New Jersey's Clean Energy Program

LGEA Exit Meeting for:

OTC Recycling

December 9, 2019

Introductions

- *OTC Recycling*
  - Tim Whelihan – Plant Operations Manager
  - Frank Moore – Maintenance Manager
  - Isaac Manning – Director of Operations
- *NJ Clean Energy Program*
  - Moussa Traore – TRC Auditor
  - Sarah Walters – TRC Account Manager
  - Gary Finger – TRC Outreach Manager
  - Michelle Rossi – ESIP Coordinator (BPU)
  - Arif Welcher – Government/Business Manager (BPU)

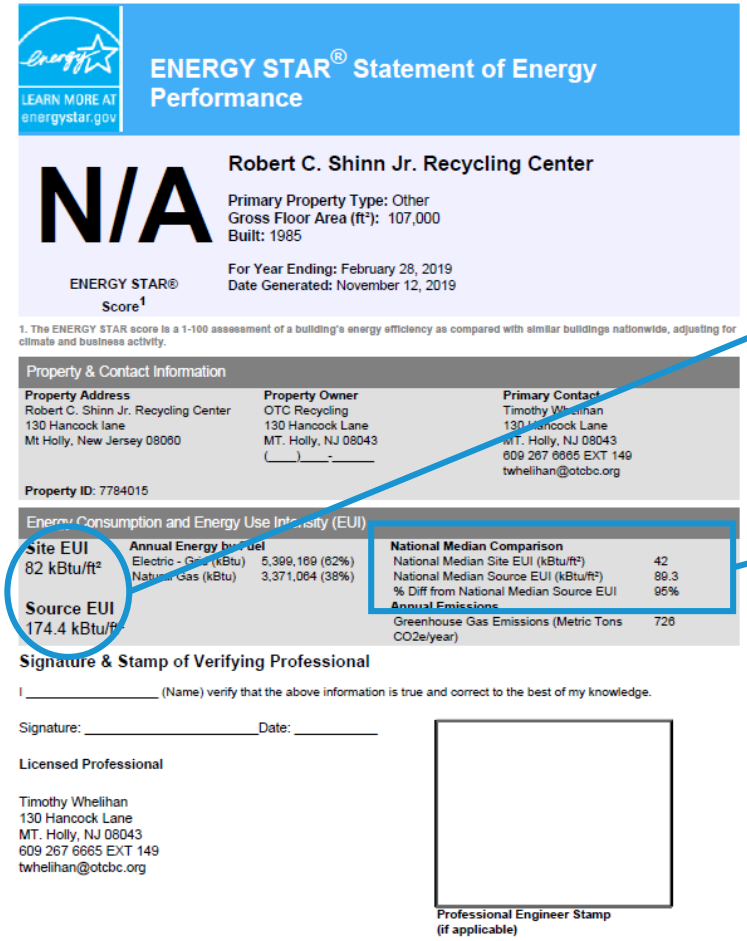
AGENDA

- 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 OTC Recycling

LGEA Process

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

BENCHMARKING



ENERGY STAR® Statement of Energy Performance

LEARN MORE AT energystar.gov

N/A

ENERGY STAR® Score[1]

Robert C. Shinn Jr. Recycling Center

Primary Property Type: Other
Gross Floor Area (ft²): 107,000
Built: 1985

For Year Ending: February 28, 2019
Date Generated: November 12, 2019

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
Robert C. Shinn Jr. Recycling Center 130 Hancock lane Mt Holly, New Jersey 08060	OTC Recycling 130 Hancock Lane MT. Holly, NJ 08043 (___)___-____	Timothy Whelihan 130 Hancock Lane MT. Holly, NJ 08043 609 267 6665 EXT 149 twhelihan@otcbc.org

Property ID: 7784015

Energy Consumption and Energy Use Intensity (EUI)

Site EUI
82 kBtu/ft²

Source EUI
174.4 kBtu/ft²

Annual Energy by Fuel

Electric - Grid (kBtu)	5,399,169 (62%)
Natural Gas (kBtu)	3,371,064 (38%)

National Median Comparison

National Median Site EUI (kBtu/ft²)	42
National Median Source EUI (kBtu/ft²)	89.3
% Diff from National Median Source EUI	95%

Annual Emissions

Greenhouse Gas Emissions (Metric Tons CO2e/year)	726

Signature & Stamp of Verifying Professional

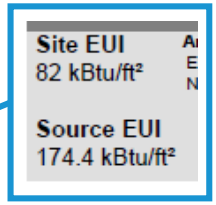
I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

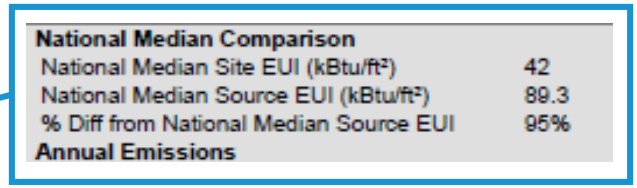
Signature: _____ Date: _____

Licensed Professional

Timothy Whelihan
130 Hancock Lane
MT. Holly, NJ 08043
609 267 6665 EXT 149
twhelihan@otcbc.org

Professional Engineer Stamp
(if applicable)





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.

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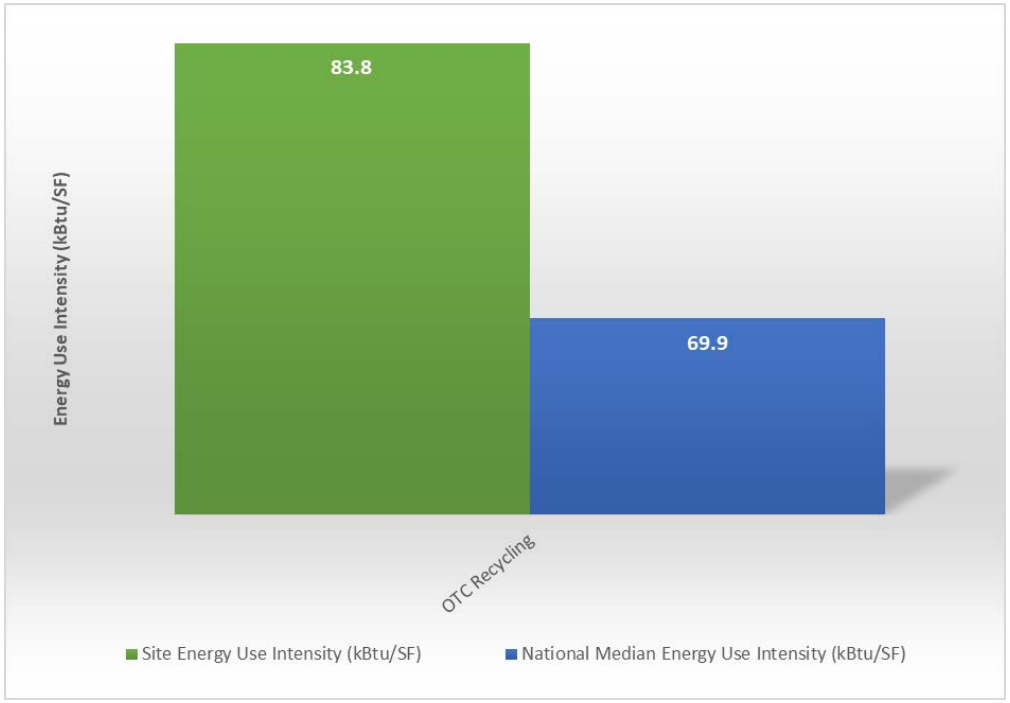
BENCHMARKING



OTC Recycling – Robert C. Shinn Jr. Recycling Center

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OTC – Robert C. Shinn Jr. Recycling Center

Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment
- Process Equipment (Pumps & Motors)

Utility Consumption:

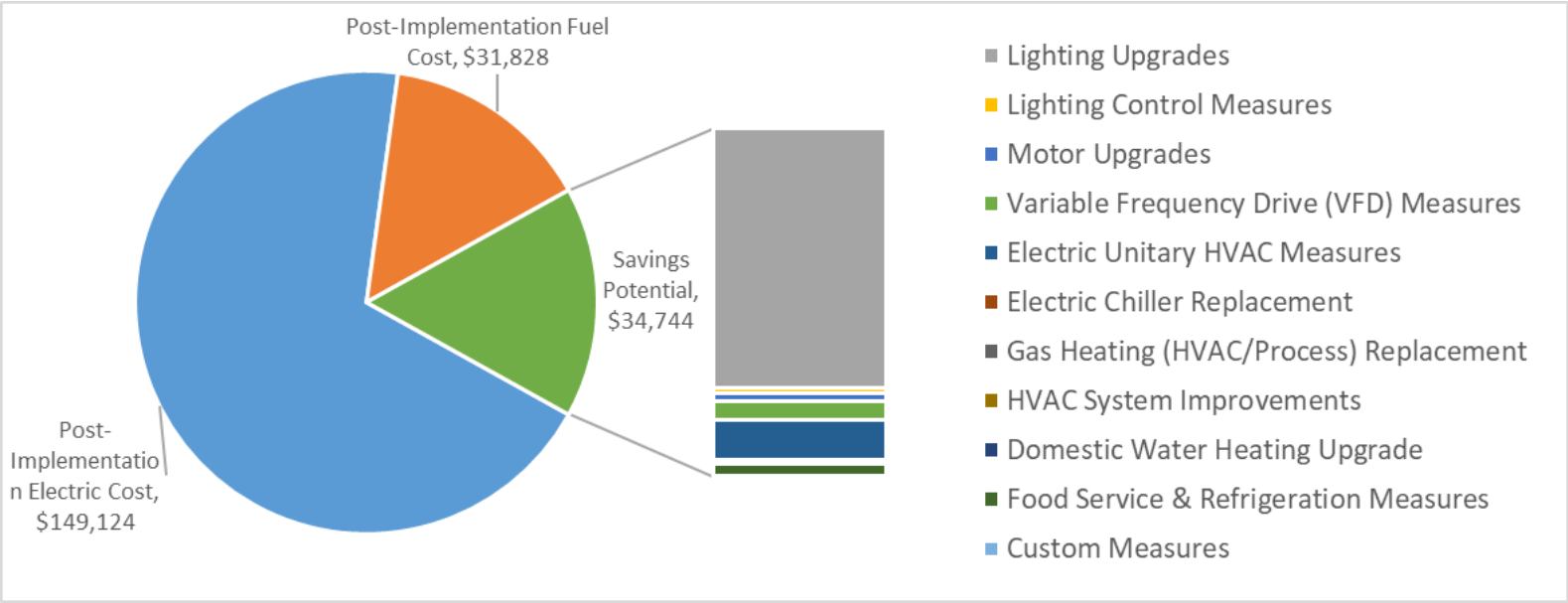
- Electric Consumption and Costs
- Natural Gas Consumption and Costs

OTC – Robert C. Shinn Jr. Recycling Center

#	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_2e Emissions Reduction (lbs)
Lighting Upgrades			**227,392**	**39.5**	**-36**	**$25,879**	**$77,762**	**$25,974**	**$51,788**	**2.0**	**224,765**
ECM 1	Install LED Fixtures	Yes	57,696	0.0	0	$6,649	$36,271	$8,200	$28,071	4.2	58,099
ECM 2	Retrofit Fixtures with LED Lamps	Yes	169,525	39.5	-36	$19,211	$41,274	$17,774	$23,500	1.2	166,499
ECM 3	Install LED Exit Signs	Yes	170	0.0	0	$19	$217	$0	$217	11.3	167
Lighting Control Measures			**5,667**	**1.0**	**-1**	**$642**	**$4,907**	**$2,010**	**$2,897**	**4.5**	**5,565**
ECM 4	Install Occupancy Sensor Lighting Controls	Yes	4,510	0.8	-1	$511	$3,782	$900	$2,882	5.6	4,429
ECM 5	Install High/Low Lighting Controls	Yes	1,157	0.2	0	$131	$1,125	$1,110	$15	0.1	1,136
Motor Upgrades			**6,906**	**3.0**	**0**	**$796**	**$18,786**	**$0**	**$18,786**	**23.6**	**6,954**
ECM 6	Premium Efficiency Motors	No	6,906	3.0	0	$796	$18,786	$0	$18,786	23.6	6,954
Variable Frequency Drive (VFD) Measures			**16,166**	**4.9**	**0**	**$1,863**	**$19,062**	**$2,400**	**$16,662**	**8.9**	**16,279**
ECM 7	Install VFDs on Constant Volume (CV) Fans	Yes	16,166	4.9	0	$1,863	$19,062	$2,400	$16,662	8.9	16,279
Electric Unitary HVAC Measures			**34,762**	**17.4**	**0**	**$4,006**	**$152,916**	**$14,292**	**$138,624**	**34.6**	**35,005**
ECM 8	Install High Efficiency Air Conditioning Units	No	34,762	17.4	0	$4,006	$152,916	$14,292	$138,624	34.6	35,005
Gas Heating (HVAC/Process) Replacement			**0**	**0.0**	**29**	**$261**	**$28,639**	**$5,600**	**$23,039**	**88.3**	**3,384**
ECM 9	Install High Efficiency Furnaces	No	0	0.0	29	$261	$28,639	$5,600	$23,039	88.3	3,384
Domestic Water Heating Upgrade			**417**	**0.0**	**2**	**$65**	**$50**	**$50**	**$0**	**0.0**	**642**
ECM 10	Install Low-Flow DHW Devices	Yes	417	0.0	2	$65	$50	$50	$0	0.0	642
Food Service & Refrigeration Measures			**10,699**	**1.2**	**0**	**$1,233**	**$2,070**	**$600**	**$1,470**	**1.2**	**10,773**
ECM 11	Vending Machine Control	Yes	10,699	1.2	0	$1,233	$2,070	$600	$1,470	1.2	10,773
TOTALS (COST EFFECTIVE MEASURES)			**260,340**	**46.6**	**-35**	**$29,682**	**$103,852**	**$31,034**	**$72,818**	**2.5**	**258,025**
TOTALS (ALL MEASURES)			**302,008**	**67.0**	**-6**	**$34,744**	**$304,193**	**$50,926**	**$253,267**	**7.3**	**303,368**

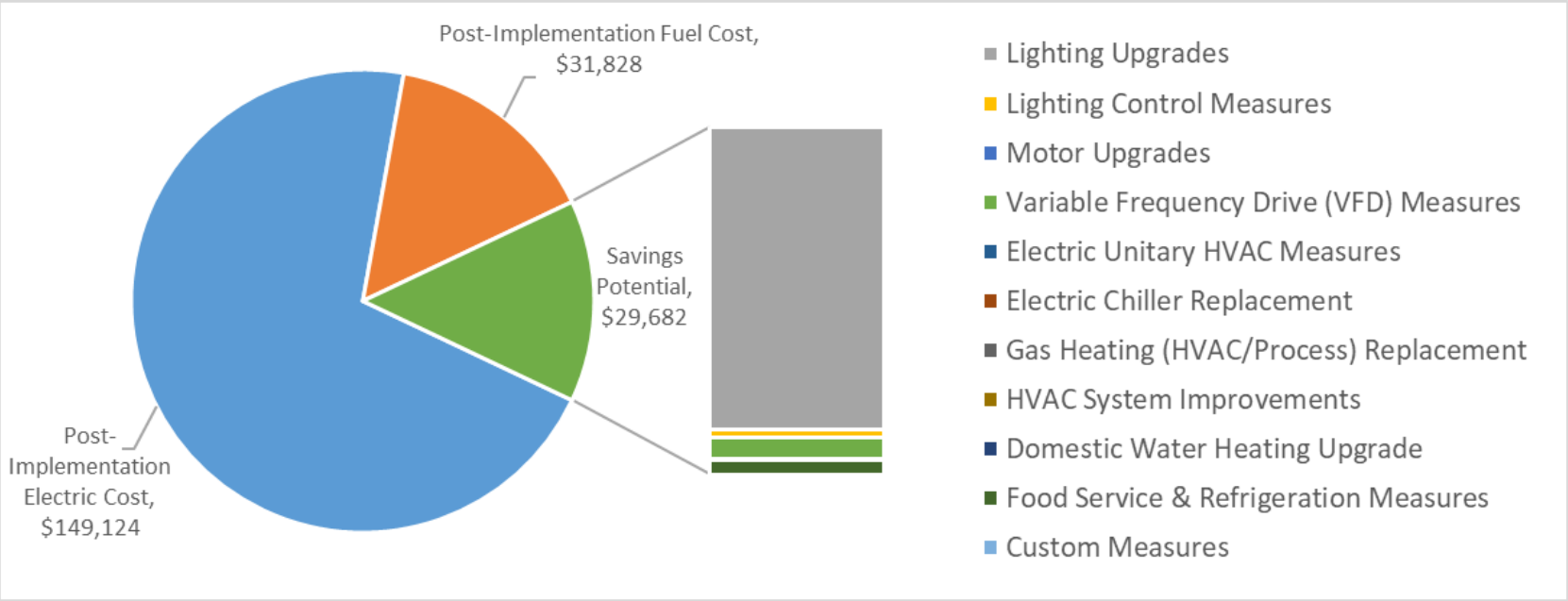
ALL OPPORTUNITIES

Savings Potential

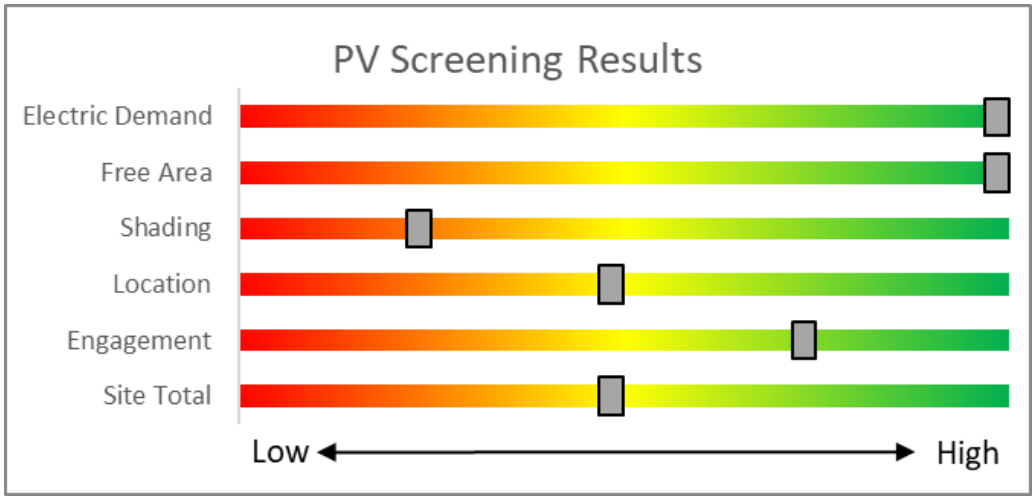


Cost Effective Opportunities

Savings Potential



Solar Energy Generation Potential



Potential:	**Medium**
System Potential:	161 kW
System Potential: (kWh/yr)	121,144
Displaced Cost: (per year)	$13,960

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**

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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

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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

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For More Information

Visit NJCleanEnergy.com

Call (732) 855-0033

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QUESTIONS

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