

LGEA Presentation Parish of St. Monica

July 18, 2022



New Jersey's
Clean Energy Program

Lighting the way to New Jersey's Clean Energy Future

INTRODUCTIONS

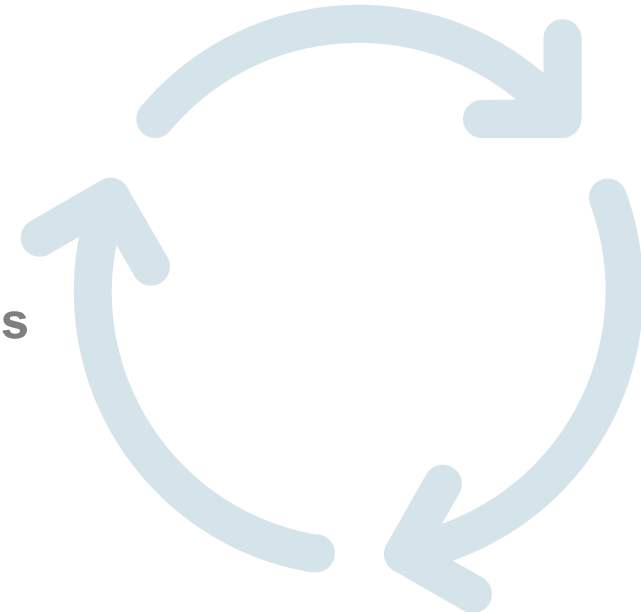
- *Parish of St. Monica*
 - Joan Parker – Business Manager
 - Carmelo Nieves – Buildings & Grounds
- *NJ Clean Energy Program*
 - Sarah Walters – LGEA Project Manager
 - Moussa Traore – LGEA Lead Auditor
 - Ryan Knippenberg – LGEA Project Auditor
 - Amanda Muench – LGEA Account Manager
 - *Michelle Rossi – 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 & other recommendations
- Energy Savings Improvement Program (ESIP)
- C&I Transition of EE Programs
- Questions regarding the draft audit report
- Next steps for Parish of St. Monica

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
- Cooking & Refrigeration Equipment

Utility Consumption:

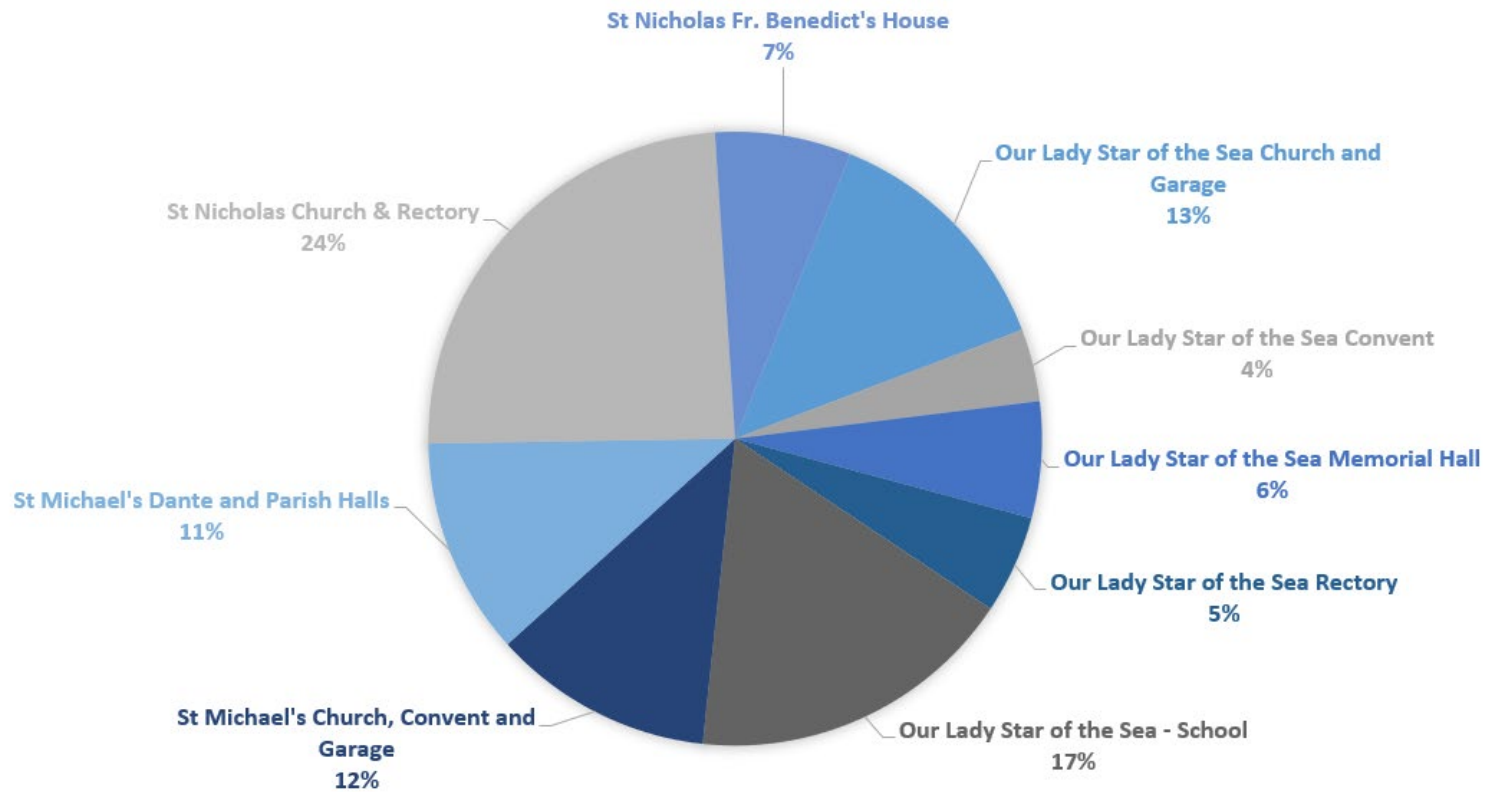
- Electric Consumption and Costs
- Natural Gas Consumption and Costs
- Fuel Oil #2

Sites Visited/Analyzed

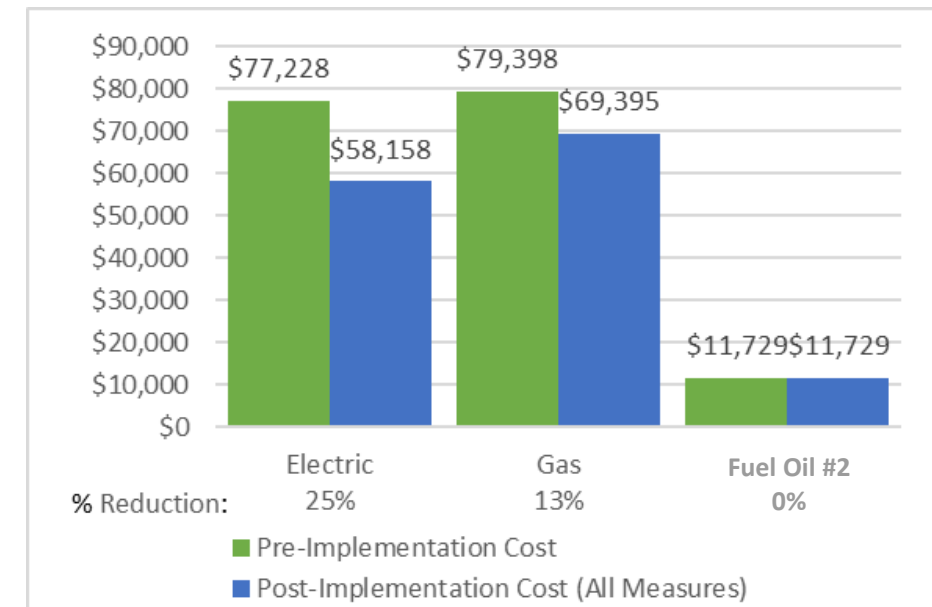
- Our Lady Star of the Sea School
- Our Lady Star of the Sea Convent
- Our Lady Star of the Sea Church
- Our Lady Star of the Sea Rectory
- Our Lady Star of the Sea Garage
- Our Lady Star of the Sea Memorial Hall
- St Michael's Convent
- St. Michael's Church
- St. Michael's Parish Hall (Quaremba)
- St. Michael's Dante Hall
- St. Nicholas Church
- St. Nicholas Rectory
- St. Nicholas Fr. Benedict's House
- St. Michael's Detached Garage

UTILITY BREAKOUT

Percent of Total Annual Energy Costs



Pre & Post Implementation Cost



BENCHMARKING

ENERGY STAR® Statement of Energy Performance

N/A Our Lady Star of the Sea - Rectory

Primary Property Type: Other
Gross Floor Area (ft²): 14,500
Built: 1898

For Year Ending: October 31, 2021
Date Generated: May 11, 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, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
Our Lady Star of the Sea - Rectory 2651 Atlantic Avenue Atlantic City, New Jersey 08401	Parish of Saint Monica 2651 Atlantic Avenue Atlantic City, NJ 08401 609-345-1878	Joan Parker 2651 Atlantic Avenue Atlantic City, NJ 08401 609-345-1878 jparker@accatholic.org

Property ID: 20835123

Energy Consumption and Energy Use Intensity (EUI)

Site EUI	Annual Energy by Fuel	National Median Comparison
33.1 kBtu/ft²	Natural Gas (kBtu) 419,818 (87%) Electric - Grid (kBtu) 60,854 (13%)	National Median Site EUI (kBtu/ft²) 70.2 National Median Source EUI (kBtu/ft²) 89.3 % Diff from National Median Source EUI -53%
Source EUI	Annual Emissions	
42.2 kBtu/ft²	Greenhouse Gas Emissions (Metric Tons CO2e/year) 28	

Site EUI
33.1 kBtu/ft²

Source EUI
42.2 kBtu/ft²

National Median Comparison

National Median Site EUI (kBtu/ft²) 70.2
National Median Source EUI (kBtu/ft²) 89.3
% Diff from National Median Source EUI -53%

Site Name	ENERGY STAR® Score
OLSS – Church & Garage	N/A
OLSS – Convent	N/A
OLSS – Memorial Hall	N/A
OLSS – Rectory	N/A
OLSS - School	78
St. Michael's Dante & Parish Halls	N/A
St. Nicolas Fr. Benedict's House	N/A

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

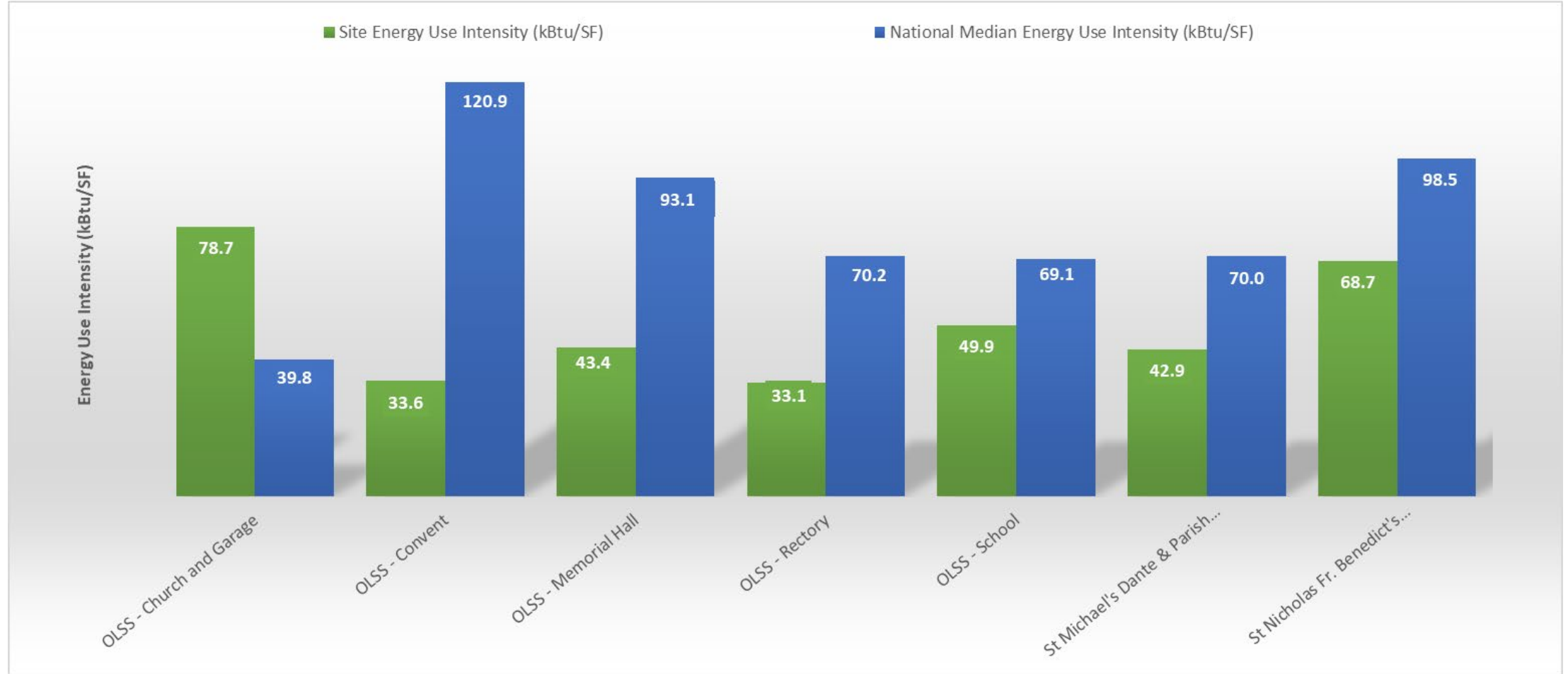
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Professional Engineer or Registered Architect Stamp (if applicable)

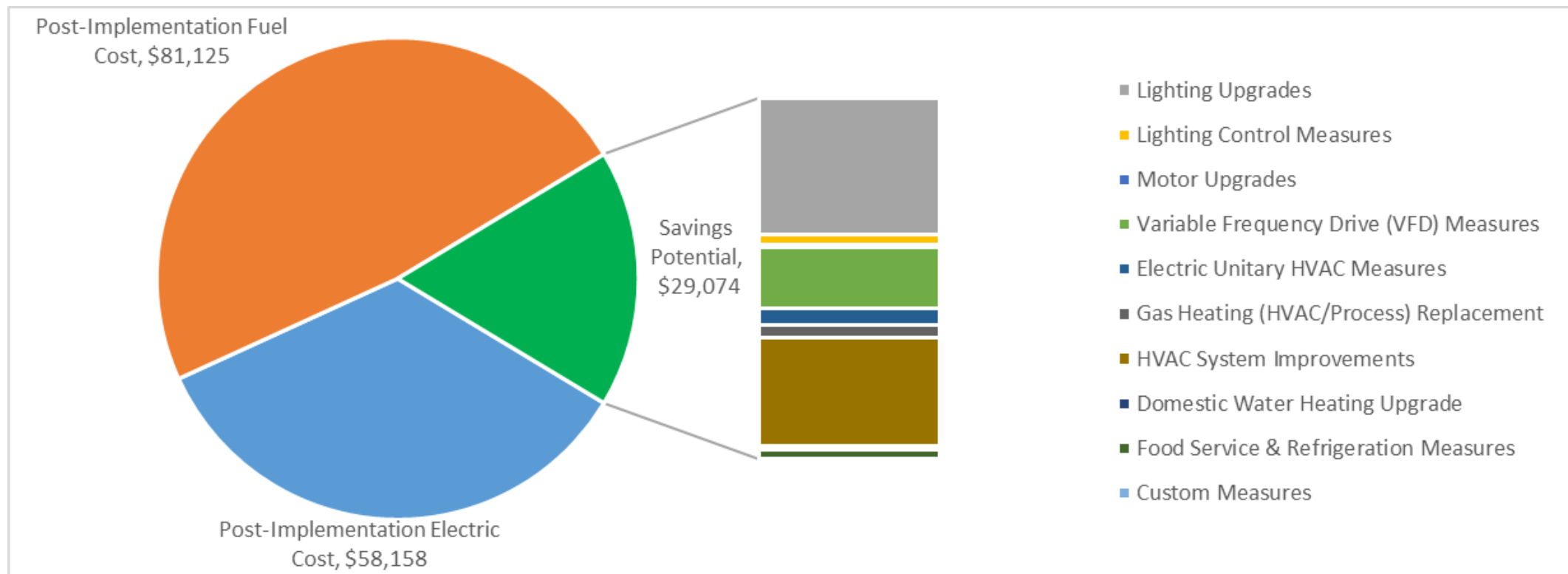
ENERGY STAR® scores are percentile ranking from 1 (least efficient) to 100 (most efficient). It compares your building's energy performance to similar buildings nationwide.

BENCHMARKING



ALL OPPORTUNITIES

Savings Potential



ALL OPPORTUNITIES

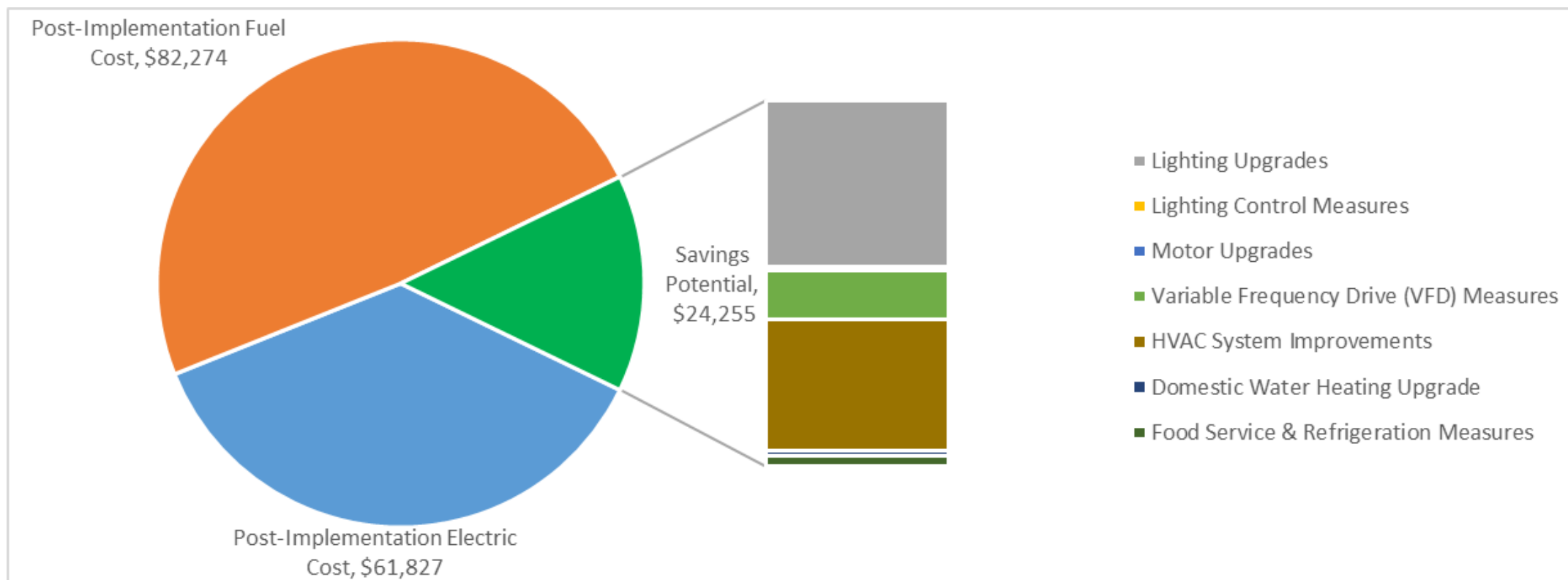
#	Energy Conservation Measure	Annual Electric Savings (kWh)	Peak Demand Savings (kW)	Annual Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	Estimated M&L Cost (\$)	Estimated Incentive (\$)*	Estimated Net M&L Cost (\$)	Simple Payback Period (yrs)**	CO ₂ e Emissions Reduction (lbs)
Lighting Upgrades		56,721	46.6	-9.4	\$11,030	\$63,338	\$10,811	\$52,527	4.8	55,958
ECM 1	Install LED Fixtures	6,332	0.8	-0.2	\$1,199	\$5,772	\$830	\$4,942	4.1	6,352
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	7,403	7.9	-1.7	\$1,418	\$13,043	\$1,862	\$11,181	7.9	7,242
ECM 3	Retrofit Fixtures with LED Lamps	42,986	38.0	-7.4	\$8,413	\$44,523	\$8,119	\$36,404	4.3	42,365
Lighting Control Measures		4,383	3.7	-1.0	\$844	\$22,703	\$5,140	\$17,563	20.8	4,293
ECM 4	Install Occupancy Sensor Lighting Controls	3,203	3.0	-0.7	\$617	\$15,503	\$2,060	\$13,443	21.8	3,137
ECM 5	Install High/Low Lighting Controls	1,180	0.7	-0.3	\$226	\$7,200	\$3,080	\$4,120	18.2	1,156
Motor Upgrades		641	0.2	0.0	\$125	\$2,105	\$0	\$2,105	16.8	646
ECM 6	Premium Efficiency Motors	641	0.2	0.0	\$125	\$2,105	\$0	\$2,105	16.8	646
Variable Frequency Drive (VFD) Measures		24,426	15.3	0.0	\$4,939	\$57,024	\$6,575	\$50,449	10.2	24,597
ECM 7	Install VFDs on Constant Volume (CV) Fans	24,426	15.3	0.0	\$4,939	\$57,024	\$6,575	\$50,449	10.2	24,597
Electric Unitary HVAC Measures		5,928	9.7	0.0	\$1,290	\$58,544	\$4,250	\$54,294	42.1	5,970
ECM 8	Install High Efficiency Air Conditioning Units	5,928	9.7	0.0	\$1,290	\$58,544	\$4,250	\$54,294	42.1	5,970
Gas Heating (HVAC/Process) Replacement		0	0.0	77.4	\$1,044	\$31,476	\$2,487	\$28,989	27.8	9,066
ECM 9	Install High Efficiency Hot Water Boilers	0	0.0	77.4	\$1,044	\$31,476	\$2,487	\$28,989	27.8	9,066
HVAC System Improvements		0	0.0	636.3	\$8,692	\$6,717	\$1,660	\$5,057	0.6	74,502
ECM 10	Install Pipe Insulation	0	0.0	636.3	\$8,692	\$6,717	\$1,660	\$5,057	0.6	74,502
Domestic Water Heating Upgrade		304	0.0	23.9	\$385	\$14,587	\$1,023	\$13,563	35.2	3,107
ECM 11	Install High Efficiency Gas-Fired Water Heater	0	0.0	5.9	\$79	\$12,943	\$697	\$12,246	154.6	688
ECM 12	Install Low-Flow DHW Devices	304	0.0	18.0	\$306	\$1,644	\$327	\$1,317	4.3	2,418
Food Service & Refrigeration Measures		3,597	0.4	0.0	\$691	\$8,200	\$250	\$7,950	11.5	3,622
ECM 13	Replace Refrigeration Equipment	3,597	0.4	0.0	\$691	\$8,200	\$250	\$7,950	11.5	3,622
Custom Measures		158	0.0	0.0	\$34	\$1,005	\$0	\$1,005	29.6	159
ECM 14	Install Heat Pump Water Heaters	158	0.0	0.0	\$34	\$1,005	\$0	\$1,005	29.6	159
TOTALS		96,159	76.0	727.3	\$29,074	\$265,698	\$32,196	\$233,501	8.0	181,920

* - All incentives presented in this table are included as placeholders 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



COST EFFECTIVE OPPORTUNITIES

#	Energy Conservation Measure	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		56,721	46.6	-9.4	\$11,030	\$63,338	\$10,811	\$52,527	4.8	55,958
ECM 1	Install LED Fixtures	6,332	0.8	-0.2	\$1,199	\$5,772	\$830	\$4,942	4.1	6,352
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	7,403	7.9	-1.7	\$1,418	\$13,043	\$1,862	\$11,181	7.9	7,242
ECM 3	Retrofit Fixtures with LED Lamps	42,986	38.0	-7.4	\$8,413	\$44,523	\$8,119	\$36,404	4.3	42,365
Lighting Control Measures		1,267	1.1	-0.3	\$253	\$4,455	\$1,715	\$2,740	10.8	1,239
ECM 4	Install Occupancy Sensor Lighting Controls	485	0.7	-0.1	\$104	\$1,080	\$105	\$975	9.4	472
ECM 5	Install High/Low Lighting Controls	782	0.4	-0.2	\$149	\$3,375	\$1,610	\$1,765	11.8	767
Motor Upgrades		199	0.1	0.0	\$39	\$352	\$0	\$352	9.1	201
ECM 6	Premium Efficiency Motors	199	0.1	0.0	\$39	\$352	\$0	\$352	9.1	201
Variable Frequency Drive (VFD) Measures		15,697	7.5	0.0	\$3,245	\$27,287	\$2,650	\$24,637	7.6	15,807
ECM 7	Install VFDs on Constant Volume (CV) Fans	15,697	7.5	0.0	\$3,245	\$27,287	\$2,650	\$24,637	7.6	15,807
HVAC System Improvements		0	0.0	636.3	\$8,692	\$6,717	\$1,660	\$5,057	0.6	74,502
ECM 10	Install Pipe Insulation	0	0.0	636.3	\$8,692	\$6,717	\$1,660	\$5,057	0.6	74,502
Domestic Water Heating Upgrade		304	0.0	18.0	\$306	\$1,644	\$327	\$1,317	4.3	2,418
ECM 12	Install Low-Flow DHW Devices	304	0.0	18.0	\$306	\$1,644	\$327	\$1,317	4.3	2,418
Food Service & Refrigeration Measures		3,597	0.4	0.0	\$691	\$8,200	\$250	\$7,950	11.5	3,622
ECM 13	Replace Refrigeration Equipment	3,597	0.4	0.0	\$691	\$8,200	\$250	\$7,950	11.5	3,622
TOTALS		77,786	55.8	644.7	\$24,255	\$111,992	\$17,413	\$94,579	3.9	153,748

* - All incentives presented in this table are included as placeholders 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).

OUR LADY STAR OF THE SEA - SCHOOL

#	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			6,151	2.7	-1	\$1,162	\$7,099	\$1,875	\$5,224	4.5	6,055
ECM 1	Install LED Fixtures	Yes	972	0.0	0	\$186	\$618	\$150	\$468	2.5	979
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	59	0.1	0	\$11	\$138	\$20	\$118	10.6	58
ECM 3	Retrofit Fixtures with LED Lamps	Yes	5,120	2.6	-1	\$964	\$6,343	\$1,705	\$4,638	4.8	5,018
Lighting Control Measures			1,688	0.8	0	\$318	\$6,179	\$1,200	\$4,979	15.7	1,654
ECM 4	Install Occupancy Sensor Lighting Controls	No	1,401	0.7	0	\$264	\$5,054	\$675	\$4,379	16.6	1,373
ECM 5	Install High/Low Lighting Controls	Yes	287	0.1	0	\$54	\$1,125	\$525	\$600	11.1	281
HVAC System Improvements			0	0.0	95	\$1,371	\$1,457	\$430	\$1,027	0.7	11,133
ECM 6	Install Pipe Insulation	Yes	0	0.0	95	\$1,371	\$1,457	\$430	\$1,027	0.7	11,133
Domestic Water Heating Upgrade			0	0.0	1	\$17	\$29	\$10	\$19	1.2	134
ECM 7	Install Low-Flow DHW Devices	Yes	0	0.0	1	\$17	\$29	\$10	\$19	1.2	134
Food Service & Refrigeration Measures			2,662	0.3	0	\$510	\$5,992	\$125	\$5,867	11.5	2,681
ECM 8	Replace Refrigeration Equipment	Yes	2,662	0.3	0	\$510	\$5,992	\$125	\$5,867	11.5	2,681
TOTALS (COST EFFECTIVE MEASURES)			9,100	3.1	95	\$3,114	\$15,701	\$2,965	\$12,736	4.1	20,283
TOTALS (ALL MEASURES)			10,501	3.8	95	\$3,378	\$20,755	\$3,640	\$17,115	5.1	21,656

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OUR LADY STAR OF THE SEA - CONVENT

#	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			2,426	4.0	-1	\$504	\$3,049	\$266	\$2,783	5.5	2,378
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	403	0.5	0	\$84	\$1,080	\$142	\$938	11.2	395
ECM 2	Retrofit Fixtures with LED Lamps	Yes	2,024	3.5	0	\$421	\$1,969	\$124	\$1,845	4.4	1,983
Lighting Control Measures			62	0.1	0	\$13	\$1,215	\$315	\$900	70.2	60
ECM 3	Install Occupancy Sensor Lighting Controls	No	42	0.0	0	\$9	\$540	\$70	\$470	53.4	41
ECM 4	Install High/Low Lighting Controls	No	19	0.0	0	\$4	\$675	\$245	\$430	106.8	19
HVAC System Improvements			0	0.0	29	\$430	\$361	\$92	\$269	0.6	3,365
ECM 5	Install Pipe Insulation	Yes	0	0.0	29	\$430	\$361	\$92	\$269	0.6	3,365
TOTALS (COST EFFECTIVE MEASURES)			2,426	4.0	28	\$935	\$3,409	\$358	\$3,051	3.3	5,743
TOTALS (ALL MEASURES)			2,488	4.1	28	\$948	\$4,624	\$673	\$3,951	4.2	5,803

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OUR LADY STAR OF THE SEA – CHURCH & GARAGE

#	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			3,147	3.8	-1	\$654	\$3,860	\$659	\$3,201	4.9	2,949
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	585	0.9	0	\$122	\$1,104	\$180	\$924	7.6	548
ECM 2	Retrofit Fixtures with LED Lamps	Yes	2,561	2.9	-1	\$533	\$2,756	\$479	\$2,277	4.3	2,401
Lighting Control Measures			145	0.2	0	\$30	\$720	\$175	\$545	18.1	136
ECM 3	Install Occupancy Sensor Lighting Controls	Yes	93	0.2	0	\$19	\$270	\$0	\$270	14.0	87
ECM 4	Install High/Low Lighting Controls	No	52	0.0	0	\$11	\$450	\$175	\$275	25.3	49
Variable Frequency Drive (VFD) Measures			7,664	4.4	0	\$1,668	\$9,476	\$2,000	\$7,476	4.5	7,718
ECM 5	Install VFDs on Constant Volume (CV) Fans	Yes	7,664	4.4	0	\$1,668	\$9,476	\$2,000	\$7,476	4.5	7,718
Unitary HVAC Measures			5,928	9.7	0	\$1,290	\$58,544	\$4,250	\$54,294	42.1	5,970
ECM 6	Install High Efficiency Air Conditioning Units	No	5,928	9.7	0	\$1,290	\$58,544	\$4,250	\$54,294	42.1	5,970
Custom Measures			158	0.0	0	\$34	\$1,005	\$0	\$1,005	29.6	159
ECM 7	Install Heat Pump Water Heater	No	158	0.0	0	\$34	\$1,005	\$0	\$1,005	29.6	159
TOTALS (COST EFFECTIVE MEASURES)			10,904	8.3	-1	\$2,341	\$13,606	\$2,659	\$10,947	4.7	10,754
TOTALS (ALL MEASURES)			17,042	18.1	-1	\$3,676	\$73,605	\$7,084	\$66,521	18.1	16,932

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OUR LADY STAR OF THE SEA - RECTORY

#	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			2,166	1.9	0	\$435	\$3,042	\$481	\$2,561	5.9	2,132
ECM 1	Install LED Fixtures	Yes	324	0.0	0	\$66	\$206	\$50	\$156	2.4	326
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	634	0.7	0	\$127	\$1,323	\$186	\$1,137	9.0	621
ECM 3	Retrofit Fixtures with LED Lamps	Yes	1,208	1.2	0	\$242	\$1,513	\$245	\$1,268	5.2	1,184
Lighting Control Measures			118	0.1	0	\$24	\$836	\$195	\$641	27.0	116
ECM 4	Install Occupancy Sensor Lighting Controls	No	37	0.1	0	\$7	\$386	\$55	\$331	44.8	36
ECM 5	Install High/Low Lighting Controls	No	82	0.0	0	\$16	\$450	\$140	\$310	19.0	80
HVAC System Improvements			0	0.0	83	\$1,023	\$911	\$212	\$699	0.7	9,689
ECM 6	Install Pipe Insulation	Yes	0	0.0	83	\$1,023	\$911	\$212	\$699	0.7	9,689
Domestic Water Heating Upgrade			0	0.0	2	\$26	\$186	\$34	\$152	5.8	249
ECM 7	Install Low-Flow DHW Devices	Yes	0	0.0	2	\$26	\$186	\$34	\$152	5.8	249
TOTALS (COST EFFECTIVE MEASURES)			2,166	1.9	84	\$1,484	\$4,139	\$727	\$3,412	2.3	12,070
TOTALS (ALL MEASURES)			2,285	2.0	84	\$1,507	\$4,975	\$922	\$4,053	2.7	12,186

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OUR LADY STAR OF THE SEA –MEMORIAL HALL

#	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			3,706	5.7	-1	\$798	\$9,775	\$1,617	\$8,158	10.2	3,632
ECM 1	Retrofit Fixtures with LED Lamps	Yes	3,706	5.7	-1	\$798	\$9,775	\$1,617	\$8,158	10.2	3,632
Lighting Control Measures			393	0.6	0	\$85	\$810	\$105	\$705	8.3	385
ECM 2	Install Occupancy Sensor Lighting Controls	Yes	393	0.6	0	\$85	\$810	\$105	\$705	8.3	385
HVAC System Improvements			0	0.0	79	\$1,135	\$730	\$166	\$564	0.5	9,222
ECM 3	Install Pipe Insulation	Yes	0	0.0	79	\$1,135	\$730	\$166	\$564	0.5	9,222
Domestic Water Heating Upgrade			221	0.0	0	\$48	\$14	\$6	\$9	0.2	222
ECM 4	Install Low-Flow DHW Devices	Yes	221	0.0	0	\$48	\$14	\$6	\$9	0.2	222
TOTALS (COST EFFECTIVE MEASURES)			4,320	6.3	78	\$2,066	\$11,329	\$1,894	\$9,436	4.6	13,462
TOTALS (ALL MEASURES)			4,320	6.3	78	\$2,066	\$11,329	\$1,894	\$9,436	4.6	13,462

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ST. MICHAEL'S CHURCH, CONVENT, & GARAGE

#	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			9,053	4.8	-1	\$1,675	\$10,050	\$1,332	\$8,718	5.2	8,967
ECM 1	Install LED Fixtures	Yes	4,009	0.8	0	\$747	\$3,947	\$465	\$3,482	4.7	4,013
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	2,976	2.7	-1	\$548	\$4,436	\$688	\$3,748	6.8	2,922
ECM 3	Retrofit Fixtures with LED Lamps	Yes	2,069	1.3	0	\$381	\$1,667	\$179	\$1,488	3.9	2,032
Lighting Control Measures			646	0.5	0	\$119	\$3,891	\$855	\$3,036	25.5	635
ECM 4	Install Occupancy Sensor Lighting Controls	No	491	0.4	0	\$90	\$2,316	\$330	\$1,986	22.0	482
ECM 5	Install High/Low Lighting Controls	No	155	0.1	0	\$29	\$1,575	\$525	\$1,050	36.7	153
Gas Heating (HVAC/Process) Replacement			0	0.0	25	\$339	\$16,041	\$1,072	\$14,969	44.2	2,938
ECM 6	Install High Efficiency Hot Water Boilers	No	0	0.0	25	\$339	\$16,041	\$1,072	\$14,969	44.2	2,938
HVAC System Improvements			0	0.0	120	\$1,620	\$1,370	\$320	\$1,050	0.6	14,046
ECM 7	Install Pipe Insulation	Yes	0	0.0	120	\$1,620	\$1,370	\$320	\$1,050	0.6	14,046
Domestic Water Heating Upgrade			0	0.0	1	\$17	\$22	\$9	\$12	0.7	147
ECM 8	Install Low-Flow DHW Devices	Yes	0	0.0	1	\$17	\$22	\$9	\$12	0.7	147
TOTALS (COST EFFECTIVE MEASURES)			9,053	4.8	120	\$3,312	\$11,442	\$1,661	\$9,780	3.0	23,160
TOTALS (ALL MEASURES)			9,700	5.3	145	\$3,770	\$31,374	\$3,588	\$27,786	7.4	26,733

* - 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).

ST. MICHAEL'S DANTE & PARISH HALLS

#	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			17,293	8.9	-1	\$3,343	\$10,761	\$1,946	\$8,815	2.6	17,288
ECM 1	Install LED Fixtures	Yes	671	0.0	0	\$130	\$552	\$100	\$452	3.5	675
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	37	0.1	0	\$7	\$101	\$10	\$91	12.9	36
ECM 3	Retrofit Fixtures with LED Lamps	Yes	16,586	8.9	-1	\$3,205	\$10,108	\$1,836	\$8,272	2.6	16,576
Lighting Control Measures			481	0.9	0	\$92	\$4,841	\$930	\$3,911	42.5	472
ECM 4	Install Occupancy Sensor Lighting Controls	No	391	0.8	0	\$75	\$4,166	\$545	\$3,621	48.3	384
ECM 5	Install High/Low Lighting Controls	No	89	0.1	0	\$17	\$675	\$385	\$290	16.9	88
Variable Frequency Drive (VFD) Measures			8,729	7.8	0	\$1,694	\$29,738	\$3,925	\$25,813	15.2	8,790
ECM 6	Install VFDs on Constant Volume (CV) Fans	No	8,729	7.8	0	\$1,694	\$29,738	\$3,925	\$25,813	15.2	8,790
Domestic Water Heating Upgrade			83	0.0	0	\$16	\$22	\$11	\$11	0.7	84
ECM 7	Install Low-Flow DHW Devices	Yes	83	0.0	0	\$16	\$22	\$11	\$11	0.7	84
TOTALS (COST EFFECTIVE MEASURES)			17,377	8.9	-1	\$3,359	\$10,783	\$1,957	\$8,826	2.6	17,372
TOTALS (ALL MEASURES)			26,586	17.5	-1	\$5,145	\$45,361	\$6,812	\$38,550	7.5	26,634

* - 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).

ST. NICHOLAS CHURCH & RECTORY

#	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			7,977	11.6	-2	\$1,544	\$12,322	\$2,035	\$10,287	6.7	7,842
ECM 1	Install LED Fixtures	Yes	356	0.0	0	\$70	\$450	\$65	\$385	5.5	358
ECM 2	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,362	2.1	0	\$264	\$3,587	\$465	\$3,122	11.8	1,337
ECM 3	Retrofit Fixtures with LED Lamps	Yes	6,259	9.5	-1	\$1,211	\$8,285	\$1,505	\$6,780	5.6	6,147
Lighting Control Measures			479	0.4	0	\$93	\$2,655	\$980	\$1,675	18.1	471
ECM 4	Install Occupancy Sensor Lighting Controls	No	170	0.2	0	\$33	\$1,080	\$140	\$940	28.5	167
ECM 5	Install High/Low Lighting Controls	Yes	309	0.2	0	\$60	\$1,575	\$840	\$735	12.3	303
Motor Upgrades			442	0.2	0	\$87	\$1,753	\$0	\$1,753	20.2	445
ECM 6	Premium Efficiency Motors	No	442	0.2	0	\$87	\$1,753	\$0	\$1,753	20.2	445
Variable Frequency Drive (VFD) Measures			8,033	3.1	0	\$1,577	\$17,810	\$650	\$17,160	10.9	8,089
ECM 7	Install VFDs on Constant Volume (CV) Fans	Yes	8,033	3.1	0	\$1,577	\$17,810	\$650	\$17,160	10.9	8,089
Gas Heating (HVAC/Process) Replacement			0	0.0	52	\$705	\$15,434	\$1,415	\$14,020	19.9	6,128
ECM 8	Install High Efficiency Hot Water Boilers	No	0	0.0	52	\$705	\$15,434	\$1,415	\$14,020	19.9	6,128
HVAC System Improvements			0	0.0	224	\$3,015	\$1,783	\$406	\$1,377	0.5	26,206
ECM 9	Install Pipe Insulation	Yes	0	0.0	224	\$3,015	\$1,783	\$406	\$1,377	0.5	26,206
Domestic Water Heating Upgrade			0	0.0	12	\$161	\$13,618	\$820	\$12,798	79.7	1,396
ECM 10	Install High Efficiency Gas-Fired Water Heater	No	0	0.0	6	\$79	\$12,943	\$697	\$12,246	154.6	688
ECM 11	Install Low-Flow DHW Devices	Yes	0	0.0	6	\$81	\$675	\$124	\$552	6.8	708
TOTALS (COST EFFECTIVE MEASURES)			16,319	14.9	228	\$6,278	\$34,165	\$4,055	\$30,111	4.8	43,148
TOTALS (ALL MEASURES)			16,931	15.4	286	\$7,182	\$65,375	\$6,306	\$59,069	8.2	50,577

* - 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).

ST. NICHOLAS FR. BENEDICT'S HOUSE

#	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			4,801	3.2	-1	\$914	\$3,381	\$600	\$2,781	3.0	4,715
ECM 1	Retrofit Fluorescent Fixtures with LED Lamps and Drivers	Yes	1,348	0.8	0	\$257	\$1,274	\$171	\$1,103	4.3	1,324
ECM 2	Retrofit Fixtures with LED Lamps	Yes	3,453	2.4	-1	\$658	\$2,107	\$429	\$1,678	2.6	3,391
Lighting Control Measures			371	0.2	0	\$71	\$1,556	\$385	\$1,171	16.6	364
ECM 3	Install Occupancy Sensor Lighting Controls	No	184	0.1	0	\$35	\$881	\$140	\$741	21.1	181
ECM 4	Install High/Low Lighting Controls	Yes	186	0.1	0	\$36	\$675	\$245	\$430	12.1	183
Motor Upgrades			199	0.1	0	\$39	\$352	\$0	\$352	9.1	201
ECM 5	Premium Efficiency Motors	Yes	199	0.1	0	\$39	\$352	\$0	\$352	9.1	201
HVAC System Improvements			0	0.0	7	\$97	\$105	\$34	\$71	0.7	841
ECM 6	Install Pipe Insulation	Yes	0	0.0	7	\$97	\$105	\$34	\$71	0.7	841
Domestic Water Heating Upgrade			0	0.0	7	\$101	\$697	\$135	\$562	5.6	874
ECM 7	Install Low-Flow DHW Devices	Yes	0	0.0	7	\$101	\$697	\$135	\$562	5.6	874
Food Service & Refrigeration Measures			935	0.1	0	\$181	\$2,208	\$125	\$2,083	11.5	941
ECM 8	Replace Refrigeration Equipment	Yes	935	0.1	0	\$181	\$2,208	\$125	\$2,083	11.5	941
TOTALS (COST EFFECTIVE MEASURES)			6,122	3.4	14	\$1,366	\$7,418	\$1,139	\$6,280	4.6	7,756
TOTALS (ALL MEASURES)			6,306	3.6	14	\$1,402	\$8,299	\$1,279	\$7,021	5.0	7,937

* - 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).

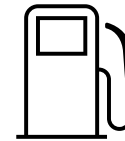
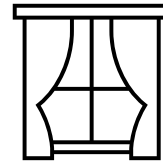
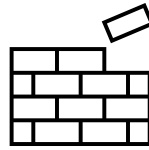
ENERGY EFFICIENT BEST PRACTICES

- 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 practices by building

MEASURES FOR FUTURE CONSIDERATION

- Window Replacements
- Building Insulation
- Replace Fuel Oil with Natural Gas



C&I TRANSITION OF ENERGY EFFICIENCY PROGRAMS

<https://www.njcleanenergy.com/transition>

LOCAL
GOVERNMENT
CUSTOMERS

COMMERCIAL &
INSTITUTIONAL
CUSTOMERS

LARGE
ENERGY
CUSTOMERS

EXISTING BUILDINGS

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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



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

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THANK YOU

