

# *LGEA Presentation*

## *Ocean County Mosquito Extermination Commission*

October 25, 2022



New Jersey's  
Clean Energy Program

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

# INTRODUCTIONS

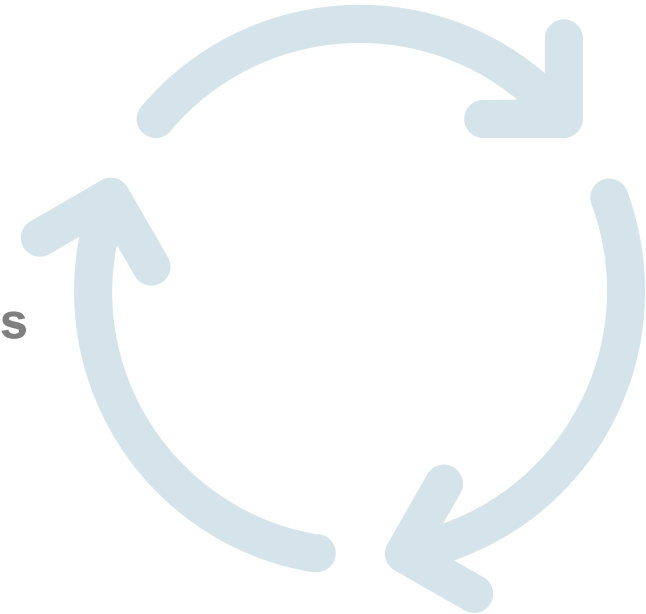
- Ocean County Mosquito Extermination Commission
  - Michael Senyk - Superintendent
  - Joseph Schmidt – Assistant Superintendent
- *NJ Clean Energy Program*
  - Sarah Walters – LGEA Project Manager
  - Moussa Traore – LGEA Lead Auditor
  - Nick Nocco – LGEA Project Auditor
  - Meredith Coley – LGEA Account Manager

# AGENDA

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

# LGEA PROCESS

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

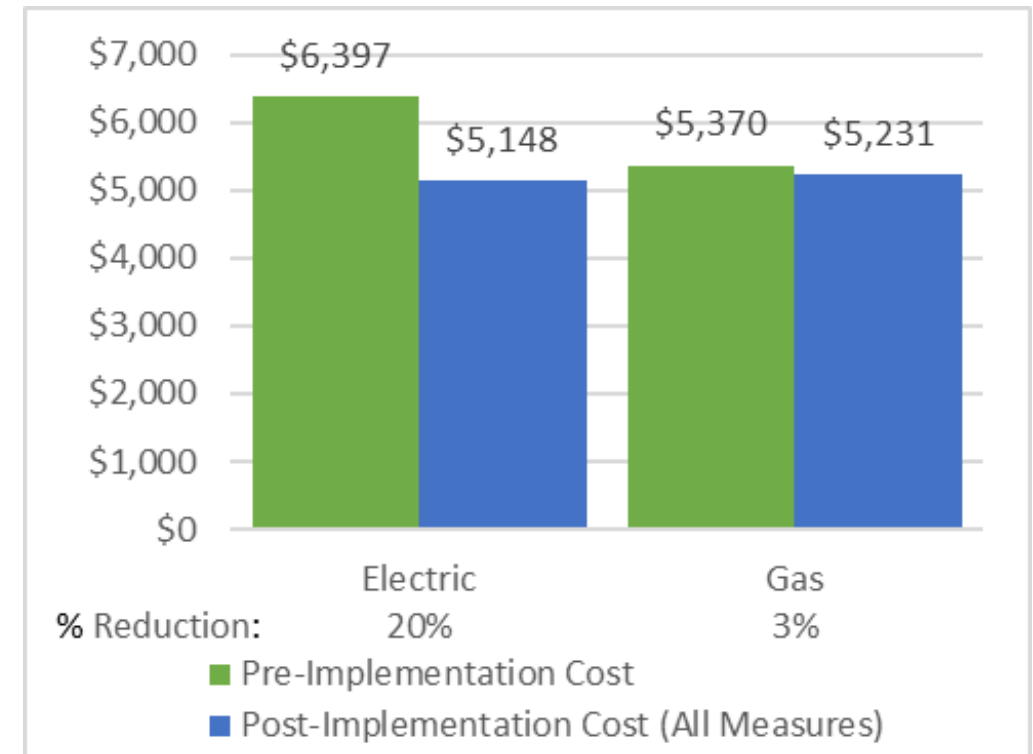


# UTILITY BREAKOUT


Total Annual Energy Costs



Pre & Post Implementation Cost



# BENCHMARKING

 **ENERGY STAR® Statement of Energy Performance**  
LEARN MORE AT [energystar.gov](http://energystar.gov)

**N/A** **Ocean County Mosquito Extermination Commission (Campus)**  
Primary Property Type: Other - Public Services  
Gross Floor Area (ft²): 9,225  
Built: 1940  
For Year Ending: April 30, 2022  
Date Generated: August 22, 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, assessing for climate and business activity.

Property & Contact Information		
<b>Property Address</b> Ocean County Mosquito Extermination Commission (Campus) 784 West Bay Avenue Barnegat, New Jersey 08050	<b>Property Owner</b> Ocean County Mosquito Extermination Commission 784 West Bay Avenue P.O. Box 327 Barnegat, NJ 08005 (609) 698-8271	<b>Primary Contact</b> Mara Senyk 784 West Bay Avenue P.O. Box 327 Barnegat, NJ 08005 (609) 698-8271 msmosquito@comcast.net
Property ID: 21739423		

Energy Consumption and Energy Use Intensity (EUI)		
<b>Site EUI</b> 41.3 kBtu/ft²	<b>Annual Energy by Fuel</b> Electric - Grid (kBtu) 109,050 (29%) Natural Gas (kBtu) 271,860 (71%)	<b>National Median Comparison</b> National Median Site EUI (kBtu/ft²) 57.6 National Median Source EUI (kBtu/ft²) 89.3 % Diff from National Median Source EUI -28%
<b>Source EUI</b> 64 kBtu/ft²	<b>Annual Emissions</b> Greenhouse Gas Emissions (Metric Tons CO2e/year) 25	

**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**  
41.3 kBtu/ft²  
**Source EUI**  
64 kBtu/ft²

**National Median Comparison**  
National Median Site EUI (kBtu/ft²) 57.6  
National Median Source EUI (kBtu/ft²) 89.3  
% Diff from National Median Source EUI -28%

Site Name	ENERGY STAR® Score
Ocean County Mosquito Extermination Commission – Main Campus	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.

# OCEAN COUNTY MOSQUITO EXTERMINATION COMMISSION

## Overview of Systems, Baseline &

### Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment

### Utility Consumption:

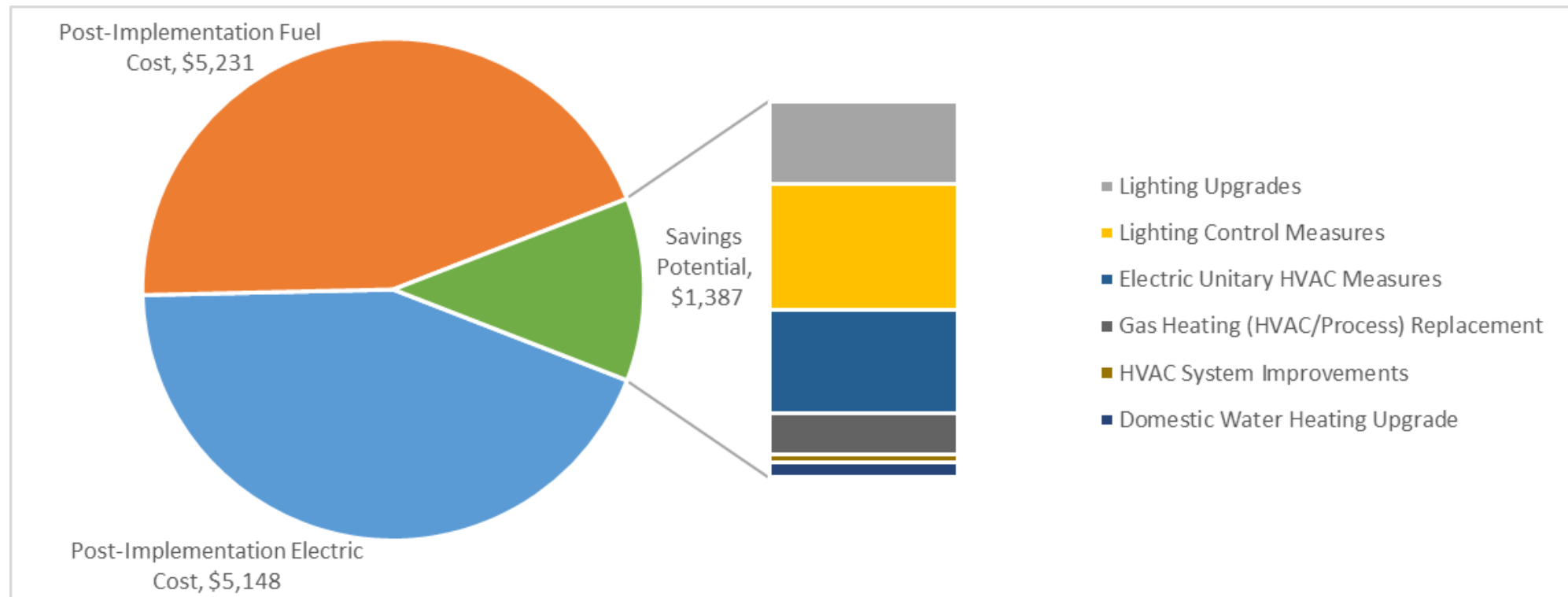
- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## Buildings Visited/Analyzed

- Main Office
- Heliport
- Boat Building
- Garage
- Pole Barn
- Pesticide Shed

# ALL OPPORTUNITIES

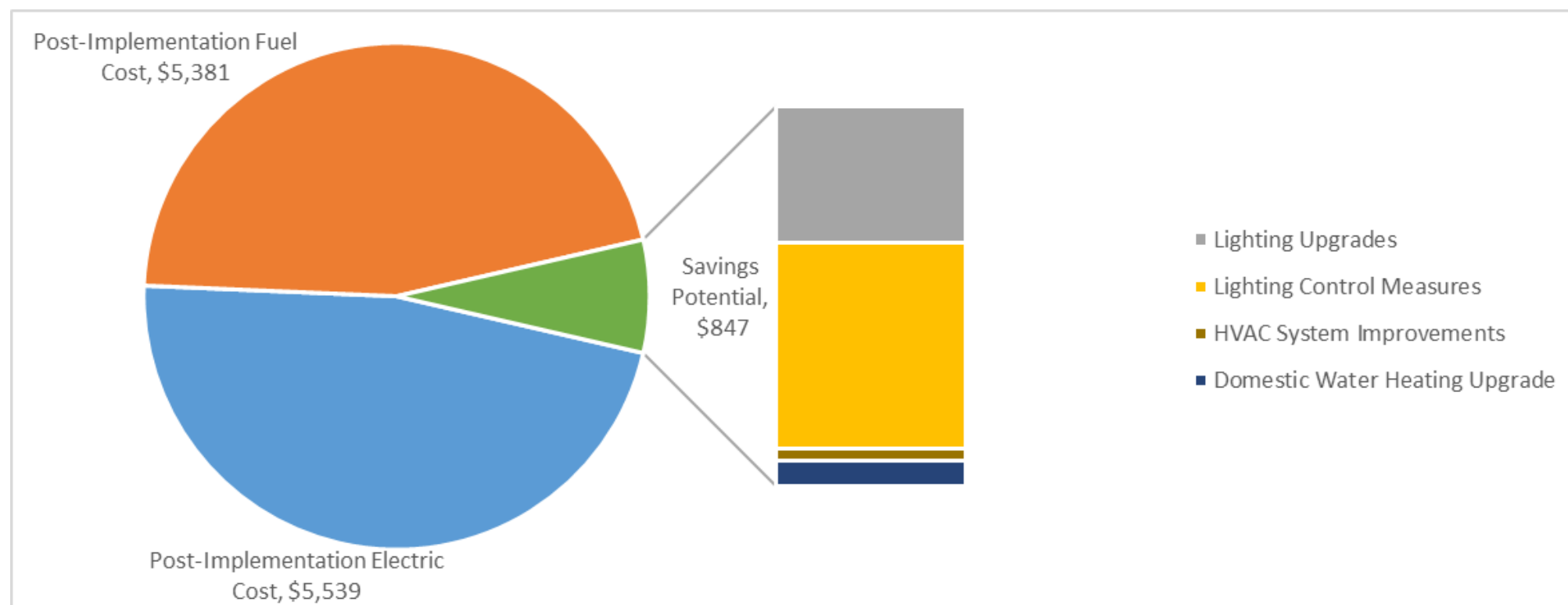
## Savings Potential





# COST EFFECTIVE OPPORTUNITIES

## Savings Potential



# OCEAN COUNTY MOSQUITO EXTERMINATION COMMISSION

#	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>1,531</b>	<b>0.2</b>	<b>0</b>	<b>\$304</b>	<b>\$898</b>	<b>\$124</b>	<b>\$774</b>	<b>2.5</b>	<b>1,535</b>
ECM 1	Install LED Fixtures	Yes	1,148	0.0	0	\$229	\$692	\$100	\$592	2.6	1,156
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	99	0.1	0	\$19	\$138	\$20	\$118	6.1	98
ECM 3	Retrofit Fixtures with LED Lamps	Yes	284	0.1	0	\$56	\$69	\$4	\$65	1.2	281
<b>Lighting Control Measures</b>			<b>2,390</b>	<b>1.1</b>	<b>-1</b>	<b>\$467</b>	<b>\$5,201</b>	<b>\$650</b>	<b>\$4,551</b>	<b>9.7</b>	<b>2,347</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	2,344	1.1	0	\$458	\$4,976	\$580	\$4,396	9.6	2,302
ECM 5	Install High/Low Lighting Controls	No	47	0.0	0	\$9	\$225	\$70	\$155	17.0	46
<b>Unitary HVAC Measures</b>			<b>1,911</b>	<b>1.2</b>	<b>0</b>	<b>\$381</b>	<b>\$7,012</b>	<b>\$525</b>	<b>\$6,487</b>	<b>17.0</b>	<b>1,924</b>
ECM 6	Install High Efficiency Air Conditioning Units	No	1,911	1.2	0	\$381	\$7,012	\$525	\$6,487	17.0	1,924
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>8</b>	<b>\$150</b>	<b>\$5,830</b>	<b>\$500</b>	<b>\$5,330</b>	<b>35.6</b>	<b>882</b>
ECM 7	Install High Efficiency Furnaces	No	0	0.0	8	\$150	\$5,830	\$500	\$5,330	35.6	882
<b>HVAC System Improvements</b>			<b>148</b>	<b>0.0</b>	<b>0</b>	<b>\$30</b>	<b>\$35</b>	<b>\$12</b>	<b>\$23</b>	<b>0.8</b>	<b>149</b>
ECM 8	Install Pipe Insulation	Yes	148	0.0	0	\$30	\$35	\$12	\$23	0.8	149
<b>Domestic Water Heating Upgrade</b>			<b>278</b>	<b>0.0</b>	<b>0</b>	<b>\$55</b>	<b>\$14</b>	<b>\$7</b>	<b>\$7</b>	<b>0.1</b>	<b>280</b>
ECM 9	Install Low-Flow DHW Devices	Yes	278	0.0	0	\$55	\$14	\$7	\$7	0.1	280
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>4,301</b>	<b>1.3</b>	<b>-1</b>	<b>\$847</b>	<b>\$5,923</b>	<b>\$723</b>	<b>\$5,200</b>	<b>6.1</b>	<b>4,266</b>
<b>TOTALS (ALL MEASURES)</b>			<b>6,259</b>	<b>2.5</b>	<b>7</b>	<b>\$1,387</b>	<b>\$18,991</b>	<b>\$1,818</b>	<b>\$17,173</b>	<b>12.4</b>	<b>7,118</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

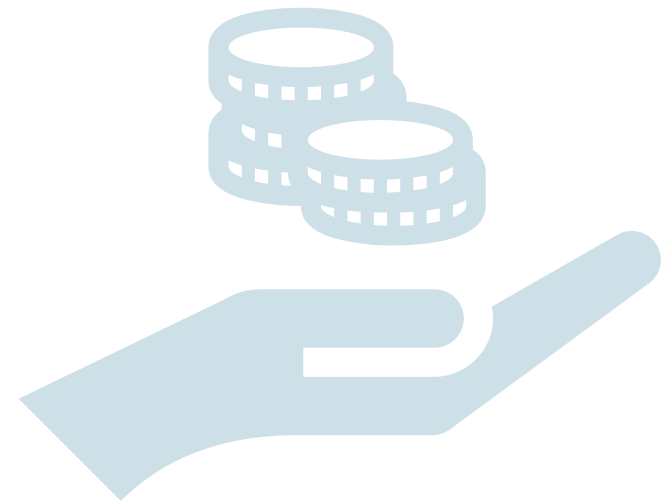
***See individual reports for specific EE practices by building***

# FINANCING MECHANISM: ESIP

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

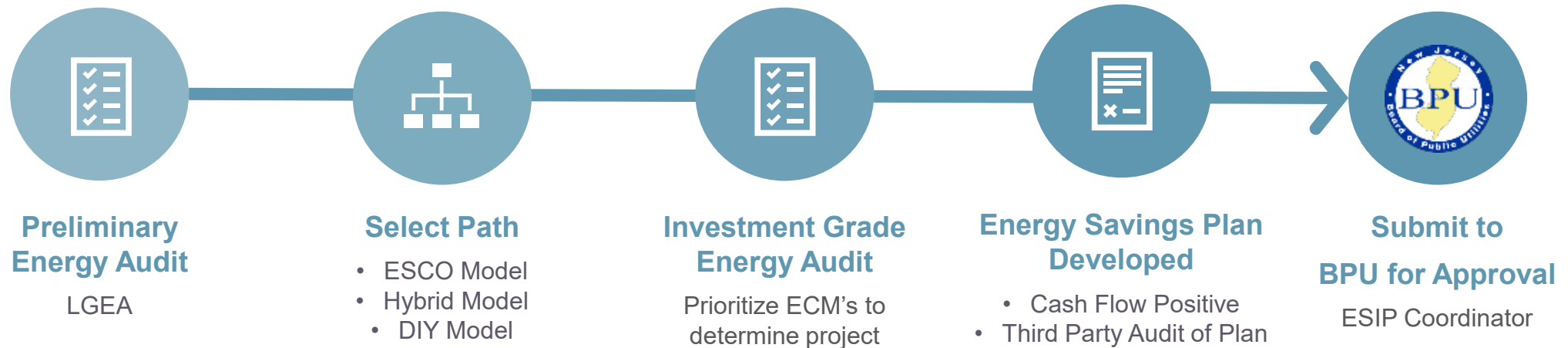
## ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

- 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



# 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

## JCP&L

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THANK YOU

