Green Audit Report for St Thomas Anglican Church Belleville

February 2, 2026

Carried out by

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Faith & the Common Good | La foi et le bien commun

Faith & the Common Good (FCG) is a national, interfaith network (charity registration # 82827 6121 RR0001) founded in 2000 on the belief that our diverse faith congregations and spiritual communities can be powerful role models for the common good. Our network is composed of people of faith, hope, and spirit who, despite our differences in theology, dress and culture, share a calling to protect our ecosystem and a passion for community service.

We work with local faith-based, environmental, municipal, Indigenous, and community partners across the country to host a wide variety of practical, educational, and spiritual programs that encourage: faith building energy efficiency; the re-purposing of surplus places of worship; faith sector support for clean energy and active transportation; interfaith climate justice and clean water alliances; and increased support for our climate-vulnerable neighbours.

Greening Sacred Spaces (GSS) is our longest-running program. A practical program accessible to all faith traditions, GSS assists faith communities with both the educational and spiritual dimensions of greening as well as the “how to” side of audits, retrofits, and generally reducing a faith community’s footprint.

On average each year, we work with close to 800 faith communities, from 20 different spiritual traditions, to host hundreds of green events and activities that reach more than 10,000 Canadians. With 1 of 3 Canadians attending worship regularly, we believe that galvanizing faith groups to be neighbourhood sustainability role models is crucial for a greener, healthier, more resilient Canada.

Summary of Opportunities

Overall the building is in good shape.

The best energy savings opportunities involve resolving air sealing issues in the building. This includes resolving the sanctuary attic door and sealing the hole in the wall at the front of the church. After that, having the ceiling fans improved set up so that thermal comfort is being delivered everywhere to ensure thermal energy created is delivered to the areas where people are. It is also recommended to maintain the roof windows on an annual basis along with the masonry maintenance when hiring boom lifts.

Many of the other opportunities are more about rallying the people around the great building, the core team and the mission moving forward as you open back up. With a strong team, I have no doubt that there will be many years of vibrant life within these walls.

Green Audit

Property and Grounds Around Building

Does all of the property have a positive slope, meaning it slopes away from the building?

Yes

Photo 1

Photo 2

Photo 3

Photo 4

Are there storm drains on or near the property, such as in parking lots or at the street curb?

Don't know

Are there any outdoor spaces that could be turned into pocket parks, or shaded cool areas during extreme heat?

Yes

Photo 5

EXTREME HEAT - Being able to offer places for people to sit in the shade outdoors can be a simple, often cost effective means to improve neighbours well-being during extreme heat events. If trees can be planted, or awnings installed, or plants planted, or a water feature, etc, these can lower the temperature of the space dramatically, allowing people to cool down, who may not have access to air conditioning. This can also be a place of beauty, contemplation, or gathering at the same time.

Is there a parking lot?

Yes

Is the parking lot paved?

Yes

Photo 6

Photo 7

EXTREME HEAT - EXTREME WATER - Paved parking lots, especially asphalt, can have a major impact on air temperature due to the thermal storage of heat and reflection of the same heat, warming the air nearby. This process can also warm the adjoining buildings, amplifying the heat island effect. When it is time to consider resurfacing the parking lot, consider a lighter color, or different material if possible, to lower the heat island effect. For extreme water, large hard surfaces such as parking lots leave nowhere for the water to go, causing flooding more easily.
Switching the parking lot surface to a water permeable concrete, or similar material will allow water to move through the concrete, lowering flooding risk, and with concrete being a cooler color, lowering the heat island effect at the same time.

Does the landscaping around the building use low water type and local plants (xeriscaping)?

Yes

Is there a community garden on the premises?

Yes

Photo 8

Photo 9

Photo 10

Building Envelope - Building Exterior

Is there a thermally massive wall system - meaning is it a solid masonry wall system?

Yes

Photo 11

ENERGY EFFICIENCY - EXTREME HEAT - Thermally massive buildings can store thermal energy and release it when needed. This means that during extreme heat events, the thermally massive building can stay cooler longer during the day. At night, if the temperature drops, the building will shed heat, radiating the heat away. As long as the extreme heat does not last for too long, the "store and shed" of heat can maintain comfort indoors with minimal energy inputs. To extend the ability of the building to do this, shading the south and west sides of the building from the intense afternoon heat would improve performance.

Is there a thermally insulative wall system - meaning a wood framed, hollow wall?

Yes

There is an insulated wall behind the organ, in a former window opening. The insulation is in poor shape due to air leakage and failing insulation. This will add to the heat loss, as well as impacting the function of the organ.

Photo 12

Is the wall full of insulation?

No

ENERGY EFFICIENCY - EXTREME HEAT - For hollow wall - wood framed walls, it is ideal to have as much insulation as possible inside the walls to reduce heat loss in winter and to minimize heat gain in summer. The least destructive approach to insulating inside a wall cavity is to consider blown insulation, such as cellulose, that requires 4" holes at the top of each stud cavity, to fill the walls. Insulation is the primary means to maintain comfort inside a building during an extreme heat event, especially during a power outage. https://natural-resources.canada.ca/energy-efficien cy/home-energy-efficiency/keeping-heat-section-7-insulating-walls-insulating-renovating-building -additions

Is there a flat roof on part of the building?

Yes

Photo 13

Is the amount of insulation on the flat roof above code required?	Yes
Is the flat roof membrane an ENERGY STAR rated Cool Roof?	Don't know

ENERGY EFFICIENCY - EXTREME HEAT - ENERGY STAR rated Cool Roofs are roofs that have a lighter color to reflect UV light, as well as being able to emit heat from the building as well. Both of these qualities can dramatically lower energy bills, and reduce the heat island effect that urban cities experience. When it is time to replace the flat roof membrane, consider a Cool Roof. https://www.energystar.gov/products/cool-roofs

Is there a pitched or sloped roof on part of the building?	Yes

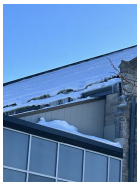


Photo 14

Is the amount of insulation in the attic of the pitched / sloped roof above code required?	No

ENERGY EFFICIENCY - EXTREME HEAT - Insulation in the attic is the most effective means to manage heat gain during extreme heat events, and to reduce operational heating costs in winter. Insulation levels in the attic should be thick enough to cover all of the ceiling joists at a minimum. This will ensure that the wood, which is a thermal bridge, is covered, improving overall insulation performance across the attic. It is recommended to have an insulation contractor inspect the attic and give you a quote to insulate the attic above code requirements. Please ensure all electrical elements in the attic are up to code before insulation covers pot / can / recessed lights, or any other wiring, as this can create a serious fire hazard. https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/keeping-heat-section-5-roofs-attics

Are all of the attic hatches, vents and other holes into the attics air tight - meaning they have been completely air sealed?	No

The door to the tower was unfortunately open, as well as the exhaust fan was running. The space in the tower was the warmest space in the entire building due to the massive heat loss. Ensuring this door is completely airtight and insulated is critical.

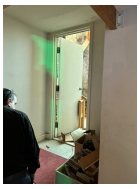


Photo 15

Photo 16

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - WILDFIRE SMOKE - Attic hatches are outside doors. As such they leak air. The taller the building, the greater the heat loss. With many Faith Communities, the attic hatch is often located under a steeple or minaret, which act like incredibly tall chimneys, sucking the heating dollars out of the building at incredible rates in the winter. This is amplified by extreme winds, which can create thermal discomfort in the building as well. Air sealing the attic hatches with weatherstripping, a handle and latches to hold it down is often the cheapest action with the single largest payback in energy efficiency savings in a Faith Community. This should be a priority action. For some Faith Communities, they may have vents, roundels, or decorative holes in the ceilings that were part of ventilation systems 100 years ago. These are often abandoned and these open holes to the attic cost thousands of dollars in heating costs. These should be airtight along with the attic hatches. By minimizing the amount of air leaking out of the building, you will reduce the amount of air being drawn in. This will be critically important during wildfire smoke events. Finally, pot / can / recessed lights in the ceilings are also tiny chimneys with the same effects as the other elements, and should be airtight. Air sealing of electrical elements should be done with an electrician to ensure a fire hazard is not created. https ://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/keeping-heat-section-4-comprehensive-air-leakage-control-your-home

Are all penetrations into the building air sealed, such as mail slots, old mechanical vents, around plumbing vents, etc?

No

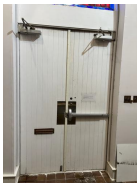


Photo 17

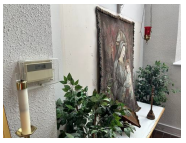


Photo 18

Photo 19

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - EXTREME WATER - WILDFIRE SMOKE -

Holes in the wall, whether poorly installed pipes, or old vents, cable runs, or any number of reasons, allow water into the building, as well as air leakage, causing damage and thermal discomfort. It is recommended to seal all of these unnecessary holes with the appropriate material, which may include mortar, or caulking, or actual repairs if large enough. All of these openings are where air is drawn into the building, which can bring with it wildfire smoke, heat, and dampness. https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/ke eping-heat-section-4-comprehensive-air-leakage-control-your-home

Are all of the downspouts, that are located on the exterior of the building, draining the water at least 4 feet away from the building?

No

Photo 20

EXTREME WATER - Downspouts, which direct water from a flat or pitched roof down to the ground, can bring with a tremendous amount of water. If this water is not directed away from the building, the ground at the downspout (soil, concrete, asphalt) can become overwhelmed, break down and allow large volumes of water to migrate into the soil up against the basement walls. As this typically happens at the corners of buildings, where stress cracks often form, this can allow water to migrate into the basement of the building. This can cause water damage and mold growth. Ideally downspouts extend at least 4 feet away from the building for this reason. If this is a tripping hazard, or would be hit by a lawnmower, for example, consider hinged downspouts,

out of the way until needed, expanding downspouts, gravel rain gardens to redirect the water safely, or other measures to effectively and safely move the water away from the building.

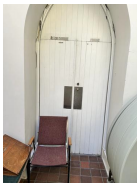
Windows and Doors

Is the caulking around all of the windows and doors in good shape? No

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - EXTREME WATER - WILDFIRE SMOKE -

Caulking is a critical building element that lowers energy bills, and keeps water out of wall systems. It is often overlooked in Faith Communities because it can be difficult to see to assess many windows, and harder to maintain. Inspect the caulking around windows and doors for sign of hardness, brittleness, separation from surfaces, and missing. If you can reach it, it should be pliable with a fingernail pushing on it, regardless of the outdoor temperature. If it is not in ideal condition, you should remove the caulking before replacing it with new. https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/keeping-heat-section-4-comprehensive-air-leakage-control-your-home

Is the weatherstripping around all of the doors and windows in good shape? No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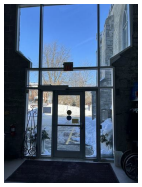
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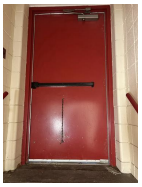
Photo 23

Photo 24

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - EXTREME WATER - WILDFIRE SMOKE -

Weatherstripping around doors and windows prevents air and moisture from leaking past the element when it is closed, whether it is a door or a window. This is critically important for extreme weather events, as water gaining access can cause severe building damage, or wildfire smoke being drawn into the building. Inspect all frame-based weatherstripping around doors for pliability and contact between the frame and the door. Replace the weatherstripping where necessary with aluminum-channel, vinyl gasket weatherstripping that is installed on the frame of the door. For door-based weatherstripping, remove the "fuzzy caterpillar" weatherstripping by removing the set screw at one end, and replace with new weatherstripping. Door sweeps, the weatherstripping component that goes on the bottom of the door is very important for extreme water management to help keep water out of the building. The door sweep wears out first, due to the constant wear from opening and closing and will need to be replaced more often than the weatherstripping on the other sides of the door. For window weatherstripping, you may need to remove the operable window to remove the weatherstripping. This will vary with manufacturer.

Remove the weatherstripping and replace with the same profile weatherstripping. For windows, such as stained glass metal windows that do not have weatherstripping on them, use foam-based weatherstripping that is a peel and stick style. These will compress and wear out over a shorter time, but unlike a vinyl product, the foam will give before the window frame on tight closures.

Replace as necessary as part of yearly maintenance inspections. https://natural-resources.canada. ca/energy-efficiency/home-energy-efficiency/keeping-heat-section-3-materials-insulation-house-wrap-barriers-weatherstripping

Are all of the exterior doors Energy Star rated? No

These doors are already planned to be upgraded, which is great!

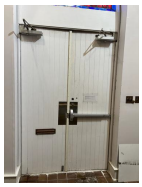

Photo 25

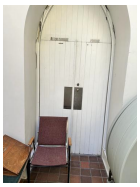

Photo 26

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - If exterior doors are steel doors they should be insulated. New ENERGY STAR rated insulated steel doors come as a system, which includes the door frame, to ensure maximum energy savings and ease of installation. Also ensure your exterior doors have panic bars on the inside, opening outwards for safety. If you have hollow-core wood doors, you should replace those with insulated ENERGY STAR rated door systems. If your House of Worship has solid wood doors as part of an architectural feature, these should not be replaced, but instead, as needed, restored and repaired and put back into place for many more years of use. For glass entrance doors, these typically will have a double door set up with a vestibule to minimize heat loss and aid in security. For these door systems, it is important to ensure that they are installed correctly, and hang plumb and square. if the doors "wow" out at the bottom where two doors meet, many of the newer commercial glass door systems allow for the doors to be replumbed by adjusting cams in the hinges. Consult a commercial door professional to see if this is possible for your door system. https://natural-resources.canada.ca/en ergy-efficiency/energy-star/windows-doors-skylights

Do all doors close properly?	Yes
Are all of the windows (excluding stained glass) Energy Star rated?	No

Photo 27

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - Windows themselves do not have as large an impact on energy efficiency as we may think. Where the improvements lie are in the insulation around the window, if it had none, and the improvement on the weatherstripping and air sealing from new caulking oftentimes. For this reason, those aspects should be identified and rectified first, before considering replacing any window. For those windows that do not operate properly, are broken, or are thermally uncomfortable when near in winter, these windows can be replaced with ENERGY STAR rated replacement windows. This should only be done if the existing windows cannot be repaired or restored first, which can be of similar costs and energy payback when reinstalled in a modern manner. If the building is a designated historic property, the windows may be part of the elements that must remain, and repair and restore will be the only option. https://natural-resources.canada.ca/energy-efficiency/energy-star/windows-doors-skyligh ts

Are there stained glass windows in the building?	Yes

Photo 28

ENERGY EFFICIENCY - EXTREME HEAT - EXTREME WIND - Stained glass windows can represent the values and beliefs of a Faith Community, and therefore can be an important part of the building. Stained glass windows are often older, hand-made glazing elements and can be fragile due to age and construction. Many Faith Communities will protect stained glass windows by placing plexiglass or lexan on the exterior side of the window. These can work, however, in certain situations, often on the south and west sides, the UV-open plastic covering can allow sunlight to penetrate, heating the air in this space, creating very hot air through convection, between the plastic and the stained glass. On certain stained glass, the glass, and / or the lead caning holding the glass in place can become soft and this will cause slumping of the stained glass. This effect can be seen from the inside of the building looking at the stained glass along its height. This effect may also occur without the application of plastic coverings on the exterior, again due to construction. One should not try to caulk the glazing itself to the building, but instead, the window frame should be caulked to the building. This is because the stained glass flexes, expands and contracts in place. It is supposed to do this, and caulking the glazing may cause structural stresses causing the stained glass to crack. If you have broken stained glass you should contact a heritage stained glass professional to assess and make recommendations. Covering the exterior of the stained glass with another window, that matches the shape and style of the window can be an ideal way to improve energy efficiency, extreme weather resistance, and safety of the stained glass.

Are there awnings on any windows?	No

The large west facing hall's wall of glass has full height roller shades.

EXTREME HEAT - Awnings were used on commercial buildings for decades before air conditioning became common, even on some skyscrapers. Awnings on the south and west sides, the sides that take on the most heat from the sun, would have the most benefit and impact on cooling the building. The awning protects the window from heating up, and therefore keeps the heat out of the building. Shades on the inside of the building can perform a similar function, but less effectively, because the heat is now inside the building. Awnings can be retractable, or metal grilled to let winter sun in, so the options are more than one might think. https://www.energy.gov/energysaver/energy-efficient-window-coverings

Do you have portable or permanent flood barriers for all ground level doors?	No

EXTREME WATER - Portable flood barriers, designed to go around exterior ground level doors can provide quick and very effective flood protection that is easily set up and taken down afterwards. Most are low enough that one can still step over them to get inside the building, as well, have the exterior door swing open.

Do you have window wells for all of the basement windows that are lower than 2 feet from the ground?	No

EXTREME WATER - Window wells are designed to be lower than the window to allow water to drain away from the window, down the basement wall, instead of inundating the window.
Window wells should be at least a foot lower than the bottom of the window, and ideally the well is filled with gravel at least another foot or two lower. This creates effective drainage. If these windows are at ground level and flooding is a concern, portable flood barriers should be considered as well to keep the basement from flooding.

Lighting

Are all exterior lights, including parking lot lights, LED?	Yes

Photo 29

Are all exterior lights on timers, daylights sensors and/or motion sensors, where appropriate?	Yes
Are all indoor lights, including ceiling fixtures, wall sconces, chandeliers, tube lighting, pot/can/recessed lights, LED?	No

Photo 30

ENERGY EFFICIENCY - Switching indoor lights to LED will save money, energy and also make spaces brighter, easier to see in, and carry out activities within. Edison style bulbs, standard screw in bulbs, can be replaced directly with LED bulbs for ceiling fixtures, wall sconces and chandeliers. Pot/can/ recessed lights require an LED bulb specifically for those fixtures. Tube lighting, or fluorescent lights can be switched out directly with an LED tube. T-12 fluorescent tubes are as much as 40 Watts. New LED tubes are 14 Watts, and will improve brightness. Some older tube fixtures may still require you to disconnect the ballast wiring, however the bulk are plug and play. When in doubt, consult an electrician. For new fixtures: https://natural-resources.canada.ca/ener gy-efficiency/energy-star/light-fixtures and https://natural-resources.canada.ca/energy-efficiency /energy-star/lighting

Are all EXIT lights LED?	No

Photo 31

Photo 32

ENERGY EFFICIENCY - EXIT lights are the quickest payback when switching to LED because they are on all the time. Some experts think the payback could be as quick as 4 months as you go from a 40 Watt bulb to a 4 Watt LED. Many can be converted without having to replace the entire fixture. For those fixtures that you wish to replace, consider switching to the "green running man" fixtures, as those are the universal signage standards of today. https://www.energystar.gov /sites/default/files/buildings/tools/led_exitsigns_techsheet.pdf

Are all of your emergency battery back up lights LED?	No

POWER OUTAGE - Many emergency battery back up lights are connected with EXIT lights, but not all. These are the white boxes with swivel lights attached to them on the top of walls near exits typically. By switching to LED lights, the battery back up lights will last longer, because LED lights consume less energy, making the building safer. Also, check that the battery packs are in working order by testing them regularly. Replace battery packs as needed as part of your life safety and power outage inspections.

Are all light dimmers in the building, the new solid state slider style, instead of the rheostat dial type?

No

ENERGY EFFICIENCY - Old dial rheostat style dimmers do not save any energy. Some will have fins on them to dissipate heat, which is what they do with the energy. When switching the bulbs or fixtures to LED, you will need to switch the dimmers, as the old dimmers do not work so well with LEDS. Solid state dimmers will actually save you energy when you dim them. These often look like sliders, but may also be dials. https://www.energy.gov/energysaver/lighting-controls

Are all the rooms where lights typically get left on by accident, such as bathrooms, on motion sensors?

No

ENERGY EFFICIENCY - Motion sensors can be installed in place of a light switch. When motion is detected by the sensor, it turns the light on. Behind the sensor plate is a timer that is set during installation. The timer can be set for something like 15 minutes, so no one is ever left in the dark. After 15 minutes (for example) of no motion detected, the light is turned off. Any motion detected, keeps the light on. Motion sensors can reduce energy costs throughout a busy building. https://www.energy.gov/energysaver/lighting-controls

Ceiling Fans

Are there ceiling fans in all of the large spaces, such as, but not limited to, sanctuary/worship space, gymnasium, and gathering hall?

Yes

The smaller, older

Photo 33

ENERGY EFFICIENCY - EXTREME HEAT - Ceiling fans can dramatically improve indoor thermal comfort by moving air in larger spaces. In winter ceiling fans can drive the thermal energy that you have already paid for, down to the people in the space, reducing energy costs. In summer, ceiling fans can blow air over people, keeping them cool and reducing the need for air conditioning. Older fans are high-speed, low-volume fans, meaning they have to move very fast to move any air. Newer commercial ceiling fans are low-speed, high volume, meaning they are significantly more effective. Many are also reversible so that you are blowing down on people in summer, but blowing up and mixing the air in winter, without feeling a breeze. Consider upgrading your ceiling fans and ensure that you purchase ENERGY STAR rated fans to get the maximum energy savings for the longest time. https://natural-resources.canada.ca/energy-efficie ncy/energy-star/ceiling-fans

Appliances and Equipment

Are all of the fridges in the building less than 20 years old and ENERGY STAR rated?

No

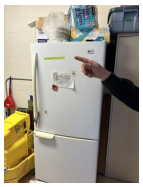

Photo 34

Photo 35

ENERGY EFFICIENCY - Fridges can be the largest electrical consumer inside many Faith Communities. If a fridge is older than 20 years, it will typically make economic sense to switch out the fridge for a brand new ENERGY STAR rated replacement. Until then, ensure seals around the doors are in good shape, and do not place the fridge near stoves or heat sources as the fridge has to work harder to create cold inside the appliance. https://natural-resources.canada.ca/energ y-efficiency/ energy-star/refrigerators for residential fridges and for commercial fridges: https://n atural-resources.canada.ca/energy-efficiency/energy-star/self-contained-commercial-fridges-free zers

Are all of the freezers in the building less than 25 years old and ENERGY STAR rated?

No

Photo 36

ENERGY EFFICIENCY - Freezers can be one of the largest electrical consumer inside many Faith Communities. If a freezer is older than 25 years, it will typically make economic sense to switch out the freezer for a brand new ENERGY STAR rated replacement. Chest freezers are more efficient than upright freezers, because cold falls to the bottom of the chest freezer. They are often difficult to access food in, so upright freezers, although not as efficient are often easier to use. Until then, ensure seals around the door is in good shape, and do not place the freezer near stoves or heat sources as they have to work harder to create cold inside the appliance. https://nat ural-resources.canada.ca/ energy-efficiency/energy-star/freezers for residential freezers, and for commercial freezers: https:// natural-resources.canada.ca/energy-efficiency/energy-star/self-cont ained-commercial-fridges-freezers

Are all dishwashers and sanitizers in the building ENERGY STAR rated?

No

Unfortunately this sanitizer has been causing issues, so I have selected NO so that the recommendations and

resources show up for you.

Photo 37

ENERGY EFFICIENCY - WATER EFFICIENCY - Commercial dishwashers and sanitizers are incredibly energy and water efficient. They are also very durable typically, and last a long time. As long as they are properly maintained and recommended products are used in them, they can provide years of service. If the dishwasher or sanitizer are ageing and not effectively cleaning, or is having mechanical issues, it is recommended to replace it with a new ENERGY STAR rated replacement. Residential dishwashers have a typical lifespan of about 12 years under residential use. If used more than that in a Faith Community, the lifespan will be less. If this is the case, consider

replacing it with a commercial ENERGY STAR rated dishwasher or sanitizer. https://natural-resources.canada.ca/energy-efficiency/energy-star/dishwashers for residential dishwashers, and for commercial dishwashers and sanitizers: https://natural-resources.canada.ca/energy-efficiency/en ergy-star/commercial-dishwashers

Is there a gas stove used in the building?	Yes

Photo 38

ENERGY EFFICIENCY - Gas stoves have a climate impact due to their use of fossil fuels. They can come with a learning curve, which in a public community kitchen, may be difficult to ensure everyone using it is properly trained on safety measures using it. Proper kitchen ventilation hoods and fire suppression systems required for gas cooking appliances can be tremendously expensive and require on-going inspections adding to costs. Gas prices are increasing faster than electricity prices and all of these along with the measured negative air quality impacts of using them, are leading many Faith Communities to consider switching these appliances out to electric versions. All of the commercial cooking appliance manufacturers make an electric version of the various types of cookers. Switching to electric will lower your carbon footprint, improve air quality and potentially allow more users to access the kitchen stove / oven than before. https://natural-re sources.canada.ca/energy-efficiency/energy-star/residential-electric-cooking-products for residential, and for commercial: https://www.energystar.gov/productfinder/product/certified-com mercial-electric-cooktops/results and for electric ovens: https://natural-resources.canada.ca/ener gy-efficiency/energy-star/commercial-ovens

Does the gas stove have electronic ignition to light the elements?	Yes

ENERGY EFFICIENCY - Well done. The next step on your energy efficiency and climate journey is to consider switching out the gas stove for an electric cooktop and stove. https://www.energystar.go v/productfinder/product/certified-commercial-electric-cooktops/results and for electric ovens: htt ps://www.energystar.gov/productfinder/product/certified-commercial-ovens/results

Are there clothes washers and dryers in the building?	No
Do all bathrooms, shower areas, and laundry areas have ENERGY STAR rated exhaust fans?	No

ENERGY EFFICIENCY - WILDFIRE SMOKE - Bathroom exhaust fans, or ventilation fans are, from a building perspective, designed to remove moisture. For most bathrooms in Faith Communities, they merely act as "fart fans" removing odours. All of these uses can benefit from ENERGY STAR rated exhaust fans, as in high use bathrooms, the fan can run a long time, consuming energy. How bathroom exhaust fans are wired can impact their effectiveness with exhausting moisture from a damp, humid room. Some are set up with independent switches to turn them on and off. Others are on a timer, some are hardwired to the light switch. All of these are moderately effective, as each of them relies on the user to ensure that the moisture is exhausted effectively. Ideally, the best choice is to install an ENERGY STAR rated exhaust fan that has a built in humidistat. These units can determine the humidity in the air, and with the preset threshold points come on when the humidity is too high and go off when the humidity is acceptable. These are best choice to minimize mold growth and water damage from excessive humidity in a space. Note that if you are running a bathroom exhaust fan during a wildfire smoke event you will be

drawing air int the building, through the exhaust requiring make-up air coming into the building. https://natural-resources.canada.ca/energy-efficiency/energy-star/ventilating-fans

Yes

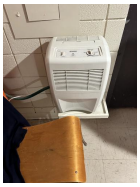

Photo 39

Are all of the portable dehumidifiers ENERGY STAR rated? No

ENERGY EFFICIENCY - EXTREME HEAT - Dehumidifiers help keep damp places dry. This is typically the case in basements where we see these appliances used the most. Older dehumidifiers are terribly inefficient and could be said to suck as much electricity as they do water. New ENERGY STAR rated dehumidifiers are much more efficient. If your current ones are not ENERGY STAR rated, it is strongly recommended to replace them, due to the energy consumption of the older units. https://natural-resources.canada.ca/energy-efficiency/energy-star/dehumidifiers To improve effectiveness, place the dehumidifier in a central location and have oscillating fans locating pointing towards the dehumidifier to drive humid air from various areas towards the dehumidifier. Also consider purchasing a dehumidifier with a built in hose bib so that you can have it automatically drain into a sump pit, or drain.

Water Heating

Are all of the domestic hot water heaters ENERGY STAR rated? No

Photo 40

Photo 41

ENERGY EFFICIENCY - For many busy Faith Communities, hot water heating can be a high demand requirement. As such, it can cost a great deal of energy and money to meet the needs. ENERGY STAR rated hot water heaters are ideal as they use the least amount of energy to supply the hot water. If using gas hot water heaters, ENERGY STAR rated or not, consider switching to electric heat pump hot water tanks. These are now the most efficient means to heat hot water, and are easily installed and operate without the need for fossil fuels. All hot water tank heaters should have an insulation blanket installed on them for extra performance improvement. For tankless hot water systems, also known as on-demand or instantaneous, the gas versions have now shown through research to emit significantly higher greenhouse gases during their on/off cycles, more so than their operational emissions. This means that the more you use a gas tankless hot water heater, the more climate impact you actually have. It is recommended to consider switching to an electric on-demand if that is the water heating appliance you prefer. For smaller locations, like bathrooms with just a hot water faucet, a small 110V electric on-demand heater can be an excellent idea, especially if the bathroom is located far from the hot water heater. Consider splitting up hot water appliances like this when large distances are involved. htt ps://natural-resources.canada.ca/energy-efficiency/energy-star/heat-pump-water-heaters

Are all of the water heaters less than 15 years old?	Yes
Is the main hot water heater located as close to the kitchen as possible?	No

ENERGY EFFICIENCY - The longer the distance between the hot water heater and the tap, the more losses that will occur, with the heat from the water being shed to the wall or ceiling cavity, yielding no benefit, and longer waits at the tap. Ensure the main hot water heater is located as close to the kitchen as possible.

Do all of the hot water tanks have an insulating blanket around it?	No

ENERGY EFFICIENCY - An insulating blanket can be installed around the hot water tank. this will add an extra layer of insulation, thereby increasing the efficiency of the tank. Note that gas hot water tanks should have their insulating blanket installed by a professional.

Are all of the hot water lines insulated?	No

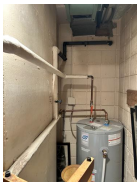

Photo 42

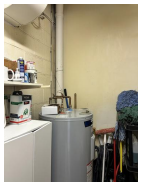

Photo 43

ENERGY EFFICIENCY - Insulate all of the hot water lines that you can access to ensure the hot water is delivered to the tap. This will reduce wait times, cycling of the hot water heater, and reduce heat loss to areas that do not require heat from the hot water pipes.

Office Equipment

Is the main office printer ENERGY STAR rated?	Yes

Photo 44

Are all of the small office appliances turned off when not in use?	No

ENERGY EFFICIENCY - Small printers, scanners, copiers, shredders, extra monitors, and other small office equipment is oftentimes left on ready to go all of the time. This can add up to a large amount of energy consumed. Others may be in standby mode, and some research has shown that standby mode in our homes for all of our appliances can add up to 9% of our energy costs. So even in standby mode, these appliances can add up on our bill. It is recommended to turn off all smaller office appliances when not in use. If this is a hassle, it is recommended to put all of these appliances on power bars with built in timers, where the timer is set for the end of the office day. At that point, the power will shut off for these appliances, so if left accidentally on, they

are turned off at the end of the day. Power will come back to the appliance first thing in the morning, but then the office equipment needed can be turned on by staff.

Plumbing Fixtures

Are all of the toilets in the building WaterSense certified? No

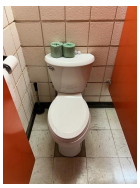

Photo 45

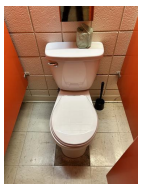

Photo 46

WATER EFFICIENCY - Toilets are typically the largest water consumer within a House of Worship. When low-flow toilets first came on the market, they were poorly designed and oftentimes ineffective at doing their job. Times have changed and the new low-flow, ultra-low flow, and dual-flush toilets are effective and incredibly water efficient. EPA's WaterSense, is just like their ENERGY STAR rating, it highlights the best of the best. Choices range from tank and bowl style, like at home, taller fixtures for accessibility, low toilets for daycares, or wall-mounted units with flushometer valves. Single flush, or dual flush - one button for liquids, one for solids, rounds out the options. With all of these choices, meeting the needs of your users, and saving water and money at the same time, has never been easier. https://lookforwatersense.epa.gov/products/Product-Search-Results-Toilets.html for residential style toilets with a tank, while for wall mounted toilets with flushers: https://lookforwatersense.epa.gov/products/Product-Search-Results-Flusho meter.html

Are all of the urinals in the building WaterSense certified? No

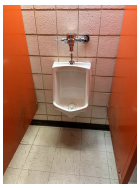

Photo 47

WATER EFFICIENCY - Water usage for urinals can be much higher than needed. New WaterSense urinals and urinal flushers can use less than half of the water of a standard urinal. Depending on the fixture this can be as simple as changing out the flusher valve, or may require replacing the urinal. https://lookforwatersense.epa.gov/products/Product-Search-Results-Urinal.html Waterless urinals are also available for new installations. These work great but do require an understanding of how to maintain them. Installing waterless urinals should be done in conjunction with the cleaning team, to ensure smooth operation.

Are all of the bathroom faucet aerators EPA WaterSense certified? No

Photo 48

Photo 49

at all. While the bulk of bathroom faucets do have aerators, they are not as water efficient as they could be. WaterSense aerators can use 1/2 to 1/3 less water than the aerator you have right now. By having a staff member unscrew the existing aerators and replace them with a low-flow aerator, you can save significant water and costs. Look for 0.5 – 1.5 gallons/minute aerators. This can be done with tap style faucets, single-throw style faucets and even motion sensor faucets.
Keep in mind that with a lower flow, that it will take longer for hot water to reach the tap, so consider the hot water heater location and aerators together. https://lookforwatersense.epa.gov/ products/Product-Search-Results-BathroomSinkAccessories.html

Do all of the kitchen faucets have a low-flow and high-flow option?	Don't know

WATER EFFICIENCY - Kitchen faucets need to have high volume flows to fill coffee urns and sinks for dishes. But not all of the needs at the kitchen faucet require high flow. This is why it is ideal to have a choice at the faucet for high or low flows, depending on needs. EPA's WaterSense does not rate kitchen faucets, so try to find a faucet that meets all of the needs of the kitchen with flow options. For kitchen faucets, look for 2.0 – 3.0 gallons/minute aerators.

Are there any showers in the building?	No
Are all fixtures in the building inspected regularly to ensure they are functioning properly, without drips, leaks or running toilets?	Yes

Basement Water Management

Through a visual inspection and discussions with the building team, identify as many basement WALL locations that show water intrusion, signs of water damage from exterior water intrusion, have signs of efflorescence; or have had water enter the building and haven't been fixed.	☑

EXTREME WATER - With basement water entry points identified through the photos and notes, consider the exterior locations and whether grading, downspouts, and window wells would help improve the resilience of these locations. Refer to the Property and Grounds Around Building section for more recommendations. For the inside of the basement, ensure that no building materials that can be damaged by water (such as drywall), are on these exterior basement surfaces. Clear the area of contents unless they are stored in plastic bins, or are glass or metal, none which can grow mold from becoming wet. First attempt to resolve the source issues from the exterior as described. If that is not enough, waterproofing from the inside of the basement is the least effective measure. Some interior waterproofing may work better than others. The most effective, and most costly means to resolve water migration through basement walls is the seal from the outside. This involves digging out the foundation and is complex, disruptive, and very expensive, but will ultimately yield the best result. Finally, if nothing else stops the water from entering, consider means to manage the water that does enter through the wall by directing it to a sump pit or drain to safely manage.

Is there a sump pit in the basement?	No

EXTREME WATER - For ground water to impact the basement of a building, it must reach the lowest point in the basement, which can be the floor, an open gravel drain, or the elevator pit, whichever is lowest. The easiest way to manage groundwater from damaging the basement is to have the lower point in the basement be at the bottom of a sump pit. A sump pit is basically a

bucket or concrete box that is lower than the bottom of the footings, or lower than the elevator pit. Ground water is able to flow into the sump pit through openings on the side of the sump pit. The deeper the sump pit the more buffer a building has to manage the water, before it reaches the basement floor. A sump pump is then placed inside the sump pit and draws the water out of the sump pit, and through plumbing to the outside, pumps the water outside and away from the building. This process keeps the basement "high and dry" instead of wet. Sump pumps require regular maintenance to ensure that they are functioning. This is especially critical with the floats, which rise up with the water level. Once the float reaches the "trigger height", which you set, then the pump comes on and draws the water out of the sump pit. The floats should be able to freely move. It is good to keep the pump raised off of the bottom of the sump pit, so it is less likely to draw in debris and clog up. A battery back up sump pump is a second pump that only comes on when the power is out. Extreme weather knocking power out means that the time you do need the sump pump it may not be working. Hence the battery back up sump pump is key to ensuring the basement stays dry during a power outage. Finally, there should be a one-way check valve in the plumbing that removes the water. This reduces wear on the sump pump. When the water is pumped up high to exit the building, if there is no check valve, when the pump turns off, all of the water in the plumbing lines will fall back into the sump pit, and this can trigger the pump to run yet again, prematurely wearing it down. By installing a one-way check valve, when the pump turns off, only the water in the bottom couple of feet, what is below the one-way check valve, will flow back into the sump pit.

Is there a back flow valve installed on the sewer line exiting the building?	Don't know

EXTREME WATER - During extreme water events, the sewer system can become overloaded and stressed. When this happens, it is possible for city sewer lines to pressurize and push sewage back up into buildings. This is called a backflow. To prevent this from happening, it is recommended to install a sewer backflow valve. These valves, when sensing flow from the city side of the pipe, close a flap, preventing sewage from entering the building. A small investment can save an entire basement of a building from an expensive cleanup and loss. https://www.iclr.o rg/wp-content/uploads/PDFS/focus-on-backwater-valves.pdf

HVAC Systems

Are there any electric baseboard or electric wall heaters in the building?	Yes

Photo 50

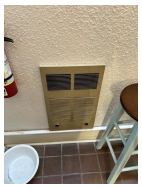

Photo 51

ENERGY EFFICIENCY - Electric baseboards moderately efficient, but not great. Some estimates put their efficiency at about 70%. Wall heater efficiencies would be less, because they are typically in exterior walls, where the insulation has been removed to install the heater, thereby making the unit less efficient, as it is now in a cold cavity. There are newer electric baseboard heaters that are a bit more efficient than the older common style, as the new ones also act as convectors, which more efficiently move heated air. These units should be cleaned yearly, as dust collects in, on, under and around them, and the dust lowers their efficiency as it restricts airflow. The smell of burnt dust at the beginning of every heating season triggers many people's allergies as well.
Finally, it is ideal to recommend replacing the electric baseboards with a heat pump unit, which can come in a radiator style square box, that would significantly improve efficiencies and thermal comfort delivery. https://natural-resources.canada.ca/energy-efficiency/energy-star/air-source-he

at-pumps or https://natural-resources.canada.ca/energy-efficiency/energy-star/ductless-heating-cooling

Yes

Photo 52

Photo 53

Photo 54

Photo 55

ENERGY EFFICIENCY - Forced air gas, propane, or oil furnaces and rooftop units have a typical lifespan of 20-25 years, depending on maintenance, and quality of the unit. These systems should be inspected yearly and as they get closer to end of life, you should ask for regular updates by your HVAC contractor of their life expectancy, their current operational efficiency, and the availability of parts for your equipment. Knowing the life expectancy can allow you to financially plan to be proactive, and not reactive. Knowing the operational efficiency allows you to better calculate the time to upgrade, and understand the return on investment. A 20+ year old heating system is not going to be as efficient as it was brand new. Finally if you cannot get parts, it's critical to know that ahead of time, before you need one. ENERGY STAR rated heating systems should be automatically installed when replacing older units. https://natural-resources.canada.ca/ energy-efficiency/energy-star/residential-furnaces When replacing gas, propane, or oil heating systems it is strongly recommended to upgrade to an air source heat pump system, whether that is a furnace, or a rooftop unit. These units are tremendously efficient and will provide heating and cooling. https://natural-resources.canada.ca/energy-efficiency/energy-star/air-source-heat-pump s or https://natural-resources.canada.ca/energy-efficiency/energy-star/ductless-heating-cooling Also ensure that the oil tanks, if present, are safely and properly removed. Leaking oil tanks can create a massive environmental spill issue, which can be financially difficult to resolve.

Are there any gas, propane, or oil boilers in the building?	No
Is there air conditioning in the building, connected to a furnace or a rooftop package?	Yes

ENERGY EFFICIENCY - EXTREME HEAT - Due to climate change and extreme heat events, air conditioning is required more and more in buildings today. Please see the ceiling fan section for recommendations to reduce the need for air conditioning. Air conditioners, whether connected to a furnace or part of a roof top package have a typical lifespan of 20-25 years. These systems should be inspected yearly and as they get closer to end of life, you should ask for regular updates by your HVAC contractor of their life expectancy, their current operational efficiency, and the availability of parts for your equipment. Knowing the life expectancy can allow you to financially plan to be proactive, and not reactive. Knowing the operational efficiency allows you to better calculate the time to upgrade, and understand the return on investment. A 20+ year old air conditioning system is not going to be as efficient as it was brand new. Finally if you cannot get parts, it's critical to know that ahead of time, before you need one. ENERGY STAR rated heating systems should be automatically installed when replacing older units. Air source heat pumps are now the most efficient approach for providing cooling and should be the first consideration for new units. For smaller units, use this link: https://natural-resources.canada.ca/energy-efficiency/e nergy-star/central-air-conditioners For larger units, use this link: https://natural-resources.canada .ca/energy-efficiency/energy-star/light-commercial-heating-cooling-equipment Consider converting to heat pumps for air conditioning. https://natural-resources.canada.ca/energy-efficie ncy/energy-star/air-source-heat-pumps or https://natural-resources.canada.ca/energy-efficiency/

energy-star/ductless-heating-cooling

Are there any window, or portable air conditioners used in the building?	Don't know
Do all of the heating and cooling systems in the building have programmable thermostats?	No

Photo 56

Photo 57

ENERGY EFFICIENCY - Programmable thermostats are ideal to ensure that when occupied the building is at a comfortable level, and when the building or space is unoccupied, that the set back temperature is low enough to save energy, but not too low that it takes too much energy to bring the space back up to comfort level. You can save as much as 10% a year on heating and cooling by simply turning your thermostat back approximately 5C for 8 hours a day from its normal setting. This will vary depending on construction, and heating system. There are various types of programmable thermostats, ones that control individual heaters, ones that can be run from a wifi connection and a smart phone, up to ones that are accessed from a website and can be controlled from the Faith Community's office and connected to calendar activities. https://natural-resources.canada.ca/energy-efficiency/energy-star/smart-thermostats or for US results: https://w ww.energy.gov/energysaver/programmable-thermostats or https://www.energystar.gov/product finder/product/certified-connected-thermostats/results

Is the whole building using air-sourced (or ground sourced) heat pumps for heating and cooling?	No

ENERGY EFFICIENCY - EXTREME HEAT - Air sourced heat pumps are the most efficient means to provide heating or cooling for any building. Heat pumps work by transferring the heat from one area to another, instead of creating it, which is what, for example, a gas furnace does by burning gas, it creates heat. A heat pump will take heat from one location and transfer it to another location. For example it will pull heat from inside the building in the summer, and transfer it to the outside, which will then cause cold air to blow from the unit. Surprisingly, even in winter, a heat pump can pull heat out of winter air and compress it, and provide thermal comfort inside the building. Because it is not creating, but transferring heat, it is incredibly efficient. Although comparing apples to oranges, a new gas furnace may be 98% efficient. While a new heat pump operating in ideal conditions may be approximately 300% efficient. Again, these comparisons are not quite accurate, but they provide a sense of scale and effectiveness of a heat pump. When considering how far your cooling and heating dollars could go with this kind of efficiency it makes sense to consider heat pumps to replace all of your HVAC systems. https://natural-resources.cana da.ca/energy-efficiency/energy-star/air-source-heat-pumps or https://natural-resources.canada.c a/energy-efficiency/energy-star/ductless-heating-cooling Ground source heat pumps are still more efficient because they access constant temperature earth, below the frost level, making their ability to raise the temperature to indoor comfort very easy, and constant. For those Faith Communities that have large properties, this can be a consideration. https://natural-resources.canada.ca/energy-efficiency/energy-star/products/list-certified-products/ground-source-heat-pump s https://geoexchange.ca

Are all forced air systems using a minimum of MERV 13 filtration?	No

Photo 58

Photo 59

Photo 60

WILDFIRE SMOKE - Air filtration is critical for managing daily air quality concerns, as well as extreme events such as wildfire smoke. A MERV 13 (Minimum Efficiency Reporting Value) filter htt ps:// www.epa.gov/indoor-air-quality-iaq/what-merv-rating on your forced air systems, which include furnaces and rooftop units, is ideal. It is the best "bang for your buck" offering a good price point and filtration capacity. Lower MERV than this and you are not getting the best filtration you could, and higher MERV than this gets very expensive to install and may not work on all existing systems. Typically a MERV 13 filter will work on all existing forced air systems, but check with your HVAC contractor to be sure. Older units may not be able to handle the back pressure the filter media provides. It is recommended to talk to your HVAC contractor about what you are currently using, about upgrading to the MERV 13, and about having extras on hand before a wildfire smoke event, because they become very hard to find during those events.

Are there Heat Recovery Ventilators or Energy Recovery Ventilators in the building?	No

There is an exhaust only ventilation system for the basement to help aid in moisture management for the basement.

Photo 61

ENERGY EFFICIENCY - EXTREME HEAT - WILDFIRE SMOKE Heat and Energy Recovery Ventilators (HRVs and ERVs) are mechanical fresh air units that pre-heat or pre-cool incoming fresh air to the building via a heat exchanger. They also have a filtering capacity when brining incoming air, taking out some contaminants. These units can be connected to an existing forced air system, or as a stand alone system with ductwork. Exhaust locations for ductwork is often kitchens, bathrooms, laundry and other damp locations. Fresh air supply locations are typically found in bedrooms for homes, and gathering spaces, such as offices or meeting rooms. They provide much needed fresh air in locations where windows may not be opened, and elevated carbon dioxide from exhalation, can lead to drowsiness and brain fog. If considering installing one, ensure that it is properly balanced, as this is the single most common failure of installations, not being properly balanced. https://natural-resources.canada.ca/energy-efficiency/energy-star/prod ucts/list-certified-products/heat-energy-recovery-ventilators

Power Outage - Extreme Weather

Does the building team know where the ELECTRICAL PANEL and whole building shutoff switch/breaker is?	Yes
Is the area around the Electrical Panel free and clear of clutter and contents, including around the door into the electrical room?	Don't know

POWER OUTAGE - In an emergency, when seconds may count, having to move chairs or boxes away from electrical room door, or panels could impact life safety within the building, especially the building team member trying to reach the panel shut offs. It is recommended to regularly inspect this area to ensure that no contents are placed or stored near the door or panel. Signage, and tape on the floor outlining areas that must remain clear can be ways to help others with this requirement.

Does the building team know where the GAS / PROPANE SHUTOFF VALVE for the whole building is located?	Don't know

POWER OUTAGE - If there is any damage to the building due to extreme weather, such as flooding, or trees falling on the building from extreme wind, it may be necessary to shut off the gas / propane to the building to prevent gas fires or explosions. It is critical that the core building team knows where to find the gas / propane shutoff valve and how to turn the gas / propane off to the building in an emergency. Note that this may be located inside or outside of the building and may also require a wrench. If a wrench is required, knowing that it is always in a single
well-labelled place, or on the shutoff, and nowhere else, is important when seconds may count.

Is the area around GAS / PROPANE SHUTOFF VALVE free and clear of clutter and contents?	Don't know

POWER OUTAGE - In an emergency, when seconds may count, having to move chairs or boxes away from gas / propane shutoff valve could impact life safety within the building, especially the building team member trying to reach the gas / propane shutoff valve. It is recommended to regularly inspect this area to ensure that no contents are placed or stored near the gas / propane shutoff valve. Signage, and tape on the floor outlining areas that must remain clear can be ways to help others with this requirement.

Does the building team know where the WATER SHUTOFF VALVE for the whole building is located?	Don't know

POWER OUTAGE - If there is any damage to the building due to extreme weather, such as flooding, or trees falling on the building from extreme wind, it may be necessary to shut off the water to the building to prevent flooding. It is critical that the core building team knows where to find the water shutoff valve and how to turn the water off to the building in an emergency. If the water shutoff is an old "tap" gate valve, it is recommended to work with a plumber and have the valve checked for operation and replace with a ball valve style.

Is the area around the WATER SHUTOFF VALVE free and clear of clutter and contents?	Don't know

POWER OUTAGE - In an emergency, when seconds may count, having to move chairs or boxes away from water shutoff valves could impact life safety within the building, especially the building team member trying to reach the panel shut offs. It is recommended to regularly inspect this area to ensure that no contents are placed or stored near the door or panel. Signage, and tape on the floor outlining areas that must remain clear can be ways to help others with this requirement.

Does the Faith Community have enough back up power equipment to meet their current emergency needs?	No

POWER OUTAGE - Back up power equipment spans a huge spectrum of options. It can range from having a few portable chargers to charge staff phones a couple times each, up to whole building standby generators and everything in between. The first steps are identifying the energy needs of the building if the power went out for an extended period of time. This is not a simple question, and oftentimes requires the House of Worship to create a Disaster Emergency Plan to understand those needs better. NYDIS is creating a workshop to help Faith Communities write their Disaster Emergency Plan, so consider taking that. https://www.nydis.org For basic scope, you have to decide if you want to provide electricity for some Christmas light strings; the easiest and lowest energy lights to provide enough light to a room; and maybe charge some phones.
That can be done with a battery backup power from brands such as (but not limited to) EcoFlow, Bluetti, Jackery, Generac, etc. Many of these systems can have multiple elements connected together, adding more capacity over time. Some can connect to your electrical panel, providing power to a specific small number of circuits, so maybe a room and a fridge, for example. Large, permanent battery storage systems like Tesla, Generac and many others provide a permanent, vs portable battery power that can be accessed when needed, and a typically provide more power than portable units. Both of these rely on the battery being full, which comes from the grid when the power is present. So these will deplete during a power outage, unless you have solar panels to charge them as you use them. Finally there are standby generators which can run on natural gas or diesel, and they are hard-wired to your building and your electrical panel. When the power goes out, these kick on automatically, with just a flicker of lights noticing the switch. Power is now provided to parts or all of the building as sorted out by the secondary panel that the standby generator powers. These units are permanently mounted outside the building and can be very large. These would be useful if your location was a disaster evacuation location, or if you were providing food and shelter for numbers of people. Once you have your plan and your back up power equipment in place, do not forget about the supplies to meet those needs. Extension cords, for example, and power bars, lots of power bars if you are charging phones. Have all of these supplies ready in a plastic tote labelled and easy to find during an emergency.

LOW-COST EMERGENCY POWER OPTIONS (Up to $1,500)

• Purchase portable battery power stations – Provides backup electricity for lights, phones, and small electronics.
• Install emergency lighting with battery backup – Keeps hallways and exits lit during outages.
• Use uninterruptible power supplies (UPS) for AV and office equipment – Prevents data loss and protects electronics during outages.
• Stock battery-powered flashlights and lanterns – Ensures visibility and safety during blackouts.
• Install solar-powered outdoor lighting – Provides light during outages without grid power.
• Develop a basic emergency power plan – Identifies priority systems and outlines backup steps.
• Label essential outlets and circuits – Makes it easy to know what needs backup power.
• Keep a supply of charged backup batteries – Ready-to-use for radios, lights, or other equipment.
• Encourage staff to charge phones during storm warnings – Improves communication when power is lost.
• Test emergency lighting and battery equipment monthly – Ensures reliability when needed.

MODERATE-COST EMERGENCY POWER OPTIONS ($1,000–$3,000)

• Install a manual transfer switch for generator connection – Allows safe and easy generator use during outages.
• Purchase a mid-size portable generator (gas or dual-fuel) – Can power critical systems like refrigerators, lighting, or small HVAC units.
• Add solar panels with a small battery bank – Provides clean, renewable emergency power for critical needs.
• Set up dedicated battery banks for AV and communication equipment – Keeps key systems running during outages.

• Install a smart power management system – Monitors loads and automatically manages backup power distribution.

HIGH-INVESTMENT EMERGENCY POWER OPTIONS (Over $3,000)
• Install a whole-building standby generator with automatic transfer switch – Provides seamless, long-duration power backup for the entire church.
• Invest in a large solar + battery storage system – Supports sustainable energy use and grid independence during emergencies.
• Upgrade the church's electrical panel for emergency power compatibility – Ensures safer integration with generators or solar backup.
• Integrate emergency power with HVAC and life-safety systems – Ensures heating, cooling, and critical systems continue during outages.
• Designate and retrofit one area as an emergency shelter with full backup power – Creates a safe, powered space for congregation or community use.

Renewable Energy

Are there any renewable energy systems in use in the building?	No

ENERGY EFFICIENCY - Renewable energy such as solar panels can be a way to decarbonize the building by lowering the carbon emissions of the electricity coming into the building. Depending on the province you live in, there are varying amount of fossil fuels to create electricity. Installing solar panels can mitigate that external carbon impact, and also provide a symbol for others to see of your commitment to the climate. It is recommended to have discussions with a renewable energy professional. https://renewablesassociation.ca

Air Quality

Has the duct work been cleaned within the past 5-10 years?	No

It is recommended that the ductwork be cleaned every 5-10 years to help improve the air quality of the building and the efficiency of the duct operations. For the most part, volunteers can clean out the debris with a shop vacuum and a long hose as the bulk of the debris field is found in the first few feet. The cold air return portion will be the dirtiest part of the ductwork. For longer runs, or if it hasn't been done in a very long time, you may need a professional duct cleaning company to clean the ductwork.

Does the faith community vacuum with a HEPA filter vacuum?	Don't know

Ensure all vacuuming is carried out with a HEPA filter vacuum for the best air quality results. High Efficiency Particulate Arrestor (HEPA) captures the smallest particles possible, and will improve the air quality of spaces with carpets and rugs measurably. It is also recommended to vacuum cushions and furniture as well.

Is there a scent free policy in place at the faith community?	Don't know

Scent free policy is a policy that asks people to refrain from wearing strong perfumes, colognes and personal care products to the building. This policy is to allow all people, regardless of sensitivities to participate in the religious service. Under the Human Rights Commission people who have chemical sensitivities are recognized as deserving of such conditions. This is an

opportunity to demonstrate inclusiveness and awareness of the toxicity of chemicals, particularly personal care products. There is no reason this could not be explored further. If you are interested in pursuing this important issue, we recommend that you contact your local Public Health unit as to the best way to go about accomplishing this task.

Are paraffin based candles used regularly by the faith community? Yes

Although oil-based candles are used, the resources and recommendations are the same.

Photo 62

Candles are typically made from paraffin, which is a petroleum based carcinogen full of volatile organic compounds and often times the wicks contain lead. Burning these types of items in a building dramatically impacts the air quality in a negative manner. Consider switching to beeswax candles, which can be locally made, or purchased through national suppliers. Electric tea lights can be another easy replacement for candles. By removing the toxic candles and replacing them with earth friendly candles, it is a clear and tangible demonstration showing that even small actions such as switching candles, shows stewardship for all to see.

Are chemical-based cleaning products banned from use in the building? No

Photo 63

Cleaning products are one of the largest impactors of air quality within a building. Chemicals, typically petroleum-based are highly volatile, meaning they are unstable and disperse through the air quickly. These toxic ingredients are known carcinogens (cancer causing chemicals), reproductive disruptors, neurological agents (impacting brain functions), endocrine disruptors (the endocrine system regulates hormone production), and hormone mimickers (petroleum based estrogen mimickers are common ingredients in many cleaners and plastics). These cleaning products are often times not even making spaces cleaner, but in fact more toxic for occupants. These harsh chemicals are not necessary to create a safe and clean building. It is recommended to switch to more natural-based cleaning products and the chemical cleaning products should be collected and taken to hazardous waste so that they can be properly disposed of in a safe manner. If chemical based cleaners must be used, ensure that they are an environmentally friendly commercial cleaning product, as that provides paperwork showing its safe use, and ingredients. Cleaning products stored in a safe location away from kitchens and air handler rooms, and any other areas where congregation or renters of the facility are in close contact with them (i.e. closets next to day care classrooms). Discuss healthy, natural-based cleaning options with your local health unit, to see what green cleaning options are permitted under commercial building health codes.

Is smoking permitted on the faith communities grounds? Don't know

Smoking tobacco is known to be a health concern for many years for those who smoke. Second

hand smoke is also a known health risk. Studies are now showing that “third hand smoke” or the smoke that has attached itself to clothing and furnishings can and does impact those around smokers. This is especially true for those in the close proximity to a smoker, such as family, in cars, or sitting beside someone. This type of concern is both a health and an overall air quality concern. It is recommended that the Faith Community consider that there be no smoking on the property as a way of showing their concern for the congregation’s health and well-being, of both the smokers, and those of the non-smokers. It may be an opportunity as a community to help those who smoke to quit, and to ask them to consider not smoking in the clothes worn to the Church, so as to not impact other community member’s health.

Engagement and Action

Are the consumption of energy and water tracked along with the costs of utilities?	Don't know

ENERGY EFFICIENCY - The understanding and tracking of the energy and water consumption of a building is a key component to making changes and reducing operational costs and the environmental impact. Tracking monthly and yearly, both in dollars and in units of consumption, helps to show where and when the largest amounts of energy are used, and can help determine why. Only through this monitoring can any building hope to see change and realize the benefits of their efficiency efforts. It is recommended that tracking spreadsheets be created and the information filled out. It is recommended that if older records are still around that they are collected and the data entered, at least a year back, and ideally two or three to start the baseline. From there, once efficiency activities are engaged, you should ideally start to see the fruit of those labours show up in the sheets. Sustainability is used with respect to the environment a great deal. It is also used in financial circles. Faith communities need to see both as important, and by looking at the impacts and consumption, we can achieve both with ease.

Does the Faith Community have a Sustainability or Stewardship committee?	Yes

How does the Faith Community engage with the greater community on climate and sustainability, as well as community betterment?

This part is the engagement of the community at large, beyond the walls of the faith community and some of the activities that go on within the building outside of the services. Consider the various ways that your faith community can engage and work with other partners in the greater community to strengthen your connections to your local community, to create greater opportunities and successes for mission work, to be that community anchor, relevant in the 21st century. This can be achieved in a variety of ways. This is also important that you help identify yourselves from other organizations as one that cares for the community and the environment.

Ideas and Suggestions:

- With many people concerned about the environment in this day and age, they are looking for guidance and clarification on how to resolve the issues that they have. The Faith Community can be a place to find those answers, at least some of them. By demonstrating and practicing stewardship and Creation care in the Faith Community and beyond, it shows to the greater community that this Faith Community is in fact engaged beyond its own walls. This engagement can be reflected in the rental of the space to meet the social needs of the community. Groups like mother and child play groups, garden club meetings, environmental meetings, and other environmental and socially beneficial needs of the community.

-By tracking operational costs as mentioned previously, it is feasible to determine what renting the hall for an hour actually costs the building. By knowing this, realistic costs can be kept low, especially for groups of limited funds, but by opening the space up to the community, it helps demonstrate the connectedness that the Faith Community has with the community and creation.
- Consider lease agreements as a means to discuss environmental engagement with the tenants of the building, with respect to recycling, composting, dishes, energy use, or using healthier cleaning products, for example.
- Consider engaging the congregation members to help promote environmental knowledge and awareness by running classes, such as preserving food, drying herbs, composting, or by making wooden toys for the nursery school, making “turn off the lights” signs, or promotional signs letting people know what environmental successes the Faith Community has already done.
-Consider the local high school students require 40 hours of volunteer time to graduate.
-Consider afterschool cooking programs like Come Cook with Me Program
-Consider interacting more regularly with other congregations in the area to help booster activities and promotions, networking and sharing of resources.
-Consider reaching out to other community members, clubs, associations to see how they could help work with you to create something all could benefit from. Master Gardeners, bridge clubs, wood working classes, etc.
-Consider creating hand made toys for the nursery and the back of the sanctuary for new members.
-Consider running classes in summer on how to pickle, or make jams, or other interesting “local and rural” interest classes that the rich visitors might pay to sit in for an hour. Great marketing and interaction tool with zero overhead.
-Use the main sign for better marketing, including website and contact information
-Create standardized signage once inside the building for new people to learn about the congregation, your faith tradition, events happening here, and events you are supporting. These are important way finders when new people, for whatever reason come in. Also promote the people renting your space. This way, anyone who comes in can learn what is going on, including women’s and men’s groups, mom’s and tots groups, etc.
-Ensure contact information is present on signs, such as website, phone, email, Facebook, or whatever means you are hoping to connect with younger people.
-Consider strengthening your place in the community with the locals by partnering with the other Faith Communities for special services such as Remembrance Day, (if not already) and to run summer camps together, or cooking classes for kids, or non-denominational workshops, community lectures, community gardens, etc.
-Faith Communities have always been community hubs. Consider what value you could offer with those who are coming to the space? Social services, travelling health services, library services, informal classes or guest lecturers? What would increase the draw and value for people to keep coming back?
-The HALO Project is another partner who has quantified the economic value a faith community has on the greater community around it through numerous parameters. See how your faith community economically has a positive impact on your greater community. Please use this tool when talking to government services to gain your support. https://www.haloproject.ca/calculator

Media summary

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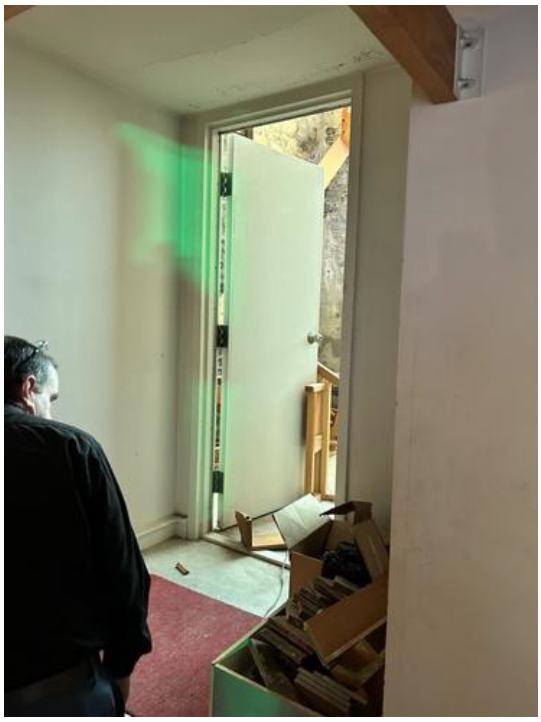

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