Energy Conservation at Trinity Episcopal

Per cent of households achieving the 14% goal:	23%
Reduction by those households:	NA
Reduction in natural gas use:	20%
Reduction in electricity use:	16%

On September 25, 2011 Rev. Virginia Hall and a handful of Trinity Episcopal Church congregants attended an interfaith "call to action" meeting held at a local church and facilitated by members of Hoosier Interfaith Power & Light.We were inspired, then and there, to start a "green team" (now the Creation Care Committee, an integral part of the Stewardship Committee) and began brainstorming about how to promote household energy reduction among our members using the "Task of the Month" program.Not long after that initial meeting, we drafted the following mission statement and "Creation Care Covenant" to present at an earth stewardship-themed church forum in November:

Mission Statement: To inspire, educate and call the people of Trinity Episcopal Church to action as faithful and responsible stewards of God's Creation.

Creation Care Covenant: "As a member of Trinity Church, I join with our congregation and the Trinity Creation Care Committee to reduce my household energy usage over the next year."

At this forum we posed the question: "Where do we go from here?" and discussed what had already been done to reduce energy use at our church facility, including educational efforts, insulating, using fewer chemicals, and switching to more energy efficient lighting options.

During our first year, Creation Care focused largely on interesting and involving church members in household energy reduction, especially via participation in H-IPL's"Task of the Month" program and Energizing Indiana's "Home Energy Assessment Program." We posted information about monthly projects on the church website, in worship bulletins, and on a Creation Care bulletin board, and made ourselves available for advice and hands-on assistance such as to insulate pipes in a crawl space. Follow-up letters to signees of the "Creation Care Covenant," informed them of upcoming events like a special Creation Care service. A Sunday educational forum featured info/demonstration tables highlighting the monthly tasks such as insulation, low-flow showerheads, programmable thermostats, sealing air leaks, replacing incandescent bulbs with CFLs, etc. These events drew the congregation's attention to earth stewardship as an integral part of our faith and mission, generated discussion and enthusiasm, and moved us toward projects aimed at further reducing the church facility's carbon footprint.

In Fall 2012, Trinity joined with other Indiana congregations to apply for an Office of Energy Development (OED) grant to install solar panels on their houses of worship. The annual production projected from the solar panels was 20,000 KwH such that the total projected savings over the next 11 years was $33,742. The solar proposal was funded. As part of the proposal, Trinity's Vestry agreed to work to reduce the Trinity facility energy consumption by 20%, to reduce the parishioners' energy consumption by 14%, to provide information to our sister Episcopal churches, and to work with other faith communities as they inform their congregations in Indiana about the benefits of renewable energy and energy conservation…." Below are energy conservation measures that Trinity has taken to date and those that it expects to undertake to meet its grant obligation to reduce by a total of 25% or more.

Trinity's Energy Reduction Projects Since 2007

1. Changed all T-12 lighting fixtures in classrooms, halls, and offices to T-8s.
2. Installed triple boiler system using less energy in average winter weather.
3. Installed all low-flow toilets - 1.6 gallons or less.
4. Installed new windows in most classrooms and offices.
5. Installed fluorescent lighting in the Sanctuary, dropping weekday energy use by about 40%.
6. Replaced old dishwasher with a commercial low-water one that uses just 1 gallon hot water per cycle!
7. Replaced old fridges with new high-efficiency ones
8. Replaces all thermostats with programmables that users can change somewhat for 3 hours.
9. Congregational fora to promote energy awareness impacting use of lights, elevator, and thermostats.
10. Replaced insulation on rooftop coolant pipes.
11. Educated staff to lower their use of phantom electricity: computer monitors and speakers.
12. Set thermostat programs 3 times per yr. Labor: 4 hrs./ yr. Savings: $50 to $1000 / yr., depending on settings, whether people accept it, and changes in humidity levels – the key challenge!

Trinity's Planned Projects for Energy Reduction

Each needs someone with time to spearhead the effort, keeping it organized from start to finish.

1. Change halogen 150 watt bulbs on Great Hall walls to 50 watt bulbs. Cost in materials: $120 Time: 3 hours. Payback period: 1.5 years.
2. Change 90-watt halogen bulbs in Great Hall ceiling to 20 watt LEDs. Materials: $1000 to $4000, depending on rebates. Time: 15 hrs. Payback period: 3-10 yrs.
3. Fix leaky doors. A tough project. Requires finding a door wizard.
4. Caulk Great Hall interior window sills. Materials: $10. Time: 3 hrs. Payback: 1 month
5. After removing trim board at top of Great Hall walls, fill gap indicated by infrared camera and then replace boards. Materials: $30 Time: 10 hrs. Payback: 4 months.
6. Block heat loss in tops of walls that can be accessed through drop ceilings, such as in the kitchen. Materials: $30 Labor: 5 hours. Payback: 2 months.
7. Vapor barrier in sanctuary crawl space to lower humidity, making it easier for people to think about higher AC settings in summer.
8. Lower summer sanctuary thermostat settings & don't use robes during summer services. No cost. Savings: $100-300 /yr.
9. Change lighting in alley to motion sensors.
10. Change emergency lighting from constantly lit to occupancy sensors.