

Newsletter 89 – Early Spring 2004



How Cold Was It?

It's been cold this winter. January 2004 was the coldest January in 23 years. One way to compare outside temperatures from month to month is to analyze heating degree days. Degree days assume that building occupants are comfortable at 70°F and that 5° of those 70° come from internal heat gain, such as people, lights, computers, appliances and so on. Each hour the outside temperature is below 65°F counts as one heating degree hour. Twenty-four degree hours is one heating degree day (HDD). January 2004 had 1,199 HDD.

Heating degree days help fuel dealers make deliveries on time. The more heating degree days that accumulate, the more fuel needs to be delivered. The National Weather Service keeps track of degree days as they are recorded at the Philadelphia International Airport and posts them each month on their Mt. Holly, NJ website:

<http://www.erh.noaa.gov/er/phi/clidat.htm>

Here are the monthly averages of heating degree days HDD for the past 16 years:

| Month | HDD | % of total |
|-----------|-------|------------|
| January | 942 | 21% |
| February | 807 | 18% |
| March | 652 | 15% |
| April | 336 | 7% |
| May | 110 | 2% |
| June | 10 | 0% |
| July | 0 | 0% |
| August | 0 | 0% |
| September | 36 | 1% |
| October | 256 | 6% |
| November | 511 | 11% |
| December | 835 | 19% |
| Annual | 4,495 | 100% |

Most fuel dealers define a heating season from July 1 through June 30. In past 16 years, the heating season with the most heating degree days was 1983-84 with 5,369. The season with the fewest heating degree days was 2001-02 with 3,867. ICE

Employees of Religious Institutions are Oldest

Cambridge Energy Research Associates and the US Bureau of Labor Statistics report that the average employee of a religious institution is about 54 years old. A graph on Page 7 of the January/February issue of *Electric Perspectives* magazine from the Edison Electric Institute listed the average age of employees in many sectors of our economy. The youngest listed was about 37 years old and worked in arts and entertainment. Employees in energy-related industries were 40 to 46 years old on average, which is the reason that Cambridge Energy Research Associates were interested in the data. ICE

Pipe Organs and Cold Interior Temperatures

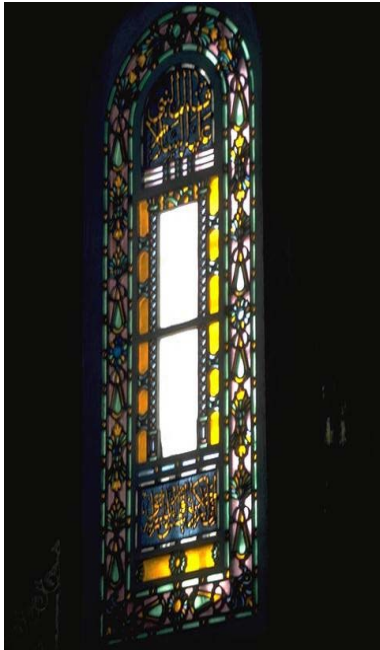
An article on Pages 8 and 9 of Volume 427 (January 2004) of *Nature Magazine* describes how some of the lead organ pipes in European cathedrals are falling apart. The study was funded by the European Union. Careful examination of the lead pipes showed that they were being corroded by acetic acid in the air blowing through them. The acid comes from new oak wood in the bellows and wind chests. The corrosion has become more prevalent in recent years. One theory is that central heating of the churches drives the acid from the wood. One proposed solution is similar to one that we described fifteen years ago – turn down the heat in order to preserve the pipe organ. Not all pipes are affected by corrosion. Ones that contain 1½% to 2% of tin mixed with the lead seem to be most susceptible. ICE



A Regional Restoration Directory

Do you need to find a good mason? Want someone to repair your steeple? How about stained glass repair? Well, references to qualified contractors are now listed on a new website at www.preservationalliance.com. The list of 500+ firms was developed by Randy Cotton of the Preservation Alliance for Greater Philadelphia. Randy has been working with older churches for over 16 years and can be reached at randy@preservationalliance.com

Congregations Reduce Energy Costs to Survive



The U.S. Congregational Life Survey (www.uscongregations.org) involves about 300,000 worshipers in over 2,000 congregations in the United States. Results from a survey during worship services in April 2001 reveal that sixty-three percent of the nation's churches have fewer than 125 in Sunday worship, says Cynthia Woolever, director of the Survey Project. "Most congregations have fewer than 100 people in worship services. This key fact of congregational life has far reaching consequences. With so few people, raising funds and supporting full-time clergy or other professional staff can pose problems. Rising health-care costs have made it particularly difficult for small congregations to offer medical benefits to their staff. Most congregations and parishes also own their own building. Again, with less than 100 people to fund the expense of upkeep and operation of their facilities, resources are taxed. Day-to-day operating expenses may leave little money to fund extensive programs, community services, or other ministry projects. The size of the worshiping community is a critical factor. Thus, size can determine whether the congregation can afford to have paid staff (such as a minister, pastor, or priest), the number of programs that can be offered, the ability to maintain a building or worship site, and how widely the burden of leadership and finances can be shared." ICE

Deregulated Electricity

ElectricAmerica is once again offering lower cost, deregulated electricity to PECO Energy and Public Service Electric and Gas customers. Their call center in California offers a 5% reduction in generation and transmission cost, but even greater savings might be achieved by calling their New Jersey office at 888-817-8572. Ask for John Kittredge. Be sure to read their contract carefully before you sign. If you wish, we can send you comments about the contract from one ICE Advisory Board member. If you have ever purchased deregulated electricity before, start after your May meter reading to avoid penalties from PECO Energy. ICE

What's in an ICE Energy Survey Report?

When you hire ICE to survey your facility's energy use, what does the resulting report look like? Well, it's packaged in a three-ring binder. There are six dividers in the report. If we take photographs, copies will be included. We intend to make the report easy to understand. Before you receive it, one other person will examine it to make sure it is meaningful for you.

- 1. Description** This section describes your facility and how it is used. The information comes from the preliminary information form you submit to us, plus further details we learn on-site. We measure your building from the outside and round off the floor area to the nearest 100 square feet, including heated basements.
- 2. Evaluation** This section compares the energy your facility uses annually per square foot of floor area. We compare this rating with similar ratings for hundreds of buildings just like yours in this climate. This comparison is fundamental to our approach. We do not estimate savings in energy use or cost that are not reasonable, given the relative amounts of electricity and fuel you use per square foot. If we survey your church in cold weather, we would like to record the temperature in various areas inside and outside your building. Those data would be in this section as well.
- 3. Summary** The summary is a list of our recommendations, their estimated first cost, and the estimated annual savings. The recommendations are ordered by simple payback, with the actions giving the greatest benefit at the lowest cost listed first. Simple payback is the crudest way to evaluate our recommendations because the environmental cost of using energy, such as contamination of our air and water, is not included in the calculations.
- 4. Recommendations** For each recommendation, we provide you a description of what should be done to reduce energy use and cost.
- 5. Energy Data** In this section, we provide you with the basic energy data we gathered from your utilities and fuel suppliers.
- 6. Supplements** For each recommendation, we may include instructions for installation, actual proposals from qualified contractors, price lists from qualified vendors, and other information to help you implement the recommendations.

And, if you don't understand something we have written, you can call or email us anytime for clarification or more information. The cost of doing a survey varies from a few hundred dollars and up depending on the size and complexity of your facility. ICE

Energy-saving Giving?

Suppose that a big snow storm makes car travel impossible on your day to worship with your congregation. Would contributions decline for your congregation? One solution involves turning on your computer and sending an "E-Gift. We thought this was interesting because it has several advantages. Congregations can:

- increase their donations
- stabilize cash flow
- free up time spent counting cash and paper checks
- maintain contributions through summer vacations and winter weather
- maintain records of tax-deductible donations not available with cash
- save energy by not driving



Donors may also pledge more because they decide annually about their gift instead of donating based on what is in their wallets each week. See "The Collection Plate? Charge it, as Churches Embrace E-Giving", Sarah Kershaw, *New York Times*, 8/11/02, p.29. One company that arranges electronic giving is Smart Payment Solutions, Inc. in Arlington, VA at 1-800-320-7258 or www.smartpaymentsolutions.com ICE

Congregational Resource Guide

The Alban Institute and the Indianapolis Center for Congregations have created the Congregational Resource Guide to help congregational leaders connect with resources they need to gain insight into problems and to encourage transformation in their communities of faith. Their website is www.congregationalresources.org and has information in the following categories: Administration, Building Issues, Congregational Vitality, Leadership, Public Ministry, Religion in America, Specialized Ministry, Spirituality, Worship and Miscellaneous.

We are thrilled that this website has listed ICE as a resource! ICE

From an ICE enthusiast

I'm so happy to see that your web site is up and running -- it looks wonderful!

Tanya Marcovna Barnett
Earth Ministry, Seattle, Washington ICE

Our website is www.interfaithenergy.com