



New Jersey's Clean Energy Program

LGEA Exit Meeting for
St. Stephen's Malankara Orthodox Church
(NPSSMC)

Smruti Srinivasan, TRC

January 5, 2017

Meeting Setup



1) Dial the following:

1-877-304-9323

2) When prompted, enter the code below:

3587465#

Introductions



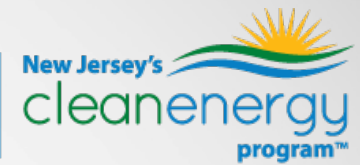
- *Applicant Name*
 - Jose Thomas
- *NJ Clean Energy Program – TRC*
 - Auditor: Smruti Srinivasan
 - Case Manager: Amanda Muench
 - Outreach Manager: Jim Friedl

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 St. Stephens Orthodox Malankara Church

Process to Draft Report



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

Overview of Systems, Baseline & Existing Conditions (pages 10-13):

- Lighting System
- HVAC and Mechanical Systems
- Building Envelope

Utility Consumption (pages 14-16):

- Electric Consumption and Expenses
- Gas Consumption and Expenses

St. Stephen's Church

(see page 7 for the table below)

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		10,680	7.5	0.0	\$2,795.57	\$19,837.15	\$3,285.00	\$16,552.15	5.92	10,755
ECM 1	Install LED Fixtures	2,540	0.6	0.0	\$664.78	\$2,344.06	\$600.00	\$1,744.06	2.62	2,557
ECM 2	Retrofit Fixtures with LED Lamps	5,858	6.6	0.0	\$1,533.28	\$16,525.10	\$2,685.00	\$13,840.10	9.03	5,899
ECM 3	Install LED Exit Signs	2,283	0.3	0.0	\$597.51	\$968.00	\$0.00	\$968.00	1.62	2,299
Lighting Control Measures		629	0.5	0.0	\$164.75	\$928.00	\$160.00	\$768.00	4.66	634
ECM 4	Install Occupancy Sensor Lighting Controls	629	0.5	0.0	\$164.75	\$928.00	\$160.00	\$768.00	4.66	634
HVAC System Improvements		0	0.0	0.0	\$0.00	\$0.00	\$0.00	\$0.00	0.00	0
ECM 5	Install Low-Flow Domestic Hot Water	0	0.0	5.1	\$43.36	\$86.04	\$0.00	\$86.04	1.98	599
TOTALS		11,309	8.0	5.1	\$3,003.68	\$20,851.19	\$3,445.00	\$17,406.19	5.79	11,988

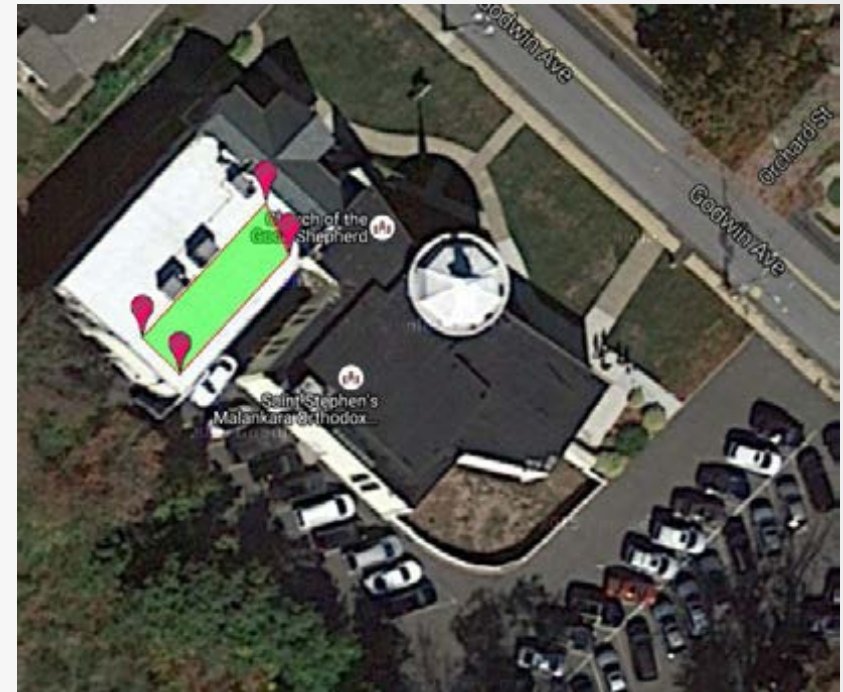
* - All incentives presented in this table are based on NJ Smart Start Building equipment incentives and assume proposed equipment meets minimum performance criteria for that program.

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

St. Stephen's Church



Roof #1



Roof #2

TRC performed a Solar Photovoltaic (PV) analysis for the church, and based on our findings, there may be some potential for installation of a cost-effective rooftop array. **Note** that a more detailed site analysis should be done by a qualified installer to confirm this potential.

St. Stephen's Church



<i>Parameters</i>	<i>Roof 1</i>	<i>Roof 2</i>
<i>Potentially Available Rooftop Areas for Solar PV Installation</i>	900 square foot	700 square foot
<i>Potential Capacity of PV System</i>	10.6 kW	9.3kW
<i>Number of PV Panels (@ 300W per panel)</i>	35	31
<i>Estimated Installed Cost of PV Array</i>	\$37,100	\$32,550
<i>Estimated kWh production per year</i>	13,507 kWh/year	11,851 kWh/year
<i>Estimated Annual Savings (\$/yr)</i> <i>(@ 26.2¢/kWh)</i>	\$3,538.83	\$3,104.96
<i>Estimated Annual SREC Income (@ \$235/MWh)</i> <i>(Source: http://www.njsrec.com/)</i>	\$3,055	\$2,820
<i>Estimated Combined Simple Payback Period</i>	5.6 yrs.	

Some Energy Efficient Practices



Beginning page 23 of the audit report:

- Perform Proper Lighting Maintenance
- Develop a Lighting Maintenance Schedule
- Ensure Lighting Controls Are Operating Properly
- Practice Proper Use of Thermostat Schedules and Temperature Resets
- 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



➤ Direct Install:

Lime Energy

Tony McCoy

855-600-5463

njdi@lime-energy.com

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

Questions



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FOR MORE INFORMATION

Visit NJCleanEnergy.com

Call (866) NJSMART

Jim Friedl

Outreach Manager

732-855-6543

jfriedl@trcsolutions.com