

New Jersey's Clean Energy Program

LGEA Exit Meeting for:
Hamilton Township Board of Education

April 12, 2018

Agenda



- Introductions
- Overview of LGEA process
- Energy use & existing conditions
- Review of **Energy Conservation Measures (ECMs)** identified
- Questions or concerns regarding the draft audit reports
- Overview of NJCEP equipment incentives
- South Jersey Gas Financing Option
- Energy Savings Improvement Program (ESIP)
- Next steps for Hamilton Township Board of Education

Introductions



Hamilton Township Board of Education

- Business Administrator: Ann-Marie Fala
- Director of Facilities: Ian Nelson
- Energy Services Company (ESCO): Bob Ventriglia

NJ Clean Energy Program Team

- Lead Auditor: Vish Nimbalkar
- Outreach Manager: Jim Friedl
- ESIP Coordinator: Mike Thulen (tentative)

Process to Draft Report



- Application submitted to NJCEP
- Site Visit Performed
- Utility Analysis
- Baseline Condition
- Analysis
- Recommendations
- Report

Sites Audited



- George Hess Educational Complex
- Joseph Shaner Elementary School
- William Davies Middle School

ECM Summary (All Sites) - All Measures



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	1,290,239	179.2	0.0	\$185,528.49	\$562,616.27	\$76,190.00	\$486,426.27	2.6	1,299,261
Install LED Fixtures	194,068	25.4	0.0	\$26,897.65	\$162,729.50	\$15,150.00	\$147,579.50	5.5	195,425
Retrofit Fixtures with LED Lamps	1,096,171	153.8	0.0	\$158,630.84	\$399,886.77	\$61,040.00	\$338,846.77	2.1	1,103,836
Lighting Control Measures	192,538	24.7	0.0	\$28,139.21	\$107,850.00	\$11,090.00	\$96,760.00	3.4	193,885
Install Occupancy Sensor Lighting Controls	166,104	21.2	0.0	\$24,188.14	\$84,510.00	\$9,870.00	\$74,640.00	3.1	167,265
Install High/Low Lighting Controls	26,435	3.5	0.0	\$3,951.07	\$23,340.00	\$1,220.00	\$22,120.00	5.6	26,619
Motor Upgrades	43,334	8.5	0.0	\$6,443.24	\$68,741.04	\$0.00	\$68,741.04	10.7	43,637
Premium Efficiency Motors	43,334	8.5	0.0	\$6,443.24	\$68,741.04	\$0.00	\$68,741.04	10.7	43,637
Variable Frequency Drive (VFD) Measures	311,817	38.0	0.0	\$45,277.83	\$121,768.20	\$18,850.00	\$102,918.20	2.3	313,997
Install VFD on Variable Air Volume (VAV) HVAC	73,180	18.0	0.0	\$9,767.21	\$41,434.40	\$13,650.00	\$27,784.40	2.8	73,692
Install VFDs on Constant Volume (CV) HVAC	28,005	7.7	0.0	\$4,202.82	\$32,758.50	\$4,000.00	\$28,758.50	6.8	28,201
Install VFDs on Hot Water Pumps	160,250	12.3	0.0	\$24,049.08	\$28,674.00	\$0.00	\$28,674.00	1.2	161,370
Install VFDs on Cooling Tower Fans	50,381	0.0	0.0	\$7,258.72	\$18,901.30	\$1,200.00	\$17,701.30	2.4	50,734
Electric Unitary HVAC Measures	146,912	56.1	0.0	\$22,652.38	\$173,908.45	\$9,168.50	\$164,739.95	7.3	147,939
Install High Efficiency Electric AC	146,912	56.1	0.0	\$22,652.38	\$173,908.45	\$9,168.50	\$164,739.95	7.3	147,939
Gas Heating (HVAC/Process) Replacement	0	0.0	2,853.9	\$21,621.73	\$368,013.14	\$2,600.00	\$365,413.14	16.9	334,150
Install High Efficiency Hot Water Boilers	0	0.0	2,652.2	\$19,809.92	\$347,621.54	\$1,000.00	\$346,621.54	17.5	310,538
Install High Efficiency Furnaces	0	0.0	201.7	\$1,811.81	\$20,391.60	\$1,600.00	\$18,791.60	10.4	23,612
Domestic Water Heating Upgrade	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
Install High Efficiency Gas Water Heater	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
Plug Load Equipment Control - Vending Machine	8,059	0.0	0.0	\$1,192.45	\$1,840.00	\$0.00	\$1,840.00	1.5	8,116
Vending Machine Control	8,059	0.0	0.0	\$1,192.45	\$1,840.00	\$0.00	\$1,840.00	1.5	8,116
TOTALS	1,992,899	306.4	2,919.5	\$311,343.18	\$1,525,001.10	\$122,098.50	\$1,402,902.60	4.5	2,348,674

* - 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).

ECM Summary (All Sites) – Recommended Measures



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		1,290,239	179.2	0.0	\$185,528.49	\$562,616.27	\$76,190.00	\$486,426.27	2.6	1,299,261
ECM 1	Install LED Fixtures	194,068	25.4	0.0	\$26,897.65	\$162,729.50	\$15,150.00	\$147,579.50	5.5	195,425
ECM 2	Retrofit Fixtures with LED Lamps	1,096,171	153.8	0.0	\$158,630.84	\$399,886.77	\$61,040.00	\$338,846.77	2.1	1,103,836
Lighting Control Measures		192,538	24.7	0.0	\$28,139.21	\$107,850.00	\$11,090.00	\$96,760.00	3.4	193,885
ECM 3	Install Occupancy Sensor Lighting Controls	166,104	21.2	0.0	\$24,188.14	\$84,510.00	\$9,870.00	\$74,640.00	3.1	167,265
ECM 4	Install High/Low Lighting Controls	26,435	3.5	0.0	\$3,951.07	\$23,340.00	\$1,220.00	\$22,120.00	5.6	26,619
Motor Upgrades		43,334	8.5	0.0	\$6,443.24	\$68,741.04	\$0.00	\$68,741.04	10.7	43,637
ECM 5	Premium Efficiency Motors	43,334	8.5	0.0	\$6,443.24	\$68,741.04	\$0.00	\$68,741.04	10.7	43,637
Variable Frequency Drive (VFD) Measures		311,817	38.0	0.0	\$45,277.83	\$121,768.20	\$18,850.00	\$102,918.20	2.3	313,997
ECM 6	Install VFD on Variable Air Volume (VAV) HVAC	73,180	18.0	0.0	\$9,767.21	\$41,434.40	\$13,650.00	\$27,784.40	2.8	73,692
ECM 7	Install VFDs on Constant Volume (CV) HVAC	28,005	7.7	0.0	\$4,202.82	\$32,758.50	\$4,000.00	\$28,758.50	6.8	28,201
ECM 8	Install VFDs on Hot Water Pumps	160,250	12.3	0.0	\$24,049.08	\$28,674.00	\$0.00	\$28,674.00	1.2	161,370
ECM 9	Install VFDs on Cooling Tower Fans	50,381	0.0	0.0	\$7,258.72	\$18,901.30	\$1,200.00	\$17,701.30	2.4	50,734
Electric Unitary HVAC Measures		146,912	56.1	0.0	\$22,652.38	\$173,908.45	\$9,168.50	\$164,739.95	7.3	147,939
ECM 10	Install High Efficiency Electric AC	146,912	56.1	0.0	\$22,652.38	\$173,908.45	\$9,168.50	\$164,739.95	7.3	147,939
Gas Heating (HVAC/Process) Replacement		0	0.0	2,853.9	\$21,621.73	\$368,013.14	\$2,600.00	\$365,413.14	16.9	334,150
ECM 11	Install High Efficiency Hot Water Boilers	0	0.0	2,652.2	\$19,809.92	\$347,621.54	\$1,000.00	\$346,621.54	17.5	310,538
ECM 12	Install High Efficiency Furnaces	0	0.0	201.7	\$1,811.81	\$20,391.60	\$1,600.00	\$18,791.60	10.4	23,612
Plug Load Equipment Control - Vending Machine		8,059	0.0	0.0	\$1,192.45	\$1,840.00	\$0.00	\$1,840.00	1.5	8,116
ECM 13	Vending Machine Control	8,059	0.0	0.0	\$1,192.45	\$1,840.00	\$0.00	\$1,840.00	1.5	8,116
TOTALS		1,992,899	306.4	2,853.9	\$310,855.33	\$1,404,737.10	\$117,898.50	\$1,286,838.60	4.1	2,340,983

* - 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).



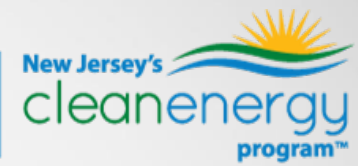
Non-Recommended Measure – George Hess Educational Complex

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)
Domestic Water Heating Upgrade	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
Install High Efficiency Gas Water Heater	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
TOTALS	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691

* - 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).

(1) George Hess Educational Complex



Overview of Systems, Baseline & Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Rooftop PV array (~50 kW)

Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

(1) George Hess Educational Complex



Energy Conservation Measure		High Priority?	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			717,668	86.4	0.0	\$95,786.13	\$237,926.40	\$34,060.00	\$203,866.40	2.1	722,686
ECM 1	Install LED Fixtures	Yes	142,031	16.2	0.0	\$18,956.63	\$54,912.59	\$8,050.00	\$46,862.59	2.5	143,024
ECM 2	Retrofit Fixtures with LED Lamps	Yes	575,638	70.2	0.0	\$76,829.50	\$183,013.82	\$26,010.00	\$157,003.82	2.0	579,663
Lighting Control Measures			100,815	11.5	0.0	\$13,455.63	\$49,040.00	\$5,595.00	\$43,445.00	3.2	101,520
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	91,110	10.4	0.0	\$12,160.34	\$40,500.00	\$4,480.00	\$36,020.00	3.0	91,747
ECM 4	Install High/Low Lighting Controls	Yes	9,705	1.1	0.0	\$1,295.29	\$8,540.00	\$1,115.00	\$7,425.00	5.7	9,773
Motor Upgrades			16,528	3.0	0.0	\$2,205.96	\$27,934.86	\$0.00	\$27,934.86	12.7	16,644
ECM 5	Premium Efficiency Motors	Yes	16,528	3.0	0.0	\$2,205.96	\$27,934.86	\$0.00	\$27,934.86	12.7	16,644
Variable Frequency Drive (VFD) Measures			91,377	18.0	0.0	\$12,195.99	\$54,001.40	\$13,650.00	\$40,351.40	3.3	92,016
ECM 6	Install VFD on Variable Air Volume (VAV) HVAC	Yes	73,180	18.0	0.0	\$9,767.21	\$41,434.40	\$13,650.00	\$27,784.40	2.8	73,692
ECM 7	Install VFDs on Cooling Tower Fans	Yes	18,197	0.0	0.0	\$2,428.77	\$12,567.00	\$0.00	\$12,567.00	5.2	18,325
Gas Heating (HVAC/Process) Replacement			0	0.0	2,580.4	\$19,165.21	\$338,428.23	\$0.00	\$338,428.23	17.7	302,136
ECM 8	Install High Efficiency Hot Water Boilers	Yes	0	0.0	2,580.4	\$19,165.21	\$338,428.23	\$0.00	\$338,428.23	17.7	302,136
Domestic Water Heating Upgrade			0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
	Install High Efficiency Gas Water Heater	No	0	0.0	65.7	\$487.85	\$120,264.00	\$4,200.00	\$116,064.00	237.9	7,691
Plug Load Equipment Control - Vending Machine			3,224	0.0	0.0	\$430.26	\$690.00	\$0.00	\$690.00	1.6	3,246
ECM 9	Vending Machine Control	Yes	3,224	0.0	0.0	\$430.26	\$690.00	\$0.00	\$690.00	1.6	3,246
TOTALS FOR HIGH PRIORITY MEASURES			929,612	118.9	2,580.4	\$143,239.19	\$708,020.90	\$53,305.00	\$654,715.90	4.6	1,238,248
TOTALS FOR ALL EVALUATED MEASURES			929,612	118.9	2,646.1	\$143,727.03	\$828,284.90	\$57,505.00	\$770,779.90	5.4	1,245,939

* - 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).

(2) Joseph Shaner Elementary School



Overview of Systems, Baseline & Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Rooftop PV array (~50 kW)

Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

(2) Joseph Shaner Elementary School

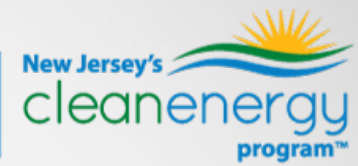


Energy Conservation Measure		High Priority?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated Install Cost (\$)	Estimated Incentive (\$)*	Estimated Net Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			168,446	24.6	0.0	\$29,094.43	\$72,556.28	\$12,495.00	\$60,061.28	2.1	169,624
ECM 1	Install LED Fixtures	Yes	5,814	1.0	0.0	\$1,004.28	\$13,671.74	\$1,500.00	\$12,171.74	12.1	5,855
ECM 2	Retrofit Fixtures with LED Lamps	Yes	162,632	23.6	0.0	\$28,090.15	\$58,884.54	\$10,995.00	\$47,889.54	1.7	163,769
Lighting Control Measures			40,549	5.9	0.0	\$7,003.70	\$23,160.00	\$2,485.00	\$20,675.00	3.0	40,832
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	34,142	5.0	0.0	\$5,897.13	\$18,360.00	\$2,380.00	\$15,980.00	2.7	34,381
ECM 4	Install High/Low Lighting Controls	Yes	6,407	0.9	0.0	\$1,106.57	\$4,800.00	\$105.00	\$4,695.00	4.2	6,451
Motor Upgrades			9,471	2.2	0.0	\$1,635.79	\$20,106.03	\$0.00	\$20,106.03	12.3	9,537
ECM 5	Premium Efficiency Motors	Yes	9,471	2.2	0.0	\$1,635.79	\$20,106.03	\$0.00	\$20,106.03	12.3	9,537
Electric Unitary HVAC Measures			26,709	15.8	0.0	\$4,613.24	\$108,023.38	\$6,122.50	\$101,900.88	22.1	26,896
ECM 6	Install High Efficiency Electric AC	Yes	26,709	15.8	0.0	\$4,613.24	\$108,023.38	\$6,122.50	\$101,900.88	22.1	26,896
Gas Heating (HVAC/Process) Replacement			0	0.0	273.4	\$2,456.52	\$29,584.91	\$2,600.00	\$26,984.91	11.0	32,014
ECM 7	Install High Efficiency Hot Water Boilers	Yes	0	0.0	71.8	\$644.71	\$9,193.31	\$1,000.00	\$8,193.31	12.7	8,402
ECM 8	Install High Efficiency Furnaces	Yes	0	0.0	201.7	\$1,811.81	\$20,391.60	\$1,600.00	\$18,791.60	10.4	23,612
Plug Load Equipment Control - Vending Machine			1,612	0.0	0.0	\$278.40	\$460.00	\$0.00	\$460.00	1.7	1,623
ECM 9	Vending Machine Control	Yes	1,612	0.0	0.0	\$278.40	\$460.00	\$0.00	\$460.00	1.7	1,623
TOTALS FOR HIGH PRIORITY MEASURES			246,787	48.5	273.4	\$45,082.08	\$253,890.59	\$23,702.50	\$230,188.09	5.1	280,527

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(3) William Davies Middle School



Overview of Systems, Baseline & Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Rooftop PV array (~365 kW)

Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

(3) William Davies Middle School



Energy Conservation Measure		High Priority?	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			404,124	68.2	0.0	\$60,647.93	\$252,133.58	\$29,635.00	\$222,498.58	3.7	406,950
ECM 1	Install LED Fixtures	Yes	46,223	8.2	0.0	\$6,936.74	\$94,145.17	\$5,600.00	\$88,545.17	12.8	46,546
ECM 2	Retrofit Fixtures with LED Lamps	Yes	357,902	60.0	0.0	\$53,711.19	\$157,988.41	\$24,035.00	\$133,953.41	2.5	360,404
Lighting Control Measures			51,175	7.3	0.0	\$7,679.89	\$35,650.00	\$3,010.00	\$32,640.00	4.3	51,532
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	40,851	5.8	0.0	\$6,130.67	\$25,650.00	\$3,010.00	\$22,640.00	3.7	41,137
ECM 4	Install High/Low Lighting Controls	Yes	10,323	1.5	0.0	\$1,549.21	\$10,000.00	\$0.00	\$10,000.00	6.5	10,395
Motor Upgrades			17,335	3.4	0.0	\$2,601.49	\$20,700.15	\$0.00	\$20,700.15	8.0	17,456
ECM 5	Premium Efficiency Motors	Yes	17,335	3.4	0.0	\$2,601.49	\$20,700.15	\$0.00	\$20,700.15	8.0	17,456
Variable Frequency Drive (VFD) Measures			220,439	19.9	0.0	\$33,081.85	\$67,766.80	\$5,200.00	\$62,566.80	1.9	221,981
ECM 6	Install VFDs on Constant Volume (CV) HVAC	Yes	28,005	7.7	0.0	\$4,202.82	\$32,758.50	\$4,000.00	\$28,758.50	6.8	28,201
ECM 7	Install VFDs on Hot Water Pumps	Yes	160,250	12.3	0.0	\$24,049.08	\$28,674.00	\$0.00	\$28,674.00	1.2	161,370
ECM 8	Install VFDs on Cooling Tower Fans	Yes	32,184	0.0	0.0	\$4,829.95	\$6,334.30	\$1,200.00	\$5,134.30	1.1	32,409
Electric Unitary HVAC Measures			120,203	40.3	0.0	\$18,039.14	\$65,885.07	\$3,046.00	\$62,839.07	3.5	121,043
ECM 9	Install High Efficiency Electric AC	Yes	120,203	40.3	0.0	\$18,039.14	\$65,885.07	\$3,046.00	\$62,839.07	3.5	121,043
Plug Load Equipment Control - Vending Machine			3,224	0.0	0.0	\$483.79	\$690.00	\$0.00	\$690.00	1.4	3,246
ECM 10	Vending Machine Control	Yes	3,224	0.0	0.0	\$483.79	\$690.00	\$0.00	\$690.00	1.4	3,246
TOTALS FOR ALL EVALUATED MEASURES			816,500	139.0	0.0	\$122,534.07	\$442,825.61	\$40,891.00	\$401,934.61	3.3	822,209

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

Some Energy Efficient Best Practices



- Close Doors and Windows
- Use Window Treatments/Coverings
- Ensure Lighting Controls Are Operating Properly
- Perform Routine Motor Maintenance
- Use Fans to Reduce Cooling Load
- Practice Proper Use of Thermostat Schedules and Temperature Resets
- Perform Proper Boiler Maintenance
- Perform Proper Water Heater Maintenance
- Practice Proper Use of Thermostat Schedules and Temperature Resets
- Install Plug Load Controls
- Water Conservation

See individual reports for specific EE practices by building

ENERGY STAR Portfolio Manager®



Facility Name	ENERGY STAR SEP Score	CO2e Emissions Reduction (lbs)*
George Hess Educational Complex	28	1,238,248
Joseph Shaner Elementary School	76	280,527
William Davies Middle School	52	822,209

* This data represents if all recommended measures were implemented.

PROGRAM PORTFOLIO



ELIGIBLE SECTORS

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

PROGRAMS

Equipment Rebates:

- Retrofit – Existing Buildings
- New Construction
- Direct Install – Small Business
- Large Energy Users

Whole Buildings:

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

Energy Generation:

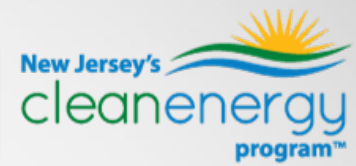
- Combined Heat and Power (CHP) and Fuel Cells

Recommended NJCEP Incentives



- Pay for Performance (P4P)
- SmartStart Buildings (i.e Retrofit – Existing Buildings)

SmartStart Prescriptive: Overview



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

P4P Existing Buildings: Overview



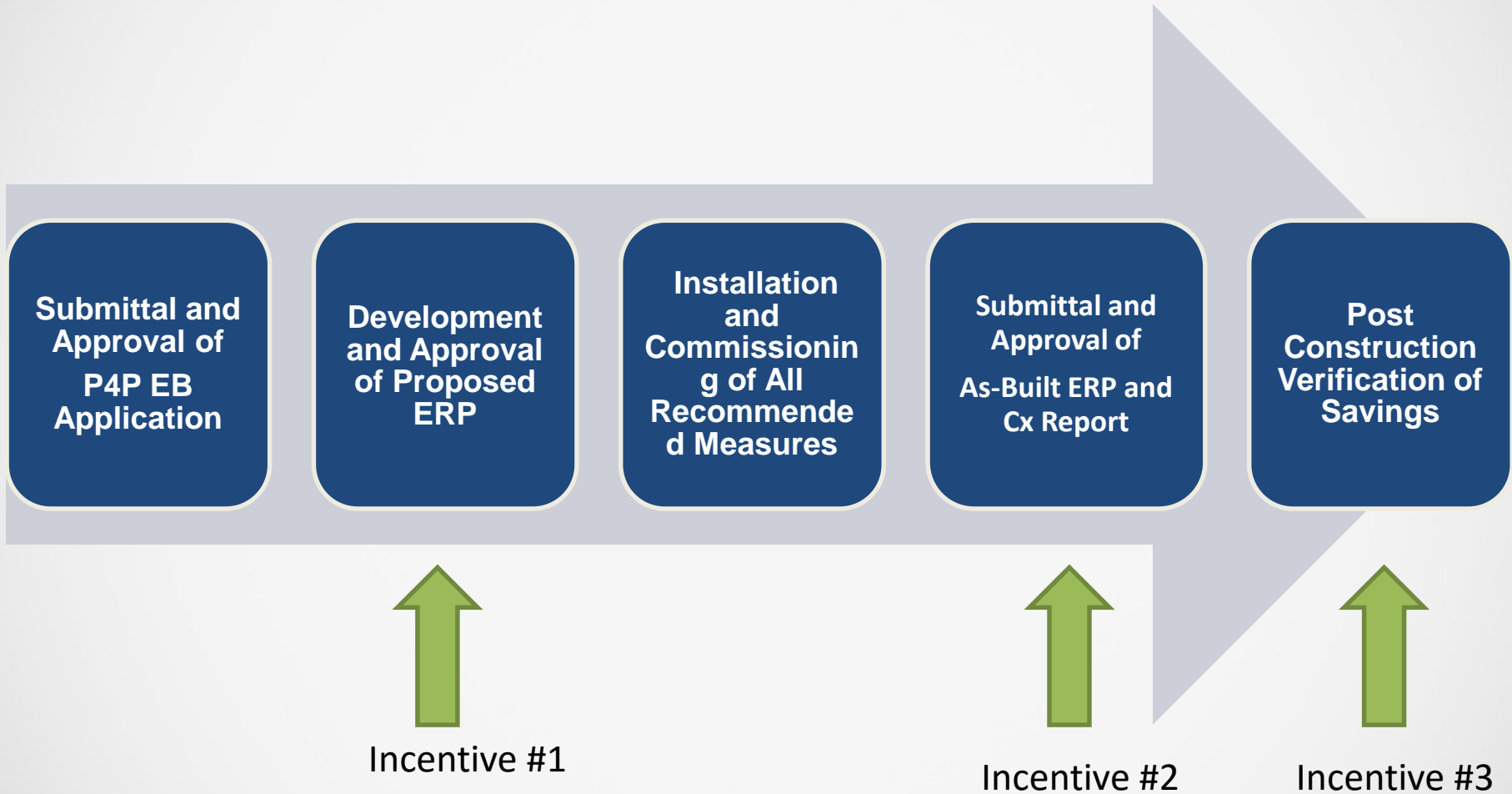
- Comprehensive, whole-building approach to saving energy in existing or new facilities
- Customer chooses from network of pre-approved participating Partners (including DCO)
- Incentives up to \$2 million per project
 - \$1 million for electric measures
 - \$1 million for gas measures
- \$4 million annual entity cap per fiscal year
- Incentives up to 50% of total project cost
- Incentives paid in three installments at milestones

P4P Existing Buildings: Overview



- Open to Commercial and Industrial facilities with annual peak demand of at least 200 kW in previous year
- Minimum savings 15% from existing energy use
- Must have at least two unique measures per project
- No more than 50% of total savings may come from lighting measures
 - Lighting savings up to 70% may be considered with minimum savings target increasing up to 35%

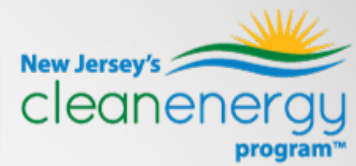
P4P Existing Buildings: Process



P4P Existing Buildings: Incentives



Incentive #1: Energy Reduction Plan			
Incentive Amount:		\$0.15	per sq ft
Minimum Incentive:		\$7,500	
Maximum Incentive:		\$50,000	or 50% of facility annual energy cost
Incentive #2: Installation of Recommended Measures			
Minimum Performance Target:		15%	
Electric Incentives	Base Incentive based on 15% savings:	\$0.09	per projected kWh saved
	For each % over 15% add:	\$0.005	
	Maximum Incentive:	\$0.11	
Gas Incentives	Base Incentive based on 15 % savings:	\$0.90	per projected Therm saved
	For each % over 15% add:	\$0.05	
	Maximum Incentive:	\$1.25	
Incentive Cap:		25%	of total project cost
Incentive #3: Post-Construction Benchmarking Report			
Minimum Performance Target:		15%	
Electric Incentives	Base Incentive based on 15% savings:	\$0.09	per projected kWh saved
	For each % over 15% add:	\$0.005	
	Maximum Incentive:	\$0.11	
Gas Incentives	Base Incentive based on 15% savings:	\$0.90	per projected Therm saved
	For each % over 15% add:	\$0.05	
	Maximum Incentive:	\$1.25	
Incentive Cap:		25%	of total project cost



30/50/20 Incentive payment

- 30% when equipment purchased
- 50% when system installed
- 20% upon acceptance and confirmation that the project is achieving the required performance

Projects must pass a cost-effectiveness test

- 10 year simple payback or less
- Minimum 5000 hrs
- 65% efficiency

All new projects must contain cost-data for islanding capabilities, regardless of whether the project has islanding capabilities or not

Distributed Energy Resource: CHP Program



Technology-neutral incentive levels

Eligible Technology	Size (Installed Rated Capacity)	Incentive (\$/kW)	% of Total Cost Cap per project	\$ Cap per project
Powered by non-renewable or renewable fuel source	≤500 kW	\$2,000	30-40%	\$2 million
	>500 kW – 1 MW	\$1,000		
Gas Internal Combustion Engine	>1 MW – 3 MW	\$550	30%	\$3 million
Gas Combustion Turbine				
Microturbine	>3 MW	\$350		
Fuel Cells with heat recovery				

Pay for Performance (P4P) and comprehensive energy efficiency project adders and enhanced project caps eliminated

South Jersey Gas Financing



SmartStart Buildings & Pay for Performance Programs

- **0% Financing**
- **Up to \$100,000 for 5 years**
- **SJG can help guide you through the process**



Energy Savings Improvement Program (ESIP)



- Program administered directly by BPU
- 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 or require voter approval.
- Requires an audit as 1st step (LGEA satisfied this requirement)

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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