

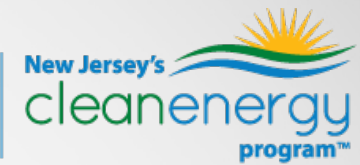
New Jersey's Clean Energy Program

LGEA Exit Meeting for:
Friends of Millville Public Charter School

TRC Energy Services

August 2, 2018

Introductions



- *Friends of Millville Public Charter School*
 - Dr. Ann Garcia – Executive Director
 - Christina Murphy – Business Administrator
- *NJ Clean Energy Program – TRC*
 - Brian DeLuca – Program Manager
 - Moussa Traore – Auditor
 - Sarah Walters – LGEA Account Manager

Agenda

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**asures (ECMs) identified
- Questions or concerns regarding the draft audit report
- Overview of NJCEP equipment incentives
- Next steps for Friends of Millville Public Charter School

Process





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

Millville Public Charter School Complex



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			105,725	17.2	0.0	\$18,412.32	\$53,119.53	\$7,660.00	\$45,459.53	2.5	106,464
ECM 1	Install LED Fixtures	Yes	9,005	1.2	0.0	\$1,568.30	\$6,641.51	\$1,700.00	\$4,941.51	3.2	9,068
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	3,835	0.7	0.0	\$667.92	\$3,119.00	\$0.00	\$3,119.00	4.7	3,862
ECM 3	Retrofit Fixtures with LED Lamps	Yes	89,818	15.2	0.0	\$15,642.15	\$39,594.60	\$5,960.00	\$33,634.60	2.2	90,446
ECM 4	Install LED Exit Signs	Yes	3,066	0.2	0.0	\$533.95	\$3,764.43	\$0.00	\$3,764.43	7.1	3,087
Lighting Control Measures			25,609	4.4	0.0	\$4,459.82	\$37,740.00	\$4,200.00	\$33,540.00	7.5	25,788
ECM 5	Install Occupancy Sensor Lighting Controls	Yes	22,548	3.9	0.0	\$3,926.86	\$34,140.00	\$4,200.00	\$29,940.00	7.6	22,706
ECM 6	Install High/Low Lighting Controls	Yes	3,060	0.5	0.0	\$532.97	\$3,600.00	\$0.00	\$3,600.00	6.8	3,082
Motor Upgrades			2,535	0.6	0.0	\$441.42	\$7,047.56	\$0.00	\$7,047.56	16.0	2,552
ECM 7	Premium Efficiency Motors	Yes	2,535	0.6	0.0	\$441.42	\$7,047.56	\$0.00	\$7,047.56	16.0	2,552
Variable Frequency Drive (VFD) Measures			27,243	7.6	0.0	\$4,744.46	\$36,285.35	\$4,560.00	\$31,725.35	6.7	27,434
ECM 8	Install VFDs on Constant Volume (CV) HVAC	Yes	27,243	7.6	0.0	\$4,744.46	\$36,285.35	\$4,560.00	\$31,725.35	6.7	27,434
Electric Unitary HVAC Measures			19,896	11.8	0.0	\$3,464.91	\$56,288.46	\$3,621.00	\$52,667.46	15.2	20,035
ECM 9	Install High Efficiency Electric AC	Yes	19,896	11.8	0.0	\$3,464.91	\$56,288.46	\$3,621.00	\$52,667.46	15.2	20,035
Domestic Water Heating Upgrade			4,148	0.0	0.0	\$722.41	\$93.21	\$0.00	\$93.21	0.1	4,177
ECM 10	Install Low-Flow Domestic Hot Water Devices	Yes	4,148	0.0	0.0	\$722.41	\$93.21	\$0.00	\$93.21	0.1	4,177
TOTALS FOR HIGH PRIORITY MEASURES			185,155	41.6	0.0	\$32,245.34	\$190,574.11	\$20,041.00	\$170,533.11	5.3	186,450
TOTALS FOR ALL EVALUATED MEASURES			185,155	41.6	0.0	\$32,245.34	\$190,574.11	\$20,041.00	\$170,533.11	5.3	186,450

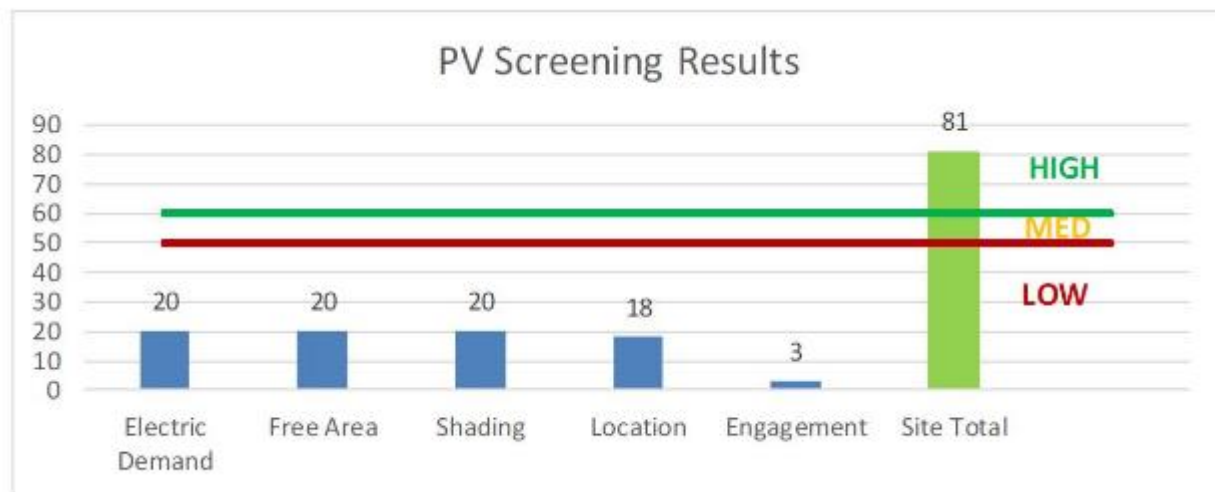
* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

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

Solar Energy Generation Potential



Potential	High
System Potential	166 kW DC STC
Electric Generation	197,767 kWh/yr
Displaced Cost	\$17,210 / yr
Installed Cost	\$431,600

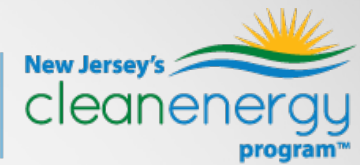


This building has a high potential for the implementation of a PV system.

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

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)

* 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!

Financing Options – SmartStart & P4P



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

Contact:

Bruce Grossman – Program Manager

South Jersey Gas

#1 South Jersey Plaza

Folsom, NJ 08037

Phone: 609-561-9000, ext. 4271



P4P Existing Buildings: Overview



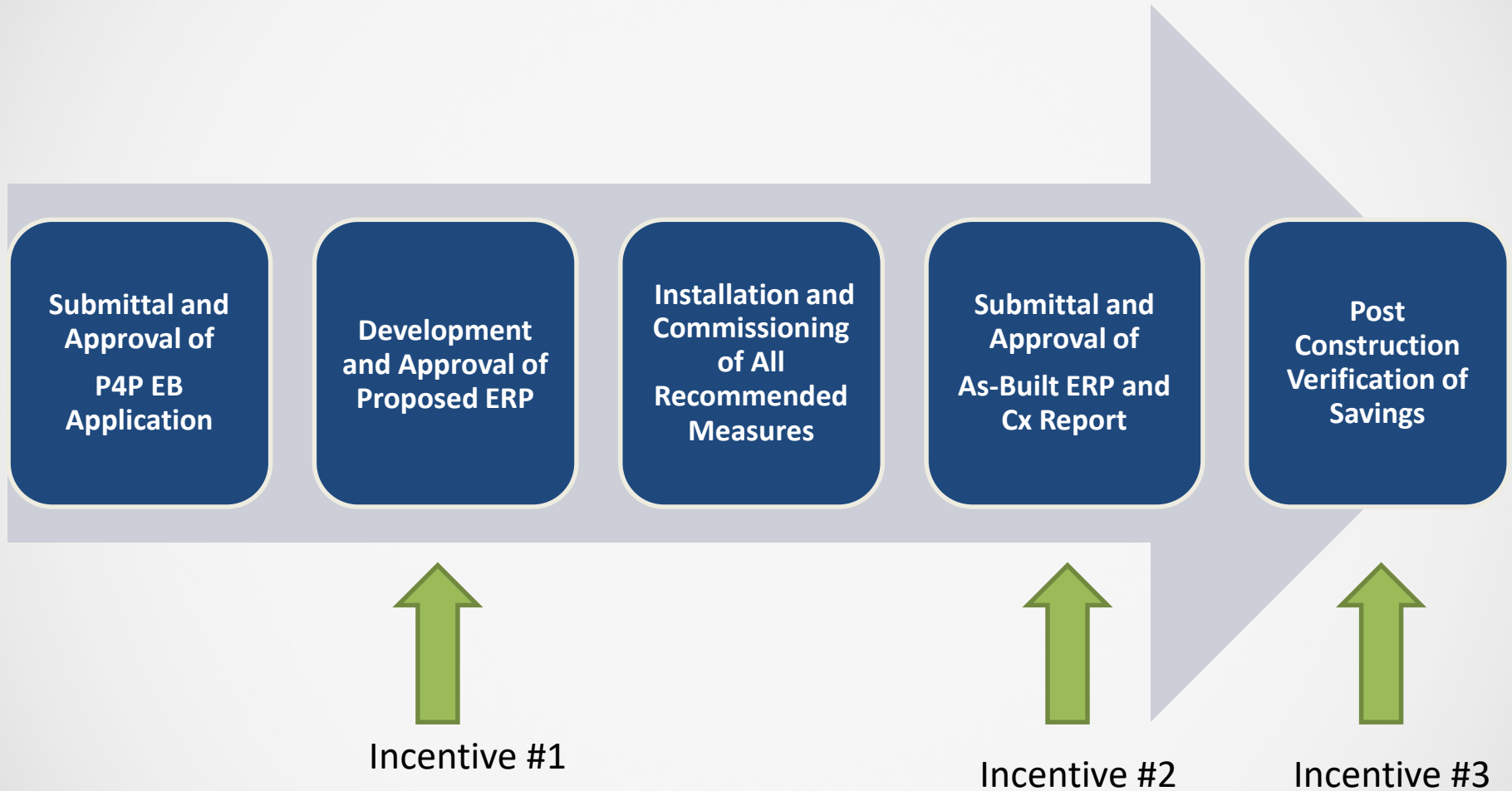
- Comprehensive, whole-building approach to saving energy in existing or new facilities
- Customer chooses from network of pre-approved participating Partners
- Incentives up to \$2 million per project
 - \$1 million for electric measures
 - \$1 million for gas measures
- \$4 million annual entity cap 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 EB: Process



P4P EB: 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

Questions



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FOR MORE INFORMATION

Visit NJCleanEnergy.com

Call (866) NJSMART

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