

# New Jersey's Clean Energy Program

LGEA Exit Meeting for:  
*Delaware River & Bay Authority*

February 7, 2020



# INTRODUCTIONS

## *Delaware River & Bay Authority*

- Jeff Foster: EHS Specialist
- Albert Fralinger: Environmental Compliance and Safety Manager
- Silvana Dominioni: Director of EHS

## *NJ Clean Energy Program*

- Yagna Otia – TRC Auditor
- Amanda Muench– TRC Account Manager
- Tony O'Donnell – TRC Outreach Manager



# AGENDA

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified
- Questions regarding the draft audit report
- Overview of NJCEP equipment incentives
- Next steps for Delaware River & Bay Authority



# LGEA PROCESS

- Application Approval
- Scheduling Call
- Audit
- Benchmarking & Analysis
- Draft Report
- Exit Meeting Presentation
- Final Report



# SITE VISIT & UTILITY ANALYSIS

## Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment
- Kitchen Equipment

## Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

## Sites Visited/Analyzed

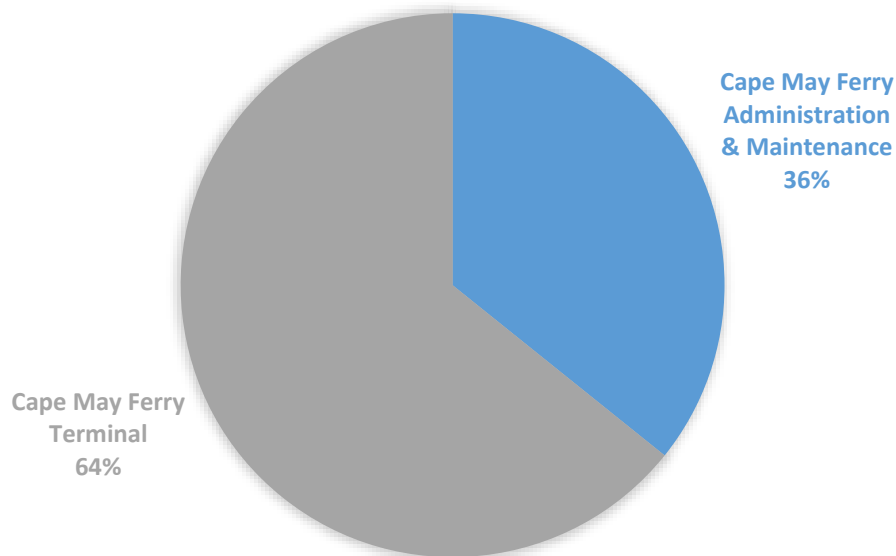
- Cape May Ferry Terminal
- Cape May Ferry Admin. Office



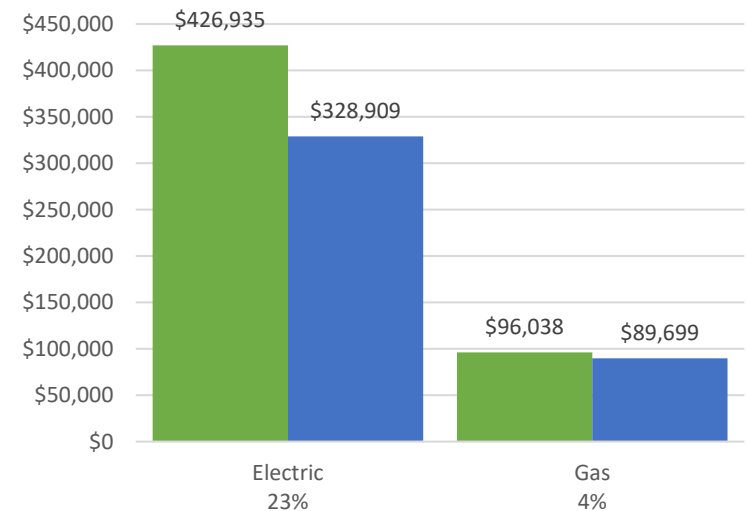
# UTILITY BREAKOUT

## Percent of Total Annual Energy Costs

### PERCENT OF TOTAL ANNUAL ENERGY COSTS



## Pre & Post Implementation Cost



% Reduction:

■ Pre-Implementation Cost    ■ Post-Implementation Cost

# BENCHMARKING


ENERGY STAR® Statement of Energy Performance

N/A

**Cape May Ferry Terminal**

Primary Property Type: Transportation Terminal/Station  
 Gross Floor Area (ft²): 45,000  
 Built: 2001

For Year Ending: February 28, 2019  
 Date Generated: October 16, 2019

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> Cape May Ferry Terminal 1200 Lincoln Boulevard North Cape May, Delaware 08204	<b>Property Owner</b> Delaware River and Bay Authority PO Box 71 New Castle, DE 19720 ( ) - ( )	<b>Primary Contact</b> Jeffrey Foster PO Box 71 New Castle, DE 19720 3025716447 AHubbard@troocompanies.com
Property ID: 8153872		

Energy Consumption and Energy Use Intensity (EUI)		
<b>Site EUI</b>	<b>Annual Energy Intensity</b>	<b>National Median Comparison</b>
294.8 kBtu/ft²	Electric - Gas (kBtu) 7,978,791 (60%) Natural Gas (kBtu) 5,289,587 (40%)	National Median Site EUI (kBtu/ft²) 53.3 National Median Source EUI (kBtu/ft²) 112 % Diff from National Median Source EUI 453%
<b>Source EUI</b>	<b>Annual Emissions</b>	
619.9 kBtu/ft²	Greenhouse Gas Emissions (Metric Tons CO2e/year) 1,089	

**Signature & Stamp of Verifying Professional**

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

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

Licensed Professional

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

Professional Engineer Stamp  
 (if applicable)

**Site EUI**  
294.8 kBtu/ft²

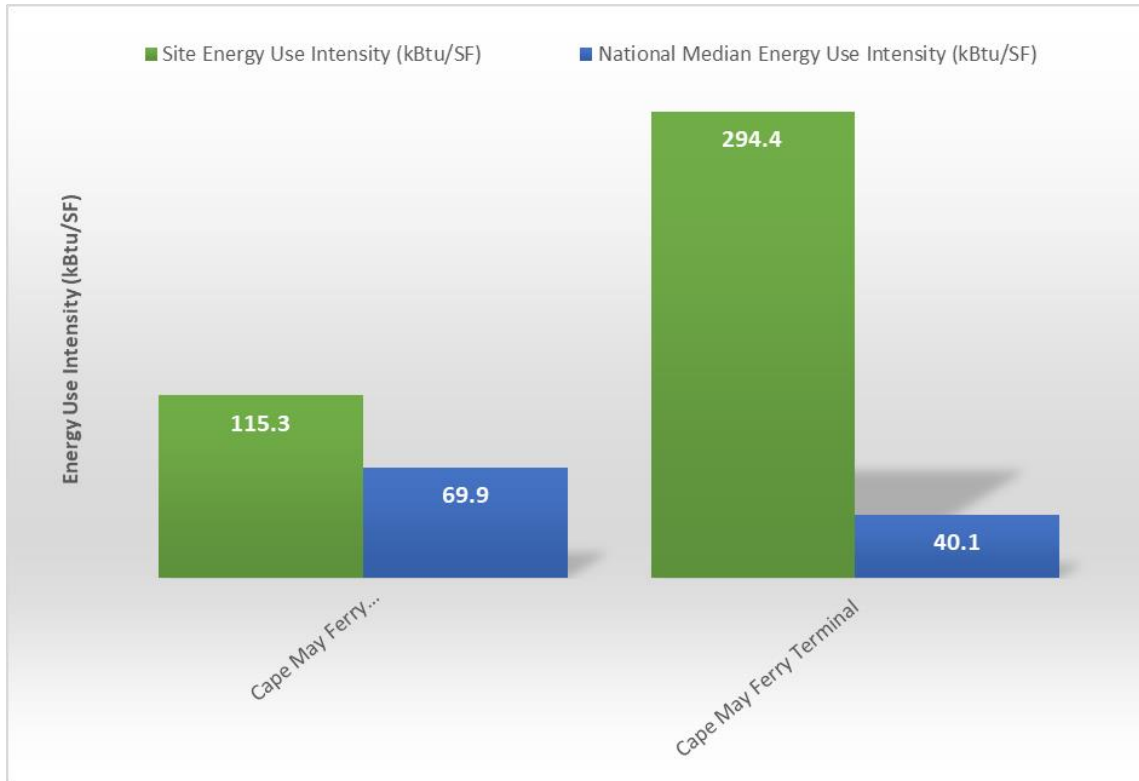
**Source EUI**  
619.9 kBtu/ft²

**National Median Comparison**

National Median Site EUI (kBtu/ft²)	53.3
National Median Source EUI (kBtu/ft²)	112
% Diff from National Median Source EUI	453%

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

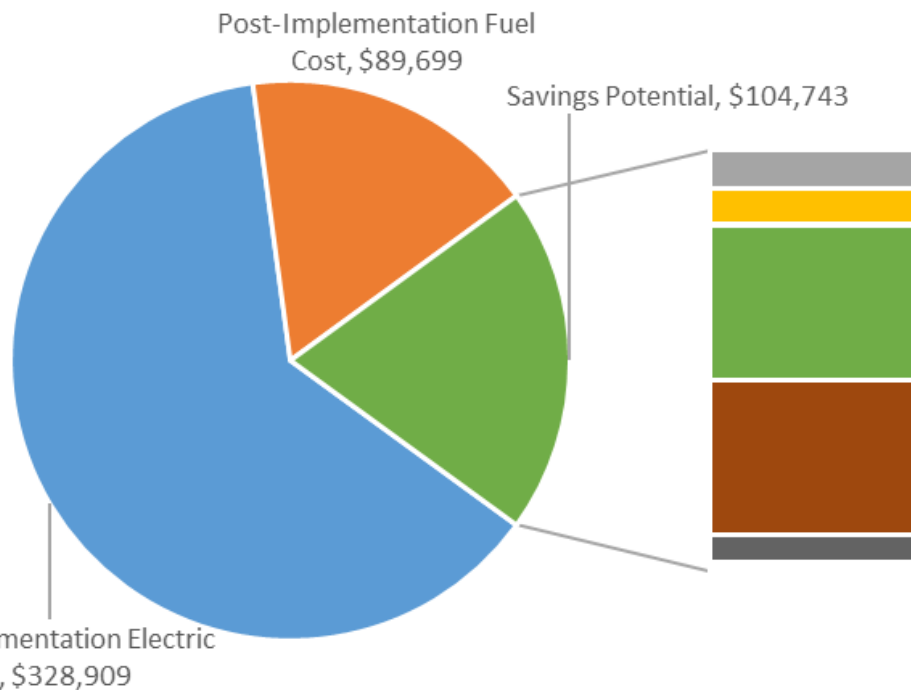


Site Name
Cape May Ferry Administration & Maintenance
Cape May Ferry Terminal



# ALL OPPORTUNITIES

## Savings Potential



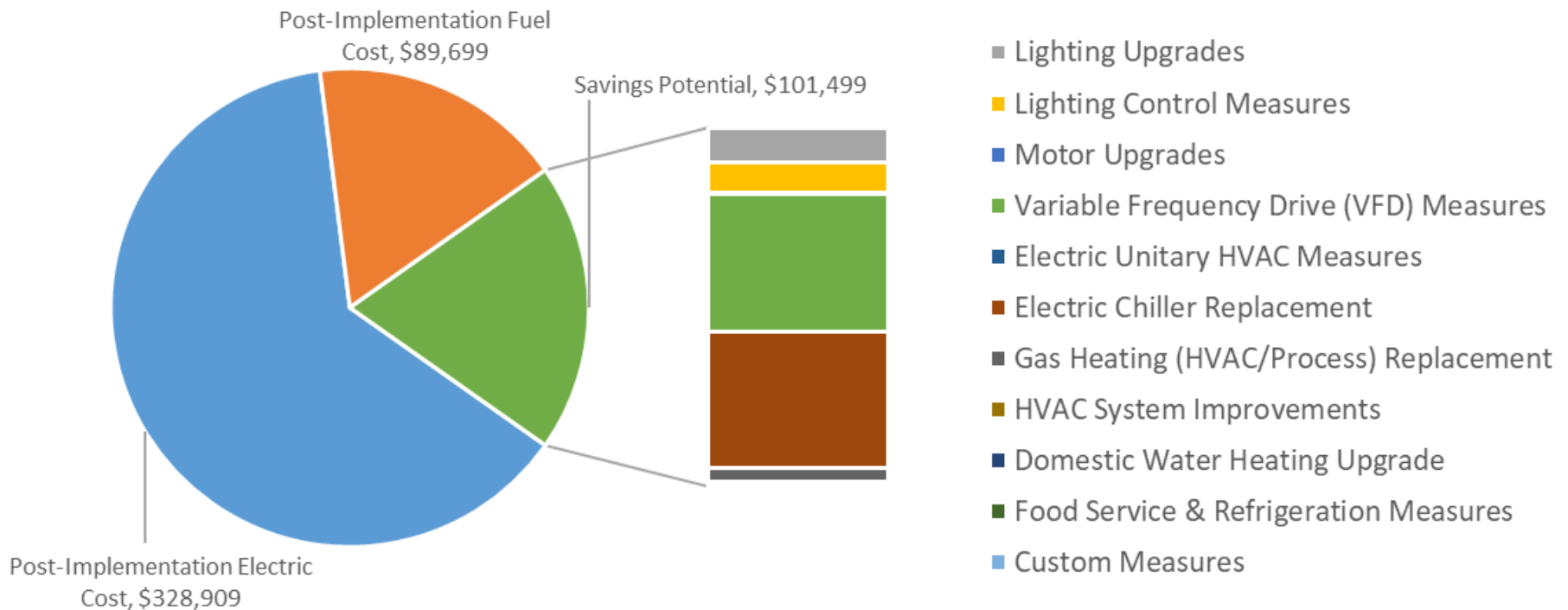
- Lighting Upgrades
- Lighting Control Measures
- Motor Upgrades
- Variable Frequency Drive (VFD) Measures
- Electric Unitary HVAC Measures
- Electric Chiller Replacement
- Gas Heating (HVAC/Process) Replacement
- HVAC System Improvements
- Domestic Water Heating Upgrade
- Food Service & Refrigeration Measures
- Custom Measures

# ALL OPPORTUNITIES

#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>84,568</b>	<b>10.2</b>	<b>-16.8</b>	<b>\$9,688</b>	<b>\$22,184</b>	<b>\$2,971</b>	<b>\$19,213</b>	<b>2.0</b>	<b>83,193</b>
ECM 1	Install LED Fixtures	10,759	1.0	-1.6	\$1,243	\$15,268	\$1,910	\$13,358	10.7	10,646
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	5,458	0.7	-1.2	\$616	\$1,044	\$148	\$896	1.5	5,360
ECM 3	Retrofit Fixtures with LED Lamps	68,351	8.5	-14.0	\$7,829	\$5,872	\$913	\$4,959	0.6	67,187
<b>Lighting Control Measures</b>		<b>75,533</b>	<b>9.1</b>	<b>-16.1</b>	<b>\$8,538</b>	<b>\$38,489</b>	<b>\$5,805</b>	<b>\$32,684</b>	<b>3.8</b>	<b>74,177</b>
ECM 4	Install Occupancy Sensor Lighting Controls	69,487	8.4	-14.8	\$7,852	\$32,864	\$3,430	\$29,434	3.7	68,240
ECM 5	Install High/Low Lighting Controls	6,046	0.8	-1.3	\$685	\$5,625	\$2,375	\$3,250	4.7	5,937
<b>Motor Upgrades</b>		<b>5,430</b>	<b>0.6</b>	<b>0.0</b>	<b>\$638</b>	<b>\$4,943</b>	<b>\$0</b>	<b>\$4,943</b>	<b>7.7</b>	<b>5,468</b>
ECM 6	Premium Efficiency Motors	5,430	0.6	0.0	\$638	\$4,943	\$0	\$4,943	7.7	5,468
<b>Variable Frequency Drive (VFD) Measures</b>		<b>331,409</b>	<b>44.0</b>	<b>0.0</b>	<b>\$38,622</b>	<b>\$94,689</b>	<b>\$9,600</b>	<b>\$85,089</b>	<b>2.2</b>	<b>333,727</b>
ECM 7	Install VFD on Variable Air Volume (VAV) Fans	232,749	33.7	0.0	\$27,114	\$55,627	\$9,600	\$46,027	1.7	234,376
ECM 8	Install VFDs on Chilled Water Pumps	44,827	6.1	0.0	\$5,243	\$18,455	\$0	\$18,455	3.5	45,141
ECM 9	Install VFDs on Heating Water Pumps	53,833	4.3	0.0	\$6,265	\$20,606	\$0	\$20,606	3.3	54,210
<b>Electric Chiller Replacement</b>		<b>328,125</b>	<b>81.4</b>	<b>0.0</b>	<b>\$38,567</b>	<b>\$291,400</b>	<b>\$15,074</b>	<b>\$276,326</b>	<b>7.2</b>	<b>330,420</b>
ECM 10	Install High Efficiency Chillers	328,125	81.4	0.0	\$38,567	\$291,400	\$15,074	\$276,326	7.2	330,420
<b>Gas Heating (HVAC/Process) Replacement</b>		<b>0</b>	<b>0.0</b>	<b>562.3</b>	<b>\$6,670</b>	<b>\$137,440</b>	<b>\$11,368</b>	<b>\$126,072</b>	<b>18.9</b>	<b>65,842</b>
ECM 11	Install High Efficiency Hot Water Boilers	0	0.0	562.3	\$6,670	\$137,440	\$11,368	\$126,072	18.9	65,842
<b>Domestic Water Heating Upgrade</b>		<b>4,854</b>	<b>0.0</b>	<b>6.1</b>	<b>\$628</b>	<b>\$801</b>	<b>\$238</b>	<b>\$563</b>	<b>0.9</b>	<b>5,607</b>
ECM 12	Install Low-Flow DHW Devices	4,854	0.0	6.1	\$628	\$801	\$238	\$563	0.9	5,607
<b>Food Service &amp; Refrigeration Measures</b>		<b>11,989</b>	<b>0.8</b>	<b>0.0</b>	<b>\$1,392</b>	<b>\$11,212</b>	<b>\$860</b>	<b>\$10,352</b>	<b>7.4</b>	<b>12,073</b>
ECM 13	Refrigerator/Freezer Case Electrically Commutated Motors	4,111	0.5	0.0	\$478	\$2,730	\$360	\$2,370	5.0	4,140
ECM 14	Refrigeration Controls	6,266	0.1	0.0	\$729	\$8,252	\$450	\$7,802	10.7	6,310
ECM 15	Vending Machine Control	1,612	0.2	0.0	\$185	\$230	\$50	\$180	1.0	1,623
<b>TOTALS</b>		<b>841,908</b>	<b>146.2</b>	<b>535.6</b>	<b>\$104,743</b>	<b>\$601,157</b>	<b>\$45,916</b>	<b>\$555,242</b>	<b>5.3</b>	<b>910,506</b>

# 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 Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>84,568</b>	<b>10.2</b>	<b>-16.8</b>	<b>\$9,688</b>	<b>\$22,184</b>	<b>\$2,971</b>	<b>\$19,213</b>	<b>2.0</b>	<b>83,193</b>
ECM 1	Install LED Fixtures	10,759	1.0	-1.6	\$1,243	\$15,268	\$1,910	\$13,358	10.7	10,646
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	5,458	0.7	-1.2	\$616	\$1,044	\$148	\$896	1.5	5,360
ECM 3	Retrofit Fixtures with LED Lamps	68,351	8.5	-14.0	\$7,829	\$5,872	\$913	\$4,959	0.6	67,187
<b>Lighting Control Measures</b>		<b>75,533</b>	<b>9.1</b>	<b>-16.1</b>	<b>\$8,538</b>	<b>\$38,489</b>	<b>\$5,805</b>	<b>\$32,684</b>	<b>3.8</b>	<b>74,177</b>
ECM 4	Install Occupancy Sensor Lighting Controls	69,487	8.4	-14.8	\$7,852	\$32,864	\$3,430	\$29,434	3.7	68,240
ECM 5	Install High/Low Lighting Controls	6,046	0.8	-1.3	\$685	\$5,625	\$2,375	\$3,250	4.7	5,937
<b>Motor Upgrades</b>		<b>5,430</b>	<b>0.6</b>	<b>0.0</b>	<b>\$638</b>	<b>\$4,943</b>	<b>\$0</b>	<b>\$4,943</b>	<b>7.7</b>	<b>5,468</b>
ECM 6	Premium Efficiency Motors	5,430	0.6	0.0	\$638	\$4,943	\$0	\$4,943	7.7	5,468
<b>Variable Frequency Drive (VFD) Measures</b>		<b>331,409</b>	<b>44.0</b>	<b>0.0</b>	<b>\$38,622</b>	<b>\$94,689</b>	<b>\$9,600</b>	<b>\$85,089</b>	<b>2.2</b>	<b>333,727</b>
ECM 7	Install VFD on Variable Air Volume (VAV) Fans	232,749	33.7	0.0	\$27,114	\$55,627	\$9,600	\$46,027	1.7	234,376
ECM 8	Install VFDs on Chilled Water Pumps	44,827	6.1	0.0	\$5,243	\$18,455	\$0	\$18,455	3.5	45,141
ECM 9	Install VFDs on Heating Water Pumps	53,833	4.3	0.0	\$6,265	\$20,606	\$0	\$20,606	3.3	54,210
<b>Electric Chiller Replacement</b>		<b>328,125</b>	<b>81.4</b>	<b>0.0</b>	<b>\$38,567</b>	<b>\$291,400</b>	<b>\$15,074</b>	<b>\$276,326</b>	<b>7.2</b>	<b>330,420</b>
ECM 10	Install High Efficiency Chillers	328,125	81.4	0.0	\$38,567	\$291,400	\$15,074	\$276,326	7.2	330,420
<b>Gas Heating (HVAC/Process) Replacement</b>		<b>0</b>	<b>0.0</b>	<b>324.5</b>	<b>\$3,864</b>	<b>\$65,748</b>	<b>\$5,344</b>	<b>\$60,405</b>	<b>15.6</b>	<b>37,995</b>
ECM 11	Install High Efficiency Hot Water Boilers	0	0.0	324.5	\$3,864	\$65,748	\$5,344	\$60,405	15.6	37,995
<b>Domestic Water Heating Upgrade</b>		<b>4,854</b>	<b>0.0</b>	<b>6.1</b>	<b>\$628</b>	<b>\$801</b>	<b>\$238</b>	<b>\$563</b>	<b>0.9</b>	<b>5,607</b>
ECM 12	Install Low-Flow DHW Devices	4,854	0.0	6.1	\$628	\$801	\$238	\$563	0.9	5,607
<b>Food Service &amp; Refrigeration Measures</b>		<b>8,262</b>	<b>0.7</b>	<b>0.0</b>	<b>\$954</b>	<b>\$5,152</b>	<b>\$535</b>	<b>\$4,617</b>	<b>4.8</b>	<b>8,320</b>
ECM 13	Refrigerator/Freezer Case Electrically Commutated Motors	4,111	0.5	0.0	\$478	\$2,730	\$360	\$2,370	5.0	4,140
ECM 14	Refrigeration Controls	2,539	0.0	0.0	\$291	\$2,193	\$125	\$2,068	7.1	2,557
ECM 15	Vending Machine Control	1,612	0.2	0.0	\$185	\$230	\$50	\$180	1.0	1,623
<b>TOTALS</b>		<b>838,182</b>	<b>146.1</b>	<b>297.8</b>	<b>\$101,499</b>	<b>\$523,406</b>	<b>\$39,567</b>	<b>\$483,840</b>	<b>4.8</b>	<b>878,906</b>



# CAPE MAY FERRY TERMINAL

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>66,773</b>	<b>8.2</b>	<b>-13</b>	<b>\$7,693</b>	<b>\$16,776</b>	<b>\$2,153</b>	<b>\$14,623</b>	<b>1.9</b>	<b>65,695</b>
ECM 1	Install LED Fixtures	Yes	9,885	1.0	-2	\$1,143	\$12,370	\$1,610	\$10,760	9.4	9,766
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,544	0.2	0	\$178	\$326	\$50	\$276	1.6	1,516
ECM 3	Retrofit Fixtures with LED Lamps	Yes	55,344	7.0	-11	\$6,372	\$4,080	\$493	\$3,587	0.6	54,413
<b>Lighting Control Measures</b>			<b>26,044</b>	<b>3.4</b>	<b>-6</b>	<b>\$2,996</b>	<b>\$15,937</b>	<b>\$3,180</b>	<b>\$12,757</b>	<b>4.3</b>	<b>25,577</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	23,302	3.1	-5	\$2,680	\$12,112	\$1,400	\$10,712	4.0	22,884
ECM 5	Install High/Low Lighting Controls	Yes	2,742	0.4	-1	\$315	\$3,825	\$1,780	\$2,045	6.5	2,693
<b>Motor Upgrades</b>			<b>5,430</b>	<b>0.6</b>	<b>0</b>	<b>\$638</b>	<b>\$4,943</b>	<b>\$0</b>	<b>\$4,943</b>	<b>7.7</b>	<b>5,468</b>
ECM 6	Premium Efficiency Motors	Yes	5,430	0.6	0	\$638	\$4,943	\$0	\$4,943	7.7	5,468
<b>Variable Frequency Drive (VFD) Measures</b>			<b>221,726</b>	<b>28.5</b>	<b>0</b>	<b>\$26,061</b>	<b>\$54,291</b>	<b>\$5,975</b>	<b>\$48,316</b>	<b>1.9</b>	<b>223,276</b>
ECM 7	Install VFD on Variable Air Volume (VAV) Fans	Yes	152,225	22.2	0	\$17,892	\$33,685	\$5,975	\$27,710	1.5	153,290
ECM 8	Install VFDs on Chilled Water Pumps	Yes	36,307	4.1	0	\$4,267	\$10,303	\$0	\$10,303	2.4	36,561
ECM 9	Install VFDs on Heating Water Pumps	Yes	33,193	2.1	0	\$3,901	\$10,303	\$0	\$10,303	2.6	33,426
<b>Electric Chiller Replacement</b>			<b>328,125</b>	<b>81.4</b>	<b>0</b>	<b>\$38,567</b>	<b>\$291,400</b>	<b>\$15,074</b>	<b>\$276,326</b>	<b>7.2</b>	<b>330,420</b>
ECM 10	Install High Efficiency Chillers	Yes	328,125	81.4	0	\$38,567	\$291,400	\$15,074	\$276,326	7.2	330,420
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>238</b>	<b>\$2,806</b>	<b>\$71,692</b>	<b>\$6,024</b>	<b>\$65,668</b>	<b>23.4</b>	<b>27,848</b>
ECM 11	Install High Efficiency Hot Water Boilers	No	0	0.0	238	\$2,806	\$71,692	\$6,024	\$65,668	23.4	27,848
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>6</b>	<b>\$72</b>	<b>\$79</b>	<b>\$44</b>	<b>\$35</b>	<b>0.5</b>	<b>719</b>
ECM 12	Install Low-Flow DHW Devices	Yes	0	0.0	6	\$72	\$79	\$44	\$35	0.5	719
<b>Food Service &amp; Refrigeration Measures</b>			<b>6,231</b>	<b>0.4</b>	<b>0</b>	<b>\$732</b>	<b>\$7,272</b>	<b>\$485</b>	<b>\$6,787</b>	<b>9.3</b>	<b>6,275</b>
ECM 13	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	2,505	0.3	0	\$294	\$1,213	\$160	\$1,053	3.6	2,522
ECM 14	Refrigeration Controls	No	3,727	0.1	0	\$438	\$6,059	\$325	\$5,734	13.1	3,753
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>650,603</b>	<b>122.5</b>	<b>-13</b>	<b>\$76,322</b>	<b>\$384,639</b>	<b>\$26,586</b>	<b>\$358,053</b>	<b>4.7</b>	<b>653,676</b>
<b>TOTALS (ALL MEASURES)</b>			<b>654,329</b>	<b>122.6</b>	<b>225</b>	<b>\$79,566</b>	<b>\$462,390</b>	<b>\$32,935</b>	<b>\$429,455</b>	<b>5.4</b>	<b>685,277</b>

# CAPE MAY FERRY ADMIN. BLDG

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>17,795</b>	<b>2.0</b>	<b>-4</b>	<b>\$1,995</b>	<b>\$5,408</b>	<b>\$818</b>	<b>\$4,590</b>	<b>2.3</b>	<b>17,498</b>
ECM 1	Install LED Fixtures	Yes	874	0.0	0	\$100	\$2,898	\$300	\$2,598	26.0	880
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	3,915	0.5	-1	\$438	\$718	\$98	\$620	1.4	3,844
ECM 3	Retrofit Fixtures with LED Lamps	Yes	13,007	1.5	-3	\$1,457	\$1,792	\$420	\$1,372	0.9	12,774
<b>Lighting Control Measures</b>			<b>49,488</b>	<b>5.7</b>	<b>-11</b>	<b>\$5,542</b>	<b>\$22,552</b>	<b>\$2,625</b>	<b>\$19,927</b>	<b>3.6</b>	<b>48,600</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	46,185	5.3	-10	\$5,172	\$20,752	\$2,030	\$18,722	3.6	45,356
ECM 5	Install High/Low Lighting Controls	Yes	3,304	0.4	-1	\$370	\$1,800	\$595	\$1,205	3.3	3,244
<b>Variable Frequency Drive (VFD) Measures</b>			<b>109,684</b>	<b>15.5</b>	<b>0</b>	<b>\$12,561</b>	<b>\$40,398</b>	<b>\$3,625</b>	<b>\$36,773</b>	<b>2.9</b>	<b>110,451</b>
ECM 6	Install VFD on Variable Air Volume (VAV) Fans	Yes	80,523	11.5	0	\$9,221	\$21,943	\$3,625	\$18,318	2.0	81,087
ECM 7	Install VFDs on Chilled Water Pumps	Yes	8,521	1.9	0	\$976	\$8,152	\$0	\$8,152	8.4	8,580
ECM 8	Install VFDs on Heating Water Pumps	Yes	20,640	2.1	0	\$2,364	\$10,303	\$0	\$10,303	4.4	20,784
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>324</b>	<b>\$3,864</b>	<b>\$65,748</b>	<b>\$5,344</b>	<b>\$60,405</b>	<b>15.6</b>	<b>37,995</b>
ECM 9	Install High Efficiency Hot Water Boilers	Yes	0	0.0	324	\$3,864	\$65,748	\$5,344	\$60,405	15.6	37,995
<b>Domestic Water Heating Upgrade</b>			<b>4,854</b>	<b>0.0</b>	<b>0</b>	<b>\$556</b>	<b>\$722</b>	<b>\$194</b>	<b>\$528</b>	<b>1.0</b>	<b>4,888</b>
ECM 10	Install Low-Flow DHW Devices	Yes	4,854	0.0	0	\$556	\$722	\$194	\$528	1.0	4,888
<b>Food Service &amp; Refrigeration Measures</b>			<b>5,757</b>	<b>0.4</b>	<b>0</b>	<b>\$659</b>	<b>\$3,939</b>	<b>\$375</b>	<b>\$3,564</b>	<b>5.4</b>	<b>5,798</b>
ECM 11	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	1,606	0.2	0	\$184	\$1,517	\$200	\$1,317	7.2	1,618
ECM 12	Refrigeration Controls	Yes	2,539	0.0	0	\$291	\$2,193	\$125	\$2,068	7.1	2,557
ECM 13	Vending Machine Control	Yes	1,612	0.2	0	\$185	\$230	\$50	\$180	1.0	1,623
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>187,579</b>	<b>23.6</b>	<b>310</b>	<b>\$25,177</b>	<b>\$138,767</b>	<b>\$12,981</b>	<b>\$125,787</b>	<b>5.0</b>	<b>225,229</b>
<b>TOTALS (ALL MEASURES)</b>			<b>187,579</b>	<b>23.6</b>	<b>310</b>	<b>\$25,177</b>	<b>\$138,767</b>	<b>\$12,981</b>	<b>\$125,787</b>	<b>5.0</b>	<b>225,229</b>

# SOLAR ENERGY GENERATION POTENTIAL

	Ferry Terminal	Admin. Bldg
<i>Potential:</i>	<b>HIGH</b>	<b>HIGH</b>
<i>System Potential: (kW)</i>	500	220
<i>Electric Generation: (kWh per year)</i>	595,685	262,101
<i>Displaced Cost: (per year)</i>	\$70,020	\$629,200

**SREC Registration Program (SRP):**

<http://www.NJCleanEnergy.com/SREC>

**Community Solar Energy Pilot Program:**

<http://www.NJCleanEnergy.com/CommunitySolar>

# 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***



# CLEAN ENERGY PROGRAM PORTFOLIO

## ELIGIBLE SECTORS

Commercial, Industrial, Government, Non-Profit, Institutional and Multifamily

## INCENTIVE PROGRAMS

### Equipment Rebates:

- **SmartStart**
- Customer Tailored Energy Efficiency Pilot (CTEEP)
- Direct Install
- Large Energy Users

### Whole Buildings:

- **Pay for Performance**

### Energy Generation:

- Combined Heat and Power – Fuel Cells

## OTHER PROGRAMS

### Renewable Energy Generation:

- SREC Registration Program (SRP)
- **Community Solar**

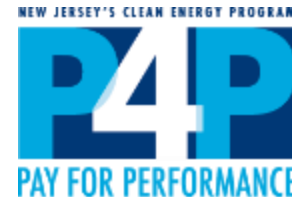


# RECOMMENDED NJCEP INCENTIVES PER BUILDING

DRBA	Pay For Performance	SmartStart	CTEEP
Ferry Terminal	X	X	X
Admin. Building	X	X	X

# PAY FOR PERFORMANCE

NJCleanEnergy.com/P4P



**What is P4P:** Comprehensive, whole-building approach to saving energy in existing or new facilities.

**Qualifications:** Annual peak demand 200 kW+ in the previous year for existing buildings

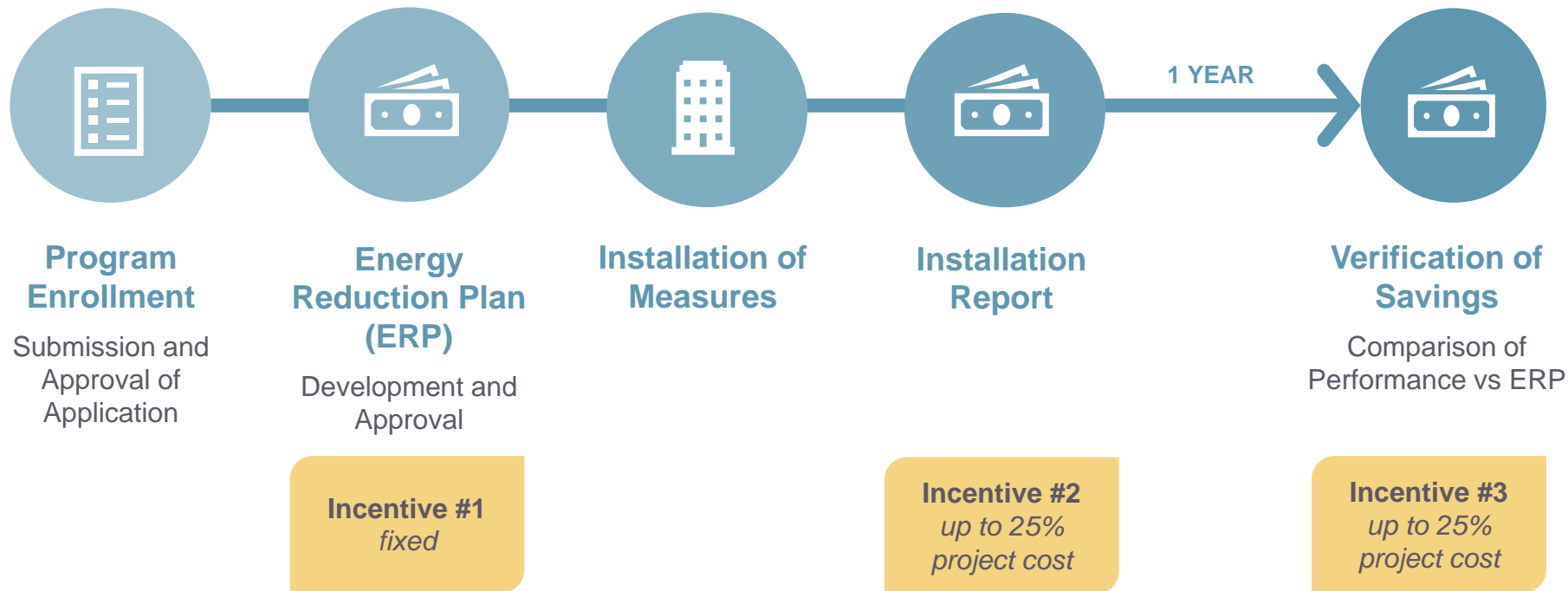
**About:** Customer choose from a network of pre-approved *Participating Partners*

- Incentives:**
- Incentives paid in *three* installments
    - Up to \$2MM per project( (\$4MM entity cap/year)
      - \$1 million for electric measures
      - \$1 million for gas measures
    - Up to 50% of project cost (or 80% for UEZ/OZ/ MUNI/K-12 Public Schools) up to \$2MM per project / \$4MM per entity annually
    - Incentive #2 & #3 are doubles for UEZ/OZ/ MUNI/K-12 Public Schools



# PAY FOR PERFORMANCE

NJCleanEnergy.com/P4P



# SMARTSTART

NJCleanEnergy.com/SSB

**What is SSB:** Individual high efficiency equipment rebates for new construction, renovation, remodeling, equipment replacement

**Qualifications:** • All C&I customer types contributing into the Societal Benefits Charge (SBC)

**About:**

- Prescriptive and custom designed measures
- Pre-approval required only for lighting projects with incentives >\$100,000 and all custom projects
- For measures not requiring pre-approval, applications must be submitted to the program within one year of purchase.

**Incentives:**

- Prescriptive: \$500,000 cap for each electric or gas account
- Custom, lesser of the following:
  - \$0.16/kWh and/or \$1.60/Therm saved annually
  - 50% of incremental installed cost
  - Buy-down to 1 year payback based on incremental cost and savings



# SMARTSTART

NJCleanEnergy.com/SSB

## Prescriptive Incentives

- Lighting & Lighting Controls
- Packaged HVAC
- Boilers & Water Heaters
- Chillers
- VFD's
- Food Service
- Refrigeration

Prescriptive Only:

**DOUBLE  
INCENTIVES FOR  
OZ/UEZ/ MUNI/K-12  
PUBLIC SCHOOLS**

## Custom Incentives

- New or innovative technologies proven to be cost-effective and not listed as prescriptive
- Projects must have a minimum first year energy savings of 75,000 kWh or 1,500 therms
- Project pre and post inspection required



# CUSTOMER TAILORED ENERGY EFFICIENCY PILOT

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

**What is CTEEP:** A streamlined/single application process for participants submitting multiple different technology types.

**Qualifications:**

- All C&I customer types contributing into the Societal Benefits Charge (SBC)

**About:**

- On site assistance available
- Additional technical incentive available to offset soft costs associated with developing and planning custom projects

**Incentives:**

- \$250,000 fiscal year entity cap
- Technical assistance incentives for custom project evaluation (up to \$10K)

**SAME INCENTIVE  
VALUES AS  
SMARTSTART**

# SMARTSTART, CTEEP, & P4P: FINANCING OPTION

- NJNG provides 0% financing options that will cover up to \$130,000 per year.
- 10 year term-repayments made on regular monthly gas bill
- Need to review project with NJNG to confirm project qualifies.
- The SAVEGREEN program can help with a consultation to discuss your Commercial Energy Efficiency Project.

- Questions? Contact:

Peter Druckenmiller  
Program Manager  
South Jersey Gas  
609-572-4271

[wdruckenmiller@sjindustries.com](mailto:wdruckenmiller@sjindustries.com)





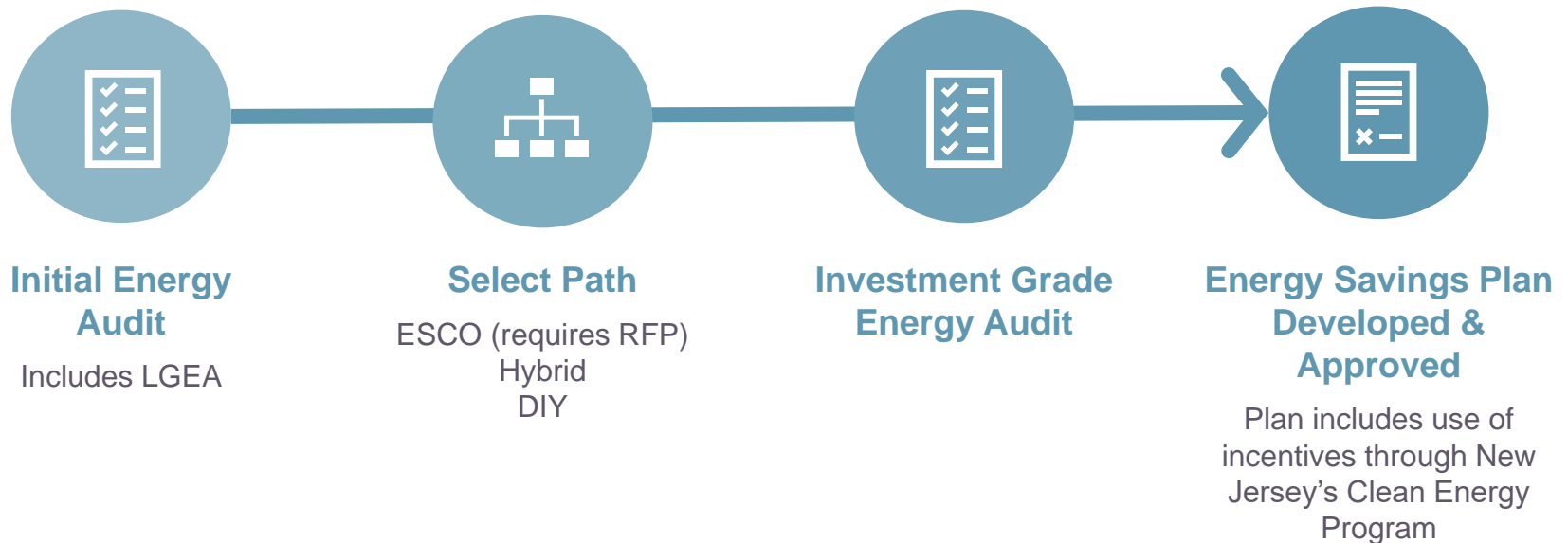
# FINANCING MECHANISM: ESIP

## ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

- Provides alternative financing for energy savings projects at public institutions
- Administered directly by the BPU
- Value of energy savings leveraged to pay for cost of EE projects over a 15 year contract
- Requires NO new bonding and is outside of capital budget
- Does not count as debt or require voter approval



# FINANCING MECHANISM: ESIP



# ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

## FOR MORE INFORMATION

**Michelle Rossi**

ESIP Coordinator

Office: 609-633-9641

ESIP@bpu.nj.gov



# FOR MORE INFORMATION

**Visit** [NJCleanEnergy.com](http://NJCleanEnergy.com)

**Call** (732) 855-0033

**Amanda Newman**

Outreach Manager

732-425-5152

[ANewman@trccompanies.com](mailto:ANewman@trccompanies.com)



# QUESTIONS

