

Unitarian Universalist Church of Bloomington: Efficiency and Behavioral Efforts

Per cent of households achieving the 14% goal:	53%
Reduction by those households:	30%
Reduction in natural gas use:	28%
Reduction in electricity use:	31%

The Unitarian Universalist Church of Bloomington (UUCB) has a long history of energy consciousness, dating back to 2005 when it started assessing its energy use. Indeed, by 2007, the congregation had been certified as a Green Sanctuary by the Unitarian Universalist Association, its national governing body. This accomplishment took great effort and focus, and engaged the congregation as a whole in issues of the Earth and environment.

Since its first professional energy audit in 2008, volunteers and members have undertaken numerous energy-saving measures, from upgrading doors, windows, and lighting as a result of a major fundraiser to adding insulation. The congregation's clergy are deeply committed to care for the Earth. Nevertheless, the going is slow because there are so many social issues that congregants work on – the Green Sanctuary Task Force is one of twelve such groups – that it is hard to get everyone to make this work a priority.

To engage the congregation with its 25% energy reduction goal, members of UUCB's green team met with our ministers, wrote a summary for the board, and once the board approved the goal and suggested strategy, presented the challenge to our members in the newsletter and at bi-annual meetings. Too, members spoke at services and created a large display in the Fellowship Hall, at which a green team member usually stands between services, ready to engage members in conversation.

Of the cohort of six congregations that applied together for funding for solar panels, UUCB has the lowest per square foot energy use. With support from the congregation, it has undertaken numerous upgrades – from window treatments and changes in thermostat settings to added insulation and a new metal white roof that reflects the sun and thereby lowers the need for air conditioning in the summer.

UUCB is implementing a careful zoning and thermostat setback plan. In November 2012, a lay leader walked through the building, talked to staff, and then created a colored plan of the building showing thermostats and zones. She then developed a scenario for behavioral changes to consolidate building use into certain heating and cooling zones. In the winter and spring of 2013, she explained the concept of zoning and setbacks to the church administrator, asked for support from the ministers and board, and then asked for the help of congregants, through an article in the monthly newsletter article and at the annual meeting, to help us implement changes. Then, in September, she checked that the administrator was implementing the requested setbacks on the programmable thermostats for all zones.

Implementing the plan has still been challenging. It has taken several meetings with our administrator to explain what we wanted to try. Although she understood the concept, it took multiple requests to have her implement the thermostat setbacks.

Another recent energy conservation opportunity presented itself when an AC unit needed to be replaced unexpectedly and quickly. Because a green team member had attended facility manager workshops on HVAC systems and had consulted experts and gotten quotes on equipment, the church was ready when the equipment failed. Decisions on where to especially invest in more efficient equipment are made, in part, on what parts of the building get the most use. For its sanctuary, the church recently chose to invest in the most efficient AC unit available, at 13.2 SEER; for the office, it invested in a 15.2 SEER unit. The blowers on both new systems are four to five times more efficient than those on the old systems. Both the church's furnaces are 96% efficient, 4.5% more efficient than its old systems. Filters on the new system will be regularly replaced by the service company. During the installation, the lines were flushed and the ducts checked for leaks.

One of the UUCB Green Sanctuary Task Force (GSTF) co-chairs created the Task of the Month program. UUCB implement the Task of the Month program in 2011 to 2012 and saved an estimated half a million pounds of CO2. UUCB received honorary mention in National IPL's Cool Congregation Challenge for this program. Promotion of the program included monthly Children's Moments focusing on that month's task, with prizes, from a water-heater blanket to a programmable thermostat, given to people who were participating. About half of member households reported that they had undertaken at least one of the tasks. For example one quarter of the households insulated their water heaters and set their water heater at 120°. Several congregants said they did not sign up for Task of the Month because they had already done all or most of the tasks. Also 350 lower-mercury CFL light bulbs were sold below cost (\$1.00 each) and over 200 commercially-rated energy efficient LED bulbs were purchased at a discount by the Task Force and distributed to about 40 members.

The UUCB Green Sanctuary Task Force easily received commitments from the ministers and board to apply for the solar grant that required a commitment to reducing the church's energy use by at least 25% from a baseline of 2010 (the year significant building upgrades were started) and to encouraging at least a third of our members to cut their household energy use by at least 14%. After receiving the grant congregants donated funds to more than triple the grant amount, allowing us to install a 24 kW system plus a new electric tie-in panel.

