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What we do!

The Interfaith Coalition on Energy (ICE) works with about 6,100 congregations within a 50-mile radius of Philadelphia's City Hall. ICE helps them reduce their energy use and cost through this newsletter, workshops, publications and on-site energy surveys. See our website www.interfaithenergy.com for more information.

As part of our energy surveys, we rate your use of electricity and fuel in comparison to averages from similar buildings. We measure the efficiency of your heating system, when possible. We measure the electricity used by refrigerators, freezers, ice machines, vending machines, etc. Based on what we measure and observe, we write a report that describes your facilities and makes recommendations to lower your energy cost. The cost of a survey varies. We don't charge congregations for gathering data and submitting a proposal.
ICE

Energy Star Congregations (again?)

EnergyStar Congregations is a federal DOE/EPA program to help congregations reduce their energy use. In 2002, the EPA gave ICE a national award saying, ICE is "one of the oldest, if not the oldest, operating interfaith energy-environmental organization on the national scene, and remains a leading national advocate for congregational energy conservation and improved energy efficiency."

They granted ICE this award even though in 1996 we strongly criticized the EPA about their unrealistic standards for awarding EnergyStar ratings based on faulty data. They suspended that program. In that same article we criticized the EPA for unrealistic rules about asbestos and radon, which continue to this day.

Now, they are at it again with their "Energy Star Congregations" program. To us, it seems that they have never spent much time actually analyzing houses of worship, whereas ICE has analyzed hundreds of them.

For example, here is part of their list of "Sure Energy Savers" with our comments in **bold:**

- Use fans when a room/area is occupied. **Moving air makes people feel cooler during the heating season.**
- "Tune-up" your heating, ventilating and air-conditioning (HVAC) system with an annual maintenance contract. **We don't like fixed-price service contracts because your congregation ends up betting against itself.**
- The ENERGY STAR mark indicates the most efficient computers, printers, copiers, televisions, windows, thermostats, ceiling fans, and other appliances and equipment. ***Consumer Reports* has been critical of this program. We think that most appliances have become more efficient and that EnergyStar more likely describes the higher-priced appliances.**
- Properly sealed doors can prevent heat loss. **It is more effective to keep warm air from escaping than to keep cold air from entering.**
- In the winter, the warm air from your heating system will rise. Ceiling fans can actually help with both cooling and heating. **We have measured this. Ceiling fans are ineffective because the temperature of the air in large rooms tends to be homogeneous.**

- The Associated Pipe Organ Builders of America say that temperatures as low as 45°F will not cause damage to the organ. So normal setback ranges ~ 55°F to 60°F should not be an issue. **Why not recommend 45°F?**

The Energy Star program for congregations also offers a Portfolio Manager for buildings that are used as places of worship. We tried this program and lost patience with it. The results are not going to be accurate. The only inputs are zip code, gross floor area, seating capacity, number of weekdays in operation, weekly operating hours, number of personal computers, presence of cooking facilities and number of commercial

refrigeration/freezer units. Note that air conditioning is not included, and why would the number of personal computers matter in a house of worship?

From our point of view, why are only material factors considered? Why is the most important factor not included… the building operator?

Third Party Electric Suppliers Are More Expensive

During deregulation, the Pennsylvania Public Utility Commission forced electric utilities to randomly make a number of their customers purchase electricity from other suppliers. It is called the MST program, for Market Share Threshold. As of As of October 1st, there were 19,681 PECO Energy small commercial customers in this program today because they did not choose to return to PECO, down from 62,000 in 2004. At the time MST was ordered, the cost of electricity for the first year may have been lower from some suppliers compared to PECO prices, but that changed. Those suppliers are now charging as much as three times as much as PECO would charge.

ICE Board member Larry Spielvogel asked PECO if they have any responsibility to tell the MST customers they are paying more than necessary. To date, PECO says no. Ask ICE to determine if your PECO accounts are among the 20,000 paying too much.

One of the lower cost suppliers was Electric America, now called Commerce Energy, claims that high prices for residential customers are justified by claiming they are selling 'green' electricity... electricity from renewable resources to residential customers. This electricity costs more.

Solar Electric Installations May Not Achieve Estimated Cost Savings

In July 2008 180 solar electric panels began generating electricity on the roof of Limestone Presbyterian Church in Wilmington, Delaware. The cost of the 36-kilowatt installation was $251,790, but half of its cost ($125,895) was covered by an already approved Delaware Energy Alternatives Program rebate. Limestone also received loans from the national Presbyterian Church and the New Castle Presbytery.

Some income results from Solar Renewable Energy Credits, which Limestone says was $9,076 in 2008. Limestone also has gained many new members (and their financial pledges) as a result of their solar installation. From ICE's point of view, however, do the electric bills show that the anticipated savings are there? So far, they aren't. This has created considerable discussion over the past few months.

What happened?

Most worship facilities are commercial electric accounts, according to their electric utilities. Residential accounts are usually billed only for kilowatthours of electric use, but commercial accounts are usually billed not only for electric use, but also for the rate of use, called electric demand, which is measured in kilowatthours per hour, or kilowatts (kW) every 15 minutes. The maximum 15-minute demand for the 2,880 demand periods in a month sets the demand charge for the month. The demand cost can only be reduced if the sun is shining brightly during the 15 minutes when the peak demand for the month is created. Thus, unless the renewable energy is producing at full capacity in the one interval out of 2,880 in each month when the peak demand is created, there will be little or no demand cost savings in that month.

So, the question is: do the solar panels generate the maximum electricity at the same time that Limestone requires the maximum electricity? No. This means that the demand charges basically remain the same as they were before the solar installation, and the savings will be less than anticipated. There will be energy consumption savings, provided the church is using electricity at the same time the sun is shining.

Depending on the utility rate, as it is with PECO Energy the cost per kWh can go higher with less use, so the total bill is not reduced in proportion to the reduction in consumption. The peak electric demand cost in Delaware for a church often represents ¾ of the total dollar amount of the electric bill, especially in summer. In other utilities, like PECO, which has a 30-minute demand interval, the demand cost can be from ⅓ to ½ of the total dollar amount of the electric bill.

Wind energy systems would result in the same lack of cost reduction. Alternative or renewable energy systems will reduce purchased energy consumption (kWh) from the utility, but will not necessarily reduce energy costs by the same proportion. Therefore, be very careful to understand what the electric cost savings are really comprised of when considering the use of alternative energy. Just because an estimate shows a 50% reduction in purchased energy consumption, the actual cost reduction can be a small fraction of that amount.

'Green' light bulbs poison workers

Hundreds of factory staff are being made ill by mercury used in bulbs destined for the West - Michael Sheridan, from *The Sunday Times* (London) May 3, 2009

"WHEN British consumers are compelled to buy energy-efficient light bulbs from 2012, they will save up to 5m tons of carbon dioxide a year from being pumped into the atmosphere. In China, however, a heavy environmental price is being paid for the production of "green" light bulbs in cost-cutting factories. Large numbers of Chinese workers have been poisoned by mercury, which forms part of the compact fluorescent light bulbs. A surge in foreign demand, set off by a European Union directive making these bulbs compulsory within three years, has also led to the reopening of mercury mines that have ruined the environment.

Doctors, regulators, lawyers and courts in China - which supplies two thirds of the compact fluorescent bulbs sold in Britain - are increasingly alert to the potential impacts on public health of an industry that promotes itself as a friend of the earth but depends on highly toxic mercury."

Religious Buildings Will Be the Top Performing Non-Residential Construction Sector in 2010

From *Worship Facilities Magazine*

Raleigh, NC - February 20, 2009 - As U.S. building market segments continue to struggle, there is a bright spot on the horizon for the house of worship market. According to the latest data released last month by the American Institute of Architects (AIA), Religious Buildings will be the top performing non-residential construction sector in 2010. SOURCE: American Institute of Architects www.aia.org

If you have an underground fuel oil storage tank...

You probably should be in the Pennsylvania Underground Storage Tank Indemnification Fund (USTIF). This is an insurance program that will help remediate any damage resulting from leaking tanks. It costs $0.0825 cents per delivered gallon and covers up to $1.5 million per tank, subject to a $5,000 deductible. To opt in, your congregation must submit a copy of a recent tank tightness test, an application and a $50 fee. Call 800-595-9887 of visit www.insurance.state.pa.us/ustif/oiltanks.html.

From an ICE enthusiast

"You have been a terrific source of knowledge for us over the years. This donation is sparked in particular by several helpful articles in your newsletter about water and plumbing issues. Implementing your ideas has resulted in direct savings to our church budget. Keep up the good work!"

Joy Bergey

THE INTERFAITH COALITION ON ENERGY

There are a number of reasons to give money to us:

- You may have extra money lying around, and you don't know what to do with it.

- Perhaps you want to support an energy conservation organization that solely represents the interests of people of faith.
- Maybe you like ICE; maybe one of our articles or a phone conversation saved your congregation money.
- Your contribution is tax-deductible.

Whatever your reasons, please send ICE a check so that we may continue to serve.

ICE, 7217 Oak Avenue, Melrose Park, PA 19027

Thanks. ICE

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