



Faith Community Energy Conservation Case Studies

Fall 2015

1. Harbour Light Ministries, Toronto
2. Islamic Foundation of Toronto
3. Beth Emeth Bais Yehuda Synagogue, Toronto
4. Eastminster United, Toronto
5. Beth Tzedec Congregation, Toronto
6. Global Kingdom, Toronto

**We wish to thank TD Friends of the Environment Foundation
for their generous donation towards this project**



**TD Friends of the
Environment
Foundation**

Fall 2015

Harbour Light Ministries Energy Conservation Story

Brief History:

We have been in our present location, 160 Jarvis St., since 1961. We are dedicated to helping the disadvantaged; this is our mission. We are well known for our outreach in the community.

Background Story:

Why we elected to undertake these actions?

Key Reasons:

- Increasing energy costs
- It's the right thing to do, especially because we are people of faith

Retrofit Actions:

- **Energy conservation:** Our property manager is very proactive about energy efficiency actions. We have installed motion activated lighting controls, low energy lighting, heat and cooling recovery systems, computerized temperature control, water saving showers.
- **Environmental Protection Strategies:** We have implemented recycling and organics collections to keep garbage at a minimum, reduced paper use, and installed high efficiency hand dryers in each public washroom.
- **Variable Refrigerant Air Conditioning:** We installed Variable Refrigerant System in order to deal with heat gain. These units are high efficiency.
- **Changed lighting:** all lighting has been or is being converted CFL, T 8's and LEDs
- **Installed a large generator;** we stayed open during the last ice storm because of it.

Key to Success:

Team collaboration, staff and client education and fiscal incentives from Toronto Hydro SaveOnEnergy program.

Lessons Learned:

We learned that a successful project requires the following:

1. **Team collaboration** with the Property Manager, staff and management, residents and clients.
2. **Funding and Financial Assistance;** our Property Manager is constantly monitoring our increasing energy costs, and constantly seeking ways of reducing our hydro and gas bills.

Memorable Moment:

"In the past 5 years, due to energy efficiency measures, we have been able to reduce our electrical consumption by 12,000 kilowatt-hours. This represents a decrease of 2% per annum. As the property manager, I am constantly measuring and monitoring our usage".

– Chris Davey, Property Manager



Harbour Light Ministries, 160 Jarvis Street, Toronto

Islamic Foundation of Toronto Energy Conservation Story

Brief History:

Completed in 1992, the main building includes a mosque, ablution areas, elementary school, cafeteria, kitchen, gym and library. Next door a retrofitted commercial plaza houses the high school. 2000 people attend Friday prayers.

Background Story:

Key Strategies: one was to encourage energy savings in the community, and the second was to green the operations of the Foundation itself.

Rationale: Reduce our footprint, while saving energy and money.

Key to Success:

A strong Board and administration team, coupled with our mission to provide spiritual, educational and social services to the congregation and community.

Lessons Learned:

A successful project requires the following:

1. **Team collaboration** with Board, Administration/Professional/Custodial Staff and Congregants

2. **Funding and Financial Assistance;**

Our payback looks at absolute costs and energy and dollar savings, due to energy efficiency. We take advantage of the Toronto Hydro incentives, whenever possible. We also receive internal funding from our congregants.

Retrofit Actions:

● **Green Audit:** In 2007, we conducted a Greening Sacred Spaces Green Audit.

● **Energy conservation:** We use a lot of water for our five daily ablutions, and by using aerators, we were able to reduce our water usage by 70%, and at the same time, lower our energy usage.

● **Retrofitted the lighting** in heavy traffic areas to LED and CFL's (more energy efficient).

● **Upgraded Heating and Cooling:**

Programmable thermostats were installed, we replaced our freezer and dishwasher with energy efficient models.

Memorable Moments:

When Greening Sacred Spaces paid for our \$4000 green audit in 2007, and our Green Team decided to embark on an Energy Conservation strategy. We continue to make conservation a priority.



The Islamic Foundation of Toronto, 441 Nugget Ave., Scarborough

Beth Emeth Bais Yehuda Energy Conservation Story

Brief History:

With 150 determined people and \$500 in the bank, merging twice with other synagogues Beth Emeth now has 1300 congregational families.

Background Story:

Why we elected to undertake these actions?

3 Key Reasons:

- National energy cost increases
- Global environmental imperatives
- Objectives: to lower hydro-electricity and gas bills with practical and achievable initiatives

Retrofit Actions:

- **Energy conservation:** we lowered temperature of the hot water heaters, installed locking covers for thermostats and motion sensors in washrooms
- **Air Conditioning Retrofit:** In 2012, we replaced 2 old roof top units (AC/heating) with high efficiency units
- **Changed lighting** in heavy traffic areas to LED (more energy efficient), did weather stripping of windows and doors
- **Installed accessibility elevator** (2012); a large generator (2012); and new energy efficient boilers (2014)

Key to Success:

Team collaboration and fiscal incentives from Toronto Hydro & Synagogue funding.

Lessons Learned:

A successful project requires the following:

1. **Team collaboration** with House Committee, Board, Administration/Professional/Custodial Staff, Greening Committee, synagogue membership and Community Outreach
2. **Funding and Financial Assistance;** we do a business case scenario, looking at various possible sources of funding and a payback analysis.

The payback looks at both costs and energy and dollar savings, due to energy savings and incentives offered by the government.

Memorable Moments:

When we received funding from Toronto Hydro, Better Building Partnership Toronto, and when we won the 2013 Greening Sacred Spaces Award.

Below is a photo of Beth Emeth Bais Yehuda Green Team leader Hilda Swirsky (left), accepting the 2013 Greening Sacred Spaces Environmental Award from GSS Toronto representative, Donna Lang (right). Also representing Beth Emeth is Michael Sugarman (left).



Eastminster United Energy Conservation Story

Brief History:

Eastminster United was built in 1910. It is a community hub. The Church is used 7 days a week for many different functions; worship services, stage productions and sports practices and events.

The auditorium is used as a performance space for childrens' theatre and other events. There is also a school and a gym, used for community sports practice and events. The Danforth Jewish Circle also hold their worship services here.

Background Story:

Eastminster has always been a leader in helping the less fortunate. They are leaders in the community, both in terms of social justice and environmental action.

Energy Conservation Actions:

- **Temperature Control;** In colder months (Oct – April), we set the thermostat at 21-24 degrees. Rooms in use are programmed to come on at 6 am – then shut off at noon, until 4 pm, when the room is being used. At 10 pm, the heat shuts off again. Our boiler receives maintenance twice yearly.

- **Energy efficient lighting;** we have installed LED T 8's in the main office, and if the test is successful, we will consider rolling out in our high traffic areas; hallways, gym and auditorium. It is up to the custodian to ensure that lights are off, when a room is not being used.

- **Waste Recycling:**

In 2012, we did training workshops; how to sort garbage, recycled/ green bin. With little effort, we achieved a 75%/25% recycled to garbage ratio (versus the previous 25%/75%).



Eastminster stages several public events

Key to Success:

A deeply committed and dedicated property manager and property committee team, that cares about saving energy and being environmentally proactive.

Memorable Moments:

"Both our congregation and I are proud to have found a balanced approach for all energy tools in the building, including lighting, heating and recycling. All these tools combine to save energy, along with a cost effective strategy."

- Gerald Gordon, Property Manager, Eastminster

Beth Tzedec Congregation Energy Conservation Story

<p>Brief History: Beth Tzedec was founded in 1883. It moved to its present location in 1955. It is the largest Conservative synagogue in N.A. It has a school, large sanctuary (seats 2,500), museum, gym, library and administration space (boardroom, lunch room, offices and classrooms).</p> <p>Background Story: Why?</p> <ul style="list-style-type: none">• To lower energy costs• To reduce our footprint	<p>Retrofit Actions:</p> <ul style="list-style-type: none">● Energy conservation: Practice conservation; automatic temperature controls and turn off lights when not in use● Changed lighting in heavy traffic areas to LED (more energy efficient); admin offices, hallways, sanctuary, gym and school● Hot water tanks (2) and boilers (2) retrofits: in 2015.
<p>Key to Success:</p> <p>A full time Facilities Manager who is constantly undertaking energy efficiency actions at the building; very proactive.</p> <p>Lessons Learned:</p> <p>A successful project requires the following:</p> <ol style="list-style-type: none">1. Team Collaboration with Facilities Manager, House Committee, Executive Director and our Board of Governors.2. Iterative Approach; we are constantly looking at ways to save energy, and at the same time, reduce our operating costs.	<p>Memorable Moments:</p> <p>"I am proud of the fact that our congregation has embraced greening as part of our moral compass and are committed for the long term". I have been working for this for the past decade and I now feel that I've made a difference".</p> <p>— <i>Brian Dias Facilities Manager, Beth Tzedec Congregation</i></p> 

Global Kingdom Energy Conservation Story

Brief History:

Global Kingdom opened its doors in 2008. A large 85,000 square foot building, it houses 2 buildings; Building A; a large sanctuary and Building B; a Community outreach centre and a large gym. The gym is used as a centre for all types of sports, by the community at large. It holds 600 people.

Background Story: There was a large amount of careful planning involved in the construction of Global Kingdom.

A detailed needs analysis was conducted, and there were several visits to buildings in the United States, before deciding on the exact functionality and structure of the building. Energy use and cost were also considered.

Key to Success:

Team collaboration and the ability to raise funds for the building construction.

The Global Kingdom Sanctuary below is used 6-7 days a week for several different functions; worship services, stage productions and by the community at large.



Energy Conservation Actions:

• **Temperature Control:** we use automatic temperature controls of 68-69 degrees (71-72 degrees in rooms, used by the children). Since our sanctuary is used daily, we try to conserve energy there; we have 4 different temperature options.

• **Building Envelope:** we installed windows that conserve heat; they have 15% gold bronzed glaze. We make sure that our doors are properly sealed and that they close properly, especially our double doors, located in the front of the building.

• **Energy Efficient lighting and motion sensors;** we have T 8 lighting (CFL) and are looking into purchasing LED lights for outdoors and high traffic areas. Lights are on timers (outside) and on motion sensors (inside).

Memorable Moments:

“There are a lot of memorable moments. The first time we opened our doors, held a worship service, a concert, a basketball game and a funeral... all very memorable moments”.

– *Godfrey Adderley, Missions and Outreach, Global Kingdom*



