



## Congregational Church of Needham, Needham, MA



The Congregational Church of Needham is located in the center of Needham and has done much in recent years to improve its energy efficiency and save money on energy bills. First, the congregation decided to pursue easy energy savings by installing compact fluorescent lights (“CFLs”) throughout the building. They had heard of a program through NSTAR, where one could get free CFLs installed. The church had all of their bulbs replaced at no cost in February, 2009. According to NSTAR, they will be saving 15%-20% each year on their electric bill as a result of making the change.

The next energy problem the congregation sought to tackle was heating. As an old building, the Congregational Church of Needham was poorly insulated (the sanctuary in particular). Large amounts of heat were escaping through the walls and ceiling. On very cold days, it was nearly impossible to bring parts of the church to a comfortable temperature. This was a problem in particular during winter funerals and other services. The building manager at the church was pleased with NSTAR’s installation of the CFLs and asked NSTAR about insulation subsidies. NSTAR is the gas provider for the church and has a program where it installs insulation and covers 75% of the cost. The Congregational Church decided to have the insulation installed by a contractor provided by NSTAR in April 2009. The cost of the installation was \$20,000, with NSTAR covering 75%. As a result, fuel consumption is projected to go down 20%, resulting in a savings of about \$3,250 every year (at \$1.30 per therm). This is a return on the church’s investment of over 60%!



The building already had some programmable thermostats, however, not all of them were programmed. The new building manager, who joined the staff in March of 2008, added more programmable thermostats and programmed each one based on the space-use pattern of the church. This way, rooms are only heated to a comfortable temperature when in use. The changes made thus far have already given positive results, and the Church wants to continue making changes. Soon it intends to increase the size of distribution valves in the heating system so that the full heat capacity can make it to certain designated areas. As of now, the valves are too small, so some areas of the church are very hard to heat quickly, though the insulation has made this less of a problem. They also intend to clean the current radiators so that air can more easily pass through their ducts. In addition, they intend to add some exterior storm windows to minimize heat loss.

The Congregational Church of Needham is also very active in community environmental activism. The congregation has a Green Church Task Force which organizes events and sets up programs in which the congregants can participate. Together with the Green Needham Collaborative, the church organized a 10% challenge, where participants vowed to cut their energy consumption by 10%. It is estimated that the program prevented 218,000 lbs of CO<sub>2</sub> from entering the atmosphere. The “Green Team” creates awareness programs for the environmental cause that range from education to news bulletins. The group also focuses on ways to make the church greener that aren’t necessarily construction related, such as adding more recycling bins and switching from disposable cups to washable cups for coffee hour.