LGEA Presentation

St. Paul's United Methodist Church

March 21, 2022

New Jersey's
Clean Energy Program

Lighting the way to New Jersey's Clean Energy Future

INTRODUCTIONS

- *St. Paul's United Methodist Church*
  - Nicole Hamilton – Pastor

- *NJ Clean Energy Program*
  - Sarah Walters – LGEA Project Manager
  - Moussa Traore – LGEA Lead Auditor
  - Ryan Knippenberg – LGEA Project Auditor
  - Amanda Muench – LGEA Account Manager

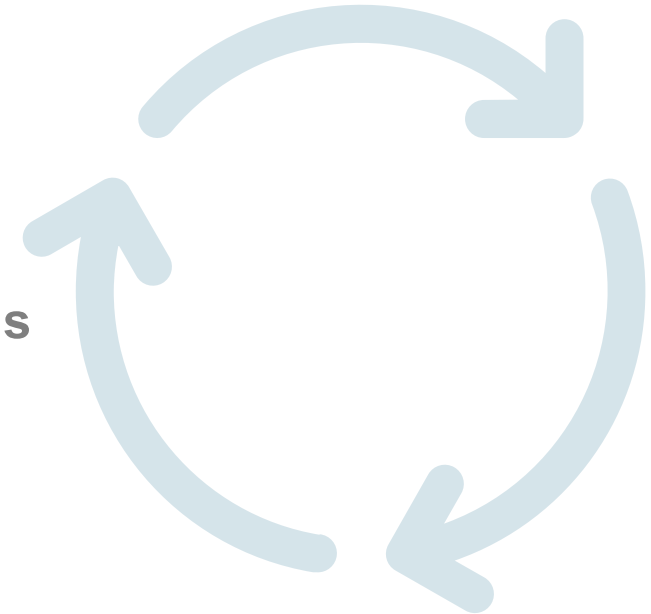
- *Utility Energy Efficiency Programs*
  - Sirajuddin Shaikh – JCP&L
  - John Sousa – TRC for JCP&L

AGENDA

- The audit process overview
- Energy use & existing conditions
- Review of **E**nergy **C**onservation **M**easures (ECMs) identified & other recommendations
- C&I Transition of EE Programs
- Questions regarding the draft audit report
- Next steps for St. Paul's United Methodist Church

LGEA Process

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



ST. PAUL'S UNITED METHODIST CHURCH

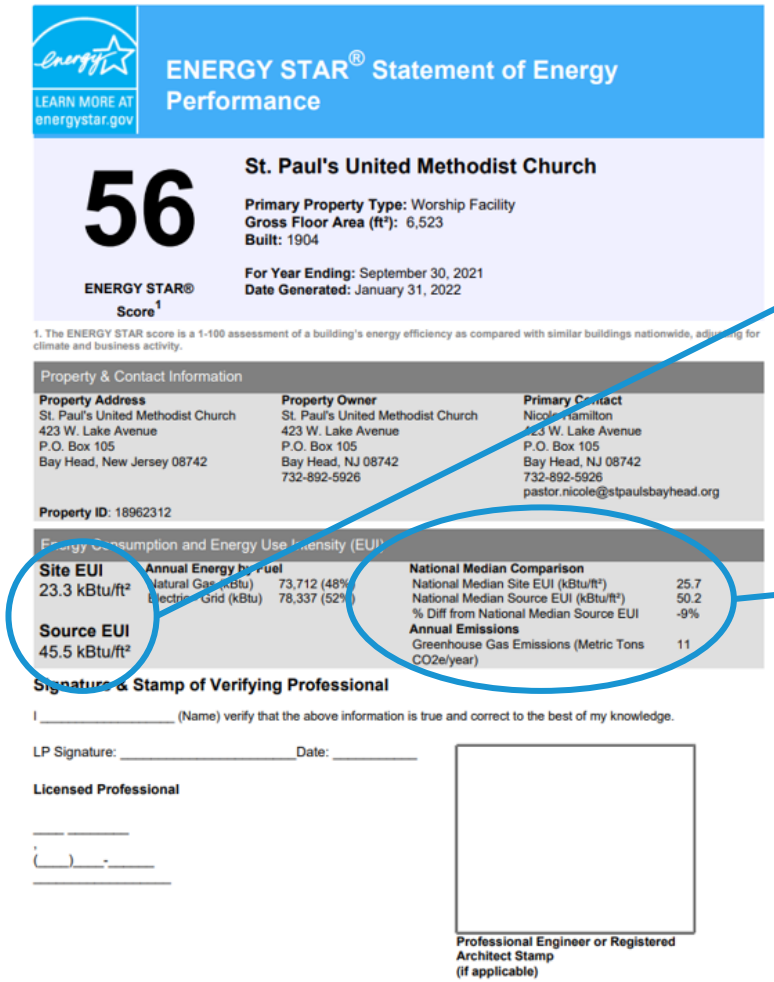
Overview of Systems, Baseline & Existing Conditions:

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

Utility Consumption:

- Electric Consumption and Costs
- Natural Gas Consumption and Costs

BENCHMARKING



ENERGY STAR® Statement of Energy Performance

LEARN MORE AT energystar.gov

56

ENERGY STAR® Score[1]

St. Paul's United Methodist Church

Primary Property Type: Worship Facility
Gross Floor Area (ft²): 6,523
Built: 1904

For Year Ending: September 30, 2021
Date Generated: January 31, 2022

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
St. Paul's United Methodist Church 423 W. Lake Avenue P.O. Box 105 Bay Head, New Jersey 08742	St. Paul's United Methodist Church 423 W. Lake Avenue P.O. Box 105 Bay Head, NJ 08742 732-892-5926	Nicole Hamilton 423 W. Lake Avenue P.O. Box 105 Bay Head, NJ 08742 732-892-5926 pastor.nicole@stpaulsbayhead.org

Property ID: 18962312

Energy Consumption and Energy Use Intensity (EUI)

Site EUI
23.3 kBtu/ft²

Source EUI
45.5 kBtu/ft²

Annual Energy by Fuel

Natural Gas (kBtu)	73,712 (48%)
Electric Grid (kBtu)	78,337 (52%)

National Median Comparison

National Median Site EUI (kBtu/ft²)	25.7
National Median Source EUI (kBtu/ft²)	50.2
% Diff from National Median Source EUI	-9%

Annual Emissions

Greenhouse Gas Emissions (Metric Tons CO2e/year)	11

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)

Site 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.

BPU New Jersey's cleanenergy program™

ST. PAUL'S UNITED METHODIST CHURCH

#	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			**5,979**	**1.9**	**-1**	**$708**	**$3,839**	**$470**	**$3,369**	**4.8**	**5,957**
ECM 1	Install LED Fixtures	Yes	3,136	0.0	0	$374	$1,552	$150	$1,402	3.7	3,158
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	2,425	1.4	0	$285	$2,012	$296	$1,716	6.0	2,388
ECM 3	Retrofit Fixtures with LED Lamps	Yes	418	0.4	0	$49	$275	$24	$251	5.1	411
HVAC System Improvements			**1,444**	**0.0**	**8**	**$245**	**$388**	**$20**	**$368**	**1.5**	**2,367**
ECM 4	Install Programmable Thermostats	Yes	1,444	0.0	7	$241	$330	$0	$330	1.4	2,320
ECM 5	Install Pipe Insulation	Yes	0	0.0	0	$4	$58	$20	$38	10.0	47
Domestic Water Heating Upgrade			**0**	**0.0**	**2**	**$17**	**$29**	**$13**	**$16**	**0.9**	**219**
ECM 6	Install Low-Flow DHW Devices	Yes	0	0.0	2	$17	$29	$13	$16	0.9	219
TOTALS (COST EFFECTIVE MEASURES)			**7,423**	**1.9**	**9**	**$970**	**$4,255**	**$503**	**$3,752**	**3.9**	**8,543**
TOTALS (ALL MEASURES)			**7,423**	**1.9**	**9**	**$970**	**$4,255**	**$503**	**$3,752**	**3.9**	**8,543**

* - 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).

New Jersey's cleanenergy program™

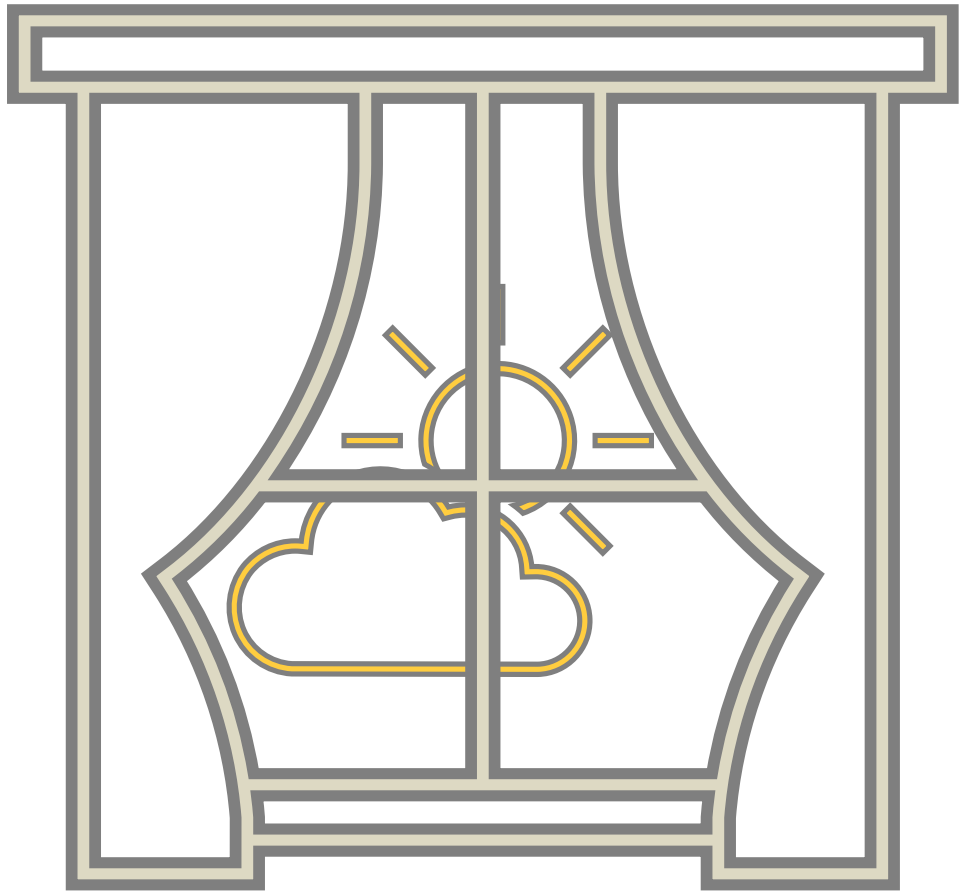
Energy Efficient Best Practices

- 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

Measures for Future Consideration

- Window Replacements



C&I Transition of Energy Efficiency Programs

https://www.njcleanenergy.com/transition

	EXISTING BUILDINGS		NEW CONSTRUCTION	DISTRIBUTED ENERGY RESOURCES
	MEASUREMENT & AUDITS	RETROFITS		
LOCAL GOVERNMENT CUSTOMERS	FREE Energy Audits	Prescriptive & Custom Rebates Direct Install Engineered Solutions **And more from your local utility!**	Prescriptive & Custom Rebates for New Construction and Gut Rehabs	Combined Heat & Power and Fuel Cell Installation Incentives Microgrid Development Battery Storage Muni EV Fleets
COMMERCIAL & INSTITUTIONAL CUSTOMERS				
LARGE ENERGY CUSTOMERS		Incentives up to $4 million for eligible projects	Pay for Performance incentives for buildings over 50,000 sq. ft.	

Key:

Programs run by investor-owned utility companies

Programs run by NJCEP

Utility Run Energy Efficiency Programs

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

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

UTILITY RUN ENERGY EFFICIENCY PROGRAMS

JCP&L

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NJNG

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For More Information

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THANK YOU