

New Jersey's Clean Energy Program

LG&E Exit Meeting for:
Cherry Hill Public Library

September 6, 2019



INTRODUCTIONS

- *Cherry Hill Public Library*
 - Jennie Purcell – Library Services Manager
 - Jim Stamer – Maintenance Facility Manager
- *NJ Clean Energy Program*
 - Yagna Otia, CEM – TRC Auditor
 - Sarah Walters – TRC Account Manager
 - Gary Finger – TRC Outreach Manager
 - Michelle Rossi – ESIP Coordinator



AGENDA

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified
- Questions regarding the draft audit report
- Overview of NJCEP equipment incentives
- Next steps for Cherry Hill Public Library



LGEA PROCESS

- Application Approval
- Scheduling Call
- Audit
- Benchmarking & Analysis
- Draft Report
- Exit Meeting Presentation
- Final Report

CHERRY HILL PUBLIC LIBRARY

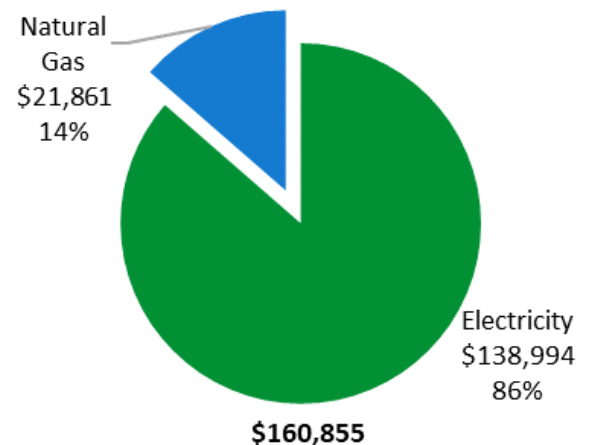
Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment


Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Cost

Pre-Implementation Utility Costs:



BENCHMARKING

 ENERGY STAR® Statement of Energy Performance

LEARN MORE AT energystar.gov

N/A Cherry Hill Public Library

Primary Property Type: Library
Gross Floor Area (ft²): 72,000
Built: 2004

For Year Ending: November 30, 2018
Date Generated: June 27, 2019

ENERGY STAR® Score¹

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address Cherry Hill Public Library 1100 Kings Highway N Cherry Hill, New Jersey 08034	Property Owner Cherry Hill Public Library 1100 Kings Highway N Cherry Hill, NJ 08034	Primary Contact Lavonne Mann 1100 Kings Highway N Cherry Hill, NJ 08034 8569711300 mann@chprj.org
---	---	--

Property ID: 7061515

Energy Consumption and Energy Use Intensity (EUI)

Site EUI 92 kBtu/ft ²	Annual Energy by Fuel	National Median Comparison	
	Electric - Grid (kBtu) 3,932,222 (59%)	National Median Site EUI (kBtu/ft ²)	68.8
	Natural Gas (kBtu) 2,694,075 (41%)	National Median Source EUI (kBtu/ft ²)	143.6
		% Diff from National Median Source EUI	34%
Source EUI 192.2 kBtu/ft ²		Annual Emissions	
		Greenhouse Gas Emissions (Metric Tons CO ₂ e/year)	542


Signature & Stamp of Verifying Professional

I, _____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

Licensed Professional

Professional Engineer Stamp (if applicable)



Energy Cons
Site EUI
92 kBtu/ft²



ENERGY STAR® scores are percentile ranking from 1 (least efficient) to 100 (most efficient). It compares your building's energy performance to similar buildings nationwide.

ALL OPPORTUNITIES

#	Energy Conservation Measure	Cost Effective?	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			171,868	42.3	-36	\$20,445	\$63,104	\$9,845	\$53,259	2.6	168,851
ECM 1	Install LED Fixtures	No	619	0.1	0	\$74	\$1,688	\$5	\$1,683	22.7	616
ECM 2	Retrofit Fixtures with LED Lamps	Yes	171,249	42.2	-36	\$20,371	\$61,416	\$9,840	\$51,576	2.5	168,235
Lighting Control Measures			56,079	12.6	-12	\$6,670	\$41,258	\$4,005	\$37,253	5.6	55,073
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	46,760	10.5	-10	\$5,561	\$30,908	\$4,005	\$26,903	4.8	45,921
ECM 4	Install High/Low Lighting Controls	Yes	9,319	2.2	-2	\$1,108	\$10,350	\$0	\$10,350	9.3	9,152
Variable Frequency Drive (VFD) Measures			28,564	3.2	0	\$3,445	\$15,455	\$0	\$15,455	4.5	28,763
ECM 5	Install VFDs on Heating Water Pumps	Yes	28,564	3.2	0	\$3,445	\$15,455	\$0	\$15,455	4.5	28,763
Domestic Water Heating Upgrade			0	0.0	11	\$90	\$29	\$0	\$29	0.3	1,333
ECM 6	Install Low-Flow DHW Devices	Yes	0	0.0	11	\$90	\$29	\$0	\$29	0.3	1,333
TOTALS (COST EFFECTIVE MEASURES)			255,892	58.1	-37	\$30,575	\$118,157	\$13,845	\$104,312	3.4	253,405
TOTALS (ALL MEASURES)			256,511	58.2	-37	\$30,649	\$119,846	\$13,850	\$105,996	3.5	254,021

* - All incentives presented in this table are based on NJ SmartStart 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

	Cherry Hill Public Library
<i>Potential:</i>	HIGH
<i>System Potential: (kW)</i>	239
<i>Electric Generation: (kWh per year)</i>	284,738
<i>Displaced Cost: (per year)</i>	\$34,340

SREC Registration Program (SRP):

<http://www.NJCleanEnergy.com/SREC>

Community Solar Energy Pilot
Program:

<http://www.NJCleanEnergy.com/CommunitySolar>



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

INCENTIVE PROGRAMS

Equipment Rebates:

- **SmartStart**
- **Customer Tailored Energy Efficiency Pilot (CTEEP)**
- Direct Install
- Large Energy Users

Whole Buildings:

- Pay for Performance

Energy Generation:

- Combined Heat and Power – Fuel Cells

OTHER PROGRAMS

Renewable Energy Generation:

- **SREC Registration Program (SRP)**
- **Community Solar**



SMARTSTART

NJCleanEnergy.com/SSB

What is SSB: Individual high efficiency equipment rebates for new construction, renovation, remodeling, equipment replacement

Qualifications:

- All C&I customer types contributing into the Societal Benefits Charge (SBC)

About:

- Prescriptive and custom designed measures
- Pre-approval required only for lighting projects with incentives >\$100,000 and all custom projects
- For measures not requiring pre-approval, applications must be submitted to the program within one year of purchase.

Incentives:

- Prescriptive: \$500,000 cap for each electric or gas account
- Custom, lesser of the following:
 - \$0.16/kWh and/or \$1.60/Therm saved annually
 - 50% of incremental installed cost
 - Buy-down to 1 year payback based on incremental cost and savings



SMARTSTART

NJCleanEnergy.com/SSB

Prescriptive Incentives

- Lighting & Lighting Controls
- Packaged HVAC
- Boilers & Water Heaters
- Chillers
- VFD's
- Food Service
- Refrigeration

Prescriptive Only:

**DOUBLE
INCENTIVES FOR
OZ/UEZ/ MUNI/K-12
PUBLIC SCHOOLS**

Custom Incentives

- New or innovative technologies proven to be cost-effective and not listed as prescriptive
- Projects must have a minimum first year energy savings of 75,000 kWh or 1,500 therms
- Project pre and post inspection required



CUSTOMER TAILORED ENERGY EFFICIENCY PILOT

NJCleanEnergy.com/CTEEP

What is CTEEP: A streamlined/single application process for participants submitting multiple different technology types.

Qualifications:

- All C&I customer types contributing into the Societal Benefits Charge (SBC)

About:

- On site assistance available
- Additional technical incentive available to offset soft costs associated with developing and planning custom projects

Incentives:

- \$250,000 fiscal year entity cap
- Technical assistance incentives for custom project evaluation (up to \$10K)

**SAME INCENTIVE
VALUES AS
SMARTSTART**

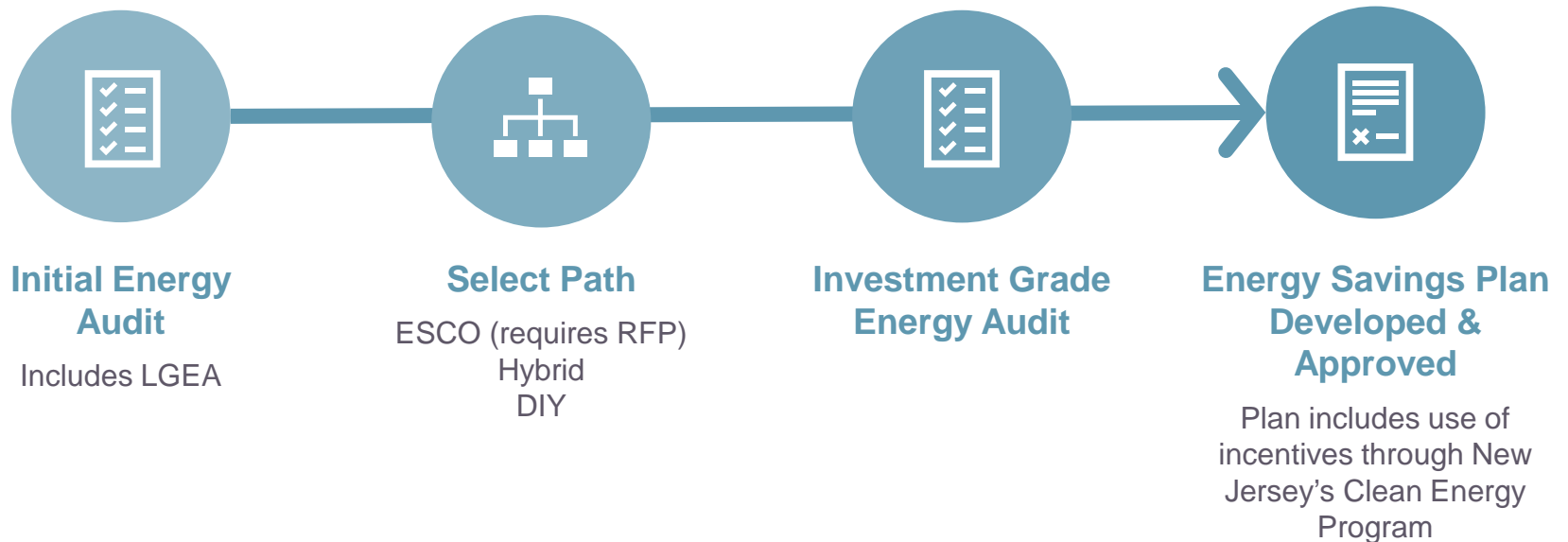
FINANCING MECHANISM: ESIP

ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

- Provides alternative financing for energy savings projects at public institutions
- Administered directly by the BPU
- Value of energy savings leveraged to pay for cost of EE projects over a 15 year contract
- Requires NO new bonding and is outside of capital budget
- Does not count as debt or require voter approval



FINANCING MECHANISM: ESIP



ENERGY SAVINGS IMPROVEMENT PROGRAM (ESIP)

FOR MORE INFORMATION

Michelle Rossi

ESIP Coordinator

Office: 609-633-9641

ESIP@bpu.nj.gov



New Jersey's
cleanenergy
program™

FOR MORE INFORMATION

Visit NJCleanEnergy.com

Call (732) 855-0033

Gary Finger

Regional Outreach Manager

856.780.8553

gfinger@trccompanies.com



QUESTIONS

