

New Jersey's Clean Energy Program

LGEA Exit Meeting for:
Long Hill Township

TRC Energy Services

August 14, 2018

Introductions



- Long Hill Township
 - Nancy Malool – Township Administrator
 - Al Gallo – Acting DPW Director
- NJ Clean Energy Program
 - Brian DeLuca – Program Manager
 - Vish Nimbalkar, P.E. – Auditor
 - Elizabeth Ebinger – Account Manager
 - Arif Welcher – 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 Long Hill Township

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

Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

Sites Visited/Analyzed

- Town Hall & Library
- Sewerage Treatment Plant
- Public Works Building
- Old Millington Schoolhouse
- Police Department
- Street Lights
- Pump Stations
- Park & Recreation Areas

All Opportunities



Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Natural Gas Savings (MMBtu)	Annual Fuel 2 Savings (MMBtu)	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	523,431	116.5	0.0	0.0	0.0	\$63,334	\$153,664	\$12,555	\$141,109	2.2	527,091
Install LED Fixtures	303,665	54.8	0.0	0.0	0.0	\$35,282	\$42,976	\$6,550	\$36,426	1.0	305,788
Retrofit Fluorescent Fixtures with LED Lamps and Drivers	60,352	13.5	0.0	0.0	0.0	\$7,583	\$27,345	\$2,190	\$25,155	3.3	60,774
Retrofit Fixtures with LED Lamps	159,076	48.2	0.0	0.0	0.0	\$20,427	\$82,806	\$3,815	\$78,991	3.9	160,188
Install LED Exit Signs	338	0.0	0.0	0.0	0.0	\$43	\$538	\$0	\$538	12.6	340
Lighting Control Measures	13,485	4.2	0.0	0.0	0.0	\$1,671	\$16,462	\$2,195	\$14,267	8.5	13,579
Install Occupancy Sensor Lighting Controls	13,270	4.1	0.0	0.0	0.0	\$1,646	\$16,062	\$2,195	\$13,867	8.4	13,363
Install High/Low Lighting Controls	215	0.1	0.0	0.0	0.0	\$25	\$400	\$0	\$400	16.1	216
Motor Upgrades	2,499	0.8	0.0	0.0	0.0	\$334	\$14,425	\$0	\$14,425	43.2	2,516
Premium Efficiency Motors	2,499	0.8	0.0	0.0	0.0	\$334	\$14,425	\$0	\$14,425	43.2	2,516
Variable Frequency Drive (VFD) Measures	172,070	39.1	0.0	0.0	0.0	\$23,846	\$89,764	\$14,400	\$75,364	3.2	173,273
Install VFDs on Pump Motors	172,070	39.1	0.0	0.0	0.0	\$23,846	\$89,764	\$14,400	\$75,364	3.2	173,273
Electric Unitary HVAC Measures	55,171	17.5	0.0	0.0	0.0	\$6,757	\$130,171	\$8,004	\$122,167	18.1	55,556
Install High Efficiency Electric AC	55,171	17.5	0.0	0.0	0.0	\$6,757	\$130,171	\$8,004	\$122,167	18.1	55,556
Gas Heating (HVAC/Process) Replacement	0	0.0	16.8	64.3	81.0	\$1,004	\$20,686	\$2,214	\$18,472	18.4	12,479
Install High Efficiency Hot Water Boilers	0	0.0	16.8	64.3	81.0	\$1,004	\$20,686	\$2,214	\$18,472	18.4	12,479
HVAC System Improvements	559	0.0	11.6	0.0	11.6	\$199	\$660	\$0	\$660	3.3	1,924
Install Programmable Thermostats	559	0.0	11.6	0.0	11.6	\$199	\$660	\$0	\$660	3.3	1,924
TOTALS	767,213	178.1	28.4	64.3	92.7	\$97,145	\$425,833	\$39,368	\$386,464	4.0	786,418

* - 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 the expedited life of the measure*


Energy Conservation Measure		Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Natural Gas Savings (MMBtu)	Annual Fuel 2 Savings (MMBtu)	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		523,431	116.5	0.0	0.0	0.0	\$63,334	\$153,664	\$12,555	\$141,109	2.2	527,091
ECM 1	Install LED Fixtures	303,665	54.8	0.0	0.0	0.0	\$35,282	\$42,976	\$6,550	\$36,426	1.0	305,788
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	60,352	13.5	0.0	0.0	0.0	\$7,583	\$27,345	\$2,190	\$25,155	3.3	60,774
ECM 3	Retrofit Fixtures with LED Lamps	159,076	48.2	0.0	0.0	0.0	\$20,427	\$82,806	\$3,815	\$78,991	3.9	160,188
ECM 4	Install LED Exit Signs	338	0.0	0.0	0.0	0.0	\$43	\$538	\$0	\$538	12.6	340
Lighting Control Measures		12,503	3.9	0.0	0.0	0.0	\$1,560	\$13,716	\$1,860	\$11,856	7.6	12,591
ECM 5	Install Occupancy Sensor Lighting Controls	12,405	3.8	0.0	0.0	0.0	\$1,548	\$13,516	\$1,860	\$11,656	7.5	12,492
ECM 6	Install High/Low Lighting Controls	98	0.0	0.0	0.0	0.0	\$12	\$200	\$0	\$200	16.7	99
Motor Upgrades		1,737	0.6	0.0	0.0	0.0	\$241	\$9,000	\$0	\$9,000	37.4	1,749
ECM 7	Premium Efficiency Motors	1,737	0.6	0.0	0.0	0.0	\$241	\$9,000	\$0	\$9,000	37.4	1,749
Variable Frequency Drive (VFD) Measures		172,070	39.1	0.0	0.0	0.0	\$23,846	\$89,764	\$14,400	\$75,364	3.2	173,273
ECM 8	Install VFDs on Pump Motors	172,070	39.1	0.0	0.0	0.0	\$23,846	\$89,764	\$14,400	\$75,364	3.2	173,273
Electric Unitary HVAC Measures		55,171	17.5	0.0	0.0	0.0	\$6,757	\$130,171	\$8,004	\$122,167	18.1	55,556
ECM 9	Install High Efficiency Electric AC	55,171	17.5	0.0	0.0	0.0	\$6,757	\$130,171	\$8,004	\$122,167	18.1	55,556
Gas Heating (HVAC/Process) Replacement		0	0.0	16.8	64.3	81.0	\$1,004	\$20,686	\$2,214	\$18,472	18.4	12,479
ECM 10	Install High Efficiency Hot Water Boilers	0	0.0	16.8	64.3	81.0	\$1,004	\$20,686	\$2,214	\$18,472	18.4	12,479
HVAC System Improvements		559	0.0	11.6	0.0	11.6	\$199	\$660	\$0	\$660	3.3	1,924
ECM 11	Install Programmable Thermostats	559	0.0	11.6	0.0	11.6	\$199	\$660	\$0	\$660	3.3	1,924
TOTALS		765,470	177.5	28.4	64.3	92.7	\$96,941	\$417,662	\$39,033	\$378,628	3.9	784,663

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Benchmarking





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energystar.gov

ENERGY STAR® Statement of Energy Performance

N/A

Town Hall & Library
Primary Property Type: Office
Gross Floor Area (ft²): 34,103
Built: 2004

For Year Ending: March 31, 2016
Date Generated: August 24, 2017

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 Town Hall & Library 915 Valley Road Gillette, New Jersey 07933	Property Owner _____ () - ____	Primary Contact _____ () - ____
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Property ID: 6019497

Energy Consumption and Energy Use Intensity (EUI)

Site EUI 77.5 kBtu/ft²	Annual Energy by Fuel Natural Gas (kBtu) 1,292,852 (49%) Electric - Grid (kBtu) 1,349,078 (51%)	National Median Comparison National Median Site EUI (kBtu/ft²) 69.9 National Median Source EUI (kBtu/ft²) 148.1 % Diff from National Median Source EUI 11%
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Source EUI 164 kBtu/ft²	Annual Emissions Greenhouse Gas Emissions (Metric Tons CO2e/year) 218
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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)

Town Hall & Library



Energy Conservation Measures		Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			119,657	30.5	\$14,654.69	\$58,922.77	\$3,295.00	\$55,627.77	3.8	120,494
ECM 1	Retrofit Fixtures with LED Lamps	Yes	119,657	30.5	\$14,654.69	\$58,922.77	\$3,295.00	\$55,627.77	3.8	120,494
Lighting Control Measures			7,837	2.8	\$959.87	\$7,880.00	\$1,220.00	\$6,660.00	6.9	7,892
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	7,837	2.8	\$959.87	\$7,880.00	\$1,220.00	\$6,660.00	6.9	7,892
Motor Upgrades			762	0.2	\$93.30	\$5,424.99	\$0.00	\$5,424.99	58.1	767
	Premium Efficiency Motors	No	762	0.2	\$93.30	\$5,424.99	\$0.00	\$5,424.99	58.1	767
Electric Unitary HVAC Measures			55,171	17.5	\$6,756.87	\$130,171.14	\$8,004.00	\$122,167.14	18.1	55,556
ECM 3	Install High Efficiency Electric AC	Yes	55,171	17.5	\$6,756.87	\$130,171.14	\$8,004.00	\$122,167.14	18.1	55,556
TOTAL (All ECMs)			183,427	51.0	\$22,464.73	\$202,398.90	\$12,519.00	\$189,879.90	8.5	184,710
TOTAL (All Cost-Effective ECMs)			182,665	50.8	\$22,371.43	\$196,973.91	\$12,519.00	\$184,454.91	8.2	183,943

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Sewerage Treatment Plant



Energy Conservation Measure		Recommend?	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			44,530	10.4	0.0	\$4,888.30	\$34,060.10	\$715.00	\$33,345.10	6.8	44,841
ECM 1	Install LED Fixtures	Yes	27,422	4.5	0.0	\$3,010.28	\$21,212.10	\$185.00	\$21,027.10	7.0	27,614
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	9,044	3.1	0.0	\$992.85	\$8,248.00	\$530.00	\$7,718.00	7.8	9,108
ECM 3	Retrofit Fixtures with LED Lamps	Yes	8,064	2.8	0.0	\$885.18	\$4,600.00	\$0.00	\$4,600.00	5.2	8,120
Lighting Control Measures			728	0.3	0.0	\$79.96	\$1,820.00	\$210.00	\$1,610.00	20.1	733
	Install Occupancy Sensor Lighting Controls	No	612	0.2	0.0	\$67.19	\$1,620.00	\$210.00	\$1,410.00	21.0	616
	Install High/Low Lighting Controls	No	116	0.0	0.0	\$12.77	\$200.00	\$0.00	\$200.00	15.7	117
Gas Heating (HVAC/Process) Replacement			0	0.0	64.3	\$836.37	\$13,249.89	\$1,214.40	\$12,035.49	14.4	10,513
ECM 4	Install High Efficiency Hot Water Boilers	Yes	0	0.0	64.3	\$836.37	\$13,249.89	\$1,214.40	\$12,035.49	14.4	10,513
TOTALS OF ALL RECOMMENDED MEASURES			44,530	10.4	64.3	\$5,724.67	\$47,309.99	\$1,929.40	\$45,380.59	7.9	55,355
TOTALS OF ALL EVALUATED MEASURES			45,258	10.7	64.3	\$5,804.63	\$49,129.99	\$2,139.40	\$46,990.59	8.1	56,088

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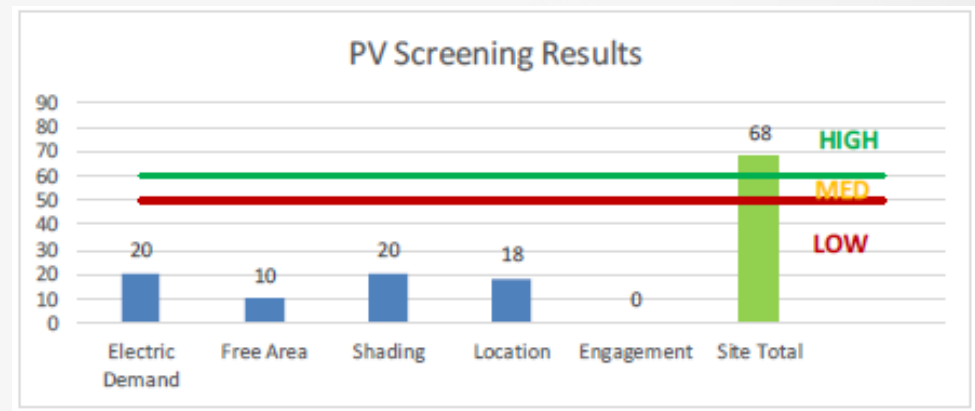
** - Simple Payback Period is based on net measure costs (i.e. after incentives).

Sewerage Treatment Plant



Solar Energy Generation Potential

Potential	High	
System Potential	54	kW DC STC
Electric Generation	64,334	kWh/yr
Displaced Cost	\$5,600	/yr
Installed Cost	\$140,400	



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>

Public Works Building



Energy Conservation Measure		Recommend?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			20,131	6.1	\$2,460.36	\$15,520.92	\$4,730.00	\$10,790.92	4.4	20,272
ECM 1	Install LED Fixtures	Yes	17,519	4.9	\$2,141.10	\$11,847.26	\$4,605.00	\$7,242.26	3.4	17,641
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,237	0.6	\$151.24	\$1,818.00	\$0.00	\$1,818.00	12.0	1,246
ECM 3	Retrofit Fixtures with LED Lamps	Yes	1,245	0.6	\$152.13	\$1,640.55	\$125.00	\$1,515.55	10.0	1,253
ECM 4	Install LED Exit Signs	Yes	130	0.0	\$15.89	\$215.11	\$0.00	\$215.11	13.5	131
Lighting Control Measures			351	0.2	\$42.95	\$1,126.00	\$125.00	\$1,001.00	23.3	354
	Install Occupancy Sensor Lighting Controls	No	253	0.1	\$30.95	\$926.00	\$125.00	\$801.00	25.9	255
ECM 5	Install High/Low Lighting Controls	Yes	98	0.0	\$12.00	\$200.00	\$0.00	\$200.00	16.7	99
TOTALS FOR RECOMMENDED MEASURES			20,229	6.1	\$2,472.37	\$15,720.92	\$4,730.00	\$10,990.92	4.4	20,371
TOTALS FOR ALL EVALUATED MEASURES			20,834	6.4	\$2,546.26	\$17,772.92	\$4,980.00	\$12,792.92	5.0	20,980

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Old Millington Schoolhouse



Energy Conservation Measure		Recommend?	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			6,798	1.3	0.0	\$993.56	\$2,395.61	\$310.00	\$2,085.61	2.1	6,845
ECM 1	Install LED Fixtures	Yes	3,148	0.5	0.0	\$460.10	\$1,311.46	\$220.00	\$1,091.46	2.4	3,170
ECM 2	Retrofit Fixtures with LED Lamps	Yes	3,650	0.8	0.0	\$533.46	\$1,084.15	\$90.00	\$994.15	1.9	3,675
Lighting Control Measures			149	0.1	0.0	\$21.80	\$540.00	\$0.00	\$540.00	24.8	150
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	149	0.1	0.0	\$21.80	\$540.00	\$0.00	\$540.00	24.8	150
HVAC System Improvements			559	0.0	11.6	\$199.44	\$659.74	\$0.00	\$659.74	3.3	1,924
ECM 4	Install Programmable Thermostats	Yes	559	0.0	11.6	\$199.44	\$659.74	\$0.00	\$659.74	3.3	1,924
TOTALS			7,505	1.4	11.6	\$1,214.80	\$3,595.35	\$310.00	\$3,285.35	2.7	8,919

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Police Department



Energy Conservation Measure		Recommend?	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			66,970	11.4	0.0	\$8,588.11	\$18,382.87	\$1,790.00	\$16,592.87	1.9	67,438
ECM 1	Install LED Fixtures	Yes	10,062	1.4	0.0	\$1,290.35	\$2,828.28	\$40.00	\$2,788.28	2.2	10,132
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	48,941	8.7	0.0	\$6,276.12	\$14,430.63	\$1,620.00	\$12,810.63	2.0	49,283
ECM 3	Retrofit Fixtures with LED Lamps	Yes	7,759	1.3	0.0	\$994.99	\$801.29	\$130.00	\$671.29	0.7	7,813
ECM 4	Install LED Exit Signs	Yes	208	0.0	0.0	\$26.66	\$322.67	\$0.00	\$322.67	12.1	209
Lighting Control Measures			4,418	1.0	0.0	\$566.61	\$5,250.00	\$655.00	\$4,595.00	8.1	4,449
ECM 5	Install Occupancy Sensor Lighting Controls	Yes	4,418	1.0	0.0	\$566.61	\$5,250.00	\$655.00	\$4,595.00	8.1	4,449
Gas Heating (HVAC/Process) Replacement			0	0.0	16.6	\$165.68	\$7,436.60	\$1,000.00	\$6,436.60	38.9	1,946
	Install High Efficiency Hot Water Boilers	No	0	0.0	16.6	\$165.68	\$7,436.60	\$1,000.00	\$6,436.60	38.9	1,946
TOTAL FOR RECOMMENDED MEASURES			71,388	12.4	0.0	\$9,154.73	\$23,632.87	\$2,445.00	\$21,187.87	2.3	71,888
TOTAL FOR ALL MEASURES			71,388	12.4	16.6	\$9,320.40	\$31,069.47	\$3,445.00	\$27,624.47	3.0	73,833

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Street Lights



Energy Conservation Measure		Recommend?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			231,172	0.0	\$8,478.48	\$0.00	\$0.00	\$0.00	0.0	232,789
ECM 1	Install LED Fixtures	Yes	231,172	0.0	\$8,478.48	\$0.00	\$0.00	\$0.00	0.0	232,789
TOTALS			231,172	0.0	\$8,478.48	\$0.00	\$0.00	\$0.00	0.0	232,789

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Pump Stations



Energy Conservation Measure		Recommend:	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			1,748	1.3	\$242.30	\$2,577.42	\$130.00	\$2,447.42	10.1	1,761
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	524	0.8	\$72.55	\$1,926.67	\$0.00	\$1,926.67	26.6	527
ECM 2	Retrofit Fixtures with LED Lamps	Yes	1,225	0.5	\$169.75	\$650.75	\$130.00	\$520.75	3.1	1,233
Motor Upgrades			1,737	0.6	\$240.70	\$8,999.84	\$0.00	\$8,999.84	37.4	1,749
ECM 3	Premium Efficiency Motors	Yes	1,737	0.6	\$240.70	\$8,999.84	\$0.00	\$8,999.84	37.4	1,749
Variable Frequency Drive (VFD) Measures			172,070	39.1	\$23,845.83	\$89,763.97	\$14,400.00	\$75,363.97	3.2	173,273
ECM 4	Install VFDs on Pump Motors	Yes	172,070	39.1	\$23,845.83	\$89,763.97	\$14,400.00	\$75,363.97	3.2	173,273
TOTALS			175,555	41.0	\$24,328.84	\$101,341.23	\$14,530.00	\$86,811.23	3.6	176,782

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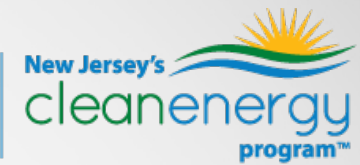
Parks & Recreation Areas

Energy Conservation Measure		Recommend?	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			27,859	13.7	0.0	\$4,817.14	\$109,206.42	\$6,435.00	\$102,771.42	21.3	28,054
ECM 1	Install LED Fixtures	Yes	24,318	12.7	0.0	\$4,204.92	\$107,822.67	\$6,350.00	\$101,472.67	24.1	24,488
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	279	0.3	0.0	\$48.28	\$755.00	\$20.00	\$735.00	15.2	281
ECM 3	Retrofit Fixtures with LED Lamps	Yes	3,261	0.7	0.0	\$563.94	\$628.75	\$65.00	\$563.75	1.0	3,284
TOTALS			27,859	13.7	0.0	\$4,817.14	\$109,206.42	\$6,435.00	\$102,771.42	21.3	28,054

* - 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).

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 Retrofit
- SmartStart New Construction
- Direct Install
- Large Energy Users

Whole Buildings:

- Pay for Performance Existing Buildings
- Pay for Performance New Construction

Energy Generation:

- Combined Heat and Power (CHP)

OTHER PROGRAMS

Renewable Energy Generation:

- SREC Registration Program (SRP)

* eligible programs are highlighted in yellow

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 certain equipment
- 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!

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)

Direct Install:



Participating Contractor

Donnelly Energy

Justin Avallone

845-401-6253

javallone@donnellyenergy.com

Recommended NJCEP Incentives per Building



Entity Name	SmartStart	Direct Install
Town Hall & Library	X	X
Sewerage Treatment Plant	X	X
Public Works Building	X	X***
Old Millington Schoolhouse	X	X
Police Station	X	X***
Street Lights	X*	
Pump Station	X	X**
Parks & Recreation Areas	X	

* Potentially eligible if there is an additional cost not covered by the utility.

** Eligible as of July 1, 2018 for Direct Install due to FY 19 updates. Draft Report does not indicate this eligibility because delivered prior in FY18.

*** These sites require a waiver to be in Direct Install because only lighting upgrades have been identified. They are eligible for a full free assessment with the DI Participating Contractor to submit the waiver or to identify other measure/s to enable participation.

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

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Questions



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FOR MORE INFORMATION

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