

**Climate Action Team**  
**Report to the Parish Committee – April 2022**  
**Final report**

In May 2021, the First Parish in Milton unanimously approved the following commitment:

**“Given the urgency of the crisis we face, our Congregation commits to achieving net zero greenhouse gas emissions and to practicing total sustainability in all congregational activities by 2035.”**

First Parish’s Climate Journey

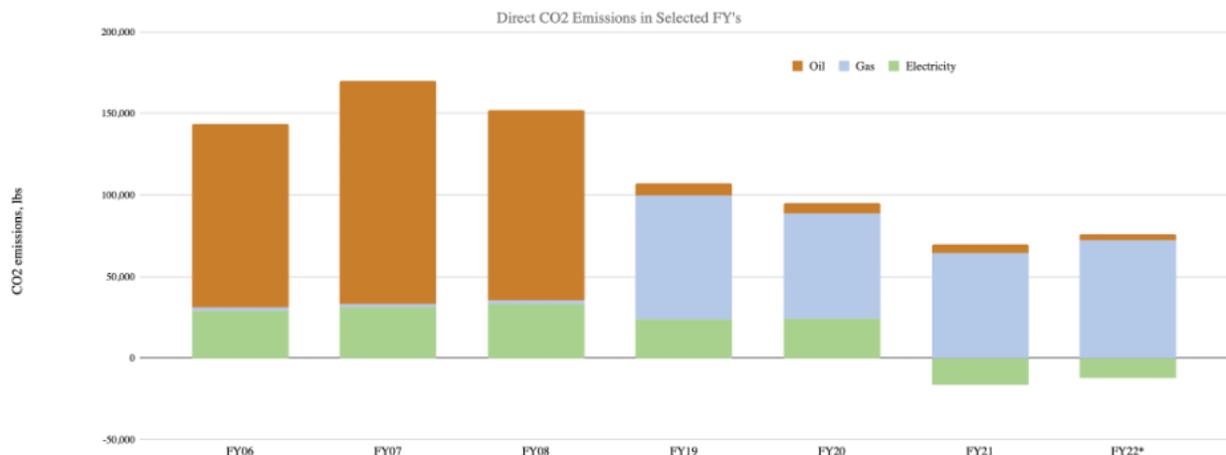
- 2008: Energy Committee formed for the purpose of reducing utility costs.
- 2010: Congregation approved a new covenant which includes respect for the environment.
- 2017: Switched from oil to high efficiency gas for heating all buildings except Children's Church, which reduced carbon emissions by approximately 40%.
- 2020: Congregation approved unanimously to install solar panels in January. Panels were installed and went online later that year.
- 2021: Congregation voted to make FPM carbon neutral by 2035. Climate Action Team formed to develop strategies and plans.
- In the last 14 years, 10 mature trees had to be cut down. They were replaced with 5 immature trees. The result was an increase in First Parish Milton’s carbon footprint.
- Climate Education opportunities at FPM increased over the years, with 4 such opportunities occurring in 2021.

For more see Attachment 1.

Climate Action Team Activities

- Climate Action Team (CAT) Team formed in December 2021 by the Parish Committee: Chair-persons Mary Blanchette, Deb Larson-Venable, Tracey Robinson; Members: Marie-Laure Brown, Henry MacLean, Richard Venable, Hale Smith
- Established 3 key goals for 2021-23
  - Develop plan to dramatically reduce and eventually eliminate carbon emissions from buildings on the First Parish campus
  - Increase carbon sequestration by enhancing campus greenspace and/or purchasing carbon offsets
  - Engage congregation in climate advocacy and personal climate actions
- Met with Mass Interfaith Power and Light to investigate how they might assist us with analysis and planning for building improvements. They are developing an enhanced service for churches to provide advice and recommendations for churches working toward greenhouse gas emissions. They are developing a modeling tool to help churches understand the costs and impacts of different building projects.

- Coordinated with B&G to discuss strategies for a phased approach to building improvements
- Investigated climate action work being done at other churches, with plans to continue discussions and information sharing: Belmont, Stow/Acton, Concord, etc.
- Investigated ideas and options for approaches to landscaping improvements to increase carbon sequestration. There is interest in the congregation for adding trees to our campus. CAT and B&G think it would be wise to have a type of “master-plan” for our outdoor space to guide changes to our green space that takes into consideration principles including aesthetics, climate sequestration, maintenance costs, etc.
- Developed a mechanism for measuring the carbon footprint of our church. Graphic visualizations can help the congregation understand our carbon output over time and monitor progress towards our net zero carbon goal. Annual updates in our Annual Report would enable FPM to monitor the impact of climate action work and document our progress into the official record of the church.



## Recommendations

Partnering with Mass Interfaith Power & Light (Mass IPL) to assess and model campus buildings to better identify investment opportunities, priorities, and costs. (Approved by Parish Committee, April 2022)

Establish three ad hoc planning teams for climate action related to facilities/building planning, landscape planning, and development of an education/advocacy program.

To reach our zero-carbon goal, work on our buildings and facilities is critical and essential. We also believe that a plan for improving our grounds - with more trees, native plants, etc. is an important element to climate action because it reaches into the heart and soul of this congregation. Finally, the work we do to educate our congregation and our local community, as well as advocacy efforts at the town, state, and national levels, are essential to this initiative, as we all “work to build a just and healthy world with faith, love, and compassion”. Proposed groups are:

1. Climate Action Facilities Planning team: a joint planning team with representatives from B&G, Finance, and Trustees standing committees
  - Proposed members: Henry, Hale, Richard, Beth, Susan
  - Group facilitator: Henry
  - Charge: work with Mass IPL and develop a multi-year plan for facilities and building improvements including timing, phasing, and estimated costs; contact MassSave regarding projects to insulate Link building and replacing oil burner in the Children's Church
  - 2022-2023 planning costs: \$1,500 (PC has already authorized \$3500 for MassIPL contract to be paid in 2021-22)
  - First draft of building plan, target date: Jan 15, 2023
  
2. Climate Action Landscaping/Carbon Offset Planning team: a joint work group with representatives from Hospitality, B&G, and S&EJ standing committees
  - Proposed members: Marie-Laure, Deb, Mary, Beth
  - Group facilitator: Mary
  - Charge: identify and work with landscape designer to develop a multi-year plan for climate friendly improvements to FP campus with proposed timeline and costs; research carbon offset programs that could be a good investment for FP and/or FP congregants;
  - First draft of landscaping plan complete by Jan 15, 2023
  
3. Climate Action Education and Advocacy programs: joint working group with reps from S&EJ, Communications, Worship?, Membership? RE?
  - Group facilitator: Tracey
  - Proposed members: Tracey, Dottie?, Ellen? Tony?
  - Charge: plan and organize 2-4 programs annually that focus on climate action topics for the congregation and open to the broader community. Solicit volunteers from a variety of committees to insure community-wide engagement

Climate Action Forums. Several times during the coming year, convene the Climate Action planning teams to review climate action progress. We believe that our proposed approach of having work distributed across various joint work groups, will work best if we encourage communication between the working groups. Periodic forums for all work groups will provide an opportunity for the groups to report on progress and share info with the rest of the teams. The primary objective of these forums will be to gather the members of the working groups, but forums should be publicized and open to the congregation.

Forum Coordinators: Working group facilitators (Henry, Mary, Tracey)

Proposed dates: January and April 2023

Annual carbon footprint measurement. Richard Venable has developed a process for collecting data and producing annual carbon footprint reports. We propose the church office take responsibility for periodic updates to the church carbon footprint database and produce a

report for the annual report each year so we can monitor progress towards our zero-carbon goal.

- Working group: Richard and Susan
- Costs: no out of pocket costs; new work for church administrator
- Timing: complete transfer of data process before the May 2023 Annual report deadline

Engage all committees in Climate Actions. Propose that the Parish Committee ask all committees to incorporate climate actions and sustainability goals into the mission and work of their committee; include updates in ACC and/or annual reports.

Periodic review of building maintenance procedures. Best practices for maintaining sustainable buildings are evolving. B&G and the church administrator should document and periodically review building maintenance procedures to focus on the reduction of energy consumption - e.g. thermostat settings in Meeting House and other parts of campus, trash/recycling practices, etc.  
Committee: B&G

Timing: Seasonal and ongoing

Develop financial strategy. When we have more info on the potential costs and timelines of this work, we will also need to develop a financial strategy for the projects associated with this initiative. Some funding could be designated from the Major Repairs account however, depending on the scale of costs for the overall initiative, we may need to hold a congregational fundraising campaign. A campaign could be modeled on the solar project: 1/3 raised from congregation, 1/3 from the endowment, 1/3 funds loaned from the endowment to be paid back in the annual operating budget.

**Climate change and climate solutions are complex. Knowledge about the causes and technological solutions to climate change are evolving. We know that the changes we must make are not simple. Getting to zero carbon emissions at First Parish Milton is one step we can take towards addressing the global issue of climate change; we must do what we can do - and more.**

## Attachment 1. First Parish's Climate Journey

Over the last 20 years, there was a *slow awareness* of the need for reducing the carbon footprint of FPM. In 2008, an ad hoc Energy Committee was formed to study ways to reduce utility costs. Its conclusions were presented to the Parish Committee in March 2009 and included a few references to green initiatives. The next year, the congregation voted to adopt a new covenant which included respect for the environment. In January 2017 we switched to high efficiency gas heating for most buildings. Later that year, in June, the Green Team was formed. It raised awareness and developed the solar panel project. On January 12, 2020, the congregation voted unanimously to move ahead with installing solar panels on the rooftops. The solar panels came online in October 2020; to date, over \$77K has been raised to finance them.

1) **Heating Systems** were converted from oil- to gas-burning in 2016 for all buildings except the Children's Church (which still uses oil). This action alone reduced First Parish's carbon footprint by about 30%; the reason for this is two-fold, that (a) our heating systems make the largest impact on our footprint, and (b) gas combustion produces much less carbon dioxide than oil. In 2021, the gas system was serviced to make it more fuel efficient. Its estimated remaining life expectancy is 19 years. The Buildings and Grounds Committee is exploring the possibility of replacing the oil-burning system that heats the Children's Church with a heat pump system. Such a system would run entirely on electricity, that is, the green electricity generated by our solar panels.

2) The **Building Envelope** has been improved in the last 10 years. (This is the physical separator between the conditioned and unconditioned environment of a building, including the resistance to heat, light, air and noise transfer.) In 2010, blower door and infrared thermography tests were conducted to ascertain the location of building thermal leaks. Insulation has been added to the Meetinghouse, the Link upper hallway and offices, the Parish Hall and kitchen. It is unclear whether all the offices, the Stebbins Parlor, the Chase Parlor, or the Narthex were insulated. Windows throughout the campus are serious sources of heat loss. Some attempts were made to mitigate this in 2009 by using window film and in 2021 by adding a storm window and reglazing in the kitchen.

3) The **Electrical System** is the area in which we have done the most work. An NSTAR audit in 2008 replaced almost all incandescent light bulbs with fluorescent or compact fluorescent bulbs, which resulted in lower electrical costs for lighting. Another audit was taken in 2020, and that one replaced the fluorescent bulbs with LED bulbs, saving FPM an additional \$700 per year in electricity costs. But the most impactful electrical improvement was the installation of solar panels in 2020; these panels came online in October of 2020. In FY21 alone, these panels generated enough electrical power to cover 195% of FPM's electrical power needs.

4) **Offsets.** Trees offset our carbon emissions because they absorb carbon dioxide from the air and transform them into chemical compounds such as sugars which feed the tree while releasing oxygen back to the air. FPM has cut down an estimated 10 mature trees in the last 20 years and replaced them with 5 immature trees. An additional 2 immature trees were replaced by the town. We have added to our carbon footprint, even though we have replaced some of the trees. A mature tree will absorb 48 pounds of carbon dioxide per year. Offsets can also be purchased from organizations such as the Rainforest Trust, which promotes conservation in the Amazon rainforest.

5) **Congregational Education and Engagement.** Examples:

- a. Three educational sessions in preparation for the 'Getting to Zero' vote in spring 2021
- b. Earth Day service in May 2021
- c. Electric Vehicle informational session in February 2022

d. All-Church Council meeting in February 2022 focusing on the getting to zero initiative  
Green Actions to date

Commissioned three energy audits, the first conducted by MIP&L 2008

Ad hoc Energy Committee looked at reducing utility bills primarily, reducing impact on environment secondarily, FY09

Ad hoc Energy Cmte reported findings to Parish Cmte 3/22/2009.

2nd energy audit included blower door test and infrared images, by DEAP Energy Group Jan 2010

Updated covenant to include respect for environment June 2010

Insulated Parish Hall ceilings Jan 2011

Divested endowment portfolio of fossil fuels

Converted oil-burning heating system for Meetinghouse, Link, Parish Hall to gas-burning for reduced cost and GHG emissions Dec 2016

Formed Green Team June 2017

Directed Landscaper to use only organic materials on lawns and plantings in 2019

Merged Green Team and Social Action Committees into the Social and Environmental Justice Committee May 2020

Installed solar panels on Link, Parish Hall and Children's Church Sep 2020

Instituted policies to purchase only Energy Star certified appliances, replace light bulbs with LED ones, use rechargeable batteries wherever possible

Replaced thermostats with programmable ones

Re-painted Meetinghouse using lead-free paint. Replaced gas-guzzling kitchen stove with more efficient stoves

Replaced use of disposable cups, dishes, utensils with re-useable same. Recycling paper products.

Replaced youth room windows with more energy-efficient ones

Replaced Meetinghouse left-hand and right-hand front doors with single door each, reducing air leakage

Will replace Children's Church oil-burning heating system with heat pump system at end of life