

New Jersey's Clean Energy Program

LGEA Exit Meeting for:
Jersey City MUA

TRC Energy Services

June 11, 2019

Introductions



Jersey City MUA

- Edward Conti – Director of Compliance
- John Folk – Director of Finance
- Elmer Andal – Director of Operations

NJ Clean Energy Program

- Brian DeLuca, CEM – TRC Program Manager
- Sarah Walters – TRC Account Manager
- Mike Mandzik – TRC Outreach Manager
- Mike Thulen – ESIP Coordinator
- Arif Welcher – BPU Ombudsman
- Ken Sheenan – BPU Ombudsman

Agenda



- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified
- Questions or concerns regarding the draft audit report
- Overview of NJCEP equipment incentives
- Next steps for Jersey City MUA

LGEA Process



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



Site Visit and Utility Analysis

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

Sites Visited/Analyzed

- Eastside Plant
- Westside Plant
- Troy St. Pump Station
- Split Rock Gate House
- Dam Office & Gatehouse
- Greenbank Road Plant

Benchmarking



ENERGY STAR® Statement of Energy Performance

N/A

Eastside Plant
 Primary Property Type: Wastewater Treatment Plant
 Gross Floor Area (ft²): 27,200
 Built: 1956

For Year Ending: November 30, 2016
 Date Generated: April 10, 2019

ENERGY STAR® Score¹

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

Property & Contact Information			
Property Address Eastside Plant 7 Communipaw Ave. Jersey City, New Jersey 07304	Property Owner Jersey City Municipal Utilities Authority 555 Route 440 Jersey City, NJ 07305 2014321150	Primary Contact Kristen Auciello 555 Route 440 Jersey City, NJ 07305 2014321150 k.auciello@cityofnj.com	
Property ID: 6606941			
Energy Consumption and Energy Use Intensity (EUI)			
Site EUI 469.9 kBtu/ft ²	Annual Energy by Fuel Natural Gas (kBtu) 2,592,935 (20%) Electric - Grid (kBtu) 10,188,523 (80%)	National Median Comparison National Median Site EUI () N/A National Median Source EUI () N/A % Diff from National Median Source EUI N/A%	
Source EUI 1,148.9 kBtu/ft ²	Annual Emissions Greenhouse Gas Emissions (Metric Tons CO ₂ e/year) 1,170		

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)

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.

Site EUI

469.9 kBtu/ft²

While your facilities don't qualify for an ENERGY STAR® score, you can still track energy consumption using the Energy Use Intensity (EUI).

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 ₂ e Emissions Reduction (lbs)
Lighting Upgrades	529,366	128.9	-86.0	\$56,928.65	\$308,691.23	\$47,864.00	\$260,827.23	4.6	522,999
Install LED Fixtures	306,792	75.0	-39.1	\$34,171.30	\$245,693.87	\$36,230.00	\$209,463.87	6.1	304,356
Retrofit Fluorescent Fixtures with LED Lamps and Drivers	91,512	26.3	-19.5	\$10,371.91	\$35,534.53	\$5,483.00	\$30,051.53	2.9	89,870
Retrofit Fixtures with LED Lamps	130,607	27.6	-27.3	\$12,331.82	\$27,318.00	\$6,151.00	\$21,167.00	1.7	128,327
Install LED Exit Signs	454	0.0	-0.1	\$53.62	\$144.83	\$0.00	\$144.83	2.7	446
Lighting Control Measures	69,556	15.0	-14.8	\$6,972.29	\$70,212.00	\$8,755.00	\$61,457.00	8.8	68,308
Install Occupancy Sensor Lighting Controls	68,028	14.6	-14.5	\$6,809.75	\$68,002.00	\$8,470.00	\$59,532.00	8.7	66,807
Install Daylight Dimming Controls	146	0.0	0.0	\$15.85	\$500.00	\$180.00	\$320.00	20.2	143
Install High/Low Lighting Controls	1,382	0.4	-0.3	\$146.69	\$1,710.00	\$105.00	\$1,605.00	10.9	1,357
Variable Frequency Drive (VFD) Measures	29,878	9.2	0.0	\$2,801.11	\$33,523.91	\$1,600.00	\$31,923.91	11.4	30,087
Install VFDs on Constant Volume (CV) Fans	21,757	6.1	0.0	\$2,039.75	\$19,441.57	\$1,600.00	\$17,841.57	8.7	21,909
Install VFDs on Heating Water Pumps	8,121	3.1	0.0	\$761.36	\$14,082.34	\$0.00	\$14,082.34	18.5	8,178
Electric Unitary HVAC Measures	4,155	1.0	0.0	\$498.62	\$16,291.98	\$552.00	\$15,739.98	31.6	4,184
Install High Efficiency Heat Pumps	4,155	1.0	0.0	\$498.62	\$16,291.98	\$552.00	\$15,739.98	31.6	4,184
Electric Chiller Replacement	6,477	5.9	0.0	\$777.29	\$20,201.74	\$800.00	\$19,401.74	25.0	6,522
Install High Efficiency Chillers	6,477	5.9	0.0	\$777.29	\$20,201.74	\$800.00	\$19,401.74	25.0	6,522
Gas Heating (HVAC/Process) Replacement	0	0.0	972.4	\$9,390.65	\$283,408.14	\$7,321.65	\$276,086.49	29.4	113,855
Install High Efficiency Hot Water Boilers	0	0.0	652.3	\$6,825.32	\$148,382.65	\$670.25	\$147,712.40	21.6	76,378
Install High Efficiency Steam Boilers	0	0.0	257.2	\$2,138.58	\$127,095.42	\$6,251.40	\$120,844.02	56.5	30,117
Install High Efficiency Furnaces	0	0.0	62.9	\$426.75	\$7,930.07	\$400.00	\$7,530.07	17.6	7,360
Domestic Water Heating Upgrade	20,786	5.4	-10.7	\$2,270.63	\$4,006.37	\$160.00	\$3,846.37	1.7	19,684
Install High Efficiency Gas-Fired Water Heater	6,067	5.4	-20.7	\$435.90	\$3,855.80	\$160.00	\$3,695.80	8.5	3,686
Install Low-Flow DHW Devices	14,719	0.0	10.0	\$1,834.73	\$150.57	\$0.00	\$150.57	0.1	15,999
Plug Load Equipment Control - Vending Machine	1,612	0.2	0.0	\$193.44	\$230.00	\$50.00	\$180.00	0.9	1,623
Vending Machine Control	1,612	0.2	0.0	\$193.44	\$230.00	\$50.00	\$180.00	0.9	1,623
TOTALS	661,830	165.7	860.9	\$79,832.68	\$736,565.37	\$67,102.65	\$669,462.72	8.4	767,263

* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

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

Cost Effective Opportunities*



* Opportunities considered cost effective have a payback period less than 2/3rds of the useful life of the measure

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 ₂ e Emissions Reduction (lbs)
Lighting Upgrades		529,366	128.9	-86.0	\$56,928.65	\$308,691.23	\$47,864.00	\$260,827.23	4.6	522,999
ECM 1	Install LED Fixtures	306,792	75.0	-39.1	\$34,171.30	\$245,693.87	\$36,230.00	\$209,463.87	6.1	304,356
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	91,512	26.3	-19.5	\$10,371.91	\$35,534.53	\$5,483.00	\$30,051.53	2.9	89,870
ECM 3	Retrofit Fixtures with LED Lamps	130,607	27.6	-27.3	\$12,331.82	\$27,318.00	\$6,151.00	\$21,167.00	1.7	128,327
ECM 4	Install LED Exit Signs	454	0.0	-0.1	\$53.62	\$144.83	\$0.00	\$144.83	2.7	446
Lighting Control Measures		51,162	9.1	-10.9	\$4,801.68	\$42,982.00	\$5,215.00	\$37,767.00	7.9	50,244
ECM 5	Install Occupancy Sensor Lighting Controls	49,780	8.7	-10.6	\$4,654.99	\$41,272.00	\$5,110.00	\$36,162.00	7.8	48,887
ECM 6	Install High/Low Lighting Controls	1,382	0.4	-0.3	\$146.69	\$1,710.00	\$105.00	\$1,605.00	10.9	1,357
ECM 7	Install VFDs on Constant Volume (CV) Fans	21,757	6.1	0.0	\$2,039.75	\$19,441.57	\$1,600.00	\$17,841.57	8.7	21,909
ECM 8	Install VFDs on Heating Water Pumps	8,121	3.1	0.0	\$761.36	\$14,082.34	\$0.00	\$14,082.34	18.5	8,178
Gas Heating (HVAC/Process) Replacement		0	0.0	715.2	\$7,252.07	\$156,312.72	\$1,070.25	\$155,242.47	21.4	83,738
ECM 9	Install High Efficiency Hot Water Boilers	0	0.0	652.3	\$6,825.32	\$148,382.65	\$670.25	\$147,712.40	21.6	76,378
ECM 10	Install High Efficiency Furnaces	0	0.0	62.9	\$426.75	\$7,930.07	\$400.00	\$7,530.07	17.6	7,360
Domestic Water Heating Upgrade		20,786	5.4	-10.7	\$2,270.63	\$4,006.37	\$160.00	\$3,846.37	1.7	19,684
ECM 11	Install High Efficiency Gas-Fired Water Heater	6,067	5.4	-20.7	\$435.90	\$3,855.80	\$160.00	\$3,695.80	8.5	3,686
ECM 12	Install Low-Flow DHW Devices	14,719	0.0	10.0	\$1,834.73	\$150.57	\$0.00	\$150.57	0.1	15,999
Plug Load Equipment Control - Vending Machine		1,612	0.2	0.0	\$193.44	\$230.00	\$50.00	\$180.00	0.9	1,623
ECM 13	Vending Machine Control	1,612	0.2	0.0	\$193.44	\$230.00	\$50.00	\$180.00	0.9	1,623
TOTALS		632,804	152.8	607.6	\$74,247.58	\$545,746.23	\$55,959.25	\$489,786.98	6.6	708,376

* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

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

Eastside Plant



#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Lifetime Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades		121,500	28.4	-21	\$13,227	\$198,411	\$92,768	\$13,997	\$78,771	6.0	119,835
ECM 1	Install LED Fixtures	91,960	22.4	-15	\$10,019	\$150,280	\$85,514	\$12,900	\$72,614	7.2	90,824
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	28,641	5.8	-6	\$3,111	\$46,665	\$7,133	\$1,090	\$6,043	1.9	28,127
ECM 3	Retrofit Fixtures with LED Lamps	899	0.3	0	\$98	\$1,466	\$121	\$7	\$114	1.2	883
Lighting Control Measures		5,686	1.1	-1	\$618	\$4,941	\$12,880	\$2,000	\$10,880	17.6	5,584
ECM 4	Install Occupancy Sensor Lighting Controls	5,540	1.0	-1	\$602	\$4,814	\$12,380	\$1,820	\$10,560	17.5	5,440
ECM 5	Install Daylight Dimming Controls	146	0.0	0	\$16	\$127	\$500	\$180	\$320	20.2	143
Gas Heating (HVAC/Process) Replacement		0	0.0	148	\$1,003	\$20,063	\$47,628	\$2,758	\$44,870	44.7	17,302
ECM 6	Install High Efficiency Steam Boilers	0	0.0	85	\$576	\$11,528	\$39,698	\$2,358	\$37,340	64.8	9,942
ECM 7	Install High Efficiency Furnaces	0	0.0	63	\$427	\$8,535	\$7,930	\$400	\$7,530	17.6	7,360
Domestic Water Heating Upgrade		0	0.0	10	\$68	\$682	\$29	\$0	\$29	0.4	1,176
ECM 8	Install Low-Flow DHW Devices	0	0.0	10	\$68	\$682	\$29	\$0	\$29	0.4	1,176
TOTALS (COST EFFECTIVE MEASURES)		127,040	29.4	50	\$14,324	\$212,442	\$113,106	\$16,217	\$96,889	6.8	133,812
TOTALS (ALL MEASURES)		127,186	29.5	135	\$14,916	\$224,097	\$153,305	\$18,755	\$134,550	9.0	143,897

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance

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

Westside Plant



#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Lifetime Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades		224,863	66.4	-33	\$26,684	\$400,256	\$127,216	\$21,093	\$106,123	4.0	222,528
ECM 1	Install LED Fixtures	155,141	42.8	-19	\$18,450	\$276,753	\$100,726	\$17,130	\$83,596	4.5	154,049
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	55,818	17.8	-12	\$6,591	\$98,865	\$24,144	\$3,803	\$20,341	3.1	54,816
ECM 3	Retrofit Fixtures with LED Lamps	13,451	5.7	-3	\$1,589	\$23,833	\$2,200	\$160	\$2,040	1.3	13,217
ECM 4	Install LED Exit Signs	454	0.0	0	\$54	\$804	\$145	\$0	\$145	2.7	446
Lighting Control Measures		19,008	6.1	-4	\$2,245	\$17,956	\$27,765	\$3,465	\$24,300	10.8	18,667
ECM 5	Install Occupancy Sensor Lighting Controls	18,248	5.9	-4	\$2,155	\$17,238	\$26,730	\$3,360	\$23,370	10.8	17,921
ECM 6	Install High/Low Lighting Controls	760	0.2	0	\$90	\$718	\$1,035	\$105	\$930	10.4	747
Electric Unitary HVAC Measures		4,155	1.0	0	\$499	\$7,479	\$16,292	\$552	\$15,740	31.6	4,184
ECM 7	Install High Efficiency Heat Pumps	4,155	1.0	0	\$499	\$7,479	\$16,292	\$552	\$15,740	31.6	4,184
Electric Chiller Replacement		6,477	5.9	0	\$777	\$15,546	\$20,202	\$800	\$19,402	25.0	6,522
ECM 8	Install High Efficiency Chillers	6,477	5.9	0	\$777	\$15,546	\$20,202	\$800	\$19,402	25.0	6,522
Gas Heating (HVAC/Process) Replacement		0	0.0	172	\$1,562	\$31,243	\$87,397	\$3,893	\$83,504	53.5	20,175
ECM 9	Install High Efficiency Steam Boilers	0	0.0	172	\$1,562	\$31,243	\$87,397	\$3,893	\$83,504	53.5	20,175
Domestic Water Heating Upgrade		17,416	4.1	-9	\$2,007	\$21,268	\$2,791	\$110	\$2,681	1.3	16,460
ECM 10	Install High Efficiency Gas-Fired Water Heater	2,696	4.1	-9	\$240	\$3,603	\$2,669	\$110	\$2,559	10.7	1,638
ECM 11	Install Low-Flow DHW Devices	14,719	0.0	0	\$1,767	\$17,665	\$122	\$0	\$122	0.1	14,822
Food Service & Refrigeration Measures		1,612	0.2	0	\$193	\$967	\$230	\$50	\$180	0.9	1,623
ECM 12	Vending Machine Control	1,612	0.2	0	\$193	\$967	\$230	\$50	\$180	0.9	1,623
TOTALS (COST EFFECTIVE MEASURES)		244,651	70.9	-43	\$28,974	\$423,209	\$131,272	\$21,358	\$109,914	3.8	241,358
TOTALS (ALL MEASURES)		273,531	83.6	126	\$33,966	\$494,716	\$281,893	\$29,963	\$251,929	7.4	290,160

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance criteria for that

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

Troy Street Pump Station



#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Lifetime Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades		21,874	6.1	-2	\$2,212	\$33,180	\$21,564	\$3,020	\$18,544	8.4	21,745
ECM 1	Install LED Fixtures	19,025	4.6	-2	\$1,927	\$28,904	\$19,093	\$2,700	\$16,393	8.5	18,947
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	2,849	1.5	-1	\$285	\$4,276	\$2,471	\$320	\$2,151	7.5	2,798
Lighting Control Measures		496	0.2	0	\$50	\$397	\$1,080	\$140	\$940	19.0	487
ECM 3	Install Occupancy Sensor Lighting Controls	496	0.2	0	\$50	\$397	\$1,080	\$140	\$940	19.0	487
Gas Heating (HVAC/Process) Replacement		0	0.0	66	\$690	\$13,808	\$8,593	\$670	\$7,922	11.5	7,699
ECM 4	Install High Efficiency Hot Water Boilers	0	0.0	66	\$690	\$13,808	\$8,593	\$670	\$7,922	11.5	7,699
TOTALS (COST EFFECTIVE MEASURES)		22,370	6.3	63	\$2,952	\$47,384	\$31,236	\$3,830	\$27,406	9.3	29,931
TOTALS (ALL MEASURES)		22,370	6.3	63	\$2,952	\$47,384	\$31,236	\$3,830	\$27,406	9.3	29,931

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance

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

Greenbank Rd. Plant, Dam Office & Gatehouse, Split Rock Gatehouse



#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Lifetime Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades		161,128	28.0	-29	\$14,806	\$222,084	\$67,144	\$9,754	\$57,390	3.9	158,892
ECM 1	Install LED Fixtures	40,667	5.2	-4	\$3,775	\$56,632	\$40,361	\$3,500	\$36,861	9.8	40,536
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	4,205	1.2	-1	\$385	\$5,773	\$1,786	\$270	\$1,516	3.9	4,129
ECM 3	Retrofit Fixtures with LED Lamps	116,257	21.6	-24	\$10,645	\$159,679	\$24,997	\$5,984	\$19,013	1.8	114,227
Lighting Control Measures		44,366	7.7	-9	\$4,061	\$32,485	\$28,487	\$3,150	\$25,337	6.2	43,570
ECM 4	Install Occupancy Sensor Lighting Controls	43,744	7.5	-9	\$4,004	\$32,029	\$27,812	\$3,150	\$24,662	6.2	42,959
ECM 5	Install High/Low Lighting Controls	622	0.2	0	\$57	\$455	\$675	\$0	\$675	11.9	611
Variable Frequency Drive (VFD) Measures		29,878	9.2	0	\$2,801	\$42,017	\$33,524	\$1,600	\$31,924	11.4	30,087
ECM 6	Install VFDs on Constant Volume (CV) Fans	21,757	6.1	0	\$2,040	\$30,596	\$19,442	\$1,600	\$17,842	8.7	21,909
ECM 7	Install VFDs on Heating Water Pumps	8,121	3.1	0	\$761	\$11,420	\$14,082	\$0	\$14,082	18.5	8,178
Gas Heating (HVAC/Process) Replacement		0	0.0	587	\$6,135	\$122,698	\$139,790	\$0	\$139,790	22.8	68,679
ECM 8	Install High Efficiency Hot Water Boilers	0	0.0	587	\$6,135	\$122,698	\$139,790	\$0	\$139,790	22.8	68,679
Domestic Water Heating Upgrade		3,370	1.4	-12	\$196	\$2,936	\$1,186	\$50	\$1,136	5.8	2,048
ECM 9	Install High Efficiency Gas-Fired Water Heater	3,370	1.4	-12	\$196	\$2,936	\$1,186	\$50	\$1,136	5.8	2,048
TOTALS (COST EFFECTIVE MEASURES)		238,743	46.2	537	\$27,998	\$422,219	\$270,132	\$14,554	\$255,578	9.1	303,276
TOTALS (ALL MEASURES)		238,743	46.2	537	\$27,998	\$422,219	\$270,132	\$14,554	\$255,578	9.1	303,276

* - All incentives presented in this table are based on NJ SmartStart equipment incentives and assume proposed equipment meets minimum performance

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

Solar Energy Generation Potential



	Eastside Plant	Westside Plant	Greenbank Rd. Plant, Dam Office & Gatehouse, Split Rock Gatehouse
<i>Potential:</i>	MEDIUM	HIGH	MEDIUM
<i>System Potential: (kW)</i>	221	151	367
<i>Electric Generation: (kWh per year)</i>	166,290	113,619	276,147
<i>Displaced Cost: (per year)</i>	\$18,300	\$13,640	\$25,890

For more information on the SREC Registration Program (SRP) please visit:

<http://www.njcleanenergy.com/renewable-energy/programs/solar-renewable-energy-certificates-srec/new-jersey-solar-renewable-energy>



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

Equipment Rebates:

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

INCENTIVE PROGRAMS

Whole Buildings:

- Pay for Performance

Energy Generation:

- Combined Heat and Power (CHP)

OTHER PROGRAMS

Renewable Energy Generation:

- SREC Registration Program (SRP)

* eligible programs are highlighted in yellow

Recommended NJCEP Incentives per Building



Entity Name	Direct Install	SmartStart	CTEEP
Eastside Plant		X	X
Westside Plant		X	X
Troy St. Pump Station	X	X	X
Greenbank Rd. Plant, Split Rock Gatehouse, Dam Office		X	X

Direct Install: Overview



- Turn-key retrofit program to replace outdated and inefficient equipment, including lighting, HVAC, refrigeration, etc.
- Open to Small to Mid-Sized Commercial and Industrial facilities with an average electric demand ≤ 200 kW
- Provides incentives of up to 70% of the installed cost
- Incentives are paid directly to the contractor
 - Customer only pays remaining 30% of installed cost
 - \$125,000 project/building cap
 - \$250,000 per entity cap (up to \$500,000 if using ESIP)
- Participating contractors provide support and process all paperwork
- Fast turnaround time: Average length of time for job completion (4-6 months)

www.NJCleanEnergy/DI

Direct Install:



Participating Contractor

Donnelly Energy

Justin Avallone

845-401-6253

javallone@donnellyenergy.com

Direct Install:



Participating Contractor

Lime Energy

Fran Burke

732-259-4136

fburke@lime-energy.com

Direct Install: Financing Option



- Eligible NJNG customers can finance the remaining 30 percent balance at 0% APR through the “SAVEGREEN Project® On-Bill Repayment Program” (OBRP) for 36 months.
- For measures that may not qualify for Direct Install, NJNG also offers financing options for SmartStart that will cover up to \$130,000 per year.



- Questions? Contact:

Jerry Ryan

Energy Efficiency Operations Manager
New Jersey Natural Gas
732-433-4362 (cell)
732 378 4920 (office)
jryan@njng.com

SmartStart: Overview



- Two types of incentives for high efficiency equipment installation:
 - Prescriptive
 - Custom
- Project Categories:
 - New Construction
 - Renovation
 - Remodeling
 - Equipment Replacement
- Project pre-approval required for lighting and custom measures
- Incentives up to \$500,000 per electric account & \$500,000 per natural gas account
- Specific incentives and individual applications for Lighting, HVAC, VFDs, Refrigeration, Controls and more!

www.NJCleanEnergy/SSB

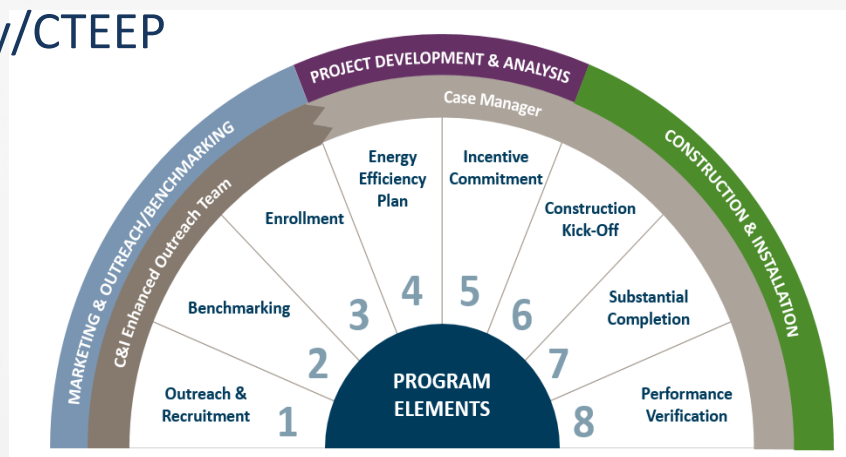
CTEEP: Overview



Customer Tailored Energy Efficiency Pilot (CTEEP)

- Provide customers with **on-site assistance** to discuss project opportunities and program incentives.
- A **single application** submission streamlines multiple prescriptive and custom measures.
- Provide **technical assistance incentives** to help offset soft costs associated with developing and planning an energy efficiency project.
- Incentives up to \$250,000 entity cap.

www.NJCleanEnergy/CTEEP



SmartStart & CTEEP: Financing Option



- NJNG provides 0% financing options for SmartStart 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:

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Energy Efficiency Operations
Manager

New Jersey Natural Gas

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Recommended NJCEP Incentives per Building



Entity Name	Direct Install	SmartStart	CTEEP
Eastside Plant		X	X
Westside Plant		X	X
Troy St. Pump Station	X	X	X
Greenbank Rd. Plant, Split Rock Gatehouse, Dam Office		X	X

Energy Savings Improvement Program (ESIP)

- Provides alternative financing for energy savings projects at public institutions. Value of energy savings leveraged to pay for cost of EE projects over a 15 year contract. Does not count as debt/require voter approval.
- Requires an audit as 1st step (LGEA satisfies requirement)
- ESIP participation question on LGEA application
- Program administered directly by BPU

ESIP Process

New Jersey's Clean Energy Program Interaction

Initial Energy Audit completed
for entity building(s)

Local Government Energy Audit
(LGEA) may be used to meet
this requirement

Entity issues ESIP RFP (previously
approved by BPU) and selects ESCO
or DIY approach

Investment Grade Energy Audit completed
and Energy Savings Plan (ESP)
developed

P4P Energy Reduction Plan (ERP),
Direct Install, or SmartStart application
recommended submittal time frame

Third party review of ESP

Review and approval of ESP
by Board of Public Utilities (BPU)

Entity adopts ESP,
determines guarantee



FOR MORE INFORMATION

ESIP

Mike Thulen

ESIP Coordinator

Office: 609-777-3338

Cell: 732-330-2419

ESIP@bpu.nj.gov

Questions



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FOR MORE INFORMATION

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