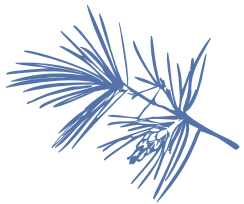


Getting to Zero



Our goal is to reach net zero carbon emissions on the First Parish campus by 2035.



FIRST PARISH MILTON

MAY 2023



How do we get to “net zero”?

- Reducing carbon requires two major types of activity:
 1. Reduce use of power
 - Insulation
 - Double/triple paned windows
 - Replace low efficiency appliances with high efficiency appliances
 - “adaptive change” thinking about our use of buildings and resources
 2. Convert source of power from fossil fuel to renewable electricity
 - Install solar panels
 - Replace boiler/furnace with heat pumps
 - Investigate Milton Community Energy Aggregation 100% renewable option

Who's working on it?

Three FPM working groups:

- Buildings and utilities (incl reps from B&G) – Henry MacLean, Richard Venable, Beth Gray-Nix, Susan DeMinico, Hale Smith
- Landscaping and carbon offsets – Mary Blanchette, Marie-Laure Brown, Deb Larson-Venable, Beth Gray-Nix
- Community Learning team – Tony Dutzik, Lynne Stack, Tracey Robinson

with lots of help from:

- Church administrator
- Finance, B&G, and S&EJ committees
- MA Interfaith Power and Light
- Mass Save (state program)

Work in 2022-23

Landscaping and carbon offsets work group

- Established leaf composting area
- Planning for more trees on campus

Community Learning team

- Climate Action/Eco Tips articles in Link and on church website
- Survey for topics of interest
- "View & chew" potluck for Bill McKibben talk

Work in 2022-23

Building and Utilities work group

- Collaborated with MA Interfaith Power & Light on building assessment
- Mass Save Audit
- Created charts to visualize carbon and energy use over time
- Developing phased action plan for a series of building projects – will take 5-10 years to plan and fund
- **THIS WORK WILL REQUIRE ONGOING, ACTIVE OVERSIGHT AND CONGREGATIONAL SUPPORT**

Review of building updates – past present, and future

- Converted to gas heat (2017) and installed solar panels (2020) - major first steps
- Partnered with MA Interfaith Power & Light and Mass Save to analyze campus, identify work TBD, and develop a draft plan
- Goal to net-zero (G2Z) will require a series of additional projects over a period of 7-10 years
- Plan for funding has started: capital funding and community donation drive

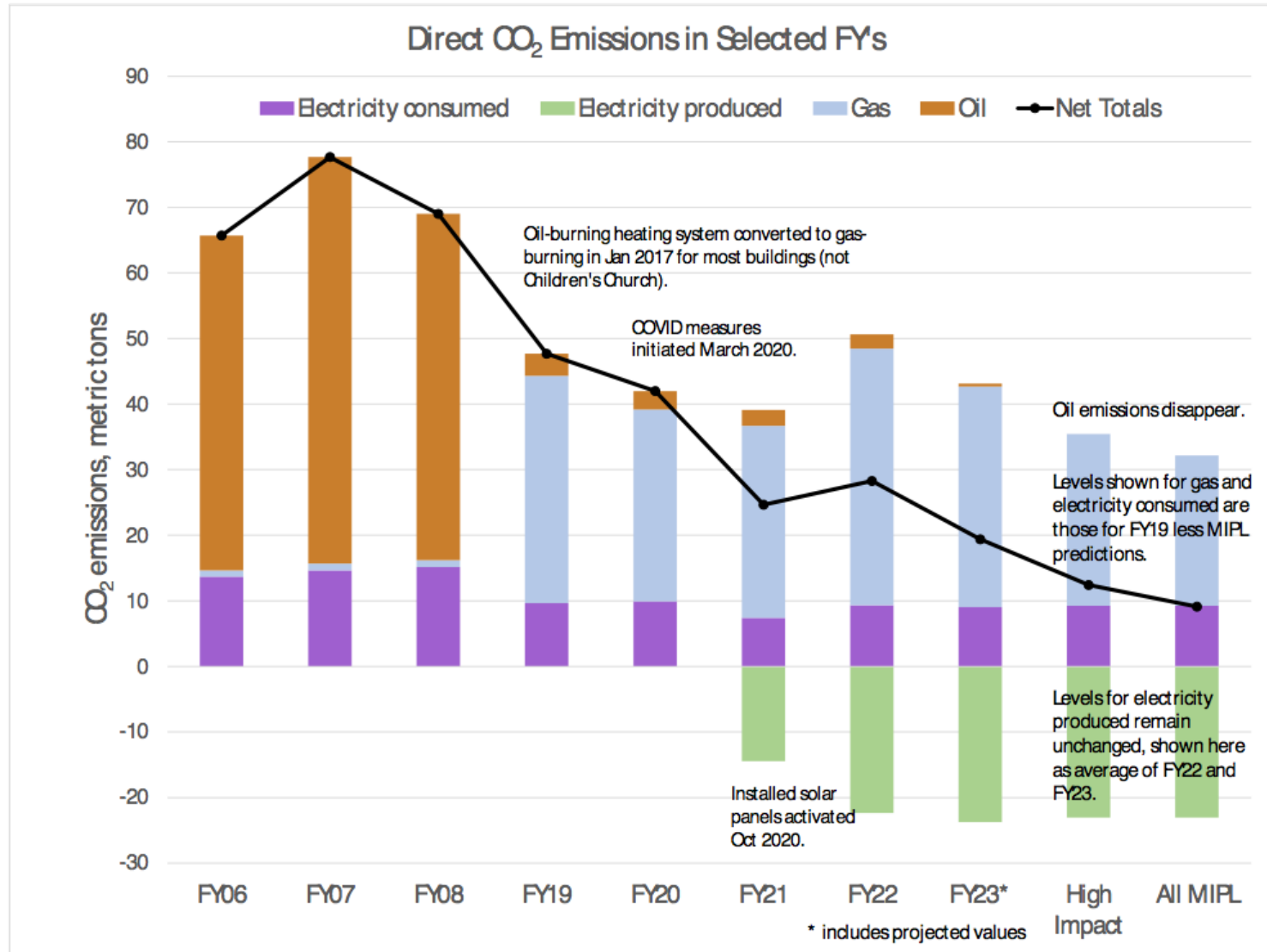
Project timelines (?) – planning underway

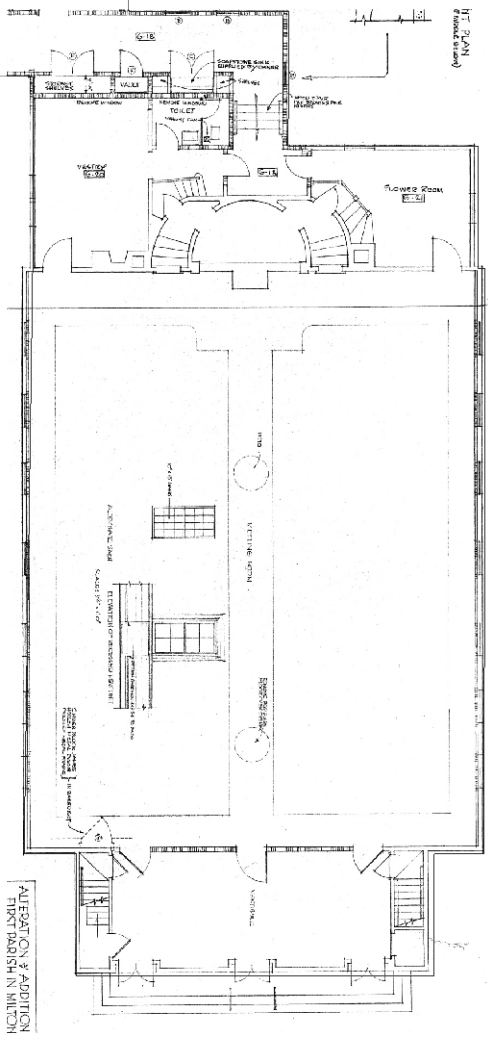
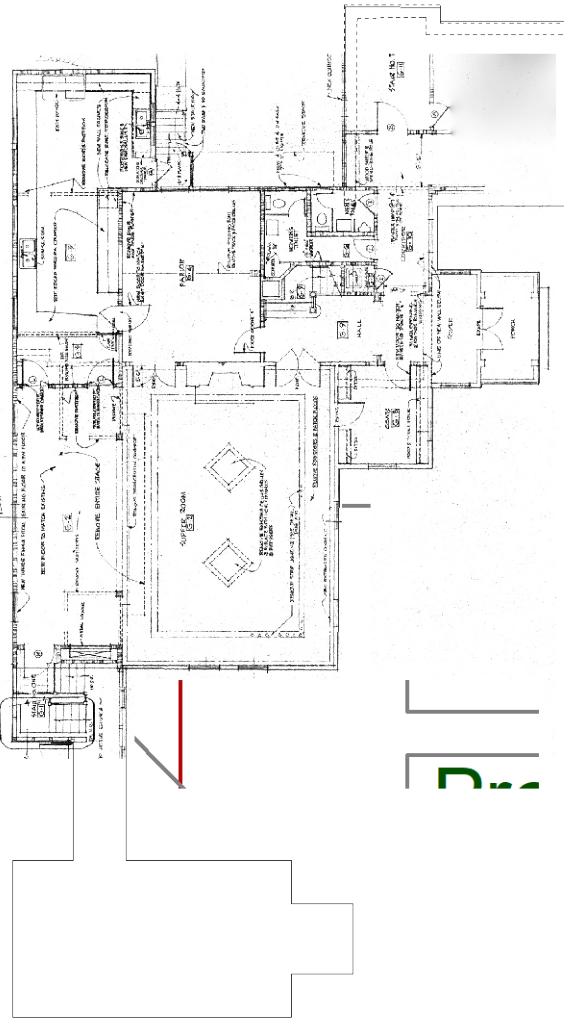
- Phase 1 – 2023-2024? Mass Save projects – insulation and lights
- Phase 2 – 2025-2026? high priorities recommended by MA IPL:
Insulation in Link basement and replace oil heater in CC
- Phase 3 – 2027-2028? Window replacements
- Phase 4 – 2029...(?) Heat pumps

Potential Investments by Year

<u>Service Date</u>	<u>Description</u>	<u>Cost</u> (in \$000)	<u>Carbon Reduct./</u> <u>Yr. (metric tons)</u>
2023	Meetinghouse insulation / LED Lighting proposals	\$31.5	8.4
2024	Replace / move hot water heater with heat pump model	4+/-	1.1
2025	Link insulation / Activity Room window replacement	23+/-	3.9
2026	Link window replacement	42+/-	0.7
2028	Kitchen window replace. / Children's Chapel heat pump	66+/-	2.7
2035	Link attic & Parish Hall walls insulation (lower priority)	<u>11+/-</u>	<u>TBD</u>
	Total Projects identified to date	\$178+/-	16.8

Note: Estimated costs are net of state & federal incentives. Other potential investments to reach net-zero would include more triple-pane window replacements and heat pumps / new HVAC systems for the Link, Parish Hall & Meeting House.





ADDITION & ADDITION
FIRST FLOOR PLAN

H.T. PLAN
(Ground Floor)