

Faith Communities Spread the Good News of Energy Efficiency



Caring for the earth is a religious principle for members of St. Paul's Episcopal Church in Duluth, Minn. Just inside the main door of the 101-year-old church building is a rough-hewn wooden plaque—a Green Congregation Award from the Minnesota Episcopal Environmental Stewardship Commission. It recognizes the community's outstanding commitment to environmental stewardship, including energy conservation.

St. Paul's Episcopal Church is one of three congregations that participated in the Congregational Pilot, a collaboration of Minnesota Power, the City of Duluth's ComfortSystems natural gas utility, and Ecolibrium3, a nonprofit that administers the Duluth Energy Efficiency Program. The pilot project engages members of faith communities to improve the energy efficiency of their worship and communal facilities, while saving money on energy at home.

Three Duluth congregations participated in the pilot, including St. Paul's Episcopal Church, St. Mark African Methodist Episcopal (AME) Church, and Concordia Lutheran Church.

Each church was asked to identify an "Energy Champion" to lead the charge in encouraging members of the congregation to participate in a Home Energy Analysis with Building Diagnostics. A goal was set for the number of home energy analyses to be completed for each congregation based on the number of members. If the congregation reached their goal of in-home energy analyses completed they received bonus incentives to put into an Energy Fund to complete recommended projects for their church building.

St. Paul's Episcopal Church

Nelson Thomas, a retiree who spent 37 years with the Environmental Protection Agency, is the "Energy Champion" for St. Paul's Episcopal Church. "I'm an environmentalist and have a great interest in protecting God's creation, which is a focus of the Episcopal Church," said Thomas. "It seemed like a good fit."

Thomas began by engaging a small group of like-minded congregation members that he calls the "green team." They

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promoted the home energy analyses in bulletins, the monthly newsletter and weekly announcements. Soon, the community had completed the required 15 home energy analyses.

“Nelson presented it to us, and I thought it sounded like a great idea,” said Natalie Smith, treasurer, St. Paul’s Episcopal Church. “An energy auditor (from Ecolibrium3) came to my house and spent quite a bit of time. It was very informative.”

The home energy analysis led Smith to replace a hollow-core door and to reinsulate a crawl space, eliminating the need for a space heater that was keeping pipes from freezing. A similar analysis at Thomas’ own home, completed a few days before he was planning to install a new furnace, led him to purchase a higher efficiency model. The report also recommended simple caulking around windows and an insulated liner around the hot water heater to prevent energy loss.

Once its quota of home energy analyses was met, the congregation qualified for a combined electrical and natural gas energy analysis of its building. Representatives of Energy Insight, Inc., energy consultant to Minnesota Power’s Power of One® Business program, visited the church. They inspected all lighting and heating, ventilation and air conditioning equipment and identified measures that would result in energy efficiency.

The report recommended lighting upgrades throughout the facility as well as maintenance and replacement of equipment for natural gas efficiency. St. Paul’s completed one electric energy-saving project in 2014, replacing 64 incandescent lights in the sanctuary with light emitting diode (LED) lights. Church maintenance staff members were able to make this simple switch. It will save an estimated 2,400 kWh per year and lower annual energy costs by more than \$350. Incentives are being reinvested in additional projects. The next phase will upgrade ceiling floodlights in the sanctuary to LEDs.

“We try to set a good example, and Minnesota Power had a great program for us to plug into in terms of looking at energy usage and becoming more efficient,” said Rev. Bill Van Oss, rector of St. Paul’s Episcopal Church, noting that the program helped his congregation win the Green Congregation Award. He has shared information about the pilot project with leaders of other faith communities in Duluth. “As people of faith, we have a responsibility to care for the good earth God has given us and to leave it better at the end of our lives than when we started.”

Concordia Lutheran Church

Similar activities are taking place in other participating faith communities. Congregation members at Concordia Lutheran Church also completed 15 home energy analyses, qualifying for a commercial energy analysis and bonus incentives for their energy fund. Electric energy-efficiency recommendations included upgrading to higher efficiency fluorescent and LED lighting, lighting controls, and de-stratification fans to improve air circulation. There also were recommendations to reduce plug load and improve insulation around a window air conditioning unit, as well as natural gas efficiency measures.



Concordia Lutheran Church completed two electric energy saving projects in 2014 that consisted of changing incandescent and fluorescent lighting to LED in parts of the sanctuary, mezzanine and exterior. These two projects will save approximately 2,500 kWh and more than \$230 in energy costs per year. Rebates will help fund additional energy improvements.



St. Mark AME Church

The third participating faith community, St. Mark AME Church, is a small congregation in a neighborhood where few members own their homes. Getting enough home energy analyses to qualify for the commercial energy audit and initial funding was a challenge.

“We did not have enough homeowners to reach the grant level,” said Natasha Garner, vice chair of the St. Mark AME Church trustee board and energy advocate. “Fortunately, there were guests from Peace United Church of Christ in the congregation when I announced the program, and they offered to advocate for us and do some audits, as well. Their church had done this before without the grant incentive and wanted to help out of the goodness of their hearts.”

A number of other local congregations and community members also assisted. Combined with the home energy analyses of congregation members, St. Mark AME Church achieved its goal, which Minnesota Power and ComfortSystems lowered to 12 because of the small congregation.

Garner was pleasantly surprised at how much she learned during her home energy analysis and shared her enthusiasm with fellow congregation members.

“I didn’t really know much about our house,” Garner said. “My husband and I got great information about little things we could do on our own to save energy. I let people know it was fun, easy and educational.”

Electric energy efficiency recommendations at St. Mark AME included upgrading T12 fluorescent lighting to 28-Watt T8; replacing compact fluorescent lights (CFLs) with longer lasting,

more energy-efficient LEDs; replacing an existing air conditioning unit with a more energy-efficient model; consolidating refrigerator/freezer units; and upgrading to ENERGY STAR®-rated appliances. There also were recommendations to improve natural gas efficiency.

The congregation used its bonus incentives from their energy fund to complete energy projects. It has replaced a door and completed some caulking and weatherstripping. While no electric energy-saving measures were completed in 2014, the congregation has money remaining and is reviewing additional projects.

“The commercial audit showed us what needs to be addressed, and we want to continue,” Garner said. “We are a small church and the budget is tight. If we can complete additional energy-efficiency projects and see big savings on our utility bills, there will be more money for other ministries, children’s programs and missionary work.”

It’s clear that Congregational communities are excited to spread the word about energy efficiency and reap the benefits of saving energy in their homes and congregational buildings, while also benefitting the environment.

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“Historically, faith groups were Social Media 1.0, so they provide a great platform for getting the word out about energy efficiency,” said Bret Pence, program specialist at Ecolibrium3 and coordinator of the Interfaith Energy Pilot Project. “Faith organizations are very important partners as we encourage individuals and businesses to save energy.”