

Englewood Christian Church Energy Conservation Case

Per cent of households achieving the 14% goal:	33%
Average reduction by those households:	28%
Reduction in natural gas use:	32%
Reduction in electricity use:	57%

Formed in 1987, Englewood Christian Church is an independent Christian church on the near eastside of Indianapolis. The congregation has retained and embraced its historic roots in the neighborhood, and seeks ways to embody the gospel in its place. Approximately 75 percent of the congregation lives within a half-mile of the church building, including many in multi-unit buildings; this creates embodied efficiencies in which car trips are reduced or unnecessary; heating and cooling systems are more efficient; and many resources can be shared. Constructed in 1956, the church building is approximately 22,640 square feet with an additional warehouse building that was constructed in 1986. In November 2012, Englewood included 90 households.

Energy Conservation in Englewood's House of Worship

Between December 2005 and October 2013, Englewood Christian Church decreased its degree-day adjusted use of natural gas use by 32% and electricity by 57%. The Church accomplished these impressive reductions with the following measures and strategies:

In 2006, Englewood replaced its original boiler system with a high-efficiency HVAC system that serves the entire church building.

In 2014, a comprehensive professional energy audit secured through Purdue Cooperative Extension identified \$20,000 in possible energy conservation investments including quick-payback measures that would cost \$2500. Unlike many congregations that simply shelve such audits, Englewood acted on its quickly. As part of the city of Indianapolis' Near Eastside Better Buildings Commercial Lighting Retrofit Program, the Church implemented approximately \$18,000 in lighting retrofits throughout its facility. The most inefficient T-12 lighting in high usage areas were replaced with more efficient T-8 ballasts and bulbs, which were projected to save annual energy costs of \$3,000 to \$5,000. The Church also installed motion sensors with timing devices in all its restrooms. As a result, between December 2012 and September 2013, Englewood degree day-adjusted electricity use decreased by 35%.

For Englewood, a key energy conservation strategy is to use its facility as fully as possible. Englewood opens its doors to not-for-profits that serve the local community. By making the Church a center of local ministry, Englewood spreads energy use in its facility over many more activities and people using the facility for many more hours. For example, during the course of the grant, Englewood doubled the number of its child care slots to 200 and opened its kitchen to a local caterer who hires and trains local residents. In other words, rather than reducing energy waste by not heating, cooling and lighting spaces that are not in use, Englewood aims to keep its space full with activities that enhance its community. In this way, building energy use per person-hour is reduced.

Nevertheless, the Church did take action to avoid heating, cooling or lighting vacant parts of the building. When parts of the facility are not in use, thermostat setbacks are used to reduce energy waste. During the grant period, Church leadership made a point of increasing "turn off the lights" awareness. With announcements in worship services and in the monthly Ministry Council meetings, members were reminded to be mindful of the light being using in the spaces they occupy and the need to turn lights off when they leave a space. However, the decision to maximize use of its

facility means that these waste reduction strategies have less impact – and savings from lighting upgrades and retrofits have more of an impact -than they would be in Church facilities that are used for fewer hours.

Household Energy Conservation

As with its own facility's conservation measures, Englewood used Indianapolis' Near Eastside's Better Building's Energy Efficiency Program to help its members and other neighbors to reduce their energy use at home. Englewood assisted in signing up its neighbors and neighborhood businesses for this program and, through it, provided home repairs for approximately 200 low-income households to help make their homes ready for and eligible for the program. Through this partnership, Englewood was able to achieve and exceed the grant's household energy conservation target. Of its 90 households, 30 took the survey. All of them exceeded the 14% energy conservation target. In fact, their average score was twice that – 28%.

Solar Limited Liability Corporation

Englewood used its solar grant to leverage additional investment and expand its solar installation through a Solar Limited Liability Corporation. The new entity – likely the first of its kind in Indiana - enabled Englewood to install an additional 5 kW in solar panels.

Amplifying Englewood's Impact

In February 2014, Indianapolis Mayor Greg Ballard joined Englewood's leadership for a press conference to celebrate the conclusion of the Near Eastside's Better Building's Energy Efficiency Program, where over 1,000 homes and over 50 businesses received energy efficiency upgrades with an average energy efficiency savings of 15%. As a result, Englewood's lighting retrofits and solar improvements were featured as part of two television news stories.

Also in 2014, Englewood told its conservation story at the annual Near Eastside Community Organization (NESCO) Congress hosted at Englewood with over 200 neighbors and at the Near Eastside Neighborhood Summit with attendance of approximately 80 people.

Building on its solar experience, Englewood in partnership with other groups won an exciting grant from the Indiana Housing & Community Development Authority (IHCDA) to create Indiana's first net positive energy multifamily development, the Oxford Place Senior Apartments. The apartment project is expected to generate more energy than it uses. Low-income housing tax credits provided approximately 70% of the project's funding.

In partnership with Eastside Creation Care Network, Englewood hosted a Let's Go Solar Forum facilitated by the Southern Indiana Renewable Energy Network and Hoosier IPL that attracted 50 participants.

In recognition of Englewood's leadership, Earth Charter Indiana gave Englewood a Green Legacy Award in 2015.

Hoosier Interfaith Power & Light wrote a case on the LLC as a way to help stimulate interest among other congregations. As a result of Englewood's pioneering work, several congregations have expressed interest in using a solar LLC to finance solar panels.

Partnerships, community involvement, innovation and publicity – through these strategies, Englewood Christian Church has greatly reduced its energy use while promoting and improving the well-being of its community and influencing others to follow its lead.