

What we do!

The Interfaith Coalition on Energy (ICE) works with about 7,400 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.

ICE

City water meter rates increase in 7/06, and again in 7/07

We continue to find oversized water meters within the city limits of Philadelphia. This is important because the monthly meter charges, which are independent of water usage, are increasing. Here is a table of the annual meter charges, according to the size of the meter in inches, currently in effect for Philadelphia and the suburbs:

	Philadelphia Water Department	Aqua (in the suburbs)
Inches	\$/Year	\$/Year
5/8	\$248	\$138
1	\$1,678	\$403
1½	\$3,237	\$823
2	\$5,130	\$1,170
3	\$9,522	\$2,352
4	\$15,948	\$3,828

Often, a 5/8" meter is all you need. So, for example, if you have a 2" meter within Philadelphia, you could save almost \$4,882 per year by replacing your meter with a 5/8" meter, which costs about \$700 to install. Also, we find some congregations in the City of Philadelphia are not taking advantage of the 25% Charitable Discount... free for the asking, if you provide documentation that your congregation is a non-profit organization. The monthly meter charges above, and the estimated savings for replacing the 2" meter with a 5/8" meter, are before any discount. This discount is not available in Aqua territory.

ICE

Our Request for Information about Large Expanses of Sheetrock

In the spring of 2006, we received a memo from a builder of large churches, urging congregations to maintain constant temperatures all year long in order to prevent cracking in large expanses of sheetrock (also known as gypsum board or wallboard). The US Gypsum Association has temperature standards for the installation of sheetrock (50°F or above), but none for installed sheetrock, so we want to learn more from actual buildings. If your congregation lowers the interior temperature in rooms with large expanses of sheetrock, we would like to hear from you about any experiences you have with cracks, or without cracks. Just call, email or fax us with details. We may want to examine your building.

ICE

Progress in Reducing Energy Use?

The US Department of Energy's Energy Information Administration is the nation's scorekeeper on energy use. Here is a table from them which describes the total amount of energy used by each of us in the last 50 years.

Year	Million BTUs per American
1950	229
1960	250
1970	331
1980	344
1990	339
2000	350



It does not seem that we have made much progress.

Buildings for religious worship have had an increase in the amount of electricity used. Ones built in 1959 or before use an average of 2.9 kWh per square foot per year. Those built between 1960 and 1989 use 4.8 kWh per square foot, and those built between 1990 and 2003 use 8.1 kWh per square foot. The data are found in Table C22 in the 2003 Commercial Buildings Energy Consumption Survey, or on the internet at

www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html.

ICE

PECO Energy Invoice Problems

ICE Advisory Board member Larry Spielvogel reports that PECO Energy implemented a complete new billing system on October 16, 2006. Larry describes many resulting problems and opportunities as follows:

PECO has changed all account numbers and many of their meter reading groups. There are 21 groups, with group 1 usually being read on the first business day and group 21 usually being read on the last business day of the month. For those who desire to have their PECO bills on a calendar month basis, now may be an appropriate time to request a change to Group 21. There is no assurance that PECO will make changes. This may also be a good time to consider revising the name and designation of each account as it appears on the bill, to make keeping track of accounts easier. Where there are multiple accounts, give consideration to consolidating all accounts into a summary bill.

The new bills no longer show much of the information that appeared on the prior bills. These omissions include (1) showing separate charges for the Night Service Rider, (2) the combined on peak demand for customers with dual service, (3) the combined off peak demand for customers with dual service, (4) the contract demand limits, (5) electric and gas demand and consumption for the same month in the prior year, (6) all of the meter readings, (7) the percentage amount of the State Tax Adjustment charges and how they are calculated, (8) the measured demand rather than the billed demand, (9) the power factor, (10) the PECO tax ID number, (11) the balance from the prior month, (12) the balance as of the billing date, (13) the dates of payments, (14) the state and zip code of the service address, (15) any indication of a meter change, (16) the graphs for both meters for the two meter GS Rate, (17) indications on the graphs showing estimated and customer readings, (18) the meter reading group for that account, (19) the graphs on the bills no longer start at zero, so they give a skewed view of monthly consumption, and (20) they show total monthly consumption rather than daily average consumption as before. With anywhere from 27 to 34 days in a PECO billing month (a 25% variation), the monthly consumption graphs do not provide a reasonable basis for comparison. Some meters do not show your actual readings.

Further problems are (1) be careful of incorrect subtraction of meter readings, (2) the accuracy or multiplication of meter reading differences, which can be wrong, (3) incorrect demand calculations because the meter reading times the multiplier is not mathematically correct, (4) inapplicable statements about taxes and transition charges from electric accounts are shown on gas bills where they do not apply, (5) commercial single meter electric heat customers (Rates CH6, CH7, and CHC) may not be getting the demand forgiveness they are due, and (6) where there are separate charges and credits on the bill, little or no explanation is provided. For example, when there is a credit for an overpayment, no explanation is provided for why there was an overpayment and how and why the account was adjusted. Be sure to verify that you (1) are being billed on the proper rate and riders, and (2) are getting the proper partial or full sales tax exemptions for both electric and gas. The hourly electric spreadsheets and printouts (known as LPR reports) for large customers are no longer available.

Expect PECO electric rates to go up about 5% in 2007. Since PECO natural gas prices are adjusted every three months, it is not possible to estimate what those costs will be in 2007. There are still 31,261 PECO General Service electric customers served by third party suppliers and who are paying them about two times what PECO would charge. If any of your accounts are in this category, make a formal request to revert to PECO as the provider of last resort.

With natural gas prices still high and volatile, there are some customers switching to the PECO residential and commercial electric heat rates and installing heat pumps to replace gas furnaces and boilers. Heating costs are about equal with number 2 fuel oil at \$2 per gallon, natural gas at \$1.50 per CCF, and electricity at 7¢ per kWh for resistance heating. At 7¢ per kWh for heat pumps, with a heating seasonal performance factor (HSPF) of two, which is typical for this area, the heating cost is equal to fuel oil at \$1 per gallon and natural gas at 75¢ per CCF. On Rate HT, additional kWh in the last rate block (over 300 hours use of demand) cost about 3¢ per kWh if the demand is not increased. If demand is increased, the cost per kWh goes higher. In other words, to beat the heating cost with a heat pump at 7¢ per kWh, you must buy natural gas for less than 75¢ per CCF or fuel oil for less than \$1 per gallon. Moreover, with new heat pumps, the air conditioning is usually much more efficient, thus lowering summer cooling costs as an additional benefit.

More on Low Interior Temperatures and Pipe Organs



The American Institute of Organ Builders (www.pipeorgan.org) recommends that congregations with pipe organs keep their worship spaces as low as 40°F when not occupied. This organization has 385 members that are professional organ builders, service technicians and suppliers. Among other things, their document says, “If the worship space is unoccupied for most of the week, lowering the winter midweek heat setting to around 40 degrees (or slightly higher in mild climates) will naturally keep the relative humidity high enough that a humidifier may be unnecessary. If no heat is used for the entire week during freezing weather, it is important to slowly raise the temperature incrementally over at least a 24-hour period.” The document is at

http://www.vipl.org/SaveEnergy_files/Organ%20Temperature%20Guide.pdf

ICE

Pittsburgh Churches Are Getting Energy Advice

Last year, Greg Wosniak of Pittsburgh came to Philadelphia to help us analyze two Catholic parishes. He then went back home and is now analyzing more religious buildings there. Some of his work is with historic buildings. See www.phlf.org/news/medioclips/2006/index.html and then scroll down to [02/16/06: Historic Religious Properties Receive Energy Audits](#) to access the article.

ICE

Al Gore, Move Over. Here comes “The Great Warming.”

Al Gore’s “An Inconvenient Truth” is now the third highest grossing documentary film. Another film, however, may be even more powerful. Website information describes the film. “Narrated by Alanis Morissette and Keanu Reeves, ‘The Great Warming’ examines evidence that human activities are provoking an

unprecedented era of atmospheric warming and climatic events: more drought, wildfires and flooding, polar melting, more powerful storms and more variable weather. ‘The Great Warming’ also showcases initiatives aimed at reversing the trend toward permanent damage to our planet, as well as scenes documenting the emerging voice of America’s faith community urging action on climate change. It is endorsed by the National Council of Churches, Evangelical Environmental Network and the Coalition on Environment and Jewish Life.”

ICE



From long-time ICE supporters:

Here is a check for \$35. Keep the newsletter coming!

Ken Dunker from Ames, Iowa

Keep up the good work!

Bobbie Hinline from Greensburg, PA

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