



New Jersey's Clean Energy Program

LGEA Exit Meeting for:

Downe Township Board of Education

Tom Page, TRC

February 16, 2017

Meeting Setup



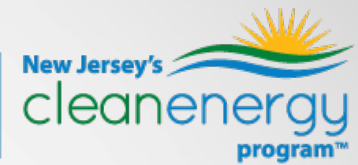
1) Dial the following:

1-877-304-9323

2) When prompted, enter the code below:

3587465#

Introductions



- *Applicant Name*
 - Lisa DiNovi, Business Administrator
 - Ralph Gale, Head Custodian

- *NJ Clean Energy Program – TRC*
 - Auditor: Tom Page
 - 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 *Downe Township Board of Education*

Process to Draft Report



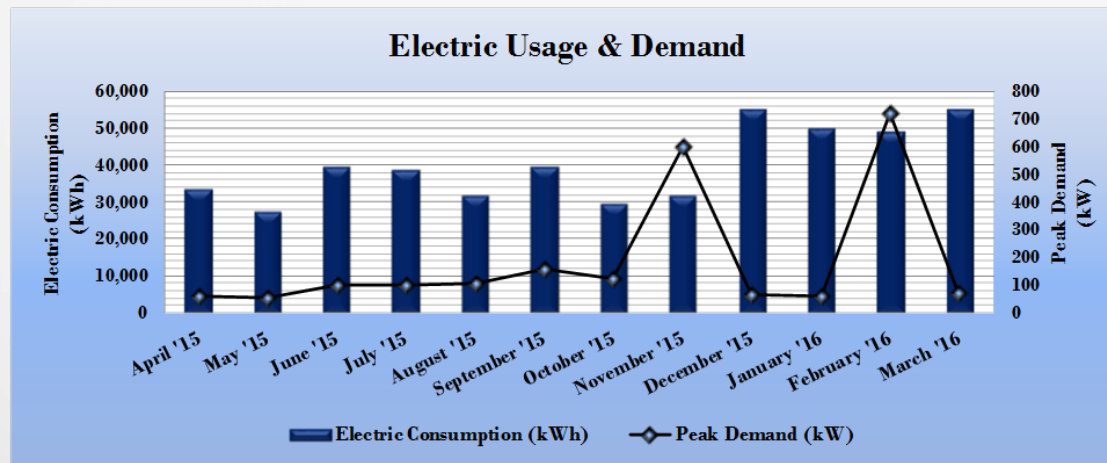
- Application submitted to NJCEP
- Site Visit Performed
- Utility Analysis
- Baseline Condition
- Analysis
- Recommendations
- Report

Overview of Systems, Baseline & Existing Conditions (page 10):

- Building Envelope
- Lighting System
- HVAC and Mechanical Systems

Utility Consumption:

- Electric Consumption and Costs



Downe Township School



(see page 19)

Electric Billing Data for Downe Township Elementary School						
Period Ending	Days in Period	Electric Usage (kWh)	Demand (kW)	Demand Cost	Total Electric Cost	TRC Estimated Usage?
4/28/15	32	33,750	60	\$263	\$5,917	No
5/27/15	29	27,750	53	\$147	\$4,871	No
6/26/15	31	39,720	98	\$534	\$6,963	Yes
7/30/15	34	39,000	98	\$534	\$7,553	No
8/27/15	28	32,250	105	\$474	\$6,278	No
9/28/15	32	39,750	158	\$818	\$7,971	No
10/28/15	30	30,000	120	\$545	\$5,893	No
11/25/15	28	32,250	600	\$2,567	\$8,312	No
12/30/15	35	55,500	64	\$332	\$10,227	No
1/28/16	29	50,250	60	\$257	\$9,217	No
2/24/16	28	49,500	720	\$2,972	\$11,797	No
3/30/16	35	55,500	68	\$354	\$10,246	No
Totals	371	485,220	720	\$9,796	\$95,244	1
Annual	365	477,372	720	\$9,638	\$93,704	

Downe Township School



(see page 7 or 22)

Energy Conservation Measure		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)
ECM 1	Install LED Fixtures	5,766	1.6	\$1,015.32	\$7,066.50	\$1,500.00	\$5,566.50	5.48	5,806
ECM 2	Retrofit Fixtures with LED Lamps	50,811	22.7	\$8,947.90	\$37,298.01	\$5,765.00	\$31,533.01	3.52	51,166
ECM 3	Install LED Exit Signs	383	0.0	\$67.41	\$215.11	\$0.00	\$215.11	3.19	385
ECM 4	Install Occupancy Sensor Lighting Controls	9,435	2.7	\$1,661.55	\$13,618.00	\$1,805.00	\$11,813.00	7.11	9,501
ECM 5	Vending Machine Control	1,612	0.0	\$283.85	\$1,437.60	\$0.00	\$1,437.60	5.06	1,623
TOTALS		68,007	27.0	\$11,976.03	\$59,635.22	\$9,070.00	\$50,565.22	4.22	68,482

* - 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 / Photovoltaic (PV)



(page 26)

- Up to 30,000 sq.ft. of potentially usable roof space for development of solar PV.
- Used US DOE's *PV-Watts™* online solar calculator to screen the site's solar potential.
- Estimated the site has a maximum solar potential of $\sim 390\text{kW}_{\text{DC}}$
- An array of that size could potentially offset up to 100% of the school's typical annual electric usage.
- Including potential income from SRECs, the payback for such a system would be approximately ~ 7 yrs.
- Costs and savings estimates should be scalable.
- Solar estimates should be verified on site by a qualified solar installer.





Some Energy Efficient Practices

- Close Doors and Windows
- Perform Proper Lighting Maintenance
- Develop a Lighting Maintenance Schedule
- Reduce Motor Short Cycling
- Perform Routine Motor Maintenance
- Use Fans to Reduce Cooling Load
- Practice Proper Use of Thermostat Schedules and Temperature Resets
- Ensure Economizers are Functioning Properly
- Clean Evaporator/Condenser Coils on AC Systems
- Check for and Seal Duct Leakage
- Install Plug Load Controls

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*:

Facility Solutions Group (FSG)

Ryan Chud

484-368-3897 x34107

ryan.chud@fsgi.com

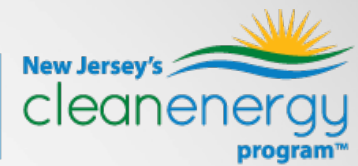
➤ SmartStart Buildings (i.e Retrofit – Existing Buildings)

**Electric kW demand anomaly*

Questions



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FOR MORE INFORMATION

Visit NJCleanEnergy.com

Call (866) NJSMART

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