b>	<b>5,712</b>
ECM 12	Install Low-Flow DHW Devices	Yes	4,072	0.0	14	\$760	\$452	\$104	\$348	0.5	5,712
<b>Food Service &amp; Refrigeration Measures</b>			<b>1,209</b>	<b>0.1</b>	<b>0</b>	<b>\$172</b>	<b>\$230</b>	<b>\$0</b>	<b>\$230</b>	<b>1.3</b>	<b>1,217</b>
ECM 13	Vending Machine Control	Yes	1,209	0.1	0	\$172	\$230	\$0	\$230	1.3	1,217
<b>Custom Measures</b>			<b>16,882</b>	<b>0.0</b>	<b>0</b>	<b>\$2,399</b>	<b>\$9,400</b>	<b>\$0</b>	<b>\$9,400</b>	<b>3.9</b>	<b>17,000</b>
ECM 14	Install Heat Pump Water Heater	Yes	16,882	0.0	0	\$2,399	\$9,400	\$0	\$9,400	3.9	17,000
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>1,273,600</b>	<b>126.2</b>	<b>-37</b>	<b>\$180,518</b>	<b>\$460,874</b>	<b>\$104</b>	<b>\$460,770</b>	<b>2.6</b>	<b>1,278,208</b>
<b>TOTALS (ALL MEASURES)</b>			<b>1,273,600</b>	<b>126.2</b>	<b>-37</b>	<b>\$180,518</b>	<b>\$460,874</b>	<b>\$104</b>	<b>\$460,770</b>	<b>2.6</b>	<b>1,278,208</b>

# VINELAND POLICE 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>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>25</b>	<b>\$333</b>	<b>\$694</b>	<b>\$155</b>	<b>\$539</b>	<b>1.6</b>	<b>2,957</b>
ECM 1	Install Low-Flow DHW Devices	Yes	0	0.0	25	\$333	\$694	\$155	\$539	1.6	2,957
<b>Food Service &amp; Refrigeration Measures</b>			<b>1,954</b>	<b>0.2</b>	<b>0</b>	<b>\$290</b>	<b>\$460</b>	<b>\$0</b>	<b>\$460</b>	<b>1.6</b>	<b>1,968</b>
ECM 2	Vending Machine Control	Yes	1,954	0.2	0	\$290	\$460	\$0	\$460	1.6	1,968
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>1,954</b>	<b>0.2</b>	<b>25</b>	<b>\$623</b>	<b>\$1,154</b>	<b>\$155</b>	<b>\$999</b>	<b>1.6</b>	<b>4,925</b>
<b>TOTALS (ALL MEASURES)</b>			<b>1,954</b>	<b>0.2</b>	<b>25</b>	<b>\$623</b>	<b>\$1,154</b>	<b>\$155</b>	<b>\$999</b>	<b>1.6</b>	<b>4,925</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).



# VINELAND SENIOR 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>8,910</b>	<b>2.1</b>	<b>-1</b>	<b>\$1,456</b>	<b>\$4,235</b>	<b>\$0</b>	<b>\$4,235</b>	<b>2.9</b>	<b>8,799</b>
ECM 1	Install LED Fixtures	Yes	1,945	0.0	0	\$322	\$1,237	\$0	\$1,237	3.8	1,958
ECM 2	Retrofit Fixtures with LED Lamps	Yes	3,389	1.7	-1	\$552	\$2,492	\$0	\$2,492	4.5	3,329
ECM 3	Install LED Exit Signs	Yes	3,576	0.3	-1	\$582	\$507	\$0	\$507	0.9	3,512
<b>Lighting Control Measures</b>			<b>1,130</b>	<b>0.6</b>	<b>0</b>	<b>\$184</b>	<b>\$2,238</b>	<b>\$0</b>	<b>\$2,238</b>	<b>12.2</b>	<b>1,110</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	1,130	0.6	0	\$184	\$2,238	\$0	\$2,238	12.2	1,110
<b>Variable Frequency Drive (VFD) Measures</b>			<b>2,159</b>	<b>0.1</b>	<b>0</b>	<b>\$358</b>	<b>\$3,391</b>	<b>\$0</b>	<b>\$3,391</b>	<b>9.5</b>	<b>2,174</b>
ECM 5	Install VFDs on Heating Water Pumps	Yes	2,159	0.1	0	\$358	\$3,391	\$0	\$3,391	9.5	2,174
<b>HVAC System Improvements</b>			<b>0</b>	<b>0.0</b>	<b>34</b>	<b>\$463</b>	<b>\$467</b>	<b>\$120</b>	<b>\$347</b>	<b>0.7</b>	<b>4,013</b>
ECM 6	Install Pipe Insulation	Yes	0	0.0	34	\$463	\$467	\$120	\$347	0.7	4,013
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>3</b>	<b>\$37</b>	<b>\$50</b>	<b>\$22</b>	<b>\$28</b>	<b>0.8</b>	<b>324</b>
ECM 7	Install Low-Flow DHW Devices	Yes	0	0.0	3	\$37	\$50	\$22	\$28	0.8	324
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>12,200</b>	<b>2.8</b>	<b>35</b>	<b>\$2,498</b>	<b>\$10,381</b>	<b>\$142</b>	<b>\$10,239</b>	<b>4.1</b>	<b>16,420</b>
<b>TOTALS (ALL MEASURES)</b>			<b>12,200</b>	<b>2.8</b>	<b>35</b>	<b>\$2,498</b>	<b>\$10,381</b>	<b>\$142</b>	<b>\$10,239</b>	<b>4.1</b>	<b>16,420</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).

# COURTHOUSE

#	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>27,115</b>	<b>5.2</b>	<b>-6</b>	<b>\$4,222</b>	<b>\$6,230</b>	<b>\$0</b>	<b>\$6,230</b>	<b>1.5</b>	<b>26,634</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	18,941	4.4	-4	\$2,949	\$5,071	\$0	\$5,071	1.7	18,607
ECM 2	Install LED Exit Signs	Yes	8,174	0.8	-2	\$1,273	\$1,159	\$0	\$1,159	0.9	8,027
<b>Lighting Control Measures</b>			<b>7,102</b>	<b>1.7</b>	<b>-2</b>	<b>\$1,106</b>	<b>\$4,784</b>	<b>\$0</b>	<b>\$4,784</b>	<b>4.3</b>	<b>6,974</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	7,102	1.7	-2	\$1,106	\$4,784	\$0	\$4,784	4.3	6,974
<b>Variable Frequency Drive (VFD) Measures</b>			<b>11,430</b>	<b>2.6</b>	<b>0</b>	<b>\$1,815</b>	<b>\$11,652</b>	<b>\$0</b>	<b>\$11,652</b>	<b>6.4</b>	<b>11,509</b>
ECM 4	Install VFDs on Constant Volume (CV) Fans	Yes	11,430	2.6	0	\$1,815	\$11,652	\$0	\$11,652	6.4	11,509
<b>Unitary HVAC Measures</b>			<b>12,982</b>	<b>4.5</b>	<b>0</b>	<b>\$2,063</b>	<b>\$47,900</b>	<b>\$0</b>	<b>\$47,900</b>	<b>23.2</b>	<b>13,087</b>
ECM 5	Install High Efficiency Air Conditioning Units	No	12,982	4.5	0	\$2,063	\$47,900	\$0	\$47,900	23.2	13,087
<b>Domestic Water Heating Upgrade</b>			<b>891</b>	<b>0.0</b>	<b>0</b>	<b>\$142</b>	<b>\$50</b>	<b>\$0</b>	<b>\$50</b>	<b>0.4</b>	<b>898</b>
ECM 6	Install Low-Flow DHW Devices	Yes	891	0.0	0	\$142	\$50	\$0	\$50	0.4	898
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>46,538</b>	<b>9.4</b>	<b>-7</b>	<b>\$7,284</b>	<b>\$22,716</b>	<b>\$0</b>	<b>\$22,716</b>	<b>3.1</b>	<b>46,016</b>
<b>TOTALS (ALL MEASURES)</b>			<b>59,520</b>	<b>13.9</b>	<b>-7</b>	<b>\$9,348</b>	<b>\$70,616</b>	<b>\$0</b>	<b>\$70,616</b>	<b>7.6</b>	<b>59,103</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).

# CARL V. ARTHUR REC 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>12,274</b>	<b>3.7</b>	<b>-2</b>	<b>\$2,098</b>	<b>\$8,214</b>	<b>\$0</b>	<b>\$8,214</b>	<b>3.9</b>	<b>12,094</b>
ECM 1	Install LED Fixtures	Yes	2,253	0.9	0	\$388	\$4,231	\$0	\$4,231	10.9	2,241
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	38	0.1	0	\$6	\$129	\$0	\$129	19.8	37
ECM 3	Retrofit Fixtures with LED Lamps	Yes	4,363	2.2	-1	\$746	\$3,057	\$0	\$3,057	4.1	4,296
ECM 4	Install LED Exit Signs	Yes	5,620	0.5	-1	\$959	\$797	\$0	\$797	0.8	5,519
<b>Lighting Control Measures</b>			<b>953</b>	<b>0.7</b>	<b>0</b>	<b>\$163</b>	<b>\$2,932</b>	<b>\$0</b>	<b>\$2,932</b>	<b>18.0</b>	<b>936</b>
ECM 5	Install Occupancy Sensor Lighting Controls	No	953	0.7	0	\$163	\$2,932	\$0	\$2,932	18.0	936
<b>Variable Frequency Drive (VFD) Measures</b>			<b>1,149</b>	<b>0.9</b>	<b>0</b>	<b>\$199</b>	<b>\$3,884</b>	<b>\$0</b>	<b>\$3,884</b>	<b>19.5</b>	<b>1,157</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	No	1,149	0.9	0	\$199	\$3,884	\$0	\$3,884	19.5	1,157
<b>HVAC System Improvements</b>			<b>826</b>	<b>0.0</b>	<b>0</b>	<b>\$143</b>	<b>\$115</b>	<b>\$0</b>	<b>\$115</b>	<b>0.8</b>	<b>831</b>
ECM 7	Install Pipe Insulation	Yes	826	0.0	0	\$143	\$115	\$0	\$115	0.8	831
<b>Domestic Water Heating Upgrade</b>			<b>790</b>	<b>0.0</b>	<b>0</b>	<b>\$137</b>	<b>\$93</b>	<b>\$0</b>	<b>\$93</b>	<b>0.7</b>	<b>795</b>
ECM 8	Install Low-Flow DHW Devices	Yes	790	0.0	0	\$137	\$93	\$0	\$93	0.7	795
<b>Food Service &amp; Refrigeration Measures</b>			<b>1,017</b>	<b>0.1</b>	<b>0</b>	<b>\$176</b>	<b>\$1,706</b>	<b>\$0</b>	<b>\$1,706</b>	<b>9.7</b>	<b>1,024</b>
ECM 9	Replace Refrigeration Equipment	Yes	1,017	0.1	0	\$176	\$1,706	\$0	\$1,706	9.7	1,024
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>14,906</b>	<b>3.8</b>	<b>-2</b>	<b>\$2,555</b>	<b>\$10,128</b>	<b>\$0</b>	<b>\$10,128</b>	<b>4.0</b>	<b>14,744</b>
<b>TOTALS (ALL MEASURES)</b>			<b>17,008</b>	<b>5.5</b>	<b>-2</b>	<b>\$2,917</b>	<b>\$16,944</b>	<b>\$0</b>	<b>\$16,944</b>	<b>5.8</b>	<b>16,837</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).

# EMS STATION #3

#	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>4,598</b>	<b>0.4</b>	<b>-1</b>	<b>\$722</b>	<b>\$652</b>	<b>\$0</b>	<b>\$652</b>	<b>0.9</b>	<b>4,515</b>
ECM 1	Install LED Exit Signs	Yes	4,598	0.4	-1	\$722	\$652	\$0	\$652	0.9	4,515
<b>Lighting Control Measures</b>			<b>2,018</b>	<b>0.4</b>	<b>0</b>	<b>\$317</b>	<b>\$2,572</b>	<b>\$0</b>	<b>\$2,572</b>	<b>8.1</b>	<b>1,981</b>
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	1,705	0.4	0	\$268	\$2,122	\$0	\$2,122	7.9	1,674
ECM 3	Install High/Low Lighting Controls	Yes	313	0.0	0	\$49	\$450	\$0	\$450	9.2	307
<b>Variable Frequency Drive (VFD) Measures</b>			<b>9,702</b>	<b>1.7</b>	<b>0</b>	<b>\$1,553</b>	<b>\$9,783</b>	<b>\$0</b>	<b>\$9,783</b>	<b>6.3</b>	<b>9,770</b>
ECM 4	Install VFDs on Constant Volume (CV) Fans	Yes	9,702	1.7	0	\$1,553	\$9,783	\$0	\$9,783	6.3	9,770
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>10</b>	<b>\$137</b>	<b>\$229</b>	<b>\$55</b>	<b>\$174</b>	<b>1.3</b>	<b>1,145</b>
ECM 5	Install Low-Flow DHW Devices	Yes	0	0.0	10	\$137	\$229	\$55	\$174	1.3	1,145
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>16,318</b>	<b>2.6</b>	<b>8</b>	<b>\$2,729</b>	<b>\$13,236</b>	<b>\$55</b>	<b>\$13,181</b>	<b>4.8</b>	<b>17,412</b>
<b>TOTALS (ALL MEASURES)</b>			<b>16,318</b>	<b>2.6</b>	<b>8</b>	<b>\$2,729</b>	<b>\$13,236</b>	<b>\$55</b>	<b>\$13,181</b>	<b>4.8</b>	<b>17,412</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).

# EMS STATION #4

#	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>7,811</b>	<b>2.1</b>	<b>-1</b>	<b>\$1,265</b>	<b>\$3,063</b>	<b>\$0</b>	<b>\$3,063</b>	<b>2.4</b>	<b>7,690</b>
ECM 1	Install LED Fixtures	Yes	324	0.0	0	\$53	\$206	\$0	\$206	3.9	326
ECM 2	Retrofit Fixtures with LED Lamps	Yes	5,443	1.9	-1	\$881	\$2,567	\$0	\$2,567	2.9	5,357
ECM 3	Install LED Exit Signs	Yes	2,044	0.2	0	\$330	\$290	\$0	\$290	0.9	2,007
<b>Lighting Control Measures</b>			<b>1,423</b>	<b>0.5</b>	<b>0</b>	<b>\$230</b>	<b>\$2,148</b>	<b>\$0</b>	<b>\$2,148</b>	<b>9.3</b>	<b>1,397</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	1,224	0.5	0	\$198	\$1,698	\$0	\$1,698	8.6	1,202
ECM 5	Install High/Low Lighting Controls	Yes	199	0.0	0	\$32	\$450	\$0	\$450	14.0	195
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>3</b>	<b>\$41</b>	<b>\$125</b>	<b>\$31</b>	<b>\$94</b>	<b>2.3</b>	<b>309</b>
ECM 6	Install Low-Flow DHW Devices	Yes	0	0.0	3	\$41	\$125	\$31	\$94	2.3	309
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>9,233</b>	<b>2.7</b>	<b>1</b>	<b>\$1,536</b>	<b>\$5,336</b>	<b>\$31</b>	<b>\$5,305</b>	<b>3.5</b>	<b>9,397</b>
<b>TOTALS (ALL MEASURES)</b>			<b>9,233</b>	<b>2.7</b>	<b>1</b>	<b>\$1,536</b>	<b>\$5,336</b>	<b>\$31</b>	<b>\$5,305</b>	<b>3.5</b>	<b>9,397</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).

# FIRE STATION #1

#	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>3,994</b>	<b>1.2</b>	<b>-1</b>	<b>\$654</b>	<b>\$1,609</b>	<b>\$0</b>	<b>\$1,609</b>	<b>2.5</b>	<b>3,943</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	3,994	1.2	-1	\$654	\$1,609	\$0	\$1,609	2.5	3,943
<b>Lighting Control Measures</b>			<b>1,260</b>	<b>0.4</b>	<b>0</b>	<b>\$205</b>	<b>\$2,340</b>	<b>\$0</b>	<b>\$2,340</b>	<b>11.4</b>	<b>1,237</b>
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	1,260	0.4	0	\$205	\$2,340	\$0	\$2,340	11.4	1,237
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>5</b>	<b>\$69</b>	<b>\$229</b>	<b>\$54</b>	<b>\$175</b>	<b>2.6</b>	<b>559</b>
ECM 3	Install Low-Flow DHW Devices	Yes	0	0.0	5	\$69	\$229	\$54	\$175	2.6	559
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>5,254</b>	<b>1.6</b>	<b>4</b>	<b>\$928</b>	<b>\$4,178</b>	<b>\$54</b>	<b>\$4,124</b>	<b>4.4</b>	<b>5,740</b>
<b>TOTALS (ALL MEASURES)</b>			<b>5,254</b>	<b>1.6</b>	<b>4</b>	<b>\$928</b>	<b>\$4,178</b>	<b>\$54</b>	<b>\$4,124</b>	<b>4.4</b>	<b>5,740</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).

# FIRE STATION/EMS DEPARTMENT #2

#	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>14,772</b>	<b>3.0</b>	<b>-3</b>	<b>\$2,437</b>	<b>\$4,225</b>	<b>\$0</b>	<b>\$4,225</b>	<b>1.7</b>	<b>14,518</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	12,218	2.8	-3	\$2,016	\$3,863	\$0	\$3,863	1.9	12,010
ECM 2	Install LED Exit Signs	Yes	2,554	0.2	-1	\$421	\$362	\$0	\$362	0.9	2,509
<b>Lighting Control Measures</b>			<b>3,026</b>	<b>0.7</b>	<b>-1</b>	<b>\$499</b>	<b>\$3,685</b>	<b>\$0</b>	<b>\$3,685</b>	<b>7.4</b>	<b>2,972</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	3,026	0.7	-1	\$499	\$3,685	\$0	\$3,685	7.4	2,972
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>17</b>	<b>\$234</b>	<b>\$465</b>	<b>\$109</b>	<b>\$356</b>	<b>1.5</b>	<b>1,984</b>
ECM 4	Install Low-Flow DHW Devices	Yes	0	0.0	17	\$234	\$465	\$109	\$356	1.5	1,984
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>17,799</b>	<b>3.7</b>	<b>13</b>	<b>\$3,170</b>	<b>\$8,375</b>	<b>\$109</b>	<b>\$8,266</b>	<b>2.6</b>	<b>19,475</b>
<b>TOTALS (ALL MEASURES)</b>			<b>17,799</b>	<b>3.7</b>	<b>13</b>	<b>\$3,170</b>	<b>\$8,375</b>	<b>\$109</b>	<b>\$8,266</b>	<b>2.6</b>	<b>19,475</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).

# FIRE STATION #3

#	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>6,845</b>	<b>2.2</b>	<b>-1</b>	<b>\$1,244</b>	<b>\$3,104</b>	<b>\$0</b>	<b>\$3,104</b>	<b>2.5</b>	<b>6,740</b>
ECM 1	Install LED Fixtures	Yes	307	0.0	0	\$57	\$232	\$0	\$232	4.1	309
ECM 2	Retrofit Fixtures with LED Lamps	Yes	2,451	1.8	0	\$446	\$2,293	\$0	\$2,293	5.1	2,418
ECM 3	Install LED Exit Signs	Yes	4,087	0.4	-1	\$741	\$579	\$0	\$579	0.8	4,014
<b>Lighting Control Measures</b>			<b>426</b>	<b>0.7</b>	<b>0</b>	<b>\$77</b>	<b>\$1,842</b>	<b>\$0</b>	<b>\$1,842</b>	<b>23.8</b>	<b>418</b>
ECM 4	Install Occupancy Sensor Lighting Controls	No	426	0.7	0	\$77	\$1,842	\$0	\$1,842	23.8	418
<b>HVAC System Improvements</b>			<b>439</b>	<b>0.0</b>	<b>14</b>	<b>\$275</b>	<b>\$389</b>	<b>\$60</b>	<b>\$329</b>	<b>1.2</b>	<b>2,040</b>
ECM 5	Install Pipe Insulation	Yes	439	0.0	14	\$275	\$389	\$60	\$329	1.2	2,040
<b>Domestic Water Heating Upgrade</b>			<b>1,227</b>	<b>0.0</b>	<b>0</b>	<b>\$226</b>	<b>\$147</b>	<b>\$0</b>	<b>\$147</b>	<b>0.6</b>	<b>1,236</b>
ECM 6	Install Low-Flow DHW Devices	Yes	1,227	0.0	0	\$226	\$147	\$0	\$147	0.6	1,236
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>8,511</b>	<b>2.2</b>	<b>12</b>	<b>\$1,745</b>	<b>\$3,640</b>	<b>\$60</b>	<b>\$3,580</b>	<b>2.1</b>	<b>10,017</b>
<b>TOTALS (ALL MEASURES)</b>			<b>8,937</b>	<b>2.9</b>	<b>12</b>	<b>\$1,823</b>	<b>\$5,482</b>	<b>\$60</b>	<b>\$5,422</b>	<b>3.0</b>	<b>10,435</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).



# FIRE STATION #4

#	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>4,544</b>	<b>1.4</b>	<b>-1</b>	<b>\$862</b>	<b>\$2,301</b>	<b>\$0</b>	<b>\$2,301</b>	<b>2.7</b>	<b>4,482</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	1,478	1.1	0	\$282	\$1,866	\$0	\$1,866	6.6	1,472
ECM 2	Install LED Exit Signs	Yes	3,065	0.3	-1	\$580	\$434	\$0	\$434	0.7	3,010
<b>Lighting Control Measures</b>			<b>551</b>	<b>0.5</b>	<b>0</b>	<b>\$104</b>	<b>\$1,532</b>	<b>\$0</b>	<b>\$1,532</b>	<b>14.7</b>	<b>541</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	551	0.5	0	\$104	\$1,532	\$0	\$1,532	14.7	541
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>4</b>	<b>\$59</b>	<b>\$214</b>	<b>\$45</b>	<b>\$170</b>	<b>2.9</b>	<b>432</b>
ECM 4	Install Low-Flow DHW Devices	Yes	0	0.0	4	\$59	\$214	\$45	\$170	2.9	432
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>5,095</b>	<b>1.9</b>	<b>3</b>	<b>\$1,026</b>	<b>\$4,047</b>	<b>\$45</b>	<b>\$4,002</b>	<b>3.9</b>	<b>5,456</b>
<b>TOTALS (ALL MEASURES)</b>			<b>5,095</b>	<b>1.9</b>	<b>3</b>	<b>\$1,026</b>	<b>\$4,047</b>	<b>\$45</b>	<b>\$4,002</b>	<b>3.9</b>	<b>5,456</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).

# FIRE STATION #5

#	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>2,048</b>	<b>1.3</b>	<b>0</b>	<b>\$411</b>	<b>\$1,545</b>	<b>\$0</b>	<b>\$1,545</b>	<b>3.8</b>	<b>2,011</b>
ECM 1	Retrofit Fixtures with LED Lamps	Yes	1,026	1.2	0	\$206	\$1,400	\$0	\$1,400	6.8	1,008
ECM 2	Install LED Exit Signs	Yes	1,022	0.1	0	\$205	\$145	\$0	\$145	0.7	1,003
<b>Lighting Control Measures</b>			<b>805</b>	<b>0.5</b>	<b>0</b>	<b>\$162</b>	<b>\$1,852</b>	<b>\$0</b>	<b>\$1,852</b>	<b>11.5</b>	<b>791</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	805	0.5	0	\$162	\$1,852	\$0	\$1,852	11.5	791
<b>HVAC System Improvements</b>			<b>188</b>	<b>0.0</b>	<b>0</b>	<b>\$38</b>	<b>\$58</b>	<b>\$0</b>	<b>\$58</b>	<b>1.5</b>	<b>189</b>
ECM 4	Install Pipe Insulation	Yes	188	0.0	0	\$38	\$58	\$0	\$58	1.5	189
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>2</b>	<b>\$38</b>	<b>\$118</b>	<b>\$28</b>	<b>\$90</b>	<b>2.3</b>	<b>291</b>
ECM 5	Install Low-Flow DHW Devices	Yes	0	0.0	2	\$38	\$118	\$28	\$90	2.3	291
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>3,042</b>	<b>1.8</b>	<b>2</b>	<b>\$649</b>	<b>\$3,572</b>	<b>\$28</b>	<b>\$3,545</b>	<b>5.5</b>	<b>3,283</b>
<b>TOTALS (ALL MEASURES)</b>			<b>3,042</b>	<b>1.8</b>	<b>2</b>	<b>\$649</b>	<b>\$3,572</b>	<b>\$28</b>	<b>\$3,545</b>	<b>5.5</b>	<b>3,283</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).

# 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***

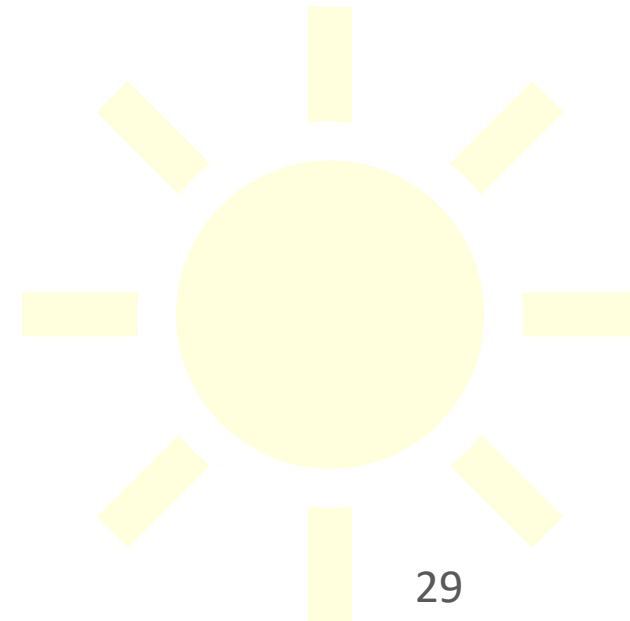
# MEASURES FOR FUTURE CONSIDERATION

- Installation of an Energy Management System

# SOLAR ENERGY GENERATION POTENTIAL

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

	City Hall	Police Station
<i>Potential:</i>	<b>High</b>	<b>High</b>
<i>System Potential: (kW)</i>	107	107
<i>Electric Generation: (kWh per year)</i>	80,512	127,477
<i>Displaced Cost: (per year)</i>	\$11,440	\$18,920

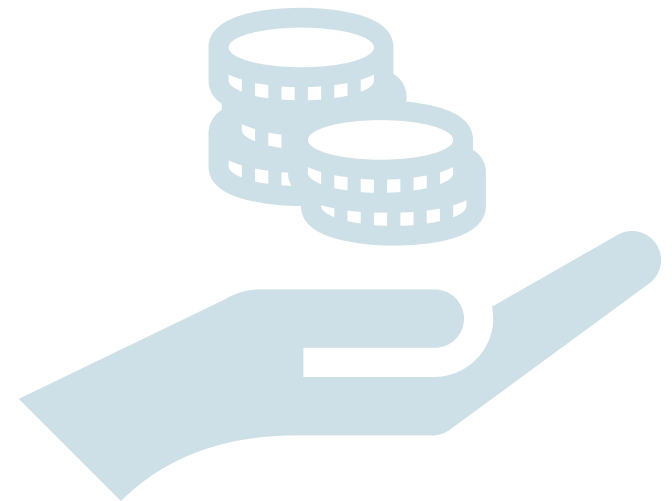


# FINANCING MECHANISM: ESIP

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

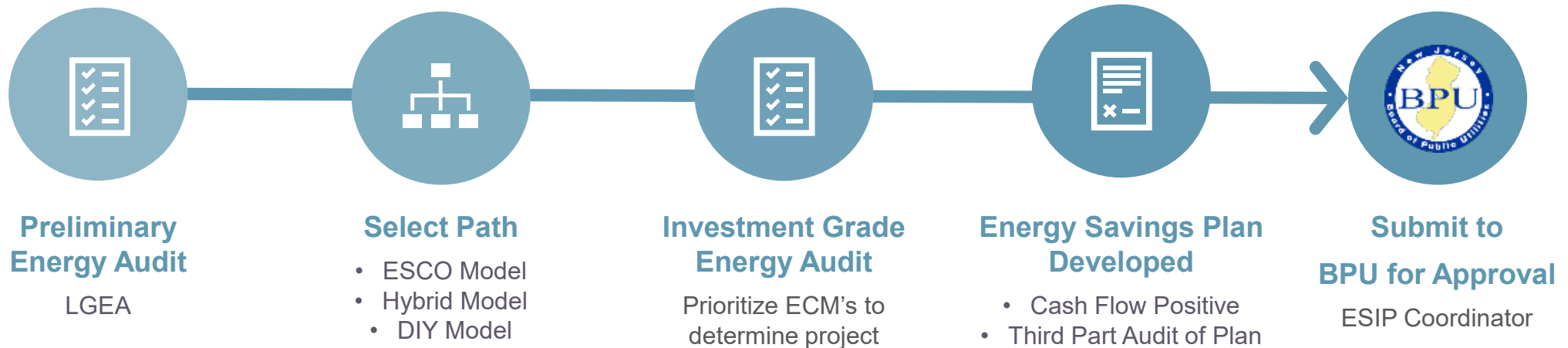
## ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

- 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/ESIP



# ENERGY SAVINGS IMPROVEMENT PROGRAM

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



# 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

## South Jersey Gas

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THANK YOU

