LGEA Presentation

Department of Law & Public Safety – 140 E Front St.

November 9, 2023

New Jersey's
Clean Energy Program

Lighting the way to New Jersey's Clean Energy Future

INTRODUCTIONS

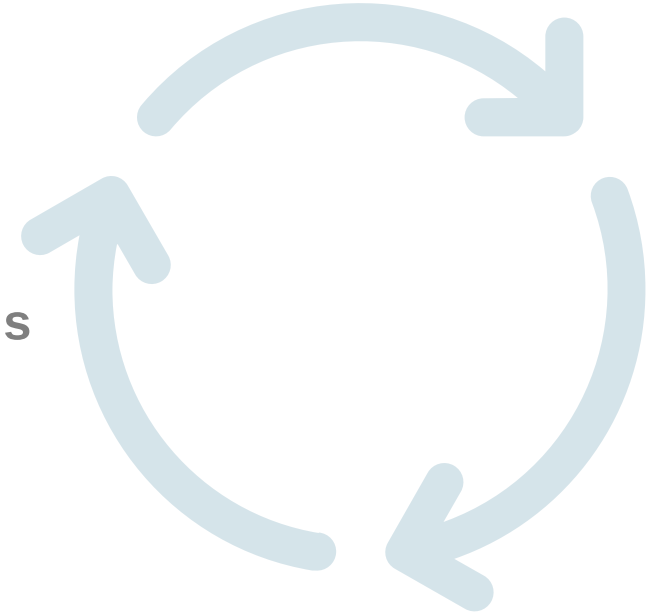
- *State of NJ – 140 E. Front St.*
  - Terri Goldberg
  - Sara Bluhm Gibson (BPU)
  - Yulia Grinberg (BPU)
- *The Fruscione Company*
  - Joseph E. Fruscione
- *NJ Clean Energy Program*
  - Sarah Walters – LGEA Project Manager
  - Moussa Traore – LGEA Technical Manager
  - Melissa Lott – LGEA Account Manager

AGENDA

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified & other recommendations
- Energy Efficiency Incentive Programs
- Questions regarding the draft audit report
- Next steps for the Department of Law & Public Safety

LGEA Process

- Application Approval
- Initial Call
- Facility Interviews
- Audit
- Benchmarking & Analysis
- Draft Reports
- LGEA Presentation
- Final Reports



New Jersey's cleanenergy program™

DLPS - 140 E. Front Street

Overview of Systems, Baseline & Existing Conditions:

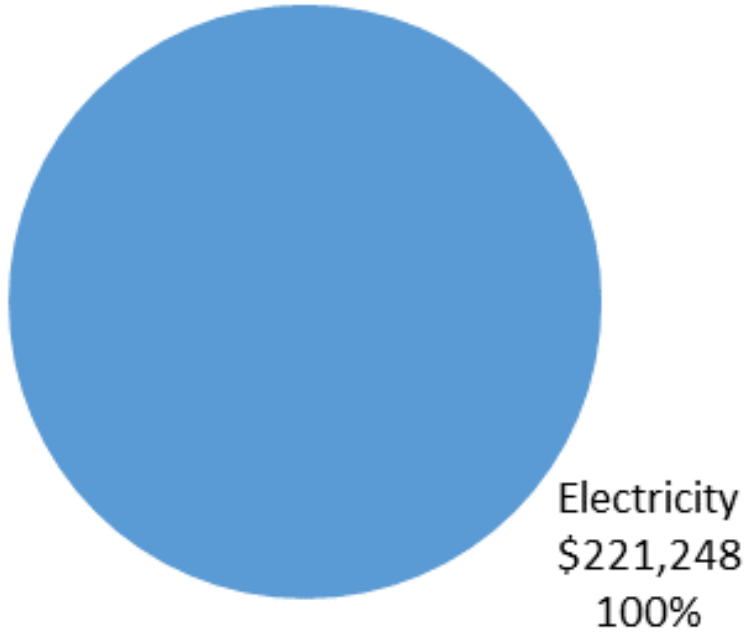
- Building Envelope
- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment

Utility Consumption:

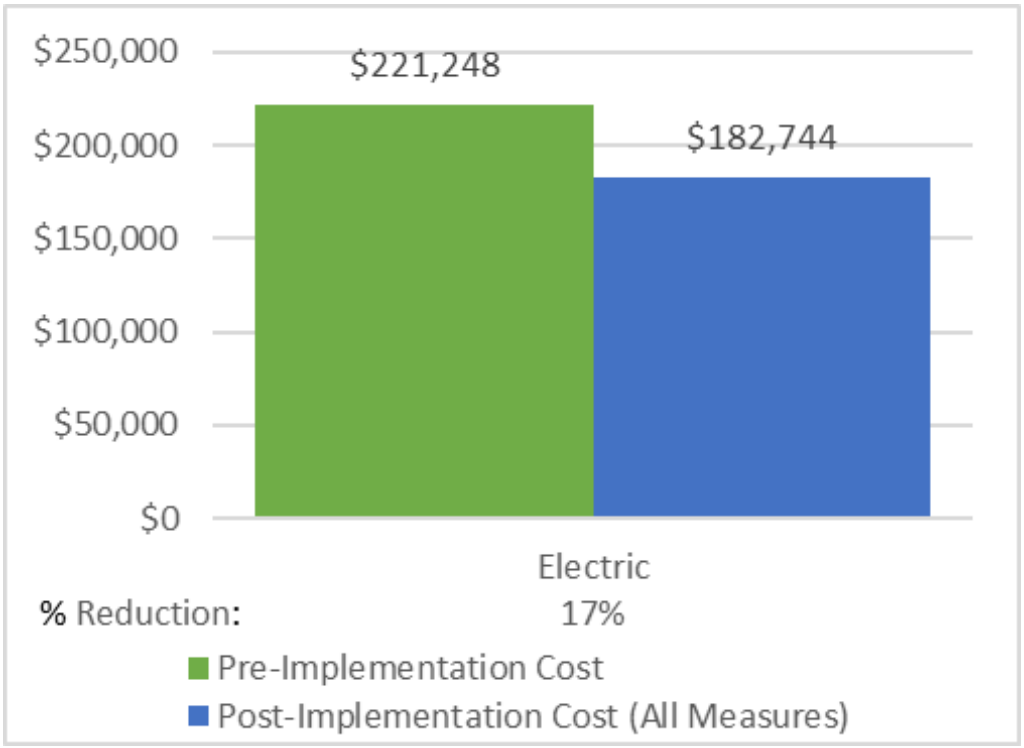
- Electric Consumption and Costs

Utility Breakout

Percent of Total Annual Energy Costs



Pre & Post Implementation Cost



BENCHMARKING

ENERGY STAR® Statement of Energy Performance

LEARN MORE AT energystar.gov

80

ENERGY STAR® Score[1]

LPS - 140 East Front Street Office Building

Primary Property Type: Office
Gross Floor Area (ft²): 109,025
Built: 1991

For Year Ending: October 31, 2022
Date Generated: November 10, 2023

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	Property Owner	Primary Contact
140 East Front Street Office Building 140 East Front Street Trenton, New Jersey 08625	The Fruscione Company, LLC P.O. Box 3245 Hamilton, NJ 08619 (609) 586-3324	

Property ID: 26935646

Energy Consumption and Energy Use Intensity (EUI)

Site EUI
46.4 kBtu/ft²

Source EUI
130 kBtu/ft²

Annual Energy by Fuel

Electric - Grid (kBtu)	5,062,341	(100%)

National Median Comparison

National Median Site EUI (kBtu/ft²)	73.9
National Median Source EUI (kBtu/ft²)	207
% Diff from National Median Source EUI	-37%

Annual Emissions

Total (Location-Based) GHG Emissions (Metric Tons CO2e/year)	455

Signature & Stamp of Verifying Professional

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

LP Signature: _____ Date: _____

Licensed Professional

Professional Engineer or Registered Architect Stamp (if applicable)

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46.4 kBtu/ft²

Source EUI
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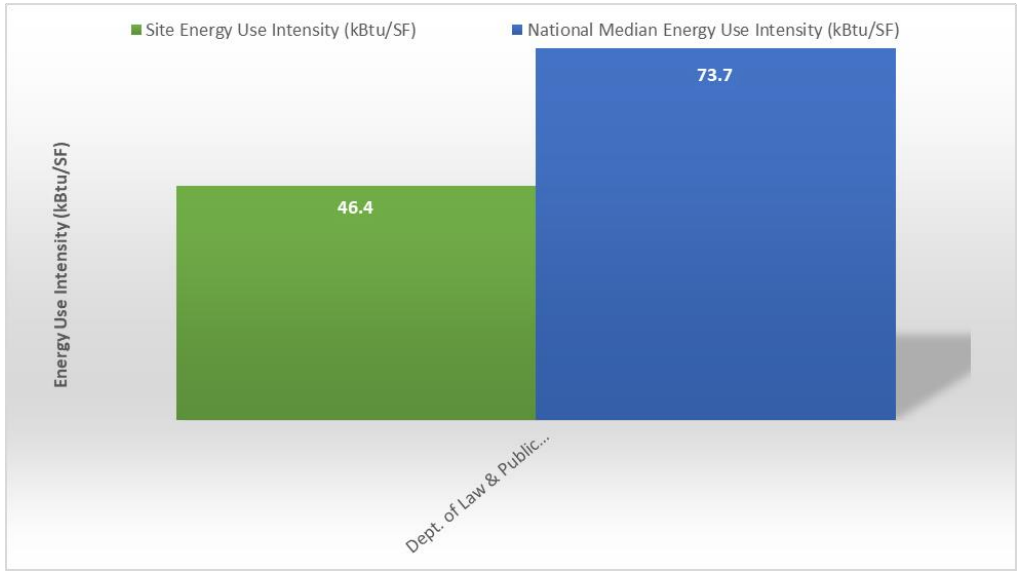
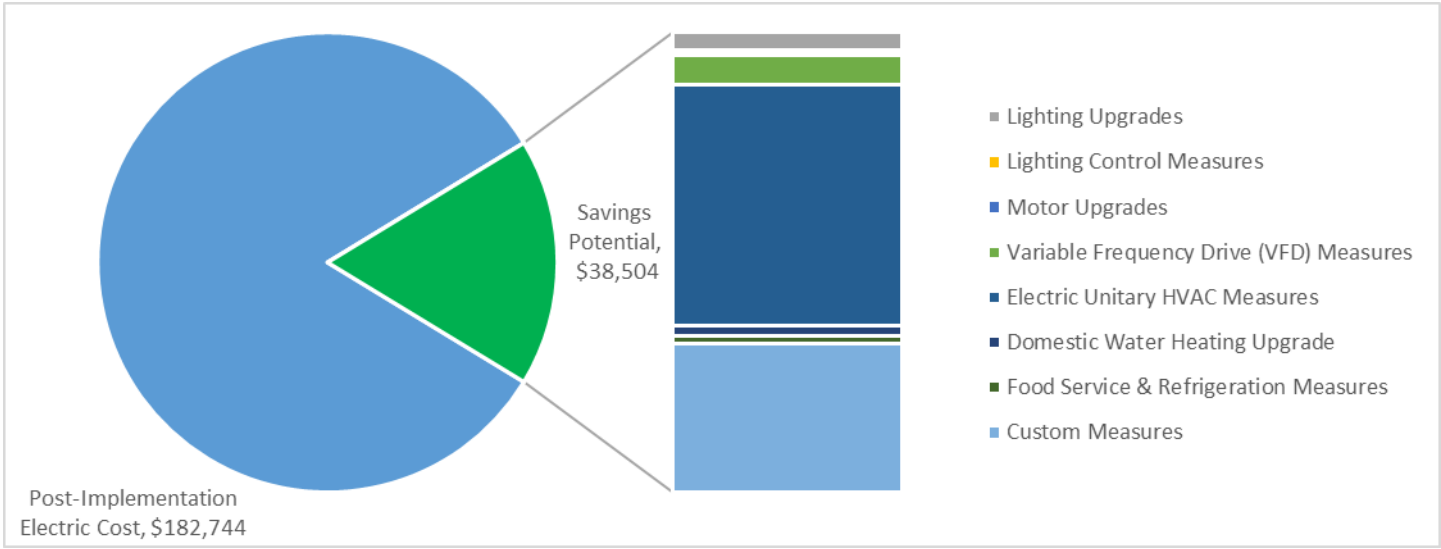


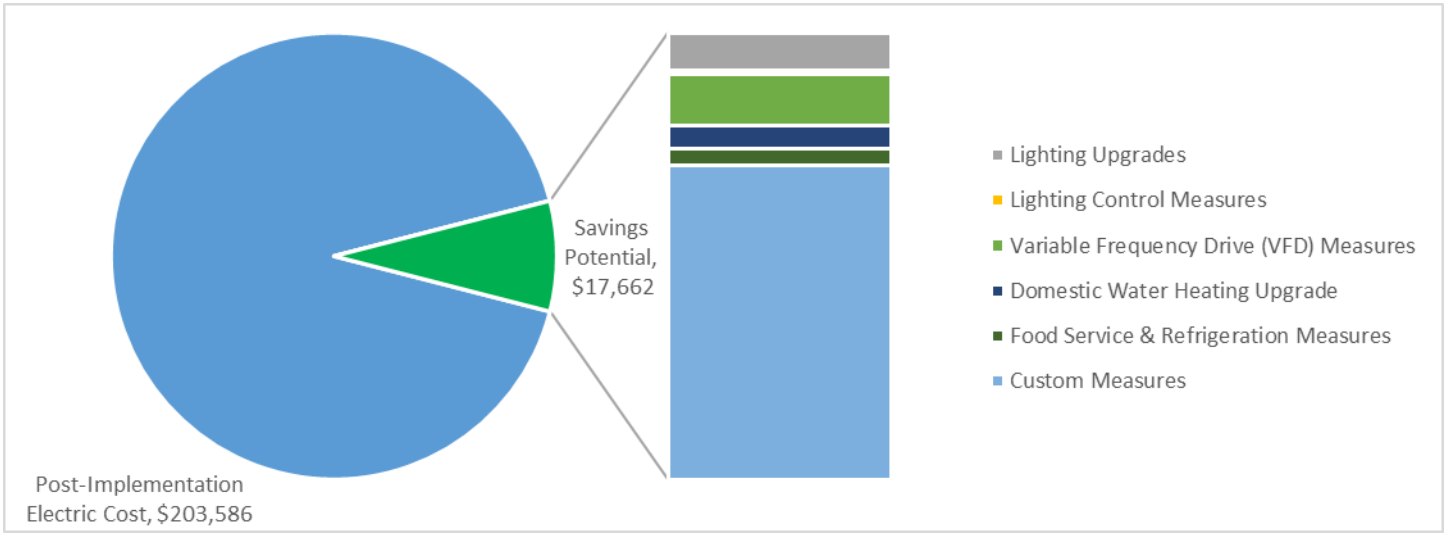
ENERGY STAR® scores are percentile ranking from 1 (least efficient) to 100 (most efficient). It compares your building's energy performance to similar buildings nationwide.

Savings Potential

All Opportunities



Cost Effective Opportunities



BPU New Jersey's cleanenergy program™

DLPS - 140 E. Front Street

#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings ($)	Estimated M&L Cost ($)	Estimated Incentive ($)*	Estimated Net M&L Cost ($)	Simple Payback Period (yrs)**	CO_2e Emissions Reduction (lbs)
Lighting Upgrades			**9,887**	**1.8**	**0**	**$1,475**	**$4,181**	**$385**	**$3,796**	**2.6**	**9,957**
ECM 1	Install LED Fixtures	Yes	1,095	0.3	0	$163	$1,332	$100	$1,232	7.5	1,103
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	5,868	1.3	0	$875	$2,185	$235	$1,950	2.2	5,909
ECM 3	Retrofit Fixtures with LED Lamps	Yes	2,924	0.2	0	$436	$663	$50	$613	1.4	2,945
Lighting Control Measures			**1,305**	**0.3**	**0**	**$195**	**$2,214**	**$390**	**$1,824**	**9.4**	**1,314**
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	1,190	0.3	0	$178	$1,938	$215	$1,723	9.7	1,198
ECM 5	Install High/Low Lighting Controls	Yes	115	0.0	0	$17	$276	$175	$101	5.9	115
Motor Upgrades			**1,456**	**0.6**	**0**	**$217**	**$7,989**	**$0**	**$7,989**	**36.8**	**1,466**
ECM 6	Premium Efficiency Motors	No	1,456	0.6	0	$217	$7,989	$0	$7,989	36.8	1,466
Variable Frequency Drive (VFD) Measures			**16,946**	**3.6**	**0**	**$2,528**	**$32,448**	**$4,800**	**$27,648**	**10.9**	**17,065**
ECM 7	Install VFDs on Constant Volume (CV) Fans	Yes	4,976	2.2	0	$742	$6,679	$1,000	$5,679	7.7	5,011
ECM 8	Install VFDs on Heating Water Pumps	Yes	8,535	1.4	0	$1,273	$13,347	$2,000	$11,347	8.9	8,594
ECM 9	Install VFDs on Cooling Tower Fans	No	3,436	-0.1	0	$513	$12,422	$1,800	$10,622	20.7	3,460
Unitary HVAC Measures			**134,823**	**81.0**	**0**	**$20,113**	**$744,051**	**$18,569**	**$725,482**	**36.1**	**135,766**
ECM 10	Install High Efficiency Air Conditioning Units	No	2,680	1.9	0	$400	$28,818	$1,258	$27,560	68.9	2,699
ECM 11	Install High Efficiency Heat Pumps	No	132,143	79.1	0	$19,713	$715,233	$17,311	$697,922	35.4	133,067
Domestic Water Heating Upgrade			**5,929**	**0.0**	**0**	**$884**	**$462**	**$200**	**$262**	**0.3**	**5,970**
ECM 12	Install Low-Flow DHW Devices	Yes	5,929	0.0	0	$884	$462	$200	$262	0.3	5,970
Food Service & Refrigeration Measures			**4,654**	**0.5**	**0**	**$694**	**$1,606**	**$150**	**$1,456**	**2.1**	**4,687**
ECM 13	Vending Machine Control	Yes	4,654	0.5	0	$694	$1,606	$150	$1,456	2.1	4,687
Custom Measures			**83,110**	**0.0**	**0**	**$12,398**	**$126,914**	**$0**	**$126,914**	**10.2**	**83,691**
ECM 14	Installation of an Energy Management System	Yes	83,110	0.0	0	$12,398	$126,914	$0	$126,914	10.2	83,691
TOTALS (COST EFFECTIVE MEASURES)			**118,395**	**6.3**	**0**	**$17,662**	**$155,403**	**$4,125**	**$151,278**	**8.6**	**119,223**
TOTALS (ALL MEASURES)			**258,110**	**87.8**	**0**	**$38,504**	**$919,866**	**$24,494**	**$895,372**	**23.3**	**259,915**

* - All incentives presented in this table are included as placeholders for planning purposes and are based on previously run state rebate programs. Contact your utility provider for details on current programs.

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

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 Best Practices by building

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WATER BEST PRACTICES

- Leak Detection and Repair
- Toilets and Urinals
- Faucets and Showerheads
- Commercial Kitchen Equipment
- Laundry Equipment
- Cooling Towners
- Steam Boiler System
- Pools and Spas
- Laboratory and Medical Equipment
- Water Metering and Submetering
- Vehicle Washing
- Single Pass Cooling System
- Landscaping and Irrigation
- On-Site Alternative Water Sources

See individual reports for specific Water Best Practices by building

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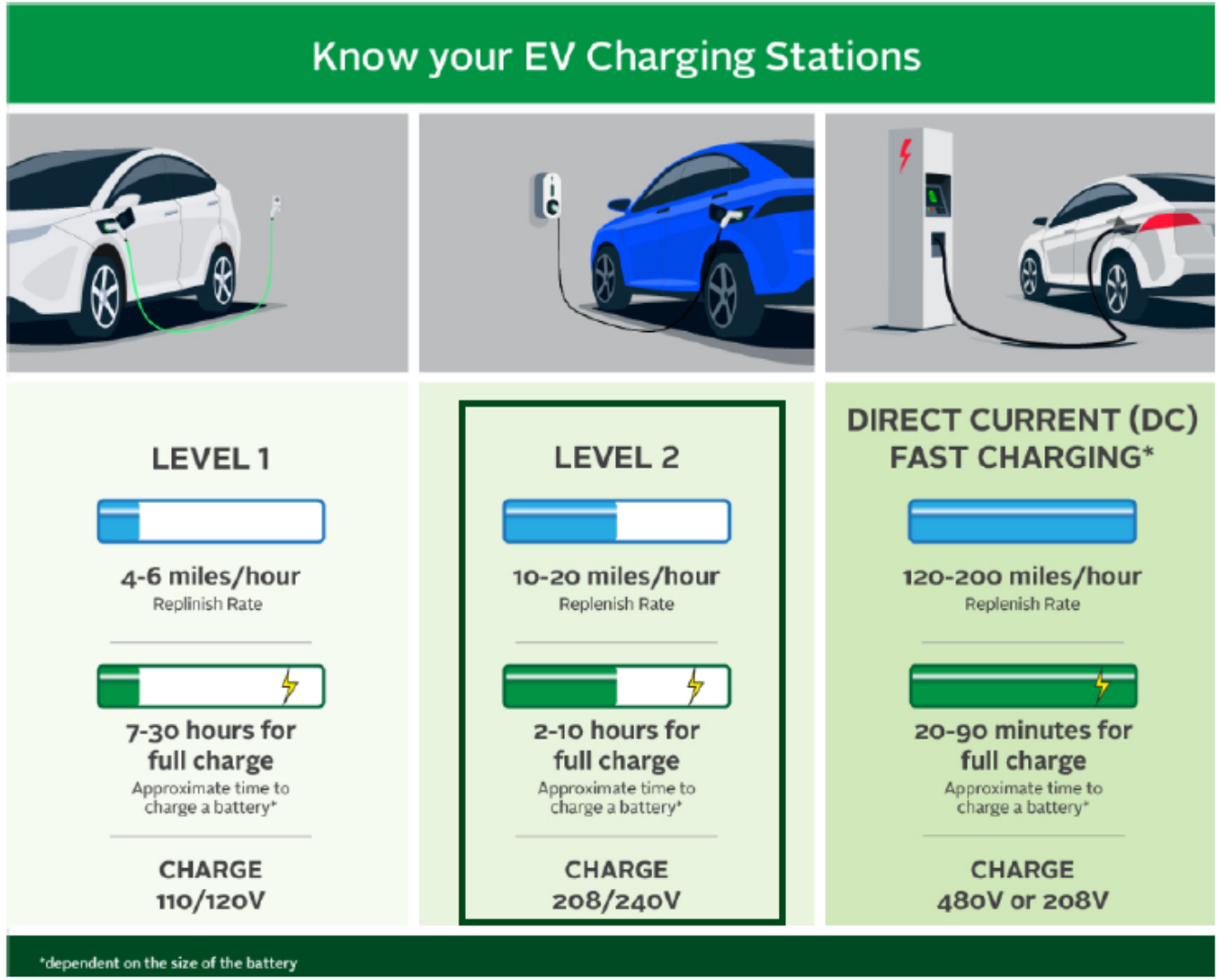
EV Charging Station Potential

NJCleanEnergy.com/EV



	140 E. Front Street
Potential:	**Medium**

Solar Energy Generation Potential

NJCleanEnergy.com/renewable-energy

	140 E. Front St.
Potential:	**HIGH**
System Potential: (kW)	107
Electric Generation: (kWh per year)	127,477
Displaced Cost: (per year)	$19,020

C&I Energy Efficiency Programs

NJCleanEnergy.com

LOCAL GOVERNMENT CUSTOMERS

COMMERCIAL & INSTITUTIONAL CUSTOMERS

LARGE ENERGY CUSTOMERS

EXISTING BUILDINGS

MEASUREMENT & AUDITS

FREE Energy Audits

RETROFITS

Prescriptive & Custom Rebates

Direct Install

Engineered Solutions

And more from your local utility!

Incentives up to $4 million for eligible projects

NEW CONSTRUCTION

Prescriptive & Custom Rebates for New Construction and Gut Rehabs

Pay for Performance incentives for buildings over 50,000 sq. ft.

DISTRIBUTED ENERGY RESOURCES

Combined Heat & Power and Fuel Cell Installation Incentives

Microgrid Development

Battery Storage

Muni EV Fleets

New Jersey's cleanenergy program™

Key:

Programs run by investor-owned utility companies

Programs run by NJCEP

UTILITY RUN ENERGY EFFICIENCY PROGRAMS*

NJCleanEnergy.com/Transition

PRESCRIPTIVE & CUSTOM REBATES:

- Individual high efficiency equipment rebates for renovation, remodeling, and equipment replacement
- Flexibility to do a little or a lot
- No size requirement

DIRECT INSTALL:

- Turn-key retrofit program to replace outdated and inefficient equipment including, lighting, HVAC, refrigeration, etc.
- The facility must have an average electric peak demand <200kW in the previous year to qualify

ENERGY MANAGEMENT :

- Includes the Building Tune-up (BT), Retro-commissioning (RCx), and Strategic Energy Management (SEM) subprograms. These subprograms offer a comprehensive mix of custom energy-savings measures such as basic HVAC tune-ups, building systems tune-ups, controls' calibration, diagnostic testing, and installation of measures to enhance your building's energy performance and savings.

ENGINEERED SOLUTIONS:

- Comprehensive, whole-building approach to saving energy
- The facility must have an average electric peak demand >200kW in the previous year to qualify

****Other programs may be available to you. Check with your Utility Provider to see a full list of offering and what you may be qualified for.***

Utility Run Energy Efficiency Programs

PSE&G

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THANK YOU