Newsletter 105
Winter 2010

What we do!

The Interfaith Coalition on Energy (ICE) is a non-profit project of Philadelphia's religious community. 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

Man admits theft of copper from church roof

Last May (2009), two thieves who stole $19,000 of copper from a church tower in Leigh, England dressed in high visibility jackets to make themselves look like workmen, a court was told. James O'Neill, 20, admitted taking copper sheeting from the roof and spire of Leigh Road Baptist Church. Southend Magistrates' Court was told how neighbors were alerted to the theft at around 6am on April 5, by noise outside the church, which was undergoing repair work.

ICE

Dorm Students Unplug to Save Energy

Students living in nine residence hall communities at Louisiana State University in Baton Rouge reduced their energy consumption in March by $13,763-an average of 18 percent-as part of the school's "Unplug" competition.

The contest compared the March 2009 electrical meter readings with those from March 2008. Students were asked to adjust their daily routines-turning off lights, unplugging chargers, taking shorter showers-to save energy in campus residence halls and apartments. East Campus Apartments achieved the greatest reduction-a 35 percent reduction compared with the same timeframe in 2008. All residents there have received a 1-gigabyte flash drive for their accomplishment.

The Horseshoe community, which reduced consumption by 29 percent, finished second in the competition, and the Blake/McVoy community and Herget Residential College tied for third place with a 21 percent reduction in energy consumption. (from the June 2009 issue of *American School and University*, Page 10) .

ICE

We need your input on shared savings contracts

With a shared savings contract, a contractor pays for the entire installation of a boiler, lamp and ballast replacement, a new control system, or some other means of reducing energy cost. The contract stipulates that the contractor receive a share of the resulting savings, usually over several years. We are looking for congregations who have entered into such contracts so that we can learn about their experience with them. If your congregation is involved, or has been involved, in a shared savings contract, please contact us by phone, fax or email. Our numbers are above. Thanks.

ICE

The Risk Reporter

For several years, we have been receiving the Risk Reporter from Church Mutual Insurance Company. It is usually a single sheet printed two sides about some topic relevant to congregations. The current issue is about risks involved with emergency shelters. If you would like to read these reports, or sign up to receive them, visit www.churchmutual.com. Click on "Safety Resources." Church Mutual offers an array of free videos, booklets, posters, newsletters, and other safety information.

Lighting suppliers and heating/cooling contractors

Recently, we evaluated a proposal from a lighting vendor to replace all of the T8 fluorescent tubes and electronic ballasts in a parochial school with 4-foot tubes lit with light emitting diodes, commonly known as LEDs. We discussed the proposal with lighting specialist Carl Watson, lighting supplier and contractor Neil Sobel of ALI Lighting, Larry Spielvogel and Jack Sullivan. Larry and Jack are members of the ICE Advisory Board. All of us agreed that the proposal did not make sense. The new tubes would produce glare. The payback period was very long. And we weren't sure of the quality of the light coming from the LED tubes.

Fairly soon, PECO Energy and six other Pennsylvania electric utilities will unveil their programs in response to Act 129. Programs include rebates to offset the cost of high efficiency heating and cooling systems and more efficient lighting and lighting controls, among other things. We think this is going to open the floodgates for less than totally honest vendors and contractors. Here is how to protect your congregation:

- Ask for a proven track record of existing installations that are at least two or three years old. Insist on measured data from before and after the installation. Call each congregation they refer you to. Make sure they are pleased with the work and the results.
- Insist on equipment from major, well-known manufacturers. Ask for options for prices for better quality equipment. If subcontractors are going to be used for the installation, get their contact information as well.
- Insist on a written warranty from both the vendor (or contractor) and from the manufacturer. Are disputes resolved through arbitration? Who is responsible for pulling permits and submitting drawings. Any proposal for new heating or cooling equipment should include a heat loss/gain study.
- A good proposal has a date, a clear address and phone number for the contractor (not a PO box), and a clear description of what is to be done and should state what work is exempted from the proposal. It should state when the work will be done and what training is required of your personnel. It should state that all work will conform to applicable codes and should state that sales taxes will not be included in the price.
- Look for a reasonable time period for the price to remain valid. Look for a reasonable down payment. More than 1/3 down should raise concerns. The proposal should describe clear benchmarks for progress and final payments.

Now, you may think this is complicated. It is actually only part of a publication we have for dealing with contractors and vendors. Email us if you want the complete publication.

How Religious Buildings Use Energy?

When we survey your buildings, we gather lots of information and record it into a database. The information is anonymous, keyed in by codes that only we understand. Among other information, the database contains the following about the most common type of building – one used for worship, with classrooms often used for child care, a fellowship hall and offices:

- Number of buildings in this category to date – 334
- Average floor area of heated space – 20,750 square feet
- Average number of kilowatthours of electricity – 2.88 per square foot per year
- Average annual units of fuel per square foot – 0.563 CCF of natural gas or 0.38 gallons of #2 fuel oil
- Hours use of demand (a rough indication of building use) – 145 hours per month, or 36 hours per week
- Maximum annual watts of electric demand per square foot – 1.71
- Fuel input to the heating system, divided by the square feet of heated space – 73 Btus/Square Foot
- Average natural gas used for cooking food and heating domestic hot water – 0.04 CCF per square foot per year

This is for one building type. Other categories in our database include all-electric houses of worship, synagogues, churches used for worship only, retreat centers, office buildings, mobile classrooms, elementary schools, convents, rectories and single-family homes.

Problems with Church Fires

The September/October issue of the *NFPA Journal* from the National Fire Protection Association has an interesting article about church fires on Page 34 by Ben Klaene and Russ Sanders. In part, they write, “Most churches consist of large open areas, and the false space between the ceiling and the roof of a church can be immense. Although this area is typically supported in older churches by large-dimension lumber, modern churches more commonly use lightweight truss construction that collapses faster when involved in a fire. In the past 20 years, three church fires where wood truss roofs collapsed resulted in multiple firefighter line-of-duty deaths.

A church's large open areas, combined with the possibility of a roof collapse, often require a defensive attack once the fire has gained enough momentum. Due to the height of many churches and the likelihood of a catastrophic collapse, defensive operations can be difficult and require a large collapse zone. Often, firefighters initially apply offensive tactics and switch to a defensive mode once they know the extent of the fire. This switch is very challenging, especially if multiple hand-held fire streams are used during the initial attack.

An early morning fire in an unoccupied church in Louisville, Kentucky, in January 1986 illustrates the problem. With the church empty and heavily involved in fire, the incident commander decided to switch from an offensive to a defensive attack. Firefighters, who thought they could quickly mop up a small exposure fire in the front of the building, advanced one of the offensive lines into the collapse zone. As they did, the front of the church partially collapsed, trapping the crew. The firefighters were pulled to safety, but the outcome could have been very different. This near-tragedy serves as a reminder of the importance of shutting down and disconnecting unused hand lines during defensive operations. In church fires, as in fires at any large, complex structure, occupancy plays a major role in determining strategy and tactics. However, the first operational priority when formulating an incident action plan is always life safety.”

From ICE enthusiasts

"Thank you for your responsiveness to all the questions and to the participants' requests for more information. There was a good turnout, participants were focused throughout, and you presented many wonderful ways for churches to get a grip on their energy consumption."

Geneva Butz ICE

"The entire presentation, all the PowerPoint materials, very well done. Your presentation was well organized with a listener invitational style (good humor) and most important, very knowledgeable."

Pastor Ed Robbins ICE

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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