



LGEA Presentation
First United Methodist Church

August 12, 2022

New Jersey's
Clean Energy Program

Lighting the way to New Jersey's Clean Energy Future

INTRODUCTIONS

- *First United Methodist Church*
 - Richard Westergaard – Chairman of Church Council

- *NJ Clean Energy Program*
 - Sarah Walters – LGEA Project Manager
 - Moussa Traore – LGEA Lead Auditor
 - Eduardo Garcia – LGEA Project Auditor
 - Amanda Muench – 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 Savings Improvement Program (ESIP)
- Energy Efficiency Incentive Programs
- Questions regarding the draft audit report
- Next steps for First United Methodist Church

LGEA PROCESS

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



SITE VISIT & UTILITY ANALYSIS

Overview of Systems, Baseline & Existing Conditions:

- Lighting System
- HVAC and Mechanical Systems
- Plug Load Equipment
- Kitchen & Cooking Equipment

Utility Consumption:

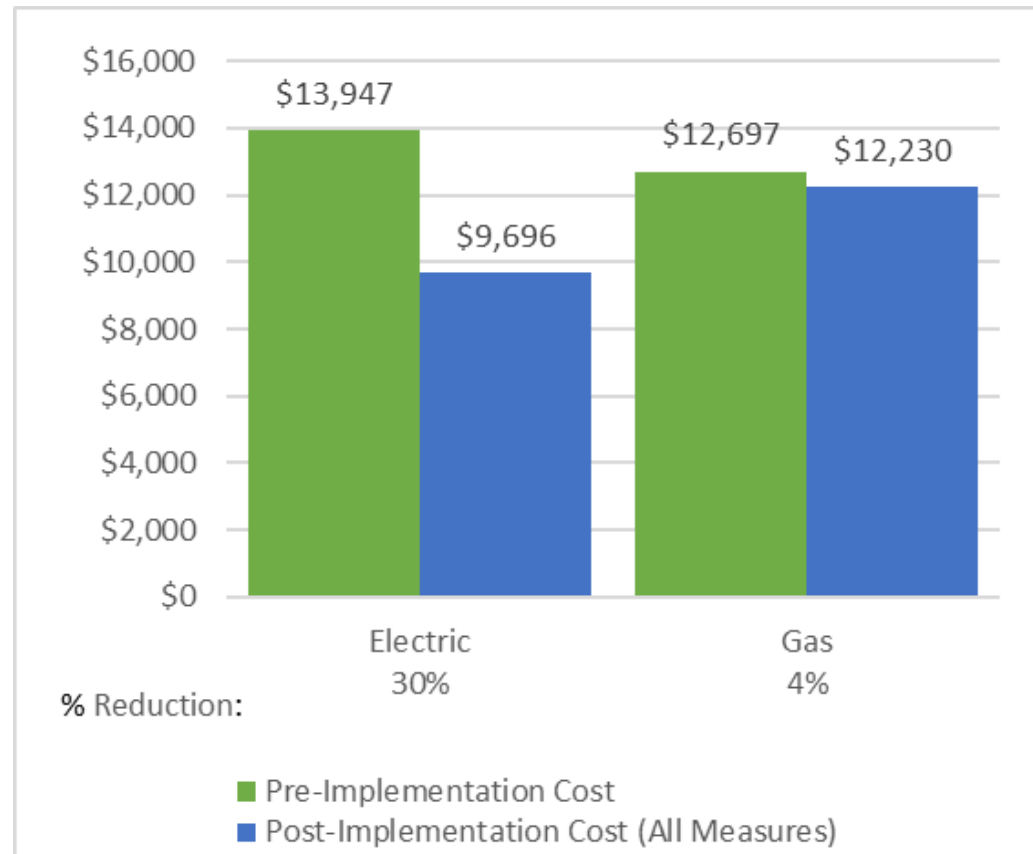
- Electric Consumption and Costs
- Natural Gas Consumption and Costs

Sites Visited/Analyzed

- Church & Offices, Gym, & Sunday School

UTILITY BREAKOUT

Pre & Post Implementation Cost



BENCHMARKING

ENERGY STAR® Statement of Energy Performance

N/A **First United Methodist Church (Campus)**

Primary Property Type: Mixed Use Property
Gross Floor Area (ft²): 13,802
Built: 1932

For Year Ending: November 30, 2021
Date Generated: March 28, 2022

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, adjusted for climate and business activity.

Property & Contact Information

Property Address First United Methodist Church (Campus) 700 E. Landis Avenue Vineland, New Jersey 08360	Property Owner First United Methodist Church 15 Madison Avenue Newfield, NJ 08344 856-697-1015	Primary Contact Richard Westergaard 15 Madison Avenue Newfield, NJ 08344 856-697-1015 rwestergaard@outlook.com
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Property ID: 20405495

Energy Consumption and Energy Use Intensity (EUI)

Site EUI 70.9 kBtu/ft ²	Annual Energy by Fuel Natural Gas (kBtu) 728,010 (74%) Electric - Grid (kBtu) 250,167 (26%)	National Median Comparison National Median Site EUI (kBtu/ft ²) 59.6 National Median Source EUI (kBtu/ft ²) 89.3 % Diff from National Median Source EUI 19%
Source EUI 106.1 kBtu/ft ²		Annual Emissions Greenhouse Gas Emissions (Metric Tons CO ₂ e/year) 62

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

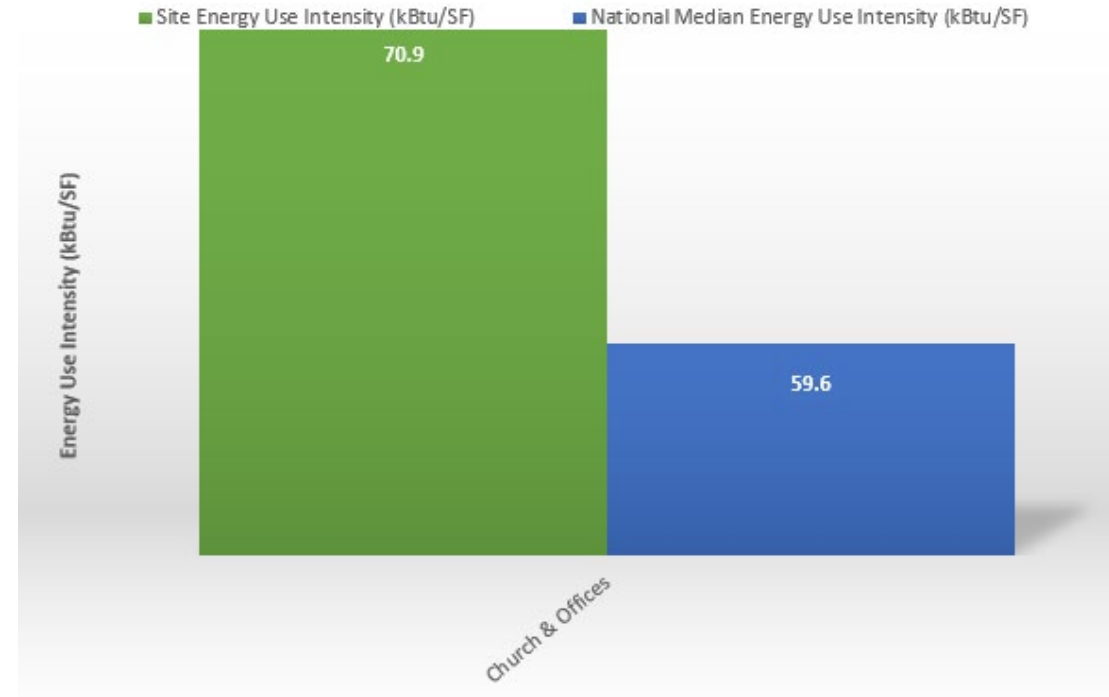
Professional Engineer or Registered Architect Stamp (if applicable)

Site EUI
70.9 kBtu/ft²

Source EUI
106.1 kBtu/ft²

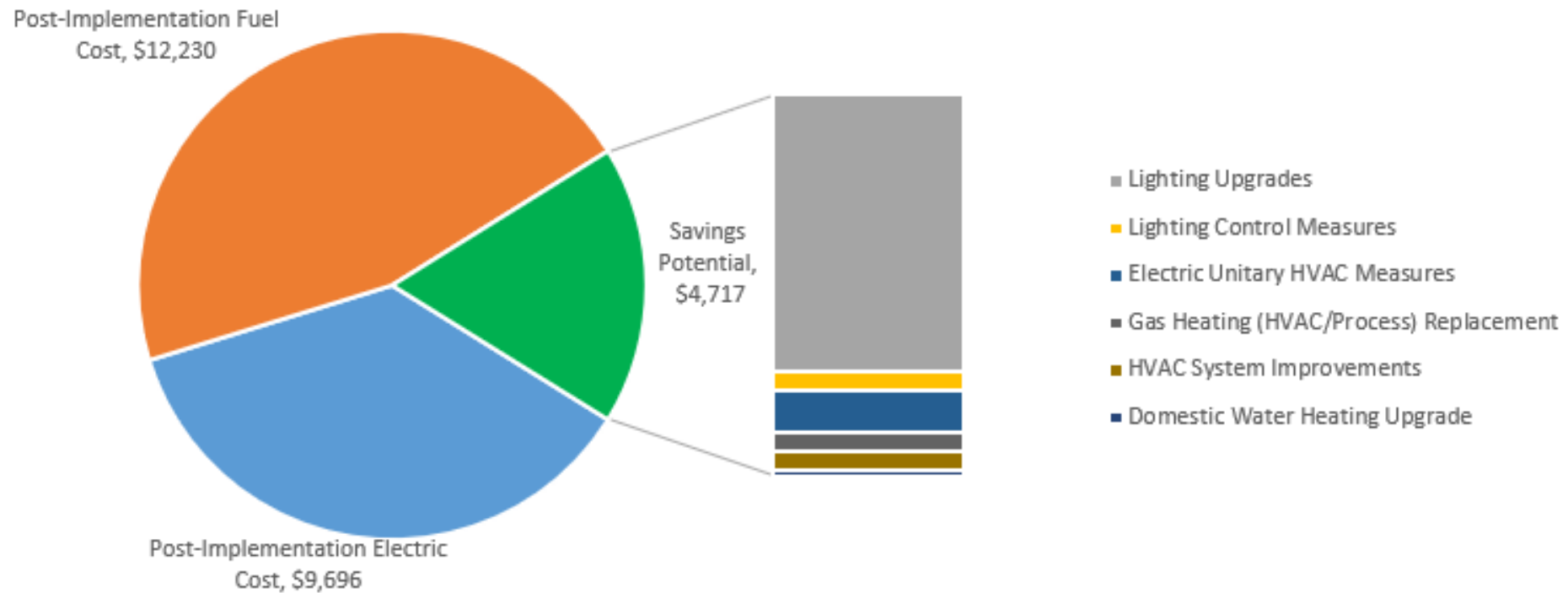
National Median Comparison

National Median Site EUI (kBtu/ft ²)	59.6
National Median Source EUI (kBtu/ft ²)	89.3
% Diff from National Median Source EUI	19%
Annual Emissions	
Greenhouse Gas Emissions (Metric Tons CO ₂ e/year)	62



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



CHURCH CAMPUS

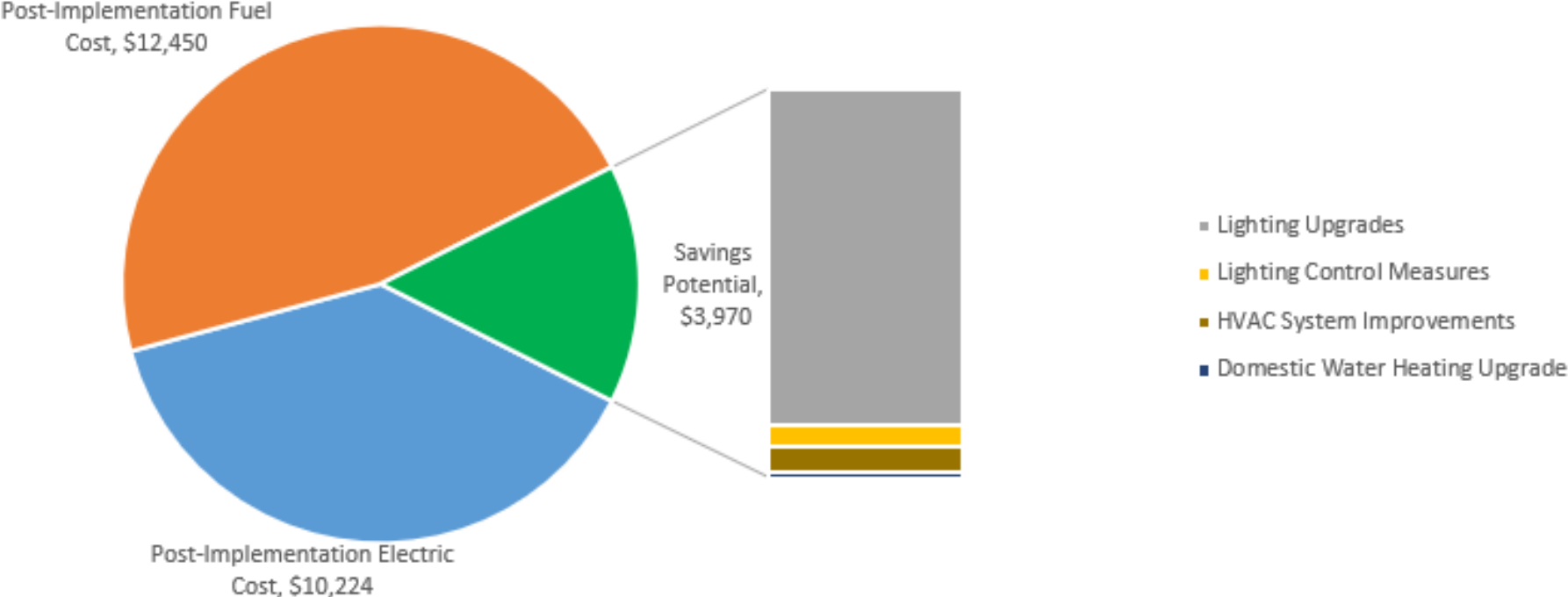
#	Energy Conservation Measure	Cost Effective?	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades			19,146	9.4	-4	\$3,421	\$14,277	\$0	\$14,277	4.2	18,804
ECM 1	Install LED Fixtures	Yes	1,757	1.3	0	\$314	\$5,450	\$0	\$5,450	17.4	1,726
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	214	0.2	0	\$38	\$257	\$0	\$257	6.7	210
ECM 3	Retrofit Fixtures with LED Lamps	Yes	5,935	6.8	-1	\$1,061	\$6,976	\$0	\$6,976	6.6	5,831
ECM 4	Install LED Exit Signs	Yes	11,239	1.1	-2	\$2,008	\$1,593	\$0	\$1,593	0.8	11,038
Lighting Control Measures			1,303	1.2	0	\$233	\$9,181	\$0	\$9,181	39.4	1,279
ECM 5	Install Occupancy Sensor Lighting Controls	Yes	1,218	1.1	0	\$218	\$7,606	\$0	\$7,606	35.0	1,196
ECM 6	Install High/Low Lighting Controls	Yes	85	0.1	0	\$15	\$1,575	\$0	\$1,575	103.5	84
Unitary HVAC Measures			2,899	4.5	0	\$528	\$38,283	\$0	\$38,283	72.5	2,920
ECM 7	Install High Efficiency Air Conditioning Units	No	2,899	4.5	0	\$528	\$38,283	\$0	\$38,283	72.5	2,920
Gas Heating (HVAC/Process) Replacement			0	0.0	14	\$219	\$11,666	\$910	\$10,756	49.0	1,612
ECM 8	Install High Efficiency Hot Water Boilers	No	0	0.0	14	\$219	\$11,666	\$910	\$10,756	49.0	1,612
HVAC System Improvements			0	0.0	15	\$245	\$269	\$60	\$209	0.9	1,800
ECM 9	Install Pipe Insulation	Yes	0	0.0	15	\$245	\$269	\$60	\$209	0.9	1,800
Domestic Water Heating Upgrade			0	0.0	4	\$71	\$168	\$51	\$117	1.7	520
ECM 10	Install Low-Flow DHW Devices	Yes	0	0.0	4	\$71	\$168	\$51	\$117	1.7	520
TOTALS (COST EFFECTIVE MEASURES)			20,448	10.6	15	\$3,970	\$23,895	\$111	\$23,784	6.0	22,404
TOTALS (ALL MEASURES)			23,348	15.1	29	\$4,717	\$73,845	\$1,021	\$72,823	15.4	26,935

* - 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).

COST EFFECTIVE OPPORTUNITIES

Savings Potential



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

C&I TRANSITION OF ENERGY EFFICIENCY PROGRAMS

NJCleanEnergy.com/Transition

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



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

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

South Jersey Gas

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THANK YOU

