



Self-Guided Building Questionnaire for Congregations

This form provides useful information for providing guidance on energy and cost savings, options for becoming Net Zero for GHGs, as a record for insurance, and when planning future capital costs.

Once you click Submit, the data will be stored in our spreadsheet.

- We suggest you download a PDF copy of your data after submitting.

For support, please contact your diocesan environmental committee contact person, or whoever gave you this form.

Fields starting with * are **required**.

Fill in the fields in green at the end with information decided in discussion with your diocesan contact.

NOTE: By completing this form, you give us permission to share your congregation's data with other organizations sharing similar values for improving energy efficiency in faith communities. However, no identifying data concerning persons (names, email addresses or phone numbers) will be shared.

Section 1: Identification

- 1) ***Unique Code:** _____
- 2) ***Congregation Name and Location:** _____
(i.e. St. James, Parkland)
- 3) ***Date:** _____
- 4) ***Email of Person Completing this Form:** _____

If you have separate energy billing for different groups of buildings, please enter a separate form for each group, and enter a building type to distinguish each building; then use the same name when you are filling in the Energy Audit form, so that the information from the two audits can be correlated.

If all of your energy is billed together from each provider, then treat your buildings together or separately, as works best for you.

- 5) ***This Building Group (use one form per building group):**
_____ *(If Other, use a short descriptor, and explain below)*
Fuller Explanation, if needed: _____

6) **Street Address** (if different from the main congregational address) :

7) ***Year Built (approx):** _____

8) ***Outside Cladding:** _____
(i.e. Stone/brick, Stucco/vinyl siding, clapboard)

9) ***Roofing Material:** _____

10) ***Number of Stories:** _____

11) ***Basement (Yes-No):** _____

12) ***Foundation Type (please specify):** _____

13) ***Sanctuary Maximum Seating:** _____
(As defined by municipal regulations)

14) **Building Plans are available (Yes-No):** _____

Section 2 – Air Tightness and Heat Loss

15) More than insulation, air tightness is one of the largest areas for reducing heating and cooling needs. If you can see light around a door or window, this is “Poor” (and may be easy to fix).

	Exterior Doors		Windows		Other
	Number of Exterior Doors	Quality of Door Seals	Number of Windows	Quality of Window Seals	Other areas of concern with air tightness? (see note below)
Sanctuary					
Narthex					
Sacristy					
Offices					
Classrooms/ Meeting Rooms					
Kitchen					
Basement					
Other 1 <small>#{Oth1 Name}</small>					
Other 2 <small>#{Oth2 Name}</small>					

Possible Other Areas of Concern:

- Ceiling ventilation fans in bathrooms and kitchens: are there large cold air backflows? Is there a proper flap installed on the outside vent?
- Laundry vents: are they properly sealed?
- Are there unsealed areas around window air conditioners?

16) What type and thickness of insulation do you think is in the walls of this building: $\{WallInsul\}$

17) What type and thickness of insulation do you think is in the ceilings of this building (leave blank if unknown):

Sanctuary Ceiling: _____
Other Area 1: (name) _____ : _____
Other Area 2: (name) _____ : _____

18) Top opportunities for air tightness to reduce heat loss (could include ideas suggested above):

- 1. _____
- 2. _____
- 3. _____

Section 3 – Lighting

18) The number of lights present, and the percentage not LED or High Efficiency, gives you a general idea of the opportunity for savings in electricity. (Converting to LEDs is highly cost effective, if not done already, and often grants are available).

	Lighting		
	Approx number of lights	% LED or High Efficiency	Off When Not Occupied
Sanctuary			
Narthex			
Sacristy			
Offices			
Classrooms/ Meeting Rooms			
Kitchen			
Basement			
All Other 1			
All Other 2			
Outside Lights			

19) Are Exit lights all LED: \${ExitLightsLED}

20) List any things left “on” when they can be turned “Off”:

 \${ThingsToTurnOff}

21) Top Potential Actions for Energy Efficiency (could include ideas suggested above):

1. _____

2. _____

3. _____

Section 4: Heating and Cooling Equipment

22) Central Heating and Cooling Equipment

Leave a line blank if you don't have that equipment. Only fill in what applies to you. If you have several furnaces of a given type, put the date of the oldest one in the date field, and list the others and their year of last replacement in the comments field.

Type of Equipment	Year Last Installed/Replaced	Comments if Desired
Oil Furnace		
Gas Furnace		
Air-source Heat Pump		
Geothermal Heating		
Electric Furnace		
Bi-energy Furnace (Gas-Electric)		
Bi-energy Furnace (Oil-Electric)		
Other: \${OtherEquip}		

Smaller Heating and Cooling Equipment

23) Count of Baseboard Heaters (approximate): _____

24) Count of Window Air Conditioners^a: _____

25) Count of Mini-split Air Conditioners/Heaters^b: _____

- Notes:
- a) Window air conditions are like large boxes which sit in a window
 - b) Mini-split heaters/coolers are long boxes that blow hot or cold, usually installed high on the wall, which have pipes (usually hidden in the wall) carrying cool or heat to an outdoor heat pump.

26) ***Do you use a smart thermostat (with a setback temperature):** _____

27) ***Setback temperature when rooms are not occupied:** _____ F or C?

Energy-saving tip: Have you reviewed the schedules on your thermostats to be sure that they match your current usage? Set a calendar reminder to do this at the start of every season to save money and keep your users comfortable!

28) Hot Water System(s):

	Gas/Propane	Electric	Year Last Replaced	Pipes Insulated?	Thickness of Pipe Insulation
Largest					
Second					
Third					

29) Is there a timeframe for upgrading all or some heating to a heat pump?

30) If gas water heating is used, is electric an option? Other opportunities?

31) How is your electricity billed to you: _____

Section 5: Other Questions

Kitchen(s)

Quantity of Different Types of Stove (including oven, or just stovetop):

32) Gas/Propane: _____

33) Electric (including induction): _____

34) Do all your gas stoves (if you have any) have a permanent pilot light?

Pilot lights are a large source of GHG, and there are ways to avoid using them.

Approximate Year of Purchase of Appliances:

If you have several of one type, record the oldest one of that type.

35) Stove _____

36) Refrigerator _____

37) Dishwasher _____

38) Freezer _____

Solar Panels

36) Solar Electric Panels (kW installed): _____

37) Solar Thermal Panels (Nbr Installed): _____

38) Battery Backup (kWh installed): \$_{BatterykWh}

39) Comments: \$_{BatterykWh}

Conclusions:

40) **Is it urgent for your congregation to make changes to your building or your heating/cooling/hot water systems or your building envelope?**

40) \$_{BatterykWh}

41) **If Urgent, please explain:** \$_{BatterykWh}

Interesting Facts:

1. A typical vehicle driven average kilometers produces around 4 tonnes of CO₂ emissions per year.
2. A gas furnace in an average home in Ontario emits approximately 3.5 to 4 tonnes per year of CO₂ emissions.
3. Each litre of gasoline that is burned produces about 2.2 kg of CO₂.
4. A cubic meter of natural gas produces about 1.9 kg of CO₂.
5. A gas hot water tank for an average family emits about 1 tonne of CO₂ per year.
6. In Ontario, most overnight electricity is almost carbon free, but incremental demand during the day is met with natural gas generating plants. Switching electricity load to later in the evening is a good way to reduce emissions.

Section 6 - Area and Volume Dimensions, and Weekly Usage

This section will be filled in with the help of your diocesan contact, using Google Earth and some inside photos; here are some hints:

- A. We assume that a standard ceiling height is 8' (2.5m).
- B. The areas with high ceilings will be identified first.
- C. It is often simplest to subtract the high ceiling areas from the total area of a given building, in order to determine the standard-ceiling areas of that building.
- D. All areas with a standard ceiling height will be lumped together to get a total.
- E. A text explanation will show how the measures of the area were arrived at.
 - a. Ex. "Sanctuary $22 \times 40 = 880$, wall=8', ceiling=20, triangle ceiling; total area= $40 \times 40 = 1600$, so standard ceilings=720; add in hall (square ceiling) at 30×30 and 12' ceiling, with its basement of $30 \times 30 = 900$, gives two high ceiling areas and total standard height ceiling of $720 + 900 = 1620$ "
- F. All of these estimates can be corrected at any time if that is helpful.
- G. People-Hours is a rough estimate of the average usage each week during the busiest part of the year. Separate estimates are made for standard-ceiling areas and for high-ceiling areas, and rationale is also recorded similar to above.
 - a. Ex. "Sanctuary used Sundays 3h by 100 people (300p-hr), then 2h by 50 (100p-hr), and about 2 funerals per week at 2.5h by 200 (500p-hr); Offices used 3 people X 40h per week (120p-hr); Kitchen for Meals on Wheels 5 people X 5h=25p-hr, Cooking Training 15 people X 3h= 45p-h. Therefore $300 + 100 + 500 = 900$ p-hr; and $120 + 25 + 45 = 190$ p-hr"
- H. All of these estimates can be corrected at any time if that is helpful.
- I. Photos should be labeled "yyyy-mm-dd--Building Part-Front-UniqueCode", and emailed to your Diocesan Coordinator.

42) **Busiest Seasons of the year:** _____ (Summer-Fall-Winter-Spring)
(Choose as many seasons as apply)

43) ***Units being used for measurements:** _____

44) ***Building Area One:**
Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ **Inside photos:** _____



45) **Building Area Two:**

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



46) Building Area Three:

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



47) Building Area Four:

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



48) **Building Area Five:**

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



49) **Building Area Six:**

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



50) **Building Area Seven:**

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____



51) **Building Area Eight:**

Description in words: _____

Area: _____

Wall height: _____

Ceiling Highest Point (if higher than wall height) : _____

People-hours-per-week estimate during busiest season: _____

Outside photos: _____ Inside photos: _____

