

# New Jersey's Clean Energy Program

LGEA Exit Meeting for:  
*Atlantic Highlands Board of Education*

Smruti Srinivasan, TRC

May 22, 2017

# Meeting Setup

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***1) Dial the following:***

1-877-304-9323

***2) When prompted, enter the code below:***

5391398#

# Introductions

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- *Atlantic Highlands Board of Education*
  - Janet Sherlock – Business Administrator
  
- *NJ Clean Energy Program – TRC*
  - Smruti Srinivasan - Auditor
  - Jim Friedl – Outreach Manager

# Agenda

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- 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 Atlantic Highlands Board of Education



## Overview of Systems, Baseline & Existing Conditions:

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Solar PV

## Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

# Atlantic Highlands Elementary School



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 <sub>2</sub> e Emissions Reduction (lbs)
<b>Lighting Upgrades</b>			<b>81,740</b>	<b>24.0</b>	<b>0.0</b>	<b>\$8,911.85</b>	<b>\$63,982.73</b>	<b>\$11,020.00</b>	<b>\$52,962.73</b>	<b>5.9</b>	<b>82,312</b>
ECM 1	Install LED Fixtures	Yes	11,129	1.6	0.0	\$1,213.33	\$7,546.59	\$1,700.00	\$5,846.59	4.8	11,207
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	17,380	5.0	0.0	\$1,894.90	\$10,017.17	\$1,185.00	\$8,832.17	4.7	17,502
ECM 3	Retrofit Fixtures with LED Lamps	Yes	53,231	17.4	0.0	\$5,803.62	\$46,418.97	\$8,135.00	\$38,283.97	6.6	53,604
<b>Lighting Control Measures</b>			<b>9,258</b>	<b>2.6</b>	<b>0.0</b>	<b>\$1,009.40</b>	<b>\$24,744.00</b>	<b>\$2,430.00</b>	<b>\$22,314.00</b>	<b>22.1</b>	<b>9,323</b>
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	8,030	2.3	0.0	\$875.49	\$17,844.00	\$2,430.00	\$15,414.00	17.6	8,086
	Install High/Low Lighting Controls	No	1,228	0.3	0.0	\$133.91	\$6,900.00	\$0.00	\$6,900.00	51.5	1,237
<b>Variable Frequency Drive (VFD) Measures</b>			<b>17,977</b>	<b>4.8</b>	<b>0.0</b>	<b>\$1,959.99</b>	<b>\$12,668.60</b>	<b>\$0.00</b>	<b>\$12,668.60</b>	<b>6.5</b>	<b>18,103</b>
ECM 5	Install VFDs on Hot Water Pumps	Yes	17,977	4.8	0.0	\$1,959.99	\$12,668.60	\$0.00	\$12,668.60	6.5	18,103
<b>Domestic Water Heating Upgrade</b>			<b>0</b>	<b>0.0</b>	<b>6.5</b>	<b>\$75.78</b>	<b>\$4,427.89</b>	<b>\$152.00</b>	<b>\$4,275.89</b>	<b>56.4</b>	<b>764</b>
	Install High Efficiency Gas Water Heater	No	0	0.0	4.4	\$50.64	\$4,392.04	\$152.00	\$4,240.04	83.7	511
ECM 6	Install Low-Flow Domestic Hot Water Devices	Yes	0	0.0	2.2	\$25.14	\$35.85	\$0.00	\$35.85	1.4	253
<b>TOTAL OF ALL EVALUATED MEASURES</b>			<b>108,976</b>	<b>31.5</b>	<b>6.5</b>	<b>\$11,957.01</b>	<b>\$105,823.22</b>	<b>\$13,602.00</b>	<b>\$92,221.22</b>	<b>7.7</b>	<b>110,502</b>
<b>TOTAL OF ALL RECOMMENDED MEASURES</b>			<b>107,747.49</b>	<b>31.17</b>	<b>2.16</b>	<b>\$ 11,772.46</b>	<b>\$ 94,531.18</b>	<b>\$ 13,450.00</b>	<b>\$ 81,081.18</b>	<b>6.9</b>	<b>108,754</b>
<b>TOTAL OF ALL NON-RECOMMENDED MEASURES</b>			<b>1,228.21</b>	<b>0.34</b>	<b>4.36</b>	<b>\$ 184.55</b>	<b>\$ 11,292.04</b>	<b>\$ 152.00</b>	<b>\$ 11,140.04</b>	<b>60.4</b>	<b>1,747</b>

\* - 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 Practices

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

*See individual reports for specific EE practices by building.*

# 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

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## ➤ Direct Install

### **Hutchinson Mechanical Services**

Ed Hutchinson

856-429-5828 x215

[edhutchinson@hutchbiz.com](mailto:edhutchinson@hutchbiz.com)

## ➤ SmartStart Buildings (i.e Retrofit – Existing Buildings)

# 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 a peak electric demand  $\leq 200$  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 cap
  - \$250,000 per entity cap
- Participating contractors provide support and process all paperwork
- Fast turnaround time: Average length of time for job completion (4-6 months)

# 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!

# 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.



# Direct Install – Financing Option

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- Questions? Contact Jerry at the following:

## **Jerry Ryan**

Energy Efficiency Operations Manager

New Jersey Natural Gas

732-433-4362 (cell)

732 378 4920 (office)

[jryan@njng.com](mailto:jryan@njng.com)



# Questions

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# FOR MORE INFORMATION

**Visit** [NJCleanEnergy.com](http://NJCleanEnergy.com)

**Call** (866) NJSMART

**Jim Friedl**

Outreach Manager

732-855-6543

[jfriedl@trcsolutions.com](mailto:jfriedl@trcsolutions.com)