

# New Jersey's Clean Energy Program

LGEA Presentation

*Montgomery Township School District*

June 15, 2020



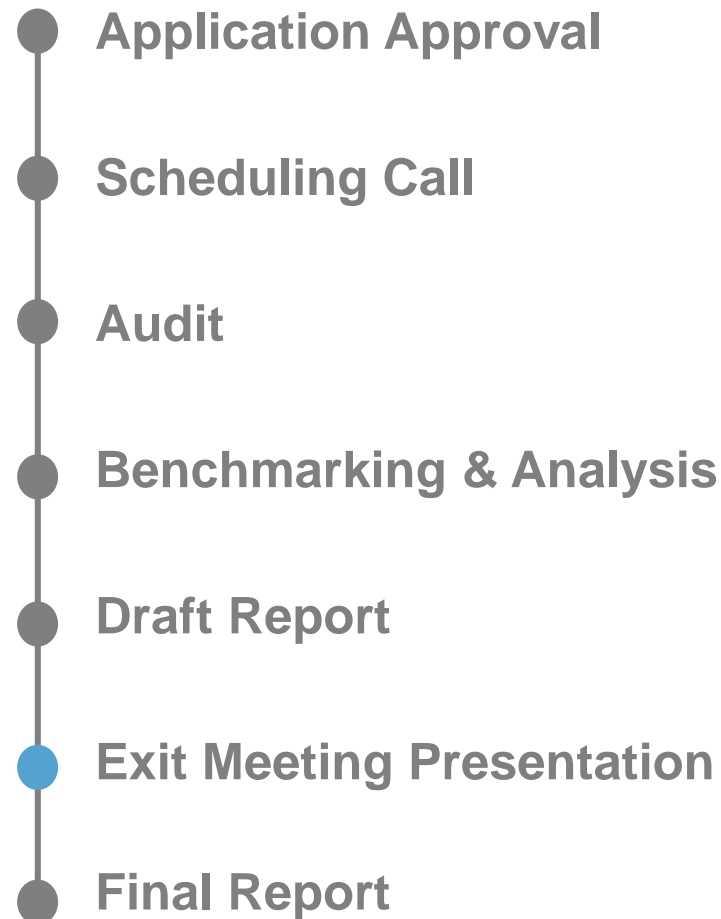
# INTRODUCTIONS

- *Montgomery Twp. School District*
  - Ray Mulvey – Director of Facilities
  - Tom Venanzi – Business Administrator
- *NJ Clean Energy Program*
  - Aimee Lalonde – TRC Program Manager
  - Aditya Saxena – TRC Auditor
  - Sarah Walters – TRC Account Manager
  - Mike Mandzik – TRC Outreach Manager
  - Michelle Rossi – ESIP Coordinator
  - Arif Welcher – Government/Business Manager (BPU)

# 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 Montgomery Twp. School District

# LGEA PROCESS



# SITE VISIT & UTILITY ANALYSIS

## Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment
- Energy Management Systems

## Sites Visited/Analyzed

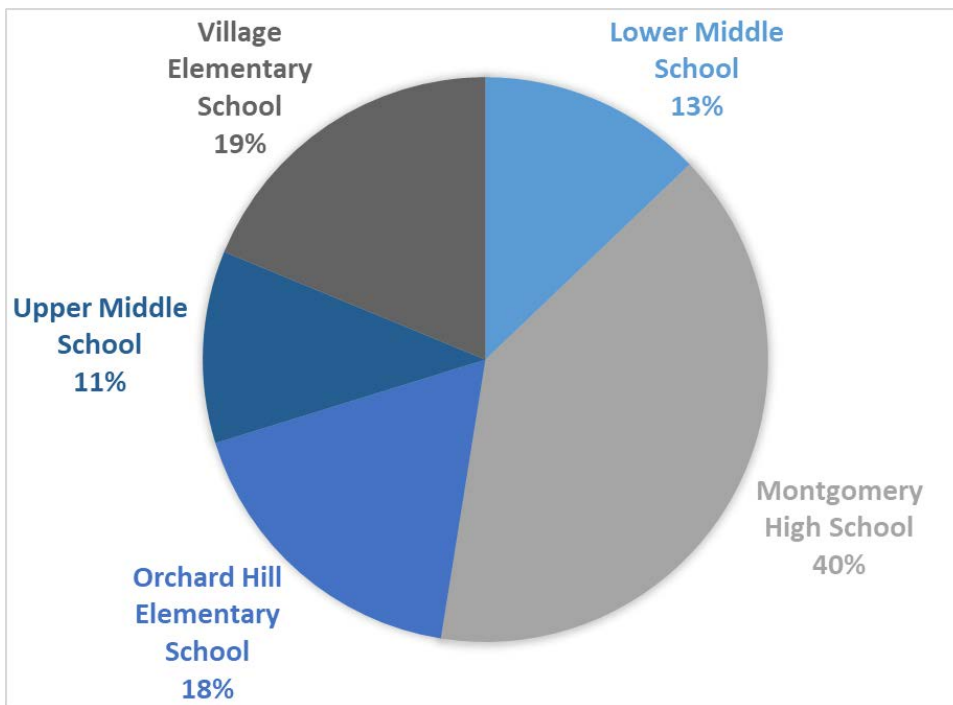
- Montgomery High School
- Upper Middle School
- Lower Middle School
- Village Elementary School
- Orchard Hill Elementary School

## Utility Consumption:

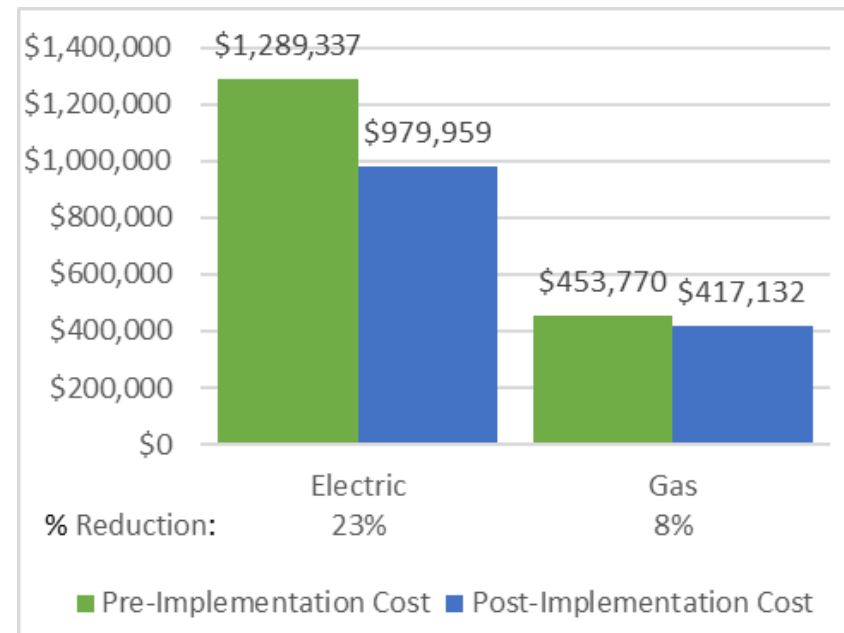
- Electric Consumption and Costs
- Natural Gas Consumption and Costs
- Solar Generation and Costs

# UTILITY BREAKOUT


Percent of Total Annual Energy Costs



Pre & Post Implementation Cost



# BENCHMARKING

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

**34**  
ENERGY STAR® Score<sup>1</sup>

**Montgomery High School**  
Primary Property Type: K-12 School  
Gross Floor Area (ft²): 429,000  
Built: 2005  
For Year Ending: May 31, 2019  
Date Generated: May 08, 2020

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> Montgomery High School 1016 Route 601 Skillman, New Jersey 08558	<b>Property Owner</b> Montgomery Township Board of Education 1014 Route 601 Skillman, NJ 08558 (609)-465-7601	<b>Primary Contact</b> Mark Kramer 1014 Route 601 Skillman, NJ 08558 (609) 468-7601 x 7001 mkramer@mtsd.us
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Property ID: 8705044

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

<b>Site EUI</b> 91.7 kBtu/ft²	<b>Annual Energy by Fuel</b> Natural Gas (kBtu) 10,335,813 (40%) Electric - Grid (kBtu) 13,844,480 (35%) Electric - Solar (kBtu) 8,173,664 (16%)	<b>National Median Comparison</b> National Median Site EUI (kBtu/ft²) 78.6 National Median Source EUI (kBtu/ft²) 130.3 % Diff from National Median Source EUI 17% Annual Emissions (Scope 1+2) CO2e/year 1,000,000
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**Source EUI**  
152.1 kBtu/ft²

**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	91.7 kBtu/ft²
Source EUI	152.1 kBtu/ft²

National Median Comparison	
National Median Site EUI (kBtu/ft²)	78.6
National Median Source EUI (kBtu/ft²)	130.3
% Diff from National Median Source EUI	17%
Annual Emissions	

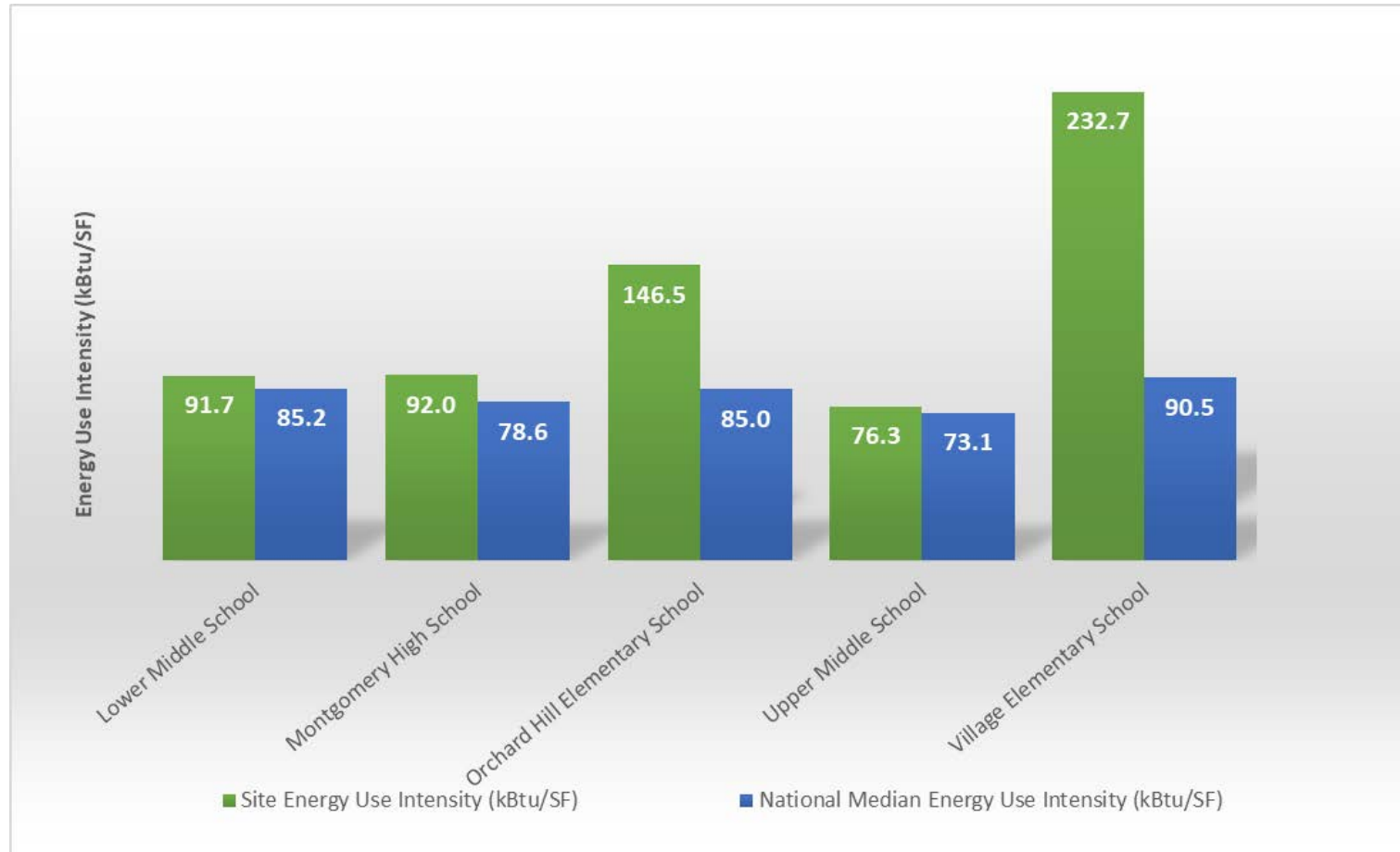
## ENERGY STAR Scores (Highest to Lowest)

Upper Middle School	46
Lower Middle School	42
High School	34
Orchard Hill Elementary School	7
Village Elementary School	1

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





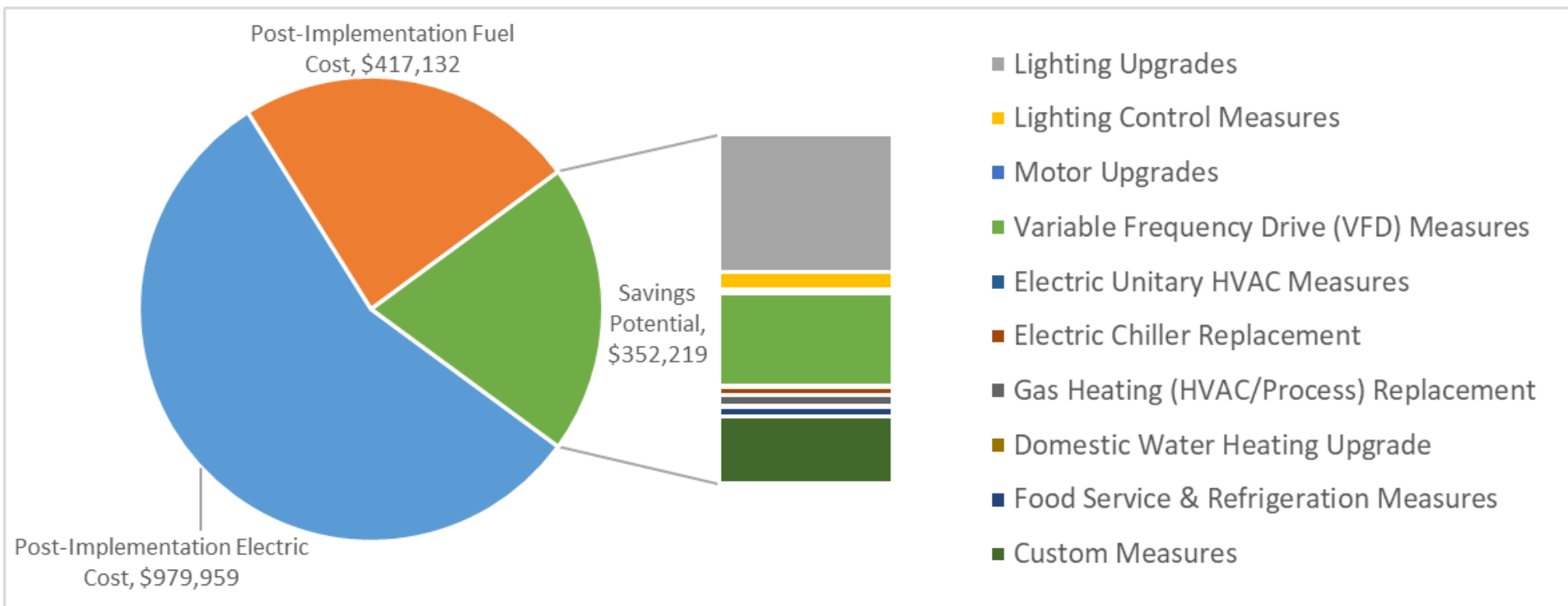
# Utility Usage Change compared to Legacy Audits

Legacy Audit Utility Period – November 2010 to October 2011  
Current LGEA Utility Period – June 2018 to May 2019

School	Electricity Usage		Natural Gas Usage	
	Annual	Summer	Annual	Summer
High School	8% ↓	July- 0%	36% ↓	July- 30% ↓
Upper MS	20% ↑	July- 94% ↑	13% ↓	July- 1220% ↑
Lower MS	2% ↓	Aug- 48% ↑	20% ↑	Aug- 412% ↑
Village ES	81% ↑	July- 151% ↑	130% ↑	July- 8000% ↑
Orchard Hill ES	50% ↑	July- 710% ↑	46% ↑	July- 6000% ↑

# ALL OPPORTUNITIES

## Savings Potential



# ALL OPPORTUNITIES

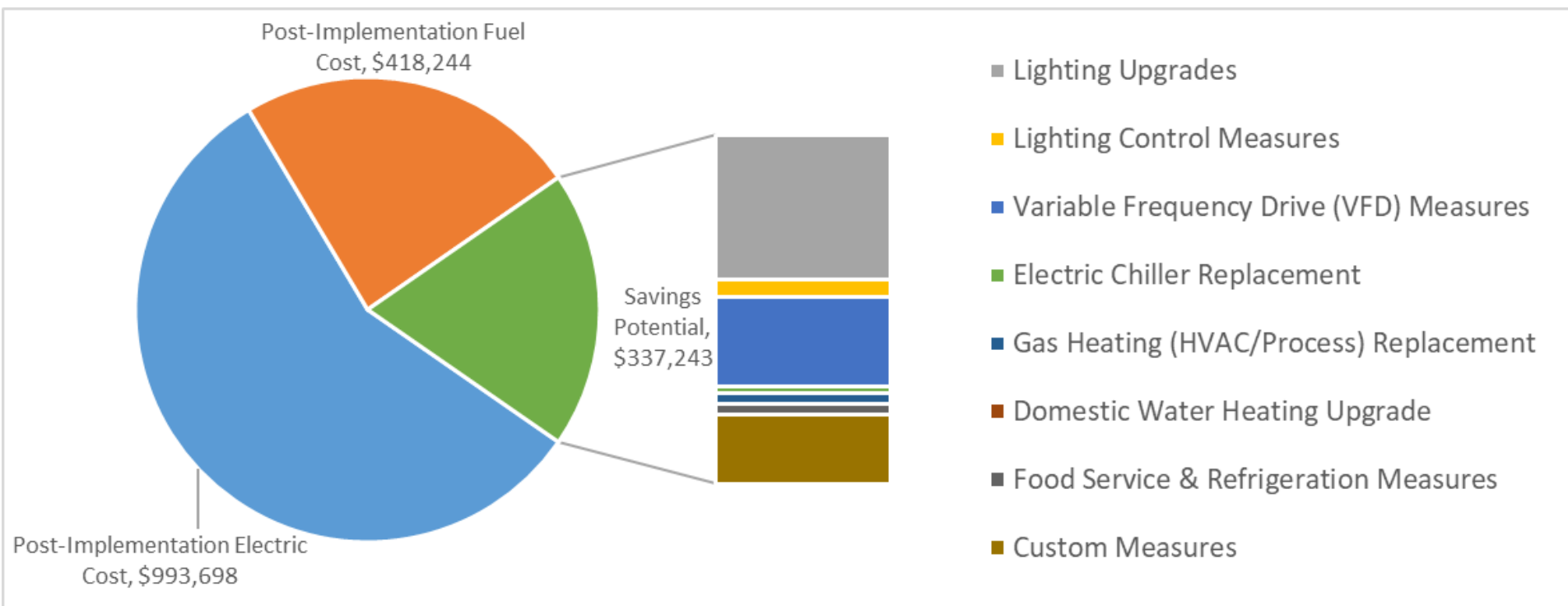
A	B	C	D	E	F	G	H	I	J	K
#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>		<b>1,332,454</b>	<b>264.1</b>	<b>-267.2</b>	<b>\$139,093</b>	<b>\$524,520</b>	<b>\$217,218</b>	<b>\$307,302</b>	<b>2.2</b>	<b>1,310,480</b>
ECM 1	Install LED Fixtures	53,485	3.2	-0.7	\$5,869	\$54,949	\$15,960	\$38,989	6.6	53,772
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	1,843	0.8	-0.4	\$166	\$1,375	\$400	\$975	5.9	1,811
ECM 3	Retrofit Fixtures with LED Lamps	1,277,126	260.0	-266.1	\$133,057	\$468,195	\$200,858	\$267,337	2.0	1,254,897
<b>Lighting Control Measures</b>		<b>169,219</b>	<b>27.0</b>	<b>-35.2</b>	<b>\$17,733</b>	<b>\$111,076</b>	<b>\$54,615</b>	<b>\$56,461</b>	<b>3.2</b>	<b>166,286</b>
ECM 4	Install Occupancy Sensor Lighting Controls	107,560	18.7	-22.5	\$11,343	\$71,301	\$16,545	\$54,756	4.8	105,679
ECM 5	Install Daylight Dimming/Photocell Controls	1,703	0.1	-0.1	\$181	\$1,300	\$500	\$800	4.4	1,699
ECM 6	Install High/Low Lighting Controls	59,956	8.2	-12.5	\$6,209	\$38,475	\$37,570	\$905	0.1	58,908
<b>Motor Upgrades</b>		<b>38,525</b>	<b>3.3</b>	<b>0.0</b>	<b>\$3,542</b>	<b>\$40,856</b>	<b>\$0</b>	<b>\$40,856</b>	<b>11.5</b>	<b>38,794</b>
ECM 7	Premium Efficiency Motors	38,525	3.3	0.0	\$3,542	\$40,856	\$0	\$40,856	11.5	38,794
<b>Variable Frequency Drive (VFD) Measures</b>		<b>866,490</b>	<b>158.0</b>	<b>65.2</b>	<b>\$92,755</b>	<b>\$565,289</b>	<b>\$117,300</b>	<b>\$447,989</b>	<b>4.8</b>	<b>880,179</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	803,115	148.0	0.0	\$84,951	\$396,461	\$100,500	\$295,961	3.5	808,730
ECM 9	Install VFDs on Chilled Water Pumps	14,318	5.6	0.0	\$1,604	\$55,638	\$4,800	\$50,838	31.7	14,419
ECM 10	Install VFDs on Heating Water Pumps	45,581	4.4	0.0	\$5,307	\$109,306	\$11,600	\$97,706	18.4	45,900
ECM 11	Install VFDs on Kitchen Hood Fan Motors	3,475	0.0	65.2	\$894	\$3,884	\$400	\$3,484	3.9	11,130
<b>Electric Unitary HVAC Measures</b>		<b>16,751</b>	<b>5.2</b>	<b>0.0</b>	<b>\$1,547</b>	<b>\$68,182</b>	<b>\$552</b>	<b>\$67,630</b>	<b>43.7</b>	<b>16,868</b>
ECM 12	Install High Efficiency Air Conditioning Units	16,751	5.2	0.0	\$1,547	\$68,182	\$552	\$67,630	43.7	16,868

# ALL OPPORTUNITIES

A	B	C	D	E	F	G	H	I	J	K
#	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>Electric Chiller Replacement</b>		<b>75,683</b>	<b>54.7</b>	<b>0.0</b>	<b>\$8,433</b>	<b>\$189,806</b>	<b>\$36,272</b>	<b>\$153,534</b>	<b>18.2</b>	<b>76,212</b>
ECM 13	Install High Efficiency Chillers	75,683	54.7	0.0	\$8,433	\$189,806	\$36,272	\$153,534	18.2	76,212
<b>Gas Heating (HVAC/Process) Replacement</b>		<b>0</b>	<b>0.0</b>	<b>1,482.4</b>	<b>\$10,917</b>	<b>\$158,843</b>	<b>\$26,694</b>	<b>\$132,149</b>	<b>12.1</b>	<b>173,572</b>
ECM 14	Install High Efficiency Hot Water Boilers	0	0.0	1,482.4	\$10,917	\$158,843	\$26,694	\$132,149	12.1	173,572
<b>Domestic Water Heating Upgrade</b>		<b>1,783</b>	<b>0.0</b>	<b>71.6</b>	<b>\$725</b>	<b>\$1,577</b>	<b>\$1,571</b>	<b>\$6</b>	<b>0.0</b>	<b>10,184</b>
ECM 15	Install Low-Flow DHW Devices	1,783	0.0	71.6	\$725	\$1,577	\$1,571	\$6	0.0	10,184
<b>Food Service &amp; Refrigeration Measures</b>		<b>72,219</b>	<b>7.4</b>	<b>257.7</b>	<b>\$10,040</b>	<b>\$67,095</b>	<b>\$6,430</b>	<b>\$60,665</b>	<b>6.0</b>	<b>102,893</b>
ECM 16	Dishwasher Replacement	16,219	1.9	257.7	\$3,903	\$37,719	\$2,800	\$34,919	8.9	46,502
ECM 17	Refrigerator/Freezer Case Electrically Commutated Motors	7,828	0.8	0.0	\$851	\$6,369	\$1,680	\$4,689	5.5	7,883
ECM 18	Refrigeration Display Case Doors or Covers	2,264	0.3	0.0	\$208	\$1,003	\$300	\$703	3.4	2,279
ECM 19	Refrigeration Controls	6,970	0.1	0.0	\$823	\$4,104	\$750	\$3,354	4.1	7,019
ECM 20	Replace Refrigeration Equipment	24,431	2.8	0.0	\$2,704	\$15,829	\$0	\$15,829	5.9	24,602
ECM 21	Vending Machine Control	14,507	1.7	0.0	\$1,551	\$2,070	\$900	\$1,170	0.8	14,608
<b>Custom Measures</b>		<b>416,389</b>	<b>0.0</b>	<b>3,192.1</b>	<b>\$67,433</b>	<b>\$45,842</b>	<b>\$0</b>	<b>\$45,842</b>	<b>0.7</b>	<b>793,057</b>
ECM 22	Optimize EMS Settings	416,389	0.0	3,192.1	\$67,433	\$45,842	\$0	\$45,842	0.7	793,057
<b>TOTALS</b>		<b>2,989,513</b>	<b>519.5</b>	<b>4,766.6</b>	<b>\$352,219</b>	<b>\$1,773,084</b>	<b>\$460,652</b>	<b>\$1,312,432</b>	<b>3.7</b>	<b>3,568,524</b>

# COST EFFECTIVE OPPORTUNITIES

## Savings Potential



# COST EFFECTIVE OPPORTUNITIES

A	B	C	D	E	F	G	H	I	J	K
#	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>1,332,454</b>	<b>264.1</b>	<b>-267.2</b>	<b>\$139,093</b>	<b>\$524,520</b>	<b>\$217,218</b>	<b>\$307,302</b>	<b>2.2</b>	<b>1,310,480</b>
ECM 1	Install LED Fixtures	53,485	3.2	-0.7	\$5,869	\$54,949	\$15,960	\$38,989	6.6	53,772
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	1,843	0.8	-0.4	\$166	\$1,375	\$400	\$975	5.9	1,811
ECM 3	Retrofit Fixtures with LED Lamps	1,277,126	260.0	-266.1	\$133,057	\$468,195	\$200,858	\$267,337	2.0	1,254,897
<b>Lighting Control Measures</b>		<b>169,219</b>	<b>27.0</b>	<b>-35.2</b>	<b>\$17,733</b>	<b>\$111,076</b>	<b>\$54,615</b>	<b>\$56,461</b>	<b>3.2</b>	<b>166,286</b>
ECM 4	Install Occupancy Sensor Lighting Controls	107,560	18.7	-22.5	\$11,343	\$71,301	\$16,545	\$54,756	4.8	105,679
ECM 5	Install Daylight Dimming/Photocell Controls	1,703	0.1	-0.1	\$181	\$1,300	\$500	\$800	4.4	1,699
ECM 6	Install High/Low Lighting Controls	59,956	8.2	-12.5	\$6,209	\$38,475	\$37,570	\$905	0.1	58,908
<b>Variable Frequency Drive (VFD) Measures</b>		<b>806,590</b>	<b>148.0</b>	<b>65.2</b>	<b>\$85,844</b>	<b>\$400,345</b>	<b>\$100,900</b>	<b>\$299,445</b>	<b>3.5</b>	<b>819,860</b>
ECM 8	Install VFDs on Constant Volume (CV) Fans	803,115	148.0	0.0	\$84,951	\$396,461	\$100,500	\$295,961	3.5	808,730
ECM 11	Install VFDs on Kitchen Hood Fan Motors	3,475	0.0	65.2	\$894	\$3,884	\$400	\$3,484	3.9	11,130
<b>Electric Chiller Replacement</b>		<b>65,327</b>	<b>39.8</b>	<b>0.0</b>	<b>\$7,318</b>	<b>\$134,803</b>	<b>\$29,072</b>	<b>\$105,731</b>	<b>14.4</b>	<b>65,784</b>
ECM 13	Install High Efficiency Chillers	65,327	39.8	0.0	\$7,318	\$134,803	\$29,072	\$105,731	14.4	65,784

# COST EFFECTIVE OPPORTUNITIES

A	B	C	D	E	F	G	H	I	J	K
#	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>Gas Heating (HVAC/Process) Replacement</b>		<b>0</b>	<b>0.0</b>	<b>1,337.8</b>	<b>\$9,797</b>	<b>\$87,115</b>	<b>\$14,640</b>	<b>\$72,475</b>	<b>7.4</b>	<b>156,634</b>
ECM 14	Install High Efficiency Hot Water Boilers	0	0.0	1,337.8	\$9,797	\$87,115	\$14,640	\$72,475	7.4	156,634
<b>Domestic Water Heating Upgrade</b>		<b>1,783</b>	<b>0.0</b>	<b>71.6</b>	<b>\$725</b>	<b>\$1,577</b>	<b>\$1,571</b>	<b>\$6</b>	<b>0.0</b>	<b>10,184</b>
ECM 15	Install Low-Flow DHW Devices	1,783	0.0	71.6	\$725	\$1,577	\$1,571	\$6	0.0	10,184
<b>Food Service &amp; Refrigeration Measures</b>		<b>64,994</b>	<b>6.8</b>	<b>257.7</b>	<b>\$9,300</b>	<b>\$59,146</b>	<b>\$5,650</b>	<b>\$53,496</b>	<b>5.8</b>	<b>95,618</b>
ECM 16	Dishwasher Replacement	16,219	1.9	257.7	\$3,903	\$37,719	\$2,800	\$34,919	8.9	46,502
ECM 17	Refrigerator/Freezer Case Electrically Commutated Motors	6,209	0.6	0.0	\$702	\$4,550	\$1,200	\$3,350	4.8	6,253
ECM 18	Refrigeration Display Case Doors or Covers	2,264	0.3	0.0	\$208	\$1,003	\$300	\$703	3.4	2,279
ECM 19	Refrigeration Controls	4,470	0.0	0.0	\$560	\$756	\$450	\$306	0.5	4,502
ECM 20	Replace Refrigeration Equipment	21,326	2.4	0.0	\$2,376	\$13,048	\$0	\$13,048	5.5	21,475
ECM 21	Vending Machine Control	14,507	1.7	0.0	\$1,551	\$2,070	\$900	\$1,170	0.8	14,608
<b>Custom Measures</b>		<b>416,389</b>	<b>0.0</b>	<b>3,192.1</b>	<b>\$67,433</b>	<b>\$45,842</b>	<b>\$0</b>	<b>\$45,842</b>	<b>0.7</b>	<b>793,057</b>
ECM 22	Optimize EMS Settings	416,389	0.0	3,192.1	\$67,433	\$45,842	\$0	\$45,842	0.7	793,057
<b>TOTALS</b>		<b>2,856,757</b>	<b>485.7</b>	<b>4,621.9</b>	<b>\$337,243</b>	<b>\$1,364,424</b>	<b>\$423,666</b>	<b>\$940,758</b>	<b>2.8</b>	<b>3,417,902</b>

# MONTGOMERY HIGH SCHOOL

#	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>439,937</b>	<b>93.1</b>	<b>-90</b>	<b>\$39,732</b>	<b>\$203,900</b>	<b>\$66,374</b>	<b>\$137,526</b>	<b>3.5</b>	<b>432,427</b>
ECM 1	Install LED Fixtures	Yes	5,266	0.0	0	\$484	\$1,980	\$0	\$1,980	4.1	5,303
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,843	0.8	0	\$166	\$1,375	\$400	\$975	5.9	1,811
ECM 3	Retrofit Fixtures with LED Lamps	Yes	432,828	92.2	-90	\$39,081	\$200,544	\$65,974	\$134,570	3.4	425,313
<b>Lighting Control Measures</b>			<b>46,578</b>	<b>7.7</b>	<b>-10</b>	<b>\$4,205</b>	<b>\$33,301</b>	<b>\$17,125</b>	<b>\$16,176</b>	<b>3.8</b>	<b>45,763</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	24,032	4.6	-5	\$2,170	\$21,601	\$5,425	\$16,176	7.5	23,612
ECM 5	Install High/Low Lighting Controls	Yes	22,546	3.1	-5	\$2,036	\$11,700	\$11,700	\$0	0.0	22,151
<b>Motor Upgrades</b>			<b>38,525</b>	<b>3.3</b>	<b>0</b>	<b>\$3,542</b>	<b>\$40,856</b>	<b>\$0</b>	<b>\$40,856</b>	<b>11.5</b>	<b>38,794</b>
ECM 6	Premium Efficiency Motors	No	38,525	3.3	0	\$3,542	\$40,856	\$0	\$40,856	11.5	38,794
<b>Variable Frequency Drive (VFD) Measures</b>			<b>381,382</b>	<b>62.3</b>	<b>0</b>	<b>\$35,061</b>	<b>\$118,393</b>	<b>\$37,150</b>	<b>\$81,243</b>	<b>2.3</b>	<b>384,049</b>
ECM 7	Install VFDs on Constant Volume (CV) Fans	Yes	381,382	62.3	0	\$35,061	\$118,393	\$37,150	\$81,243	2.3	384,049
<b>Electric Unitary HVAC Measures</b>			<b>16,272</b>	<b>4.6</b>	<b>0</b>	<b>\$1,496</b>	<b>\$63,693</b>	<b>\$0</b>	<b>\$63,693</b>	<b>42.6</b>	<b>16,385</b>
ECM 8	Install High Efficiency Air Conditioning Units	No	16,272	4.6	0	\$1,496	\$63,693	\$0	\$63,693	42.6	16,385
<b>Domestic Water Heating Upgrade</b>			<b>1,783</b>	<b>0.0</b>	<b>32</b>	<b>\$418</b>	<b>\$588</b>	<b>\$582</b>	<b>\$6</b>	<b>0.0</b>	<b>5,573</b>
ECM 9	Install Low-Flow DHW Devices	Yes	1,783	0.0	32	\$418	\$588	\$582	\$6	0.0	5,573
<b>Food Service &amp; Refrigeration Measures</b>			<b>10,658</b>	<b>1.2</b>	<b>0</b>	<b>\$980</b>	<b>\$5,333</b>	<b>\$980</b>	<b>\$4,353</b>	<b>4.4</b>	<b>10,732</b>
ECM 10	Refrigerator/Freezer Case Electrically Commutated Motors	No	1,619	0.2	0	\$149	\$1,820	\$480	\$1,340	9.0	1,631
ECM 11	Refrigeration Display Case Doors or Covers	Yes	2,264	0.3	0	\$208	\$1,003	\$300	\$703	3.4	2,279
ECM 12	Replace Refrigeration Equipment	Yes	3,551	0.4	0	\$326	\$2,050	\$0	\$2,050	6.3	3,576
ECM 13	Vending Machine Control	Yes	3,224	0.4	0	\$296	\$460	\$200	\$260	0.9	3,246
<b>Custom Measures</b>			<b>199,081</b>	<b>0.0</b>	<b>829</b>	<b>\$24,830</b>	<b>\$21,450</b>	<b>\$0</b>	<b>\$21,450</b>	<b>0.9</b>	<b>297,569</b>
ECM 14	Optimize EMS Settings	Yes	199,081	0.0	829	\$24,830	\$21,450	\$0	\$21,450	0.9	297,569
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>1,077,800</b>	<b>164.1</b>	<b>761</b>	<b>\$105,076</b>	<b>\$381,145</b>	<b>\$121,731</b>	<b>\$259,414</b>	<b>2.5</b>	<b>1,174,483</b>
<b>TOTALS (ALL MEASURES)</b>			<b>1,134,215</b>	<b>172.2</b>	<b>761</b>	<b>\$110,263</b>	<b>\$487,513</b>	<b>\$122,211</b>	<b>\$365,303</b>	<b>3.3</b>	<b>1,231,293</b>



# UPPER MIDDLE SCHOOL

#	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>186,488</b>	<b>35.7</b>	<b>-38</b>	<b>\$19,754</b>	<b>\$72,083</b>	<b>\$31,838</b>	<b>\$40,245</b>	<b>2.0</b>	<b>183,341</b>
ECM 1	Install LED Fixtures	Yes	8,214	2.6	-1	\$878	\$18,311	\$4,750	\$13,561	15.4	8,186
ECM 2	Retrofit Fixtures with LED Lamps	Yes	178,273	33.1	-37	\$18,876	\$53,771	\$27,088	\$26,683	1.4	175,155
<b>Lighting Control Measures</b>			<b>35,477</b>	<b>4.7</b>	<b>-7</b>	<b>\$3,758</b>	<b>\$25,162</b>	<b>\$11,165</b>	<b>\$13,997</b>	<b>3.7</b>	<b>34,882</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	23,668	3.4	-5	\$2,506	\$16,712	\$3,700	\$13,012	5.2	23,254
ECM 4	Install Daylight Dimming/Photocell Controls	Yes	1,051	0.0	0	\$113	\$800	\$0	\$800	7.1	1,059
ECM 5	Install High/Low Lighting Controls	Yes	10,758	1.3	-2	\$1,139	\$7,650	\$7,465	\$185	0.2	10,570
<b>Variable Frequency Drive (VFD) Measures</b>			<b>86,200</b>	<b>21.5</b>	<b>0</b>	<b>\$9,281</b>	<b>\$107,228</b>	<b>\$21,850</b>	<b>\$85,378</b>	<b>9.2</b>	<b>86,803</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	68,476	19.4	0	\$7,373	\$66,461	\$17,450	\$49,011	6.6	68,955
ECM 7	Install VFDs on Heating Water Pumps	No	17,724	2.1	0	\$1,908	\$40,767	\$4,400	\$36,367	19.1	17,848
<b>Electric Unitary HVAC Measures</b>			<b>479</b>	<b>0.5</b>	<b>0</b>	<b>\$52</b>	<b>\$4,489</b>	<b>\$552</b>	<b>\$3,937</b>	<b>76.3</b>	<b>483</b>
ECM 8	Install High Efficiency Air Conditioning Units	No	479	0.5	0	\$52	\$4,489	\$552	\$3,937	76.3	483
<b>Electric Chiller Replacement</b>			<b>10,356</b>	<b>14.9</b>	<b>0</b>	<b>\$1,115</b>	<b>\$55,002</b>	<b>\$7,200</b>	<b>\$47,802</b>	<b>42.9</b>	<b>10,428</b>
ECM 9	Install High Efficiency Chillers	No	10,356	14.9	0	\$1,115	\$55,002	\$7,200	\$47,802	42.9	10,428
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>12</b>	<b>\$102</b>	<b>\$179</b>	<b>\$179</b>	<b>\$0</b>	<b>0.0</b>	<b>1,389</b>
ECM 10	Install Low-Flow DHW Devices	Yes	0	0.0	12	\$102	\$179	\$179	\$0	0.0	1,389
<b>Food Service &amp; Refrigeration Measures</b>			<b>18,667</b>	<b>1.9</b>	<b>0</b>	<b>\$2,010</b>	<b>\$7,085</b>	<b>\$870</b>	<b>\$6,215</b>	<b>3.1</b>	<b>18,797</b>
ECM 11	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	2,050	0.2	0	\$221	\$1,213	\$320	\$893	4.0	2,065
ECM 12	Refrigeration Controls	Yes	964	0.0	0	\$104	\$252	\$150	\$102	1.0	971
ECM 13	Replace Refrigeration Equipment	Yes	9,205	1.1	0	\$991	\$4,700	\$0	\$4,700	4.7	9,270
ECM 14	Vending Machine Control	Yes	6,447	0.7	0	\$694	\$920	\$400	\$520	0.7	6,492
<b>Custom Measures</b>			<b>33,733</b>	<b>0.0</b>	<b>305</b>	<b>\$6,248</b>	<b>\$7,120</b>	<b>\$0</b>	<b>\$7,120</b>	<b>1.1</b>	<b>69,738</b>
ECM 15	Optimize EMS Settings	Yes	33,733	0.0	305	\$6,248	\$7,120	\$0	\$7,120	1.1	69,738
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>342,840</b>	<b>61.7</b>	<b>272</b>	<b>\$39,245</b>	<b>\$178,090</b>	<b>\$61,502</b>	<b>\$116,588</b>	<b>3.0</b>	<b>377,102</b>
<b>TOTALS (ALL MEASURES)</b>			<b>371,400</b>	<b>79.2</b>	<b>272</b>	<b>\$42,320</b>	<b>\$278,348</b>	<b>\$73,654</b>	<b>\$204,694</b>	<b>4.8</b>	<b>405,861</b>

# LOWER MIDDLE SCHOOL

#	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>275,615</b>	<b>47.4</b>	<b>-54</b>	<b>\$30,456</b>	<b>\$107,785</b>	<b>\$50,238</b>	<b>\$57,547</b>	<b>1.9</b>	<b>271,233</b>
ECM 1	Install LED Fixtures	Yes	17,783	0.0	0	\$1,992	\$21,663	\$8,400	\$13,263	6.7	17,907
ECM 2	Retrofit Fixtures with LED Lamps	Yes	257,832	47.4	-54	\$28,464	\$86,121	\$41,838	\$44,283	1.6	253,326
<b>Lighting Control Measures</b>			<b>39,369</b>	<b>6.4</b>	<b>-8</b>	<b>\$4,346</b>	<b>\$20,555</b>	<b>\$9,985</b>	<b>\$10,570</b>	<b>2.4</b>	<b>38,680</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	28,468	4.8	-6	\$3,143	\$13,580	\$3,460	\$10,120	3.2	27,970
ECM 4	Install High/Low Lighting Controls	Yes	10,901	1.6	-2	\$1,203	\$6,975	\$6,525	\$450	0.4	10,710
<b>Variable Frequency Drive (VFD) Measures</b>			<b>135,023</b>	<b>29.6</b>	<b>65</b>	<b>\$15,629</b>	<b>\$181,989</b>	<b>\$26,200</b>	<b>\$155,789</b>	<b>10.0</b>	<b>143,598</b>
ECM 5	Install VFDs on Constant Volume (CV) Fans	Yes	104,852	22.7	0	\$11,745	\$88,107	\$17,400	\$70,707	6.0	105,586
ECM 6	Install VFDs on Chilled Water Pumps	No	14,318	5.6	0	\$1,604	\$55,638	\$4,800	\$50,838	31.7	14,419
ECM 7	Install VFDs on Heating Water Pumps	No	12,377	1.3	0	\$1,386	\$34,359	\$3,600	\$30,759	22.2	12,464
ECM 8	Install VFDs on Kitchen Hood Fan Motors	Yes	3,475	0.0	65	\$894	\$3,884	\$400	\$3,484	3.9	11,130
<b>Electric Chiller Replacement</b>			<b>65,327</b>	<b>39.8</b>	<b>0</b>	<b>\$7,318</b>	<b>\$134,803</b>	<b>\$29,072</b>	<b>\$105,731</b>	<b>14.4</b>	<b>65,784</b>
ECM 9	Install High Efficiency Chillers	Yes	65,327	39.8	0	\$7,318	\$134,803	\$29,072	\$105,731	14.4	65,784
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>145</b>	<b>\$1,120</b>	<b>\$71,727</b>	<b>\$12,054</b>	<b>\$59,673</b>	<b>53.3</b>	<b>16,938</b>
ECM 10	Install High Efficiency Hot Water Boilers	No	0	0.0	145	\$1,120	\$71,727	\$12,054	\$59,673	53.3	16,938
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>10</b>	<b>\$81</b>	<b>\$158</b>	<b>\$158</b>	<b>\$0</b>	<b>0.0</b>	<b>1,222</b>
ECM 11	Install Low-Flow DHW Devices	Yes	0	0.0	10	\$81	\$158	\$158	\$0	0.0	1,222
<b>Food Service &amp; Refrigeration Measures</b>			<b>14,351</b>	<b>1.6</b>	<b>129</b>	<b>\$2,605</b>	<b>\$21,918</b>	<b>\$1,740</b>	<b>\$20,178</b>	<b>7.7</b>	<b>29,536</b>
ECM 12	Dishwasher Replacement	Yes	8,110	0.9	129	\$1,906	\$18,859	\$1,400	\$17,459	9.2	23,251
ECM 13	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	1,538	0.1	0	\$172	\$910	\$240	\$670	3.9	1,548
ECM 14	Replace Refrigeration Equipment	Yes	3,092	0.4	0	\$346	\$1,919	\$0	\$1,919	5.5	3,113
ECM 15	Vending Machine Control	Yes	1,612	0.2	0	\$181	\$230	\$100	\$130	0.7	1,623
<b>Custom Measures</b>			<b>37,136</b>	<b>0.0</b>	<b>379</b>	<b>\$7,093</b>	<b>\$6,365</b>	<b>\$0</b>	<b>\$6,365</b>	<b>0.9</b>	<b>81,766</b>
ECM 16	Optimize EMS Settings	Yes	37,136	0.0	379	\$7,093	\$6,365	\$0	\$6,365	0.9	81,766
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>540,124</b>	<b>117.9</b>	<b>521</b>	<b>\$64,537</b>	<b>\$383,575</b>	<b>\$108,993</b>	<b>\$274,582</b>	<b>4.3</b>	<b>604,936</b>
<b>TOTALS (ALL MEASURES)</b>			<b>566,820</b>	<b>124.8</b>	<b>666</b>	<b>\$68,647</b>	<b>\$545,300</b>	<b>\$129,447</b>	<b>\$415,853</b>	<b>6.1</b>	<b>648,756</b>

# VILLAGE ELEMENTARY SCHOOL

#	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>177,443</b>	<b>30.4</b>	<b>-36</b>	<b>\$22,807</b>	<b>\$55,711</b>	<b>\$24,860</b>	<b>\$30,851</b>	<b>1.4</b>	<b>174,515</b>
ECM 1	Install LED Fixtures	Yes	6,926	0.0	0	\$900	\$8,625	\$0	\$8,625	9.6	6,974
ECM 2	Retrofit Fixtures with LED Lamps	Yes	170,517	30.4	-36	\$21,907	\$47,086	\$24,860	\$22,226	1.0	167,541
<b>Lighting Control Measures</b>			<b>18,466</b>	<b>2.8</b>	<b>-4</b>	<b>\$2,372</b>	<b>\$14,499</b>	<b>\$6,825</b>	<b>\$7,674</b>	<b>3.2</b>	<b>18,143</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	10,579	1.9	-2	\$1,359	\$8,874	\$1,470	\$7,404	5.4	10,394
ECM 4	Install High/Low Lighting Controls	Yes	7,887	0.9	-2	\$1,013	\$5,625	\$5,355	\$270	0.3	7,749
<b>Variable Frequency Drive (VFD) Measures</b>			<b>201,651</b>	<b>31.4</b>	<b>0</b>	<b>\$26,215</b>	<b>\$117,842</b>	<b>\$21,150</b>	<b>\$96,692</b>	<b>3.7</b>	<b>203,061</b>
ECM 5	Install VFDs on Constant Volume (CV) Fans	Yes	186,171	30.5	0	\$24,202	\$83,661	\$17,550	\$66,111	2.7	187,473
ECM 6	Install VFDs on Heating Water Pumps	No	15,480	1.0	0	\$2,012	\$34,180	\$3,600	\$30,580	15.2	15,588
<b>Gas Heating (HVAC/Process) Replacement</b>			<b>0</b>	<b>0.0</b>	<b>1,338</b>	<b>\$9,797</b>	<b>\$87,115</b>	<b>\$14,640</b>	<b>\$72,475</b>	<b>7.4</b>	<b>156,634</b>
ECM 7	Install High Efficiency Hot Water Boilers	Yes	0	0.0	1,338	\$9,797	\$87,115	\$14,640	\$72,475	7.4	156,634
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>10</b>	<b>\$73</b>	<b>\$151</b>	<b>\$151</b>	<b>\$0</b>	<b>0.0</b>	<b>1,167</b>
ECM 8	Install Low-Flow DHW Devices	Yes	0	0.0	10	\$73	\$151	\$151	\$0	0.0	1,167
<b>Food Service &amp; Refrigeration Measures</b>			<b>20,016</b>	<b>1.9</b>	<b>129</b>	<b>\$3,546</b>	<b>\$25,186</b>	<b>\$2,120</b>	<b>\$23,066</b>	<b>6.5</b>	<b>35,241</b>
ECM 9	Dishwasher Replacement	Yes	8,110	0.9	129	\$1,998	\$18,859	\$1,400	\$17,459	8.7	23,251
ECM 10	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	1,311	0.2	0	\$170	\$1,213	\$320	\$893	5.2	1,320
ECM 11	Refrigeration Controls	Yes	3,507	0.0	0	\$456	\$504	\$300	\$204	0.4	3,531
ECM 12	Replace Refrigeration Equipment	Yes	5,477	0.6	0	\$712	\$4,380	\$0	\$4,380	6.2	5,516
ECM 13	Vending Machine Control	Yes	1,612	0.2	0	\$210	\$230	\$100	\$130	0.6	1,623
<b>Custom Measures</b>			<b>62,009</b>	<b>0.0</b>	<b>1,113</b>	<b>\$16,212</b>	<b>\$4,407</b>	<b>\$0</b>	<b>\$4,407</b>	<b>0.3</b>	<b>192,750</b>
ECM 14	Optimize EMS Settings	Yes	62,009	0.0	1,113	\$16,212	\$4,407	\$0	\$4,407	0.3	192,750
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>464,104</b>	<b>65.6</b>	<b>2,550</b>	<b>\$79,009</b>	<b>\$270,731</b>	<b>\$66,146</b>	<b>\$204,585</b>	<b>2.6</b>	<b>765,922</b>
<b>TOTALS (ALL MEASURES)</b>			<b>479,584</b>	<b>66.5</b>	<b>2,550</b>	<b>\$81,021</b>	<b>\$304,911</b>	<b>\$69,746</b>	<b>\$235,165</b>	<b>2.9</b>	<b>781,510</b>

# ORCHARD HILL ELEMENTARY SCHOOL

#	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>252,972</b>	<b>57.5</b>	<b>-49</b>	<b>\$26,344</b>	<b>\$85,041</b>	<b>\$43,908</b>	<b>\$41,133</b>	<b>1.6</b>	<b>248,964</b>
ECM 1	Install LED Fixtures	Yes	15,296	0.6	0	\$1,615	\$4,369	\$2,810	\$1,559	1.0	15,402
ECM 2	Retrofit Fixtures with LED Lamps	Yes	237,676	56.9	-49	\$24,729	\$80,672	\$41,098	\$39,574	1.6	233,562
<b>Lighting Control Measures</b>			<b>29,331</b>	<b>5.4</b>	<b>-6</b>	<b>\$3,051</b>	<b>\$17,559</b>	<b>\$9,515</b>	<b>\$8,044</b>	<b>2.6</b>	<b>28,818</b>
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	20,814	3.9	-4	\$2,165	\$10,534	\$2,490	\$8,044	3.7	20,450
ECM 4	Install Daylight Dimming/Photocell Controls	Yes	652	0.1	0	\$68	\$500	\$500	\$0	0.0	641
ECM 5	Install High/Low Lighting Controls	Yes	7,865	1.4	-2	\$818	\$6,525	\$6,525	\$0	0.0	7,728
<b>Variable Frequency Drive (VFD) Measures</b>			<b>62,233</b>	<b>13.1</b>	<b>0</b>	<b>\$6,570</b>	<b>\$39,838</b>	<b>\$10,950</b>	<b>\$28,888</b>	<b>4.4</b>	<b>62,668</b>
ECM 6	Install VFDs on Constant Volume (CV) Fans	Yes	62,233	13.1	0	\$6,570	\$39,838	\$10,950	\$28,888	4.4	62,668
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>7</b>	<b>\$52</b>	<b>\$502</b>	<b>\$502</b>	<b>\$0</b>	<b>0.0</b>	<b>833</b>
ECM 7	Install Low-Flow DHW Devices	Yes	0	0.0	7	\$52	\$502	\$502	\$0	0.0	833
<b>Food Service &amp; Refrigeration Measures</b>			<b>8,528</b>	<b>0.8</b>	<b>0</b>	<b>\$900</b>	<b>\$7,572</b>	<b>\$720</b>	<b>\$6,852</b>	<b>7.6</b>	<b>8,587</b>
ECM 8	Refrigerator/Freezer Case Electrically Commutated Motors	Yes	1,311	0.2	0	\$138	\$1,213	\$320	\$893	6.5	1,320
ECM 9	Refrigeration Controls	No	2,499	0.1	0	\$264	\$3,348	\$300	\$3,048	11.6	2,517
ECM 10	Replace Refrigeration Equipment	No	3,106	0.4	0	\$328	\$2,781	\$0	\$2,781	8.5	3,127
ECM 11	Vending Machine Control	Yes	1,612	0.2	0	\$170	\$230	\$100	\$130	0.8	1,623
<b>Custom Measures</b>			<b>84,430</b>	<b>0.0</b>	<b>566</b>	<b>\$13,050</b>	<b>\$6,500</b>	<b>\$0</b>	<b>\$6,500</b>	<b>0.5</b>	<b>151,233</b>
ECM 12	Optimize EMS Settings	Yes	84,430	0.0	566	\$13,050	\$6,500	\$0	\$6,500	0.5	151,233
<b>TOTALS (COST EFFECTIVE MEASURES)</b>			<b>431,889</b>	<b>76.4</b>	<b>517</b>	<b>\$49,376</b>	<b>\$150,883</b>	<b>\$65,295</b>	<b>\$85,588</b>	<b>1.7</b>	<b>495,460</b>
<b>TOTALS (ALL MEASURES)</b>			<b>437,494</b>	<b>76.8</b>	<b>517</b>	<b>\$49,968</b>	<b>\$157,012</b>	<b>\$65,595</b>	<b>\$91,417</b>	<b>1.8</b>	<b>501,104</b>

# 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

- **Retro-Commissioning Study**
- Upgrade/Replace Energy Management System
- Installation of an Energy Management System
- Electric Submeter
- Ozone Laundry System
- Pool Heating System Upgrades
- Eliminate Oversized Domestic Hot Water Heating Systems
- Heating System Conversion from Steam to Hot Water
- Upgrade to a Heat Pump System
- Vestibule Revolving Doors
- Window Replacements
- Disaggregate Boiler System

# 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:

- **Transition Incentive (TI) Program**
- **Community Solar**

# SOLAR ENERGY GENERATION POTENTIAL

	HS	UMS	LMS	Village ES	Orchard Hill ES
<i>Potential:</i>	<b>HIGH</b>	<b>HIGH</b>	<b>HIGH</b>	<b>HIGH</b>	<b>HIGH</b>
<i>System Potential: (kW)</i>	1,048	190	300	332	252
<i>Electric Generation: (kWh per year)</i>	1,248,557	226,360	357,411	395,535	300,226
<i>Displaced Cost: (per year)</i>	\$114,780	\$24,370	\$40,040	\$51,400	\$31,690

## Transition Incentive (TI) Program:

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



## Community Solar Energy Pilot Program:

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



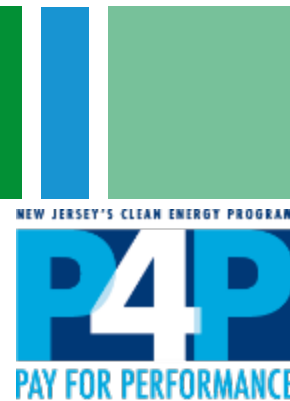
# RECOMMENDED NJCEP INCENTIVES PER BUILDING

Entity Name	Pay For Performance	SmartStart	CTEEP
Montgomery High School	X	X	X
Upper Middle School	X	X	X
Lower Middle School	X	X	X
Village Elementary School	X	X	X
Orchard Hill Elementary School	X	X	X

*Buildings marked with a lighter X do not quite meet the requirements of the current P4P program. P4P should be evaluated again once project planning is underway.*

# 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

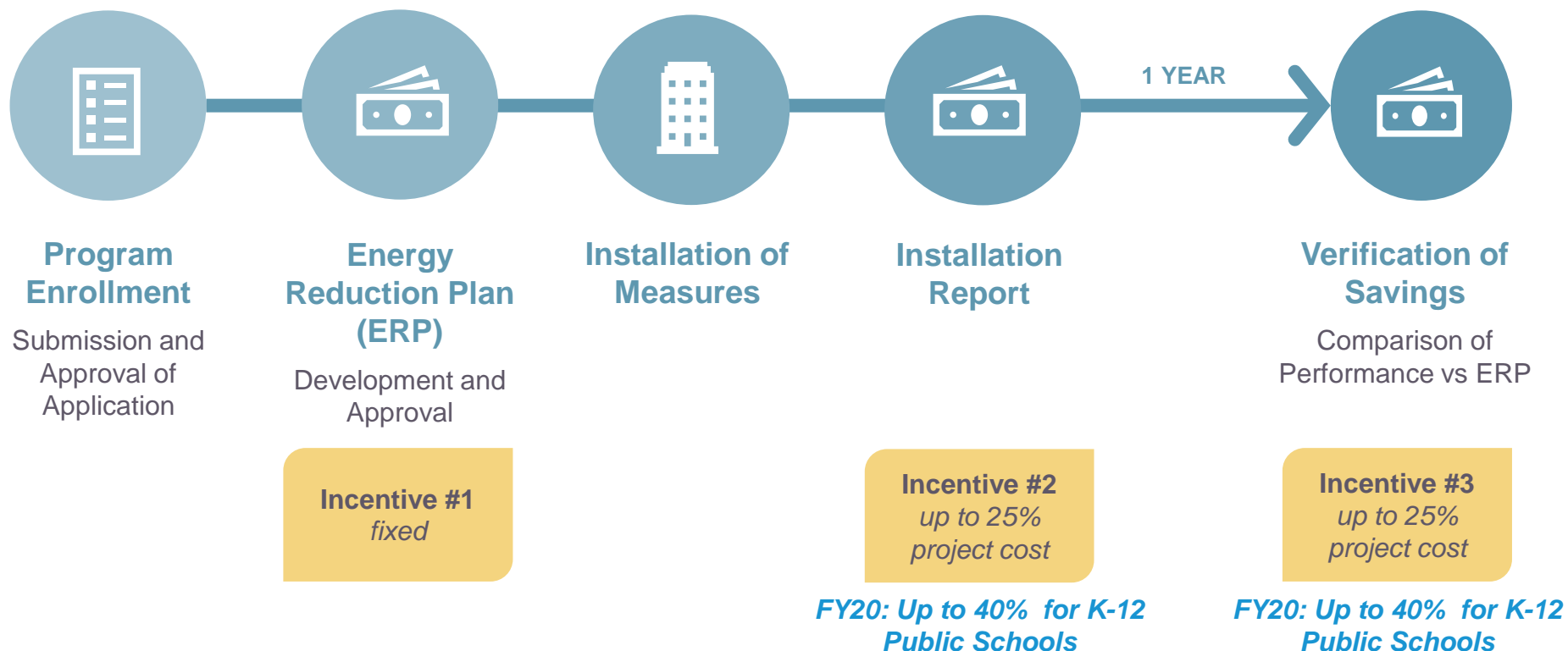
**About:** Customer choose from a network of pre-approved ***Participating Partners***

**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/Local Govt./ K-12 Public Schools) up to \$2MM per project / \$4MM per entity annually

# 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 a// 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/ LOCAL  
GOVT./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**

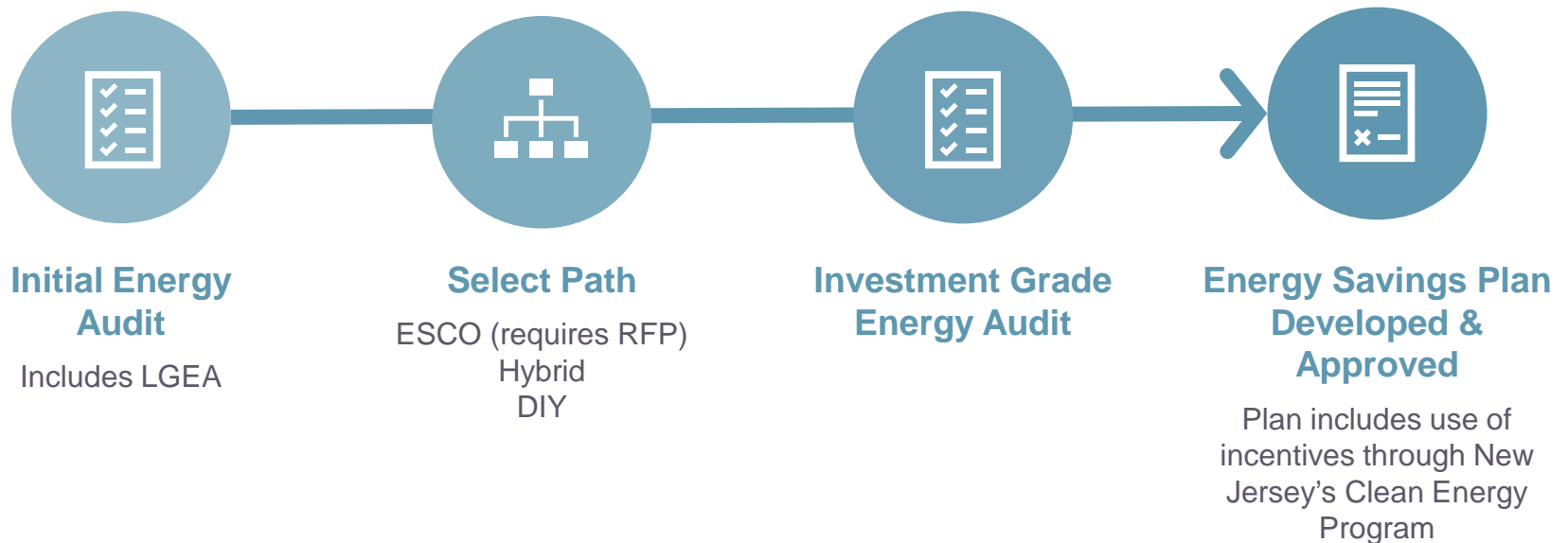
# FINANCING MECHANISM: ESIP

## 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

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# QUESTIONS

