SEDAC
The Smart Energy Design Assistance Center (SEDAC) provides advice and analyses, enabling small businesses in the State of Illinois to increase their profitability through the efficient use of energy resources. SEDAC is sponsored by the Illinois Department of Commerce and Economic Opportunity’s Small Business Smart Energy Program (SB$E) and provides valuable services at no cost to small businesses. SEDAC is managed by the University of Illinois at Urbana-Champaign and the 360 Energy Group.

EDUCATION
January 25, 2008
LUNCH and LEARN
11:30 am - 1 pm
Lighting Controls
Derek McCully and Anthony Crumrine of Philip McCully & Associates.
Location: Waste Management and Research Center
1 Hazelwood Drive
Champaign, IL 61820.
Limited to first 50 registrants.
Box Lunch provided.
Register ONLINE NOW
Questions:
lunchandlearn@sedac.org

CLASSES
Techniques for reducing energy usage in commercial buildings (new designs and retrofits). Integrated design, modeling, methods, and code implications will be covered.

SEDAC NEWS

SEDAC Skylight Tips
It is not uncommon for lighting to account for a large percentage of businesses’ utility expenses. Additionally, lighting contributes to a building's internal heat gain and subsequent air-conditioning loads that increase mechanical costs. By utilizing daylight, which is free, artificial lighting can be reduced to save energy on both the lamps and on the reduced heat generated by lighting.

Windows, which allow daylight into the perimeter of buildings, can only offset artificial lighting near their location. To daylight the core of larger buildings such as manufacturing facilities, warehouses, big-box retail outlets and schools, skylights can be used. Skylights are easy to incorporate into new construction and can also be installed when reroofing an existing building.

Studies have shown skylights have additional benefits of increasing sales in retail outlets and increasing worker productivity and safety in warehouse situations. For example, Wal-Mart has committed to installing skylights in all of their new buildings. Other companies that have integrated skylights into their facilities have stated that the natural lighting has boosted worker morale and increased employee retention rates. Benefits such as these can greatly outweigh energy savings. Energy savings are simply icing on the cake.

Skylights and the lighting system need to be designed in conjunction with each other and their layout needs to be coordinated. Additionally, specialized lighting control systems can be employed to either dim or step down the lights as daylighting increases. These types of controls are becoming increasingly common. SEDAC is sponsoring a “Lunch and Learn” on lighting controls on January 25, 2008. See panel on left for details.

...over
...more education


Online Classes are available through SEDAC and the Office of Continuing Education at UIUC:
The Architecture of Sustainability: 10 modules - individual or packaged.
Module 1: 3 AIA LUs/CEUs-$75. Modules 2-10: 1 AIA LU/CEU, $50.
Package of 10 modules: 12 AIA LUs/CEUs, $450.
Energy Basics for Small Business.

Online Registration is continuous at www.continuinged.uiuc.edu

OTHER EDUCATION

ENERGY CENTER OF WISCONSIN Commercial Solar Thermal Design and Installation Training

Register at http://www.ecw.org/solar

Choose from four dates & locations
January 31, 2008 – Neenah, WI
February 5, 2008 – Milwaukee, WI
February 13, 2008 – Racine, WI
February 28, 2008 – Waukesha, WI

US DOE Energy Efficiency and Renewable Energy Industrial Training Workshop
Advanced Management of Compressed Air Systems
February 27-28, 2008 – ComEd Conference Center, Oak Brook

...contd.

There are software packages available that can help determine the optimal number and spacing of skylights. These programs can also calculate the energy savings and economics based on user input utility rates. Energy penalties due to increased heat loss during cold weather are taken into account. An example of such a program is SkyCalc™ from Energy Design Resources.

Interesting to note is that skylights were commonly used to light warehouse and industrial type buildings before the advent of high intensity discharge lamps. As HID lamps became more common, the shell of these types of buildings became more opaque. Now the trend is reversing itself.

Some building owners are reluctant to install skylights because they think that they leak. This may have been true in days-gone-by, but today’s skylights are well engineered and if properly installed, do not leak. Depending on exterior conditions, skylight construction and interior humidity, condensation may occur on the inside surface of the skylight, however most skylights have a gutter along their perimeter that captures this water and either drains it to the exterior or holds it until it can evaporate.

The benefits of skylights can extend well beyond energy and cost savings. Are skylights something you should be considering?

Resources: www.energydesignresources.com/resource/129/
www.designlights.org/skylighting.html

NEW YEAR’S ENERGY SAVINGS RESOLUTIONS

Last year we brought you energy tips from Eastern Illini Electric Cooperative that we think are worth repeating for 2008. The energy costs of your business may well be an area where you can achieve savings and improve your bottom line in the coming year. To get you started on the road to efficiency, consider the following New Year’s Resolutions:

1. I will review the energy use of my building, establish a baseline, and set a savings goal.
2. I will have the heating equipment inspected now and perform monthly maintenance.
3. I will turn back or turn off heating & cooling equipment when not needed.
4. I will improve the lighting systems and turn off lights when not needed.
5. I will get staff involved in saving energy and improve the bottom line.

THE ENERGY INDEPENDENCE AND SECURITY ACT OF 2007
A summary of the recently signed legislation can be found at US Senate Committee on Energy and Natural Resources site.