

Living Laudato Si' Sustainability Pilot 2019

PARISH REPORTS



Archdiocese of Indianapolis Creation Care Commission

Living Laudato Si' Sustainability Pilot Program

St. Mary Catholic Church

311 North New Jersey Street, Indianapolis, Indiana, 46204

Final Report

Introduction

The Creation Care Commission is a ministry of the Archdiocese of Indianapolis that is housed under Pastoral Ministries. The official mission of the Creation Care Commission is "to encourage and foster the care for God's creation as a way of life and a core principle of our Catholic faith and to minimize the Archdiocese' impact on the environment". Its vision is this: that all parishioners will live environmentally-conscious lifestyles based on the values in Pope Francis' encyclical *Laudato Si*' and, consequently, understand that creation care is a moral imperative. They are guided by the goals that everything the Archdiocese does is completed in an ethical and environmentally conscious manner, and that everything is done based on Catholic social teaching.

The inaugural sustainability program is comprised of a cohort of four parishes and one high school that are all in the same relative geographic area. These parishes and schools signed a covenant of commitment promising to cooperate with the Creation Care Commission over the ten-week pilot program and ensuing twelve-month implementation phase. Upon success of this pilot program, the Creation Care Commission will make recommendations for moving forward in expanding the sustainability program to other parishes and schools across the Archdiocese.

Facility Description

St. Mary Catholic Church was founded in 1858. Their current building, located on 311 N New Jersey Street in downtown Indianapolis, was built in 1910. Their mission statement is as follows: "St. Mary Parish, Indianapolis, is a welcoming Catholic Community of faith that embraces our diversity. Inspired by Word and Sacrament, we proclaim the Good News of Jesus Christ in service to all". They proudly serve the Lockerbie neighborhood and the immigrant community and serve around 900 families. The parish staff is small, with around five members.

Currently, there are two functioning buildings on St. Mary's property: the church building and the Marian Center, which houses the parish offices, meeting rooms, etc. They also have a rectory building on the property that is not currently being used and was not assessed for this pilot program. There is no school associated with the parish.

The HVAC system for the parish consists of ten different components. One boiler is located in the basement of the church, and it just heats the church. That boiler is approximately two years old. There are four air conditioning units in the church; two in the west side and two in the east side. The two units in the east side are rooftop units. In the west side, they are located in choir loft. All of those units are around 20 years old. The Marian Center has five HVAC units. The basement has one unit that is located outside in the playground and just heats/cools the basement. The first floor has one unit in the west and one unit in the east. The second floor mirrors the first floor.

Pilot Self Evaluation

St. Mary Catholic Church completed self-assessments in the following areas of operation: energy/building operations, waste management, outdoor space, and transportation. Below are key findings from each assessment.

Energy and Building Operations (See Appendix I): Most of the lighting in the parish has been updated to LED. There is also signage in the bathrooms and the kitchen reminding people to turn the lights off after use. There are manual thermostats in each room in the Marian Center and church. There were cracks in many of the windows of the church that were fixed shortly after the assessment. All computers and printers are kept in "energy saving" mode when possible and turned off at night. There is one icemaker that is turned on once every few weeks to get ice and store it for later use. Appliances are not unplugged after use. The refrigerator is energy-efficient.

Waste Management (See Appendix III): Office supplies generate the most waste, but recycling is in place for those materials. Currently, the parish recycles paper, plastic, and aluminum. They also recycle materials such as oil, ink cartridges, and batteries. There is standardized signage on all the bins. Very little organic waste is generated. There are meals every Sunday after Mass (200-300 every week), and disposable paper/plastic/Styrofoam products are used at those events. Recycling at the events is also minimal due to lack of education.

<u>Outdoor Space (See Appendix IV):</u> The parish has very little outdoor space. They are landlocked in downtown Indianapolis, so the landscaping is minimal. There are a few patches of grass and a few trees. There are also potted flowers near the front door. They have a small fountain in their Our Lady of Guadalupe prayer garden. Grass is mowed weekly and left on the ground. They have no other outdoor waste. They receive two or three yards of mulch every year from a local landscaping company that is donated by volunteers.

<u>Transportation (See Appendix V):</u> There are approximately 2,000 families registered at the parish, and around 80% of them drive to Mass and other events. The remaining 20% walk or ride bikes. Many of the families, especially in the Hispanic community, drive far distances to Mass every week. Many of them also have large families, which makes carpooling difficult.

Energy Audit Description

Indianapolis Power and Light offers several free programs for their customers. The program utilized for this pilot program was the Small Business Direct Install Program. With this program, an energy assessment was scheduled. Two installers came to the site and conducted a free assessment to check the status of lighting in the building and check for ballast compatibility. During the assessment, they also installed complimentary LED products to ensure that savings started immediately. After the assessment, the participating location was given a rebate card so that future purchases would come with a discount. In addition to this initial visit, the Direct Install program also offers installation of occupancy sensors through Godby. These appointments are made around a month following the energy assessment, and installation of those sensors comes at no cost to the customer.

In the energy assessment at St. Mary Catholic Church (see Appendix II), four LED T8 replacement lamps were placed in office/classroom spaces in the Marian Center. An additional 20 LED lamps were installed around the Marian Center and the narthex of the church building. One pre-rinse spray valve and three faucet aerators were placed in the kitchen area, which is on

the bottom floor of the Marian Center. IPL recommended the replacement of around six more LED lamps for the church and the installment of occupancy sensors in remaining areas.

Proposed 12-Month Sustainability Program

Below is the action plan which was created in conjunction with stakeholders in St. Mary Catholic Church. An initial meeting was held to discuss goals and priorities in each area of assessment. In attendance for that discussion was the Facilities Manager. The discussion notes were later reviewed by the Pastor.

In the energy category, stakeholders want to create standardized signage reminding people to turn off lights when not being used, unplug appliances after use, etc.

In the waste management category, stakeholders want to reduce the use of disposable dishes and utensils as much as possible. They want to eliminate the use of Styrofoam products at events and replace those products with plastic or compostable options. They would also like to increase recycling at events and look into the possibility of investing in reusable dishes.

In the education category, stakeholders hope to educate their parishioners about the importance of recycling, as well as what can/cannot be recycled. They also hope to educate parishioners about the broader importance of creation care.

Two areas of assessment do not have major goals attached to them. Due to the landlocked situation of the property, there is very limited green space with no room for improvement in the outdoor space category. There is also no room for improvement in the transportation category. St. Mary Catholic Church does not have a full-time school, so there's no school-related transportation. In addition, most of the parishioners come from far distances and have a large family, which makes it hard to carpool.

Below is the complete 12-month Sustainability Program for St. Mary Catholic Church:

I. Energy

Project	Cost	Timeline	Leaders	Ranking (Good, Better, Best)
Create signage reminding people of good practices	\$			Good
Use smart power strips in office spaces	\$\$			Better
Invest in IPL Green Power Option	\$			Better
Maintain Portfolio Manager account	\$			Good

3 | Page

Standardized Signage

This will give people friendly reminders about good practices such as turning lights off when not in use and unplugging appliances when not in use. It successfully reinforces good behavior and reduces energy use from a behavior standpoint

Smart Power Strips

These reduce energy use by taking away "vampire energy" that often stems from appliances being plugged in even when not in use.

IPL Green Power Option

This allows the parish to specify that part of their electricity be generated by a renewable source. Currently it costs \$0.0025 per kWh (in addition to standard IPL rates), and the source is Midwestern wind farms.

Portfolio Manager

This is a free program through EPA's Energy Star. It allows the parish to track their energy savings and compare themselves to other parishes with similar size/functions. It will allow them to track their progress in energy-reducing efforts.

II. Water Use

Project	Cost	Timeline	Leaders	Ranking
Use "green" cleaning products	\$			Better
Install low-flow				
faucet aerators	\$\$			Best
and showerheads				
Install faucets with sensors	\$\$			Best

"Green" Cleaning Products

Many modern cleaning products contain chemicals like phosphorus, which can harm water quality. Green cleaning products do not contain these chemicals.

Low-Flow Aerators/Showerheads

This reduces the amount of water that is used when a sink or shower is being used.

Faucets with Sensors

These faucets detect motion so that water is only used when needed.

III. Waste Management

Project	Cost	Timeline	Leaders	Ranking
Reduce use of disposable goods at events	\$			Better
Eliminate use of Styrofoam	\$			Good

4|Page

products			
Invest in reusable dishes for events	\$\$		Best
Increase recycling at events	\$		Better

Reduce Disposable Goods

This involves replacing disposable, single-use plastic utensils and dishes with reusable dishes that can be washed. It reduces the amount of waste produced by the church.

Eliminate Styrofoam

Styrofoam cannot be recycled, so eliminating its use reduces the amount of waste heading directly into a landfill or to be burned in the city incinerator. This is also a problem because these products include toxins that are released when burned.

Reusable Dishes

Buying reusable dishes that can be used for mercy meals and other events reduces the amount of waste generated by the parish.

Recycling at Events

Recycling paper, plastic, and aluminum at after-Mass meals will reduce the amount of waste generated at these events that is directed to a landfill or incinerator.

IV. Purchasing

Project	Cost	Timeline	Leaders	Ranking
Take inventory of all products purchased within the parish	\$			Good
Create a green purchasing policy and implement it	\$\$			Best
Buy local goods/services	\$			Best

<u>Inventory</u>

This involves taking an inventory of all goods and services that the parish purchases, as well as the source of those goods and services. This will allow the parish to see what they could potentially switch.

Green Purchasing Policy

A green purchasing policy states that products purchased will be less damaging to human health and the environment than competitors' products.

5 | Page

Buy Local

This means resourcing goods and services to buy from local sources. It will cut down on vehicle-associated emissions and also help support the local economy.

V. Education

Project	Cost	Timeline	Leaders	Ranking
Recycling workshops	\$			Better
Laudato Si' presentations for parishioners	\$			Good
Create educational materials	\$\$			Best

Recycling Workshops

This involves hosting workshops that teach parishioners the importance of recycling, materials that can/cannot be recycled, etc. This will help increase recycling rates at events.

Laudato Si' Presentations

This involves educating parishioners about the importance of creation care as a faith issue. It will increase buy-in from parishioners.

Educational Materials

Creating handouts and other materials for parishioners about sustainability topics such as recycling will help parishioners start these best practices in their own homes.

Conclusion

St. Mary Catholic Church is at a mature status. All their buildings are LED-updated and are prudent with their energy use. They have recycling for paper, plastic and aluminum in their parish center. Staff members also find locations to recycle non-conventional waste (such as light bulbs and other materials). Their small staff ensures successful communication and successful efforts to reduce energy, water, and waste are successful.

Key elements in the action plan for St. Mary Catholic Church include waste management and education. They hope to eliminate the use of Styrofoam and disposable products at their Sunday meals. They also hope to educate parishioners, especially the Hispanic community, on the importance of recycling and other sustainability efforts. Focusing on hosting educational opportunities after Mass on Sundays will be crucial for gaining parish involvement, since most parishioners are only able to travel to the church on Sunday.

Attachments:

Appendix I Energy Assessment

Appendix II IPL Report

Appendix III Waste Management Assessment Appendix IV Outdoor Space Assessment

Appendix V Transportation Assessment

Appendix I

Energy Assessment

Date: 05/28/19 **Lighting**

Are lights turned off when daylight is bright enough?	Yes; lights turned off after Mass
Has there been an effort to use energy- efficient light bulbs when incandescent bulbs burn out?	Church is all LED-updated, most of the Marian Center is too
Are lights/lamps/fixtures clean?	Yes
Are blinds/curtains used to shade the	No
building(s)? Are they closed at night?	
Are external lights kept on in the daytime?	No
Are the lights turned off at night?	Yes
Are gym lights turned off when not in use?	n/a
How do you adjust classroom/hallway/kitchen	n/a
spaces for breaks/holidays?	
Is there signage reminding staff to turn off	Yes (bathrooms, kitchen)
lights when not in use?	Not in church

Additional Comments: motion sensors in Marian Center

Heating/Cooling

Do off-hour activities extend operating house	No
for energy-using systems?	
Is natural cooling (outside air) utilized?	Yes sometimes
Are there any guidelines on indoor temperature use? How do you handle the thermostats on a day-to-day basis? Where are they located? Are they vulnerable to occupant adjustment? What are the settings for heating and cooling season? Is it adjusted for unoccupied periods?	Thermostat in each room (6 years old), all manual Cooling: 70 occupied, 75 unoccupied Heating: 65 occupied, 68 unoccupied
What's the maintenance schedule for the HVAC systems?	Twice a year for maintenance Check-ups occur more frequently
Is heating/AC used in unoccupied spaces?	no
Are radiators blocked by furniture or other things which can restrict circulation?	No
Are electric space heaters used anywhere?	No
Is the exhaust system operation programmed?	
Is there any sort of maintenance routine for checking leaks/cracks in pipes?	Yes
Are boilers maintained on a scheduled basis?	Yes, as recommended *One boiler located in church basement, it is around 2-4 years old
Is there insulation on the roof space?	Yes

Are there any cracked windows?	No (yes in church, but will have those fixed next week)
Is there evidence of issues with double glazing in windows (moisture between panes)?	No
Do the windows/doors stay closed when heat/AC is on?	Yes
Could the building reduce heat by closing blinds or using reflective film in windows?	Yes, not currently used
Is AC run at the same time as heating?	No
Does the chiller operate during cold weather to provide AC?	No
Do multiple AC compressors start simultaneously?	Yes
Do multiple boilers/heaters fire simultaneously?	yes

Water

One leak in church roof, but in pipes
120-130

Equipment

Equipment	
Is equipment kept on "energy saving" mode during the day?	Yes, always used
Can computers be switched off during the day?	Computers are switched off at night (3 total in building)
Are the computer, fax machines, photocopiers, etc turned off at night?	Yes
Can a 7-day timer be put on some of the equipment (water coolers, vending machines, photocopiers)?	n/a
Do vending machines remain energized during unoccupied periods?	n/a
Are fridges placed next to heat sources?	No
Is the fridge thermostat working properly and set to the right temp?	Yes
Are icemakers turned off?	Yes, only turned on one day every few weeks, ice packed and stored in freezer
Are microwaves, coffee machines, etc. unplugged after use?	No
Are any of the appliances upgraded to energy-efficient models?	Refrigerator is energy-efficient; appliances are not very old and don't need replaced
Is there signage informing staff of these energy-saving strategies?	no

Appendix II

IPL Report

St. Mary's Catholic Church 317 N NEW JERSEY ST INDIANAPOLIS, IN, 46204

IPL - SMALL BUSINESS DIRECT INSTALL



St. Mary's Catholic Church 317 N NEW JERSEY ST INDIANAPOLIS, IN, 46204

ENERGY ASSESSMENT REPORT FOR YOUR BUSINESS

St. Mary's Catholic Church

Alicia Nygra
St. Mary's Catholic Church
317 N NEW JERSEY ST
INDIANAPOLIS, IN, 46204

PREPARED BY

Charles Byres

IPL Small Business Direct Install Program

888.982.7071

Congratulations! By requesting this Energy Assessment, you've taken an important step towards improving your building's energy efficiency and managing your energy use. Effective energy management can result in lower electricity consumption, reduced operating costs, and increased reliability of building systems.

St. Mary's Catholic Church 317 N NEW JERSEY ST INDIANAPOLIS, IN, 46204

DIRECT INSTALL PROJECT SAVINGS SUMMARY

During your assessment, energy efficient products were installed to help you start saving energy today. The table below summarizes your efficiency project including efficient equipment, estimated energy savings, and energy cost savings.

Equipment Installed	Quantity	Installed Product Value (\$)	Estimated Energy Savings (kWh)*
Pre-Rinse Spray Valves	1	\$75	7629
Faucet Aerators	3	\$24	424
LED T8 Replacement Lamps	4	\$60	316
LED Lamps	20	\$360	4817

These savings are just the start of your potential energy management opportunities.

NEXT STEPS

In the following report, you will find a summary of additional energy saving recommended for your business. For each recommendation, we provide estimates for potential energy savings, energy cost savings, and incentives available through the IPL Small Business Direct Install Program.

Moving forward with these recommendations can save additional energy and improve your business's bottom line. With project incentives and program support, starting your next energy saving project is easy.

Ready to start saving? Work with your contractor to find the project mix that works best for you and find out how the IPL Business Energy Incentives Program can help.

Please visit IPLpower.com/business_energy_incentives/ or contact us at 888.982.7071 with any questions.

St. Mary's Catholic Church 317 N NEW JERSEY ST INDIANAPOLIS, IN, 46204

IPL - SMALL BUSINESS DIRECT INSTALL

Energy Efficiency Opportunity Assessment Report

Based on an analysis of your building's existing equipment we recommend completing the following energy efficiency projects. For each recommendation, we've estimated the cost after incentives, energy savings, and simple payback after program incentives. These estimates will help you plan for and complete your next efficiency project.

RECOMMENDED ENERGY EFFICIENCY PROJECTS

Recommended Equipment	Efficient Equipment Type	Quantity	Estimated Cost After Incentives (\$)	Estimated Energy Savings (kWh)	Simple Payback After Incentives (Years)
Lighting Replacements	Lighting	6.00	1362	19350	0.7
LED Lighting Controls	Lighting	10.00	767	148	51.8

Lighting

LEDs are a highly efficient lighting technology that can significantly reduce your energy costs. LEDs are long lasting, which can help reduce maintenance costs compared to traditional lighting systems with lamps and ballasts. Additionally, LEDs are typically compatible with lighting controls, such as Occupancy Sensors and Daylighting Controls. Adding lighting controls to your LED project will help further reduce energy use and operating costs.

To qualify for rebates, LED screw-in lamps need to be ENERGY STAR listed, and LED tubes and fixtures need to be listed on the DesignLights Consortium's Qualified Product List. Please confirm the current program guidelines for complete eligibility requirements before purchasing your LEDs.

PROGRAM RESOURCES AND DISCLAIMER

Contact Information:

IPL - SMALL BUSINESS DIRECT INSTALL

Phone: 888.982.7071

Email: info@IPLrebates.com

Please visit <u>IPLpower.com/business_energy_incentives/</u> for current rebate offerings or additional information on project requirements and terms of program participation.

The report recommendations provided are based on responses to a survey on building systems, equipment, and occupancy completed by a site representative. Estimated energy savings, energy costs savings, and recommended project costs are based on average program values. Project costs, savings, rebates, and paybacks are not guaranteed. Program offerings, availability, and rebate levels are subject to change at any time.

IPL reserves the right to change elements of the program without notice.

Appendix III

Waste Management Assessment

Date: 06/04/19 **General Questions**

General Questions	
Check major waste generating activities. Make a star next to the ones that generate the most waste.	x Office supplies *x Kitchen wastes (school lunches, Sunday mass, special events)x Landscaping (yard clippings)x Shipping containers (cardboard) _x Others (please explain):
How many times does waste get collected each week?	Twice; Monday and Thursday
How much waste do you generate each week that is placed in a dumpster? (How many dumpsters are full?)	2
Have you mapped where bins and dumpsters are located?	Yes
What is the current waste handling cost?	Not sure
How is waste handled that's generated by the rectory?	Priest does not live there, but the space is being rented out; counted as church waste, recycled when possible
What do employees typically do for lunch?	Bring their own lunch or go home
Are there vending/soda machines anywhere? How many?	No
Is e-mail encouraged (rather than printing out paper)?	Yes
Do printers have double-sided capabilities? If so, do you encourage double-sided copies?	Yes
Do you buy paper/office supplies made from recycled content?	Janitorial supplies – yes Office supplies – not sure
What's the process for determining the need for office supplies?	Buy in bulk a few times per year
How much of the waste generated in a week would you estimate is compostable? How much is actually composted?	None
Does leftover food get donated to charities?	No, not a lot produced
Do you have composting capability on-site?	No
Do you reuse or repurpose anything? Explain.	
Are there any unused items (furniture,	No
equipment, etc) being stored in the building	
that could be reused?	
How much recycled material do you estimate	80% of what is recyclable is recycled
is generated each week?	
How much is actually recycled?	
Is there a recycling program in place? If yes, how often does recycling get collected?	Yes; paper, plastic, aluminum

How many recycling bins are there? Where are they located?	8 large bins in Marian Center, 6 in church Smaller bins placed in both areas as well
Please provide details of any waste reduction/recycling efforts (including special events, festivals, sporting events, etc).	emaner zane placea in zeni areae ae wen
What percentage of your parishioners (or students, faculty, staff) do you estimate recycles their waste at home?	Not sure, guess around 50%
Are there dedicated recycling bins for batteries and toner cartridges?	Collected in church and taken somewhere to recycle
Is there standardized bin signage for recycling/trash bins?	Yes, same on every bin
Are there posters/other materials reminding users of good recycling practices?	Yes
What materials would you prioritize if a recycling program was in place?	Batteries, ink cartridges, oil

Additional Comments: Oil is recycled at Autozone. Computers and ink cartridges are recycled. Fr. Carlton is very adamant about recycling.

Please list any major festivals or other events that your parish/school hosts. For each of these events, please describe: major activities at the event; what is purchased or consumed at the event; and how waste is handled at the event, including any recycling efforts.

There are groups that make and sell food every Sunday after Mass (200 or 300 meals a week). Recycling is minimal, and all utensils/plates/cups are disposable. A lot of it is Styrofoam. There are also events during Holy Week, Guadalupe celebration, 4th of July, and Christmas.

Waste Audit

Recyclable items	Is this in your trash?	What Percentage?
Paper (e.g., office paper, mail, magazines, shredded	⊠ Yes □ No	20%
paper, file folders, packing		
paper)		
Paper boxes (e.g. cereal, cookie and cracker boxes, supplies and electronics	☐ Yes ☒ No	
boxes)		
Cardboard	☐ Yes ☒ No	All recycled
Plastic bottles, jugs, cups,	⊠ Yes □ No	10%
food containers (clean),		
packaging		
Metal cans and pans	☐ Yes ☒ No	Minimal
(rinsed) from food and		
beverages		
Cartons (milk and broth	☐ Yes ☒ No	
cartons, juice boxes)		
Glass bottles and jars from	☐ Yes ⊠ No	
food and beverages		
Organic material (food	⊠ Yes □ No	10%
scrans nankins)		

Appendix IV

Outdoor Space Assessment

Date: 06/25/19

Date: 06/25/19	
How many acres does the parish own?	Unsure (guess 1)
Estimate the percentage of that land that is non-hard surface (no parking lots or buildings).	5%
Describe the landscaping on the property.	Minimal; a few trees and grass
How many trees are planted on the property? What types of trees are they?	2 or 3
Are there flowers planted on the property?	Yes; pots in front of church and some in garden
Are there any ponds, lakes, or natural springs on the property?	Small fountain in Guadalupe garden
How often is grass typically mowed?	Weekly
How are grass clippings handled?	Left on ground
How is other outdoor waste (leaves, sticks, etc) handled?	n/a
Is the lawn treated? How often and with what kind of materials?	Twice a year with fertilizer
Are pesticides/fertilizers used anywhere?	Fertilizer on lawn
If yes, please explain the kind of chemical	Round-Up used very sparingly in grotto area;
used and how it is used on the property.	weeds are pulled by hand in most areas
Are there any native plants on the property?	No
If so, describe the type of plant and where they are located.	
Is the lawn watered? If so, how often?	No
Are the athletic fields watered? How often?	n/a
What is the source of water used for irrigation?	n/a
Is rainwater harvested and used for irrigation?	n/a
How is roof water directed?	Grass or storm drains
How is runoff handled from the property? (drainage to stormsewers, retention/detention ponds, raingardens, etc)	Storm drains
Are there sump pumps from the basements to discharge water, keeping the basement dry?	No
What time of day is the property watered?	n/a
Is there a sprinkler system in place? If so, is	No
there a timer of or quick shut-off valves on the	
system?	
Is there a vegetable garden on the property?	No
Is mulch used on the property? How much is purchased and how often is it purchased? What is the source of the mulch?	Yes; once a year, 2 or 3 yards, brought by volunteers from local landscaping company
Are the athletic fields grass or turf?	n/a

Appendix V

Transportation Assessment

Date: 06/25/19

Parish

How many families attend your parish?	2,000 registered
What percentage of parishioners do you	80%
estimate drive to Mass and other church	
events?	
How many do you estimate carpool?	1%
What percentage of parishioners do you	20%
estimate walk/bike to Mass and other church	
events?	
Are there public bus stations near your parish?	Yes, but people usually don't ride the bus
How many?	
Are there bike racks around the church	Yes, two
building? How many?	
What's the farthest distance anyone has to	45 minutes
travel to church?	
Is there a vehicle for the parish priest?	He has his own vehicle
Are any of the church vehicles hybrid/electric?	No
How many miles do priest/church vehicles	30 per week
drive in a week? In a year?	