



## Case Study: Eliot Church of Newton - Energy Efficiency & Community Engagement



First established in the year 1845, Eliot Church of Newton, UCC now occupies its fourth building. The current building was constructed in 1957 after a fire destroyed the prior stone church. A charter member of MA Interfaith Power & Light, Eliot has implemented a full range of energy efficiency improvements beginning in 2003.

Leadership by Example. The net results of all the improvements? Eliot has **reduced its carbon dioxide emissions by 46%**. Although conversion to a high efficiency gas-fired heating system accounts for much of that, Eliot's overall energy efficiency is also high. The average house of worship in the Northeast U.S. uses 50 kBtu of energy per square foot. In 2013 Eliot used **28.9 kBtu per square foot**.

Heating degree days are a measure of how cold a year is. In the Northeast, more heating degree days in a given year mean higher energy bills that year. Heating costs account for 64% of Eliot's total energy costs. Like many houses of worship, Eliot only has a couple of room air conditioners that aren't used very often. Therefore when comparing energy costs its best to compare years with a similar number of heating degree days. Even though there were 161 more heating degree days in 2012 than in 2007 **Eliot's total energy costs in 2012 were \$12,623 lower than in 2007!**

### Here's how Eliot did it:

- ❖ Members held a **community work day**, cleaning radiators & sealing fireplace & other openings;
- ❖ **Programmable thermostats** were installed in 2003 resulting in a 24% reduction in carbon dioxide emissions;
- ❖ An **insulating blanket and timer** were installed on the domestic hot water heater in 2005;
- ❖ **Insulation and high-efficiency fluorescent lighting** was installed in 2006; some lighting was later upgraded to **more efficient and longer-lasting LED**;
- ❖ A **92% efficient gas-fired hydronic heating system** with an internet-based energy management system replaced the oil-fired system in 2009;
- ❖ Interior storm windows were installed in the sanctuary; and
- ❖ Reminders were placed on light switches and a concerted effort was made to **turn off lights and appliances when not in use!**



Members of Eliot then applied the congregation's learning to their lives. A group of **Eliot Energy Efficiency Evangelists** encouraged each other to lower their personal carbon footprints by meeting together in groups and using the guidance of David Gershon's **Low Carbon Diet**. Several years later more members of Eliot obtained no-cost home energy assessments through the Mass Save Program, by participating in MA IP&L's statewide **Noah Challenge**.

Community Engagement on Climate Change. But Eliot didn't stop there! Members joined students from Andover Newton Theological School and members of other churches to help plant 70 new trees along Newton streets. Every year Eliot participates in volunteer cleanups along the Charles River and at other green spaces during Earth Week.

Eliot long ago recognized that a robust response to climate change requires collaboration with other groups to effect change in state and national public policies. In 2006 Eliot invited members of the community to a screening of **An Inconvenient Truth** provided by **Interfaith Power and Light**. Following the film, people met in groups to discuss how to become more active in the community. In 2007 Eliot joined the **Interfaith Walk for Climate Rescue** that began in Northampton and ended in Boston.

Former pastor, Rev. Tony Kill and other Eliot members worked actively to promote a resolution adopted by the Massachusetts Conference of the UCC in 2009, making it the first religious group to **endorse Bill McKibben's** grass roots organizing campaign **350.org**. In 2013 the Conference adopted another resolution urging its churches and their members to divest from investments in fossil fuel companies. At the present time, more than 30 municipalities and universities, the **World Council of Churches** and the **Rockefeller Foundation** have passed similar resolutions or have actually sold their investments in fossil fuel companies.

Eliot Church of Newton demonstrates how faith communities can be leaders in modelling how to live out our moral responsibility to respond to the climate change crisis!

September 2014