## 2019-2022 OTTAWA FAITH-BUILDING ENERGY BENCHMARKING PROGRAM

### CASE STUDIES





TD Friends of the Environment Foundation



Ontario Trillium Foundation





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# INTRODUCTION



The **Energy Benchmarking Program** (EBP) is a free program that helps faith communities to take practical and cost-effective climate action by raising awareness and understanding their buildings' energy use and emissions.

The EBP uses the Energy Star Portfolio Manager, an energy management tool, to display energy costs & usage. It shows a baseline energy use and identify areas for improvement over a 3 year period. Every year, participants receive an annual report detailing their energy consumption and changes over time.

These case studies tell the stories of 10 participants.

**Greening Sacred Spaces** (GSS) Ottawa is a practical program run by Faith & The Common Good (FCG) that 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. Once you can measure measure something, when you make a you make a change, you can see what the impact is.

## ASSUNNAH MUSLIMS ASSOCIATION COMMUNITY CENTRE



At the heart of every organisation are the people and volunteers who make it up. Jehad Raslan, the operations manager of Ottawa's Assunnah Muslims Association (AMA) Community Centre, leads many of its initiatives to make its vibrant community more sustainable. The AMA Community Centre's commitment to environmental stewardship is not only reflected in their involvement in the Energy Benchmarking Program, but also in their hosting of events for their youth on becoming climate leaders. This forward-thinking outlook is one of the AMA community's key values, in addition to resilience and adaptability. Despite the pandemic severely restricting their activities, they have found ingenious ways to deliver their services, hosted a COVID-19 testing centre, and currently host a vaccination clinic three days a week.

To the operations team at the AMA Community Centre, the zero-cost nature of the Energy Benchmarking Program was especially

### Assunnah Muslims Association **Community Centre**

attractive. Even before registering for the Energy Benchmarking Program, the AMA Community Centre had always been on the lookout for grants and other opportunities to improve their building, including a solar lighting incentive. Fortunately, at the time the AMA Community's Centre already had eco-friendly LED lights installed inside and outside their building. The incentive motivated them to switch some of their exterior lights to solar lights. Not only was this an environmentally friendly step, but as the operations manager stressed it was "only logical to lower your costs and improve comfort."

Thinking of comfort and staying one step ahead in maintaining an extensive 10,000 sq ft property is part of the philosophy behind the operations of the AMA Community Centre. Their physical space brings their community together through daily prayers, weddings, and lecture series. The AMA



Community Centre boasts spacious prayer rooms, a community hall, a childcare room, and a kitchenette. Additionally, their virtual spaces have allowed members of their community to connect through fitness classes, classical Arabic lessons, and recently an online field trip to learn about Indigenous peoples across Canada.



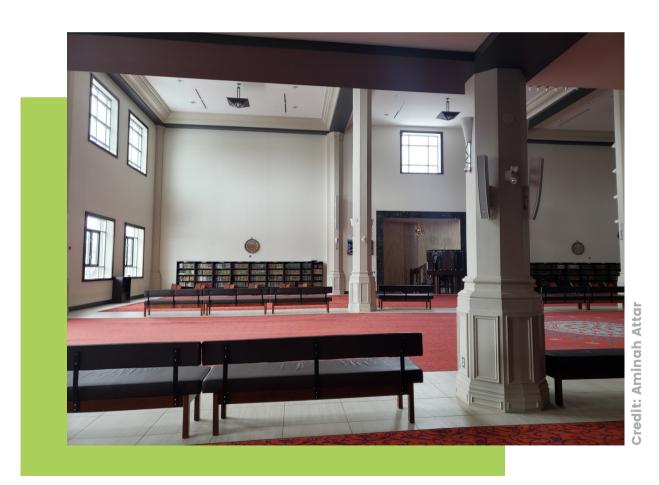
Community and environmental care is an important part of Islam, from verses in the Quran praising natural creation to sayings of the Prophet Muhammad, Peace and Blessings be Upon Him, that forbid the cutting of a tree. In conversation

### Assunnah Muslims Association Community Centre

about the program and the initiatives of the AMA Community Centre, Jehad shared that "protecting the environment is just a part of our faith." These values and gratitude for the opportunities they have had contribute to the culture at the AMA Community Centre. For example, they hosted a program, "Be Part of the Climate Solution" with the social enterprise World Changing Kids for the children and youth in their community to encourage being leaders for a more environmentally sustainable world.

As the next step in the EBP, the AMA Centre will

take part in GSS Ottawa's Audit to Action Program Pilot. They will undergo a virtual audit and commit to making one operational change to make their facilities more environmentally sustainable. Building on what the Centre has learned from their reports, this program will give the community an even better understanding of areas where they are thriving and where they are falling short, as well as concrete measures to improve their sustainability. Improving building operations can certainly be a hassle, but as the Centre has learned, they definitely do not need to tackle it alone.



## CARLETON MEMORIAL UNITED CHURCH



Located by the Rideau River at Hog's Back, Carleton Memorial United Church is a vibrant community that strives to continually grow in their approach to sustainability, which Merry Lee Frith, longtime congregant and volunteer, defines as "meeting needs in a way that doesn't compromise future users." This philosophy, and a chance drop-in to the wrong Zoom meeting, led Carleton Memorial to Greening Sacred Spaces Ottawa's Energy Benchmarking Program, which they enthusiastically joined in 2021. As energy efficiency and reducing one's carbon footprint are becoming important issues in their community, they see the program as a way to improve their building space.

With the help of the EBP, the Carleton Memorial council is becoming more aware of their building's environmental impact. In their 2020 report, they noticed a large spike in their natural gas usage in February, nearly double what it had been the same month three years prior, despite rather average temperatures.

### **Carleton Memorial United Church**

While they could not identify the source of this spike as the building was unoccupied at the time, they have become more aware of how important it is to consistently monitor the building and ensure proper management, even when the building is not in use. The council intends to share their EBP reports with the daycare that operates in the building as well as with the congregation at large; they cited the accessible format of the reports, which offer relatable graphic depictions of the energy used, as extremely helpful.

They have also started a number of retrofits projects to improve the efficiency of their systems. Recently, they engaged a property manager to assist with repairs and upgrades, with the goal of making the church greener and more efficient. Having discovered Save On Energy's Small Business Lighting Program through GSS Ottawa, they've applied for funding to fully switch to LEDs, a small change that will ultimately reduce the building's environmental impact and save the community money. Similarly, the church has invested in replacing doors and windows to improve the air sealing of the building, helping to prevent passive heat loss through cracks.

They hope to use funds from the Faithful Footprints program, a joint effort by the United Church of Canada and Faith & the Common Good, which provides \$2 in matching funds for every \$1 a United Church puts towards a sustainable retrofit — part of a UCC effort to move towards a 25% reduction of greenhouse gas emissions by 2030. To help reach this 2030 goal, Carleton Memorial would also like to one day install solar panels, taking advantage of their large flat roof to contribute to a clean energy grid.

In addition to their efforts towards energy efficiency, Carleton Memorial has actively pursued sustainability through waste reduction and community garden programs. Their Clothing Cupboard is a depot where anyone can come and obtain free clothing items, which in addition to serving those in need in their community, also reduces clothing waste and the emissions required to create and transport new clothing. They also limit waste at events, where they make efforts to only use reusable or compostable products, and collect batteries to keep toxic metals from the soil.



### **Carleton Memorial United Church**

Last spring, they established six community garden beds, using a grant from the United Church and taking advantage of their large parking lot — a move that also represents sustainability in the conversion of an underutilized space. Their native pollinator food gardens further serve the Debra Dynes Family House, a local food bank, and provide fresh herbs for the children of the daycare. Next year, they intend to add even more beds to this space. Carleton Memorial United Church is a faith community that is constantly learning, never remaining static in their approach to sustainability, but actively pursuing new knowledge and projects. With the Energy Benchmarking Program, they will have the data and awareness to go even further with these efforts to create a more sustainable future for their community.



**Credit: Merry Lee Frith** 

## CHINMAYA MISSION OTTAWA



Credit: Hannah Rockburn

Chinmaya Mission Ottawa is a close-knit community with 200 members that seek to become positive contributors to society through observing peace, happiness, and Vedanta, a spiritual philosophy affirming the divinity of all beings. Before the COVID-19 pandemic, the community gathered every Sunday at their building on Ogilvie Road to reflect and offer prayer. For Pooja, devotional worship, two or three families provided Prasad, a devotional offering, for their deity Maa Saraswati, the Hindu goddess of knowledge, wisdom, and creativity.

The pandemic has had several impacts on the community. Restricted operations meant that

often for Pooja on Sundays or host over a 100 youth for evening classes, resulting in a decline in donations. Further, they were unable to host their lecture series in which they invited speakers from various parts of the world — a major source of revenue. While facing these financial challenges, the cost of their building operations were the same as before or increasing.

On the lookout for support in their building operations, a friend of one of the management team members recommended them to look into Greening Sacred Spaces Ottawa. GSS's free Energy Benchmarking Program was especially attractive, since funding has always been a hassle for their faith community which is 100% donor based. They received their first Energy Benchmarking report last year and met with the team to go over the findings of the report and discuss next steps. While their electricity and natural gas usage both decreased due to restricted operations during the pandemic, this report was a necessary first step in helping visualize that there was room to become much more efficient.

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The meeting also gave the GSS team a better understanding of the many struggles the Chinmaya Mission was facing, allowing them to provide volunteers with the contact information of contractors and a copy of Faith & the Common Good's Do-It-Yourself Energy Audit. Although many faith communities know of the shortfalling of their building operations, an energy audit is needed to wholly reflect all the improvements that are needed and to prioritize the most

To Anil Parekh, a lead volunteer at Chinmaya Mission, environmental sustainability for his community means reliability, peace of mind, and comfort. Unfortunately, this has not always been the case for the faith community since they purchased their building in 2015. The building, which originally contained offices, had been constructed quickly and with little thought about efficient heating and proper insulation, leaving the Chinmaya Mission with "concrete slabs and a cold roof." The glass walls that provide much lighting also give a path for the heat to easily escape during the winter. Because of engineering expertise among their volunteers, they were able to do some fixes themselves, including fixing a leaky toilet, getting sealants on their doors and film on their windows, and replacing their water



### **Chinmaya Mission Ottawa**

tank. However, there remain important projects that will require a skill level beyond that of the community; as one of their management team members remarked, "expertise is different for something complicated."

Of their many values, one particularly speaks to the importance of sustainability: "giving more than we take" and being a "net benefit to society." For example, the families organizing Pooja are also responsible for collecting garbage, recycling, and composting to minimize waste and thus their impact. This value also extends to activities beyond the environment, such as their "Warm Outside from Inside" campaign. The community collected hats, gloves, socks, hand warmers, and safety kits to make 180 individual sets, all of which were donated to a local nonprofit organization.

It is important for community members to be able to practice their spirituality and values in a comfortable space. While the Energy Benchmarking Program and other free resources from GSS have provided valuable help to the Chinmaya Mission, it's the continued work of this vibrant community that will create its brighter future.



## **GLEBE ST JAMES UNITED CHURCH**



"Reaching — into faith and out to others": that's the motto of Glebe St. James United Church. In "reaching out," this urban congregation serves their community and actively tackles current issues, from residential schools and white privilege to LGBTQ2S+ rights and, of course, the environment. Glebe St. James brings these issues to the forefront in their community, ensuring the voices of the marginalised are heard and amplified, and that their support is visible in the neighbourhood. In their rainbow pride front steps, sacred medicine garden, pollinator waystation, and Covid memorial ribbon tree, Glebe St. James shows their community the values they reach for.

These values include sustainability, which according to Rev. Teresa Burnett-Cole, "is about the responsibility we have to be interrelated with Creation in a good way." For Rev. Burnett-Cole, being a good steward involves "taking good care of the resources we've been given — and for us, that's primarily the building." This commitment to the environmental sustainability of their building is in line with the United Church of Canada's target of reducing its greenhouse gas emissions by 25% by 2030, and was their motivation for joining the Energy Benchmarking Program, after attending a Greening Sacred Spaces Ottawa event.

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### **Glebe St James United Church**

With the help of this program, Glebe St. James is gaining an understanding of the building's impact and learning of ways to reduce its emissions, giving them concrete data with which to move forward on future projects. Having been built in 1905, much of the work on the building has been triaging, but they are excited to transition into a more proactive role as they identify areas where their energy use can be improved.

Already, the church has taken small steps towards insulating the hot water pipes in their basement. During 2021, they switched the lighting in Fraser Hall over to energy-efficient LEDs, a change that has not only quickly paid for itself but also vastly improves the brightness in the room. They also plan to install a new programmable thermostat for their sanctuary specifically. Knowing that this space is unused for three consecutive days per week, they will program a separate thermostat for the area to set back the temperature on those days when it's not in use. They are excited to see what impact these projects will have on their 2022 report.

Further on, they hope to pursue larger projects to improve their energy efficiency. These include exploring ways to improve the insulation around their stained glass windows and installing solar panels on the roof of their building. They know that solar panels will be feasible, but are following Faith & the Common Good's energy pyramid to ensure they first cover the fixes they can make easily today before moving onto more costly projects that will take longer to implement and repay. Sustainability is about the responsibility we have to be interrelated with Creation in a good way.

> Reverend Teresa Burnett-Cole, Coordinating Minister

Beyond the Energy Benchmarking Program, Glebe St. James has undertaken truly inspirational greening work to tackle a number of issues. Walking outside their building, their multiple garden spaces show their dedication not only to environmental work but also to every member of the community. One space has been given to the Montessori school that uses the basement and upper levels of the office building during the week. This garden is located in a large window well and is visible from the basement — a creative use of space that improves the view through the basement windows. Their sacred medicine garden containing sage, sweetgrass, ornamental tobacco, and cedar is marked by a large dreamcatcher with

### **Glebe St James United Church**

215 orange shirts to bring awareness to the unmarked graves of children found at residential school sites across Canada. Their third garden features a monarch butterfly waystation, complete with milkweed and flowering plants to help conserve this iconic species. Finally, a large vegetable garden serves Centre 507, a local food bank, contributing to their daily soups.

The ways that Glebe St. James "reaches out" to their community, whether by spreading awareness of important topics, by donating to neighbourhood organisations, or by reducing their building's impact on the surrounding earth — are intimately connected to how the church "reaches in" to their faith. "Within Christianity, there's a huge emphasis on Creation," says Rev. Burnett-Cole, discussing the autumnal Season of Creation celebrated by the United Church of Canada — a time that emphasises the theological importance of caring for the Earth. In their greening efforts, then, Glebe St. James is a great example of a community practising their faith by taking energy-efficient action within their church.



## **GRACE PRESBYTERIAN CHURCH**



Founded in 1981, Grace Presbyterian is a friendly community located in Orleans. Most guests that enter the space, which includes a library, youth rooms, a kitchen in addition to their sanctuary, are welcomed by their fluffy Bichon Frise, Pearl. With a mission to "encourage new life, growth, healing and service among congregants before Jesus Christ", Grace Presbyterian values its relationship to the larger community. Before the pandemic, the congregation would come together to organize various events of giving. Many congregants volunteered with the Open Table program at Carleton University that provided food made by the congregation for students around exam time twice each year. They also held an annual fundraiser, Gracefest, to raise funds for Habitat for Humanity through a fun run and bring their neighbors and wider community members together through a free 'fest' with BBQ lunch, bouncy castle, live music, face-painting, and activities for kids. During the pandemic, to continue the spirit of giving, members of the congregation have prepared free dinners for the wider community and organized virtual runs to continue their fundraising efforts for the community.

### **Grace Presbyterian Church**

Beyond their service to the community, Grace Presbyterian frequently takes steps to become better stewards of the planet — including joining the Energy Benchmarking Program, which they first heard about through an email from GSS Ottawa. Their first EB report provided them with data that confirmed their understanding of their annual energy usage and costs. From 2019 to 2020, their energy usage fell a little and so did their costs: they saved around \$1000. The EB report prompted the team at Grace Presbyterian to reflect on what retrofitting projects they would like to complete, plan for them in the long-term, and how they can become more environmentally sustainable.

Their church administrator and owner of Pearl, Arlene Lamadeleine, shared one of the bigger



challenges they were facing: "how do you manage the building with half the people?" While many congregants attended their services virtually, their in-person attendance declined to 40 members from 100 members due to the COVID-19 pandemic. The pandemic brought on many challenges including less income than what they had budgeted for. However, restricted operations decreased their expenses which allowed them to end 2021 with a surplus; "that's pretty awesome," shared Arlene.

Other issues lie in the building itself. While the property is large and contains amenities such as a basketball court and a play structure, the church building was built rather quickly and so today the congregation faces bills from weakening or malfunctioning parts of the structure. Throughout the pandemic alone, their gas pipes have broken twice due to ice. They have recently repaired their roof, for which they attained an interest-free loan from the Presbyterian Church in Canada. Finally, they have four aging rooftop HVAC units and four mini water heaters spread out over the building.

In addition to concerns about the environment, Grace Presbyterian's motivations for energy efficiency are financial: they're very aware that a more sustainable building would also be a less costly one. However, planning for changes that will save money long-term isn't easy when there are many competing priorities posed by the COVID-19 pandemic. In order to mitigate some of these issues, Grace Presbyterian is trying to find

### **Grace Presbyterian Church**

ways to fundraise and update the building, including participating in GSS Ottawa's Audit to Action pilot program. This new program, which is part of the larger EBP, offers faith communities a free virtual audit of their building, on the condition that the communities commit to at least one of the recommendations from the audit. Over the next two years, the GSS will offer support in getting quotes, grants, or fundraising to help the community fulfill the recommendations. This program aims to bridge the gap between faith communities' knowledge of what improvements they need and actually implementing those changes.

As the congregation continues their spirit of giving, they look forward to continuing the conversation about becoming more environmentally sustainable through their next energy benchmarking report, which will compare their energy use to that of other Ottawa faith communities.



## KANATA UNITED CHURCH



"Caring, Seeking, Inclusion, and Community": those are the key values on which Kanata United Church prides itself. It is in this spirit that members of the congregation actively seek to better their physical spaces and operations. Greening permeates many aspects of Kanata United, from their community garden to how they operate their church. Al Quirt, a lead volunteer and a member of the congregation for over 30 years, took an interest in Greening Sacred Spaces Ottawa when the organisation rented their facilities to host a presentation on greening. This led Al to join the GSS Ottawa newsletter, and soon after Al signed Kanata United up for the Energy Benchmarking Program in 2019.

After receiving the Energy Benchmarking report in 2020, Al found it relayed two important messages. On one hand, the data displayed their energy use steadily falling over the last 3 years. The pandemic and lessening of operations of the church had led to a decline of direct emissions from 2.20 tonnes of CO2e in 2019 to 1.90 tonnes of CO2e in 2020 resulting in about \$1800 in savings. However, this

### Kanata United Church

change was still far less than expected, drawing a picture of the gaps in their operations. Clearly, Kanata United still had work to do to reduce their energy consumption and now he had the data to explain to other committee members why certain improvements were needed.

Many faith communities face unique challenges of retrofitting their spaces due to the structure and age of their buildings; Kanata United is no different. In the 1980s, the community decided to build a perfectly accessible church for wheelchair users by designing everything to be on one level. With no basement and budgetary constraints, the community had to cut back on their insulation and opted to put in place baseboard electric heating. Not having a basement means that today, they are unable to invest in certain energy technologies as they do not have the space to host them. However, while there are certain changes that are challenging for Kanata United to complete, there are others that just make sense. For example, they put in low-flush toilets and have been gradually switching their fluorescent lighting to LED, a much more sustainable and energy efficient alternative.

In addition to physical constraints, Kanata has also reckoned with financial obstacles to greening: they completed a building audit over 10 years ago but with a limited budget, many of the recommendations from then have been left unimplemented. GSS Ottawa held a follow-up meeting after sending the first report to explore different avenues of support for Kanata United. GSS Ottawa provided contractor and grant "The EBP has been on the whole very positive: we know we are being a little bit kinder to the environment."

GSS Ottawa provided contractor and grant information, specifically highlighting the Faithful Footprints program, a unique program offered by the United Church of Canada in conjunction with Faith & the Common Good nationally to help their churches reduce their environmental impact, and in particular save on energy costs.

Their greening initiatives include their community garden and their annual book sale where they save thousands of books from the landfill while supporting local charities such as the Kanata Food Bank and Matthew House Furniture Bank. Beyond the great work the community has done, there are many more things Kanata United hopes to accomplish. They want to explore implementing solar panels, ground source heat

### Kanata United Church

pumps, change the rest of their lighting to LED, and install theatrical LED lights for the theatre productions that the youth in their community hold.

Kanata United is a great example of how the Energy Benchmarking Program can bring more meaning to retrofits needed for the congregation and can back the fundraising initiatives for these projects with necessary data. Beyond the hard numbers of retrofits and operations, the program has fostered a sense of optimism for Al, who says that the EBP "has been on the whole very positive: we know we are being a little bit kinder to the environment."



**Credit: Hannah Rockburn** 

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# ΟΤΤΑΨΑ ΒΑΗΑ΄Ί CENTRE



**Credit: Aminah Atta** 

Social issues and social justice are the subject of many discussions among members of the Ottawa Bahá'í Community. The Community comes together in many ways to encourage dialogue and action towards a more equitable and compassionate world - including the environmental crisis. They have an environment group that gathers virtually to reflect on texts and their roles as Baha'is in working towards a more environmentally sustainable world. The group hosts a monthly online forum. Environmental Cafe 613. consisting of prayer, music, information and discussion on nature, the environment, justice, and the unity of humanity.

When the management team at the Baha'i Centre signed up for the Energy Benchmarking Program, they weren't sure how much the reports could tell them that they didn't already know. However, after receiving their first comparative report in 2021, they were surprised that the Centre was falling short in building efficiency and environmental sustainability in comparison to other faith buildings in the program. For Bernard Benoit, one of the operations team members, the results were about more than just how well their building worked. He realised that "you can have everything here heated with natural gas, you can be very

### Ottawa Bahá'í Centre

efficient, but still be burning fossil fuels." The findings of this report motivated the team to reflect on their building operations and the steps they could take to not only become more energy efficient, but also more environmentally sustainable.

Among their first actions was changing all their compact fluorescent lighting to LED lighting, including on their exterior sign. Beyond being an eco-friendly lighting alternative, this altered the ambiance of their spaces by making them significantly brighter and brought down lighting costs. Another immediate plan was to replace their gas water-heater tank, with a smaller electric tank, but they have actually gone a step further and replaced it with a tankless electric water-heating system. The EB report also prompted them to make long-term plans for the gradual updates that would make their building operations more environmentally sustainable. They hope to replace their HVAC system, and possibly to install solar panels in the future. Further, guided by the importance of being leaders in making the right decisions to protect 'our common home', the Baha'i Centre committed to exploring all options that could decrease the carbon footprint of their building over the next few years.

Despite aspirations to make these huge changes, financing this transition remains a large barrier. Like many faith communities, the Ottawa Baha'i Centre often relies on government grants and incentives to make much needed improvements to You can have everything here heated with natural gas, you can be very efficient, but still be burning fossil fuels.

Bernard Benoit, operations team member

their physical operations. Until recently, the Centre had been waiting on grants to be offered by the government to reduce the cost for their rooftop HVAC units. However, before a grant could come in, their rooftop HVAC unit broke down. This accelerated their investigation about electric heat pumps, and a comparison of longterm costs, while taking into consideration the effect on the environment as one of the strong determining factors in their process of decisionmaking. Despite it being an unexpected expense, the Centre's management team was glad that they had already begun planning for a replacement.

### Ottawa Bahá'í Centre

Forward planning and smoothly running operations allow for many Baha'is to make use of the centre. Prior to Covid-19, the centre's physical spaces were used for a variety of community activities, like devotional gatherings, study circles for sacred texts reading, Fireside discussions, and many activities for youth and children - now all conducted virtually. The main level consists of an office and an open space decorated with artwork that was produced by Baha'i artists, and photographs documenting the history of the Baha'i Faith. The basement consists of a seating area, another open space, and a children's room. The children's room is decorated by the "Green Rule" poster, which demonstrates the timeless traditions of ecological stewardship in many faiths and philosophies.

These actions and concern for humanity as a whole is part of the philosophy that guides the Ottawa Baha'i community. As Heather Harvey, a member of the environmental group, explained, "the world is becoming more interconnected. Humans are ready for unity: we are already one global community, and we can see the [ecological] crisis we have caused as we are not in unity."

The Ottawa Baha'i Community is filled with members passionate about understanding social issues, leading discourse, and taking action. From children doing neighbourhood clean-ups to their recently launched Environmental Cafe 613 to their participation in the EBP to their commitment to decrease their carbon footprint, the community strives to lead by example in this transition to an environmentally sustainable world.



Credit: Manon Veselovsky

## SRI SATHYA SAI BABA CENTRE OF OTTAWA-CARLETON



The Sri Sathya Sai Baba Centre of Ottawa-Carleton community is rooted in loving service not only to its own local community, but also to communities across the world. The broader Sri Sathya Sai International Organisation's many centres unite their communities under the teachings of their founder, Sri Sathya Sai Baba, who promoted the Five Human Values: non-violence, truth, right conduct, peace, and love. Sai Baba's writings teach that environmental care is central to human life and fulfilment, as these can only be achieved "when ecological balance is maintained". Consequently, one of their wings is dedicated to Envirocare, providing education about environmental issues, supporting nature clean up programs, and encouraging sustainable energy practices.

Prasanna Sivapiragasam, National Envirocare Coodinator, has long been involved with Greening Sacred Spaces Ottawa, and currently

### Sri Sathya Sai Baba Centre of Ottawa-Carleton

serves as a member of the board. He sees sustainability as an important aspect of his faith, and has welcomed GSS Ottawa's opportunities "to meet people, talking about the environment as well as spirituality and religion." As such, he was among the first to hear of the Energy Benchmarking Program and immediately signed up the Ottawa-Carleton Sai Centre. With a simple intake process and no cost to the Centre, the EBP was an easy sell to his community's board.

While COVID has not allowed EBP reports to be shared with the broader community, it has already made their property managers more aware of how small changes can significantly

> The less money to be spent on heating and cooling, the more money to be spent on programs and service activities.

> > Prasanna Sivapiragasam, National Envirocare Coodinator

affect their energy use, and of the importance of closely monitoring energy use. For example, in reviewing a report, they noticed a spike in their electricity use that started in the winter and continued into the spring. Subsequently walking through their building, they discovered that some electric baseboard heaters had been turned up all the way and left on. This one small change that had a significant impact on their energy bills has highlighted the need to instruct the Centre's members on proper building management practices. Prasanna has also been pleased to see that installing remotely programmable smart thermostats has lowered their energy bill, particularly because it allows them to control heating remotely and ensure settings are not permanently changed by occasional users.

Prasanna hopes that the EBP will help inform future sustainable energy projects at the Sai Centre; for example, analyzing how much energy it takes to heat the Centre every winter might help them decide whether a heat pump makes sense for their current building. It's also made Prasanna wonder whether they can switch their hot water tanks to on-demand water heaters, given how much energy the former uses. Additionally, benchmarking will help them understand how effective any future projects are. "Once you can measure something," said Prasanna, "when you make a change, you can see what the impact is."

The Sai Centre's big goals include electric vehicle charging stations, solar panels, and encouraging

### Sri Sathya Sai Baba Centre of Ottawa-Carleton

the national organisation to set sustainability goals for the national Sai Baba community. An important message, for Prasanna, are the financial benefits of energy reduction: when there's "less money to be spent on heating and cooling," there will be "more money to be spent on programs and service activities." With this tack, Prasanna truly believes their community and Canada can achieve net-zero emissions and waste and aggressively tackle the climate crisis.

In addition to energy work, the Centre has been striving to reduce their impact on the environment through waste reduction and encouraging their community members to live sustainable lives. Their waste reduction efforts have thus far focused on developing a composting system. While success on this has varied, they are have thus far focused on developing a composting system. While success on this has varied, they are pursuing ways to improve their composting program to ensure any users of the space can easily use their system with minimal monitoring. They are looking into The Box of Life, a vermicomposting system that uses worms to digest food waste. This system reduces odours and requires minimal monitoring, as the volume of the digested food waste is much less than the undigested waste.

With their ambitious goals, enthusiastic volunteers, and community support, the Sai Centre is poised to become a story of greening success — a story that will undoubtedly be told in their gradually improving Energy Benchmarking reports.



Credit: Prasanna Sivapiragasam

## ST BASIL'S CATHOLIC CHURCH



Located just off the Queensway in Carlingwood, St. Basil's Catholic Church was established in the 1950s to meet the needs of an expanding suburban population, and quickly gained a reputation for social activism. 60 years later, the parish still actively seeks to care for their common home. "As a church, it's our obligation," said Qing Yang, a parish volunteer, citing Pope Francis's proenvironment views and particularly how climate will affect the poor most of all. "The building should serve the community, not only the parishioners," she added. When St. Basil's enrolled in the Energy Benchmarking Program through the Ottawa Diocese in 2019, they had already been interested in environmental sustainability for a long time. Central to their approach to greening is opening up their church as a community hub for groups from across Ottawa. With buildings representing 49% of Ottawa's greenhouse gas emissions, building efficiency is paramount to reducing our city's carbon footprint and tackling the climate crisis. By maximizing their building's use and

### **St Basil's Catholic Church**

reducing the need for additional community spaces, St. Basil's is taking important steps to creating a sustainable neighbourhood.

Beyond this, the parish is also seeking to reduce the carbon footprint of their church building itself through energy retrofits, spearheaded by their parish Green Team, established in 2016. Thus far, their approach involves choosing the most environmentally friendly option whenever a renovation is required. When their church tower's facade was deteriorating, they researched the options available to replace the wood siding and went with a recycled siding material instead of new wood. This option was four times the cost of the new wood material, but was the environmentally responsible choice.

> The building should serve the community, not only the parishioners.

Qing Yang, parish volunteer



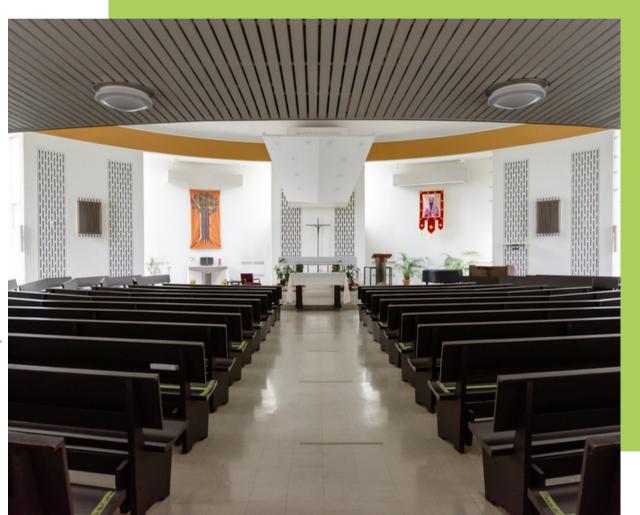
Similarly, St Basil's replaced its basement windows with energy efficient models, a project that was brought on due to poor water sealing. They replaced the old boiler with an energy efficient new boiler, significantly reducing their natural gas consumption: the annual gas costs have been decreasing from \$12.2K to as low as \$7K. They also upgraded their electrical system with energy efficiency products and, last spring, added extra insulation in the roof to reduce heat loss.

On top of energy retrofits, St. Basil's has and continues to pursue greening through gardening and the use of the parish's greenspace. Their extensive garden space is not only a sustainable use of their property, but it also provides a place for spiritual reflection with their accompanying paths and benches. Within their gardens, they

### **St Basil's Catholic Church**

have also established a number of flowering plants to supply pollinator insects with food, helping to recover declining pollinator populations. St. Basil's is continually looking for ways to optimize and expand this garden space to utilize their property efficiently. In November of 2021, they worked with the City of Ottawa to plant trees on their underutilized lawn space, further transforming their greenspace into a healthier and more diverse habitat.

St. Basil's greening efforts sit at the intersection of social justice and environmental sustainability, showing a true commitment to reducing their impact on the earth while also taking care of their community. Greening Sacred Spaces Ottawa is excited to journey with their community as they pursue eco-friendly projects, and looks forward to seeing how the Energy Benchmarking Program reports demonstrate the impact of their energy retrofits on their carbon footprint.



**Credit: Manon Veselovsky** 

## **ST THOMAS THE APOSTLE ANGLICAN CHURCH**



Nestled in the heart of Alta Vista, St. Thomas the Apostle Anglican Church is a faith community established in 1957 and committed to caring for their neighbourhood. They strongly value stewardship, which Derwyn Sangster, chair of the Stewardship Committee, defines as "serving the community the best we can and using all our resources, including our property wisely". Wise property management was central in their choice to join the Energy Benchmarking Program in 2019 — "a no-brainer," according to Derwyn, since they could share their energy tracking work with Greening Sacred Spaces Ottawa. In reviewing their first EBP report, St. Thomas noted that there was a significant increase in their building's energy use from the first to second year, and this jump did not revert in subsequent years, despite closures

### St Thomas the Apostle Anglican Church

during the COVID-19 pandemic. After an analysis of their records, church representatives observed that the initial jump coincided with the start of their year-round nursery school program, and that renovations conducted during their building's closure may have offset any energy reductions. While the increase in energy consumption from their nursery school is expected, they have begun looking deeper into how building management could be adjusted to reduce the school's impact.

St. Thomas' benchmarking report findings have also motivated their Stewardship Committee to revisit their community's Green Audit, which Faith & the Common Good conducted in 2013. Because a number of the recommendations from that audit

> We're an older parish, but a parish that tries to that tries to adifference in the difference in the community.

have not yet been completed, they hope to implement the low-to-no-cost fixes that it identified, such as re-sealing around windows and doors. Since the audit, they have commissioned a building condition assessment by an engineering company, which has produced a comprehensive 30-year schedule for carrying out renovation and repair work on the building. Derwyn believes that their EBP reports, which identified St. Thomas as having relatively high energy consumption relative to other worship spaces of its size, may provide motivation to include energy issues as part of carrying out recommended repairs or renovations. The EBP is a "really compelling story," Derwyn explained – "it says, this is where we sit, comparatively [and] there's scope for us to do a whole lot better."

So far, St. Thomas has tackled the project of replacing their windows in 2020 with the help of provincial funding for their nursery school. They look forward to seeing what impact these retrofit projects will have on their building's energy use and their service to the community as they return to more regular activities in 2022.

In addition to energy retrofits, St. Thomas has looked to their community for new ideas and ways to optimize the use of their property through their Community Consultations. Periodically, St. Thomas has invited neighbourhood social agencies, schools, and faith groups, among others, to a community breakfast where attendees can weigh in on various topics such as youth, seniors' and immigrant issues, and

### **St Thomas the Apostle Anglican Church**

property use. It was at one of these breakfasts that some members present expressed a need for a vegetable garden space.

That year, their garden program offered seven free plots to community members with the requirement that 10% of their harvests be given to the Heron Emergency Food Centre. Three other plots were tended by St Thomas volunteers, and all their produce went to HEFC. These plots have been extremely well-received in the community, with the scale of the harvests much greater than some thought possible given the size of the plots: one single 4' X 12' garden plot yielded over 2900 cherry tomatoes in a single year. St. Thomas themselves plan to increase the scale of their community garden project to offer more cherry tomatoes in a single year. St. Thomas themselves plan to increase the scale of their community garden project to offer more plots in the coming years. They also plan to host a Farmers' Market on their front campus in the summer of 2022.

From audits to community gardens to their oncampus nursery school, St. Thomas continues to reflect its interest in stewardship, in its broadest sense, weaving them into the life of the neighbourhood as a whole. They're "an older parish," says Derwyn, "but a parish that tries to continue to make a difference in the community."



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