

New Jersey's Clean Energy Program

LGEA Exit Meeting for:
Upper Pittsgrove Board of Education

Moussa Traore, TRC

January 17, 2018

Meeting Setup



1) Dial the following:

1-877-304-9323

2) When prompted, enter the code below:

3587465#

Introductions



Upper Pittsgrove Board of Education

- Business Administrator: Lisa DiNovi

NJ Clean Energy Program – TRC

- Auditor: Moussa Traore
- Case Manager: Amanda Muench
- Outreach Manager: Jim Friedl
- ESIP Coordinator: Mike Thulen

Agenda



- Overview of LGEA process (application to deliverable)
- 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 Upper Pittsgrove Board of Education

Process to Draft Report



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



Overview of Systems, Baseline & Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

Utility Consumption:

- Electric Consumption and Costs
- Propane Consumption and Costs
- On-Site Generation: Photovoltaic

Upper Pittsgrove Elementary School



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			80,504	26.2	\$11,202.27	\$65,593.83	\$11,760.00	\$53,833.83	4.8	81,067
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,544	0.5	\$214.79	\$1,521.00	\$130.00	\$1,391.00	6.5	1,554
ECM 2	Retrofit Fixtures with LED Lamps	Yes	78,960	25.7	\$10,987.47	\$64,072.83	\$11,630.00	\$52,442.83	4.8	79,512
Lighting Control Measures			20,113	6.6	\$2,798.83	\$9,048.00	\$1,120.00	\$7,928.00	2.8	20,254
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	20,113	6.6	\$2,798.83	\$9,048.00	\$1,120.00	\$7,928.00	2.8	20,254
Electric Unitary HVAC Measures			6,294	3.7	\$875.86	\$17,821.06	\$730.00	\$17,091.06	19.5	6,338
	Install High Efficiency Electric AC	No	6,294	3.7	\$875.86	\$17,821.06	\$730.00	\$17,091.06	19.5	6,338
HVAC System Improvements			2,885	0.7	\$401.48	\$750.00	\$250.00	\$500.00	1.2	2,905
ECM 4	Install Dual Enthalpy Outside Economizer Control	Yes	2,885	0.7	\$401.48	\$750.00	\$250.00	\$500.00	1.2	2,905
Domestic Water Heating Upgrade			5,896	0.0	\$820.46	\$121.89	\$0.00	\$121.89	0.1	5,937
ECM 5	Install Low-Flow Domestic Hot Water Devices	Yes	5,896	0.0	\$820.46	\$121.89	\$0.00	\$121.89	0.1	5,937
Plug Load Equipment Control - Vending Machine			1,954	0.0	\$271.95	\$460.00	\$0.00	\$460.00	1.7	1,968
ECM 6	Vending Machine Control	Yes	1,954	0.0	\$271.95	\$460.00	\$0.00	\$460.00	1.7	1,968
TOTALS FOR RECOMENDED MEASURES			111,353	33.4	\$15,495.15	\$75,973.72	\$13,130.00	\$62,843.72	4.1	112,132
TOTALS FOR ALL MEASURES			117,647	37.1	\$16,370.85	\$93,794.78	\$13,860.00	\$79,934.78	4.9	118,470

* - 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).



Some Energy Efficient Best Practices

- Reduce Air Leakage
- Close Doors and Windows
- Perform Proper Lighting Maintenance
- Develop a Lighting Maintenance Schedule
- Ensure Lighting Controls Are Operating Properly
- Turn Off Unneeded Motors
- Perform Routine Motor Maintenance
- Practice Proper Use of Thermostat Schedules and Temperature Resets
- Clean and/or Replace HVAC Filters
- Check for and Seal Duct Leakage
- Perform Proper Water Heater Maintenance
- Water Conservation

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:

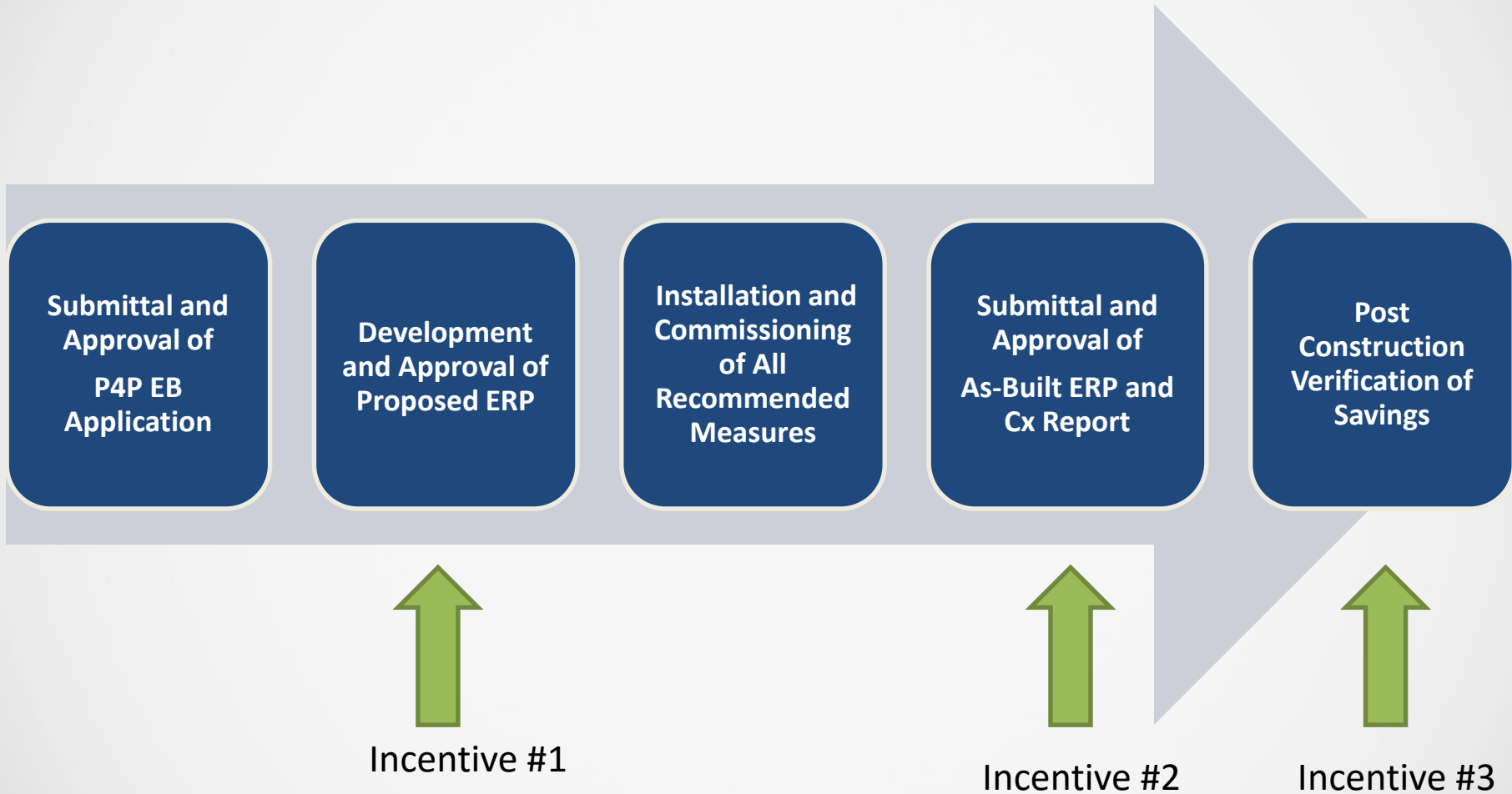
- Combined Heat and Power (CHP) and Fuel Cells

Recommended NJCEP Incentives



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

P4P EB: PROCESS



P4P EB: INCENTIVES

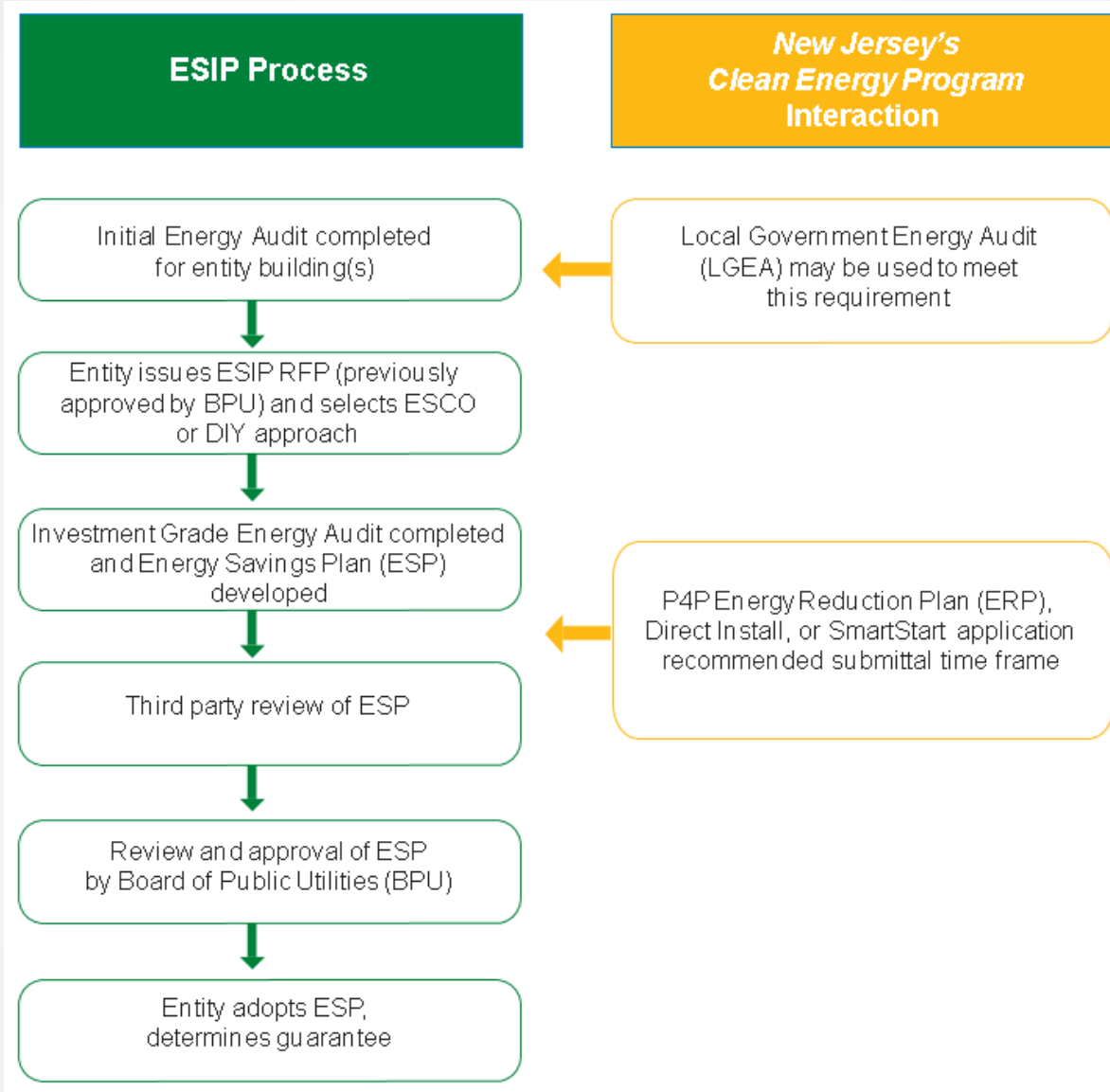


Incentive #1: Energy Reduction Plan		
	Incentive Amount:	\$0.15 per sq ft
	Minimum Incentive:	\$7,500
	Maximum Incentive:	\$50,000 or 50% of facility annual energy cost
Incentive #2: Installation of Recommended Measures		
	Minimum Performance Target:	15%
Electric Incentives	Base Incentive based on 15%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

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)



Questions



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FOR MORE INFORMATION

Visit NJCleanEnergy.com

Call (866) NJSMART

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