Smart Energy Design Assistance Center

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SEDAC

The Smart Energy Design Assistance Center (SEDAC) provides advice and analyses enabling facilities 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 and provides valuable services at no cost to small businesses and public facilities. SEDAC is managed by the University of Illinois at Urbana-Champaign and the 360 Energy Group.

(Hyperlinks are shown in green)

EDUCATION

April 25 -28, 2008 NOON - 1 pm: SEDAC and USGBC Presentation and walk-through of a LEED certified building in Champaign.

Faith United Methodist Church
1719 S Prospect Ave
Champaign, IL 61821

Register Online
Questions: **info@sedac.org**

April 30, 2008:
Geoexchange 101: 8:30am-11:30am
Geoexchange 201: 12:30am-4pm
ComEd Commercial Center
1919 Swift Dr, Oak Brook. **Directions.**
Register Online: **GEO 101**; **GEO 201** by April 25. Limited to first 50. Call 312-962-3102 to be wait-listed

May 16, 2008 9:30 am – 12:30 pm:
Beyond Code: Energy Efficient Commercial Buildings
1010 Jorie Blvd, Oak Brook
3 HSW LUs in AIA/CES program, $40, Guidance and techniques for reducing energy usage in commercial buildings (both new designs and retrofits). Integrated design, modeling, and methods will be covered. Code implications will also be discussed.

...over

SEDAC NEWS

A Galaxy of Resources – ENERGY STAR

ENERGY STAR® is a joint program of EPA and DOE, created to save money and protect the environment through efficient use of energy in buildings and manufacturing plants. This multifaceted program gives building owners, operators, and designers the information and tools they need to assess and improve their facility's energy performance. ENERGY STAR provides consumers with a means of benchmarking their building's current energy consumption against similar facilities, setting realistic targets for energy efficiency, and implementing strategies for achieving goals. Visit ENERGY STAR's website at **www.energystar.gov** for energy management methods, product recommendations, energy and financial calculators, directories of product and service providers, online training, and recognition and networking opportunities.

Are You a STAR?

Buildings and plants whose energy performance rates in the **top 25 percent** of facilities in the nation may qualify for the ENERGY STAR designation. Currently, buildings that can earn the ENERGY STAR include offices, bank branches, financial centers, retailers, courthouses, hospitals, hotels, K-12 schools, medical offices, supermarkets, dormitories, and warehouses. **Industrial buildings** that can earn the ENERGY STAR include auto assembly plants, cement plants, and wet corn mills. Architecture firms can also display the **Designed to Earn the ENERGY STAR** graphic to distinguish their projects as among the nation's best in energy performance.

Earning the ENERGY STAR is evidence of your organization's commitment to reducing its impact on the environment. The ENERGY STAR designation shows that your facility meets strict energy efficiency guidelines and is low in carbon emissions.

To see if you qualify for the **Commercial Building ENERGY STAR**, enter one year's worth of current energy bill information online into **EPA's Portfolio Manager**. This tool will calculate a rating for your building on a scale of 1-100 relative to similar buildings. Buildings rating 75 or greater qualify for the ENERGY STAR. Verification of adequate comfort conditions and indoor air quality by a Professional Engineer (PE) will be required.

For the **Industrial Plant ENERGY STAR,** download the appropriate plant **Energy Performance Indicator spreadsheet at http://www.energystar.gov/index.cfm?c=in_focus.bus_industries_focus.** Input of utility bills and plant operating data will yield an energy performance score. Plants awarded the ENERGY STAR must score within the top 25 percent of energy efficiency within their industry nationally, and also be professionally verified by a PE.

For the **Designed to Earn the ENERGY STAR** designation, enter estimated energy consumption data into the **Target Finder at http://www.energystar.gov/index.cfm?c=new_bldg_design.bus_target_finder.** A statement of design intent by the Architect of Record will be required.

What's Rated?

ENERGY STAR identifies and labels the top performing energy related products including appliances, heating and cooling equipment, construction products, electronics, office equipment, lighting, and commercial food service equipment. To streamline your company's procurement decisions, check out product specifications and product models at **http://www.energystar.gov/index.cfm?fuseaction=find_a_product.**

...more education

May 16, 2008 1:30 pm – 3:30 pm:
Efficiency Benefits of the EPACT 2005
1010 Jorie Blvd, Oak Brook
2 HSW LUs in the AIA/CES program, $30, Guidance and methods on the tax benefits available for commercial buildings and the quantification and requirements for tax credits and deductions under the Energy Policy Act of 2005.

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. Module 1: The Language of Energy:
1 AIA LU/CEU, $25.
Online Registration is continuous at www.continuinged.uiuc.edu

OTHER EDUCATION

Energy Center of Wisconsin
Lighting Design with Efficiency
Thursday, April 17, 2008
OWP/P
111 West Washington Street, Suite 2100
Chicago, IL 60602
(312) 332-9600

EVENTS

April 11 - 12, 2008:
Illinois Sustainable Living and Wellness Expo, Illinois Wesleyan University

April 21-22, 2008:
DCEO Peer Exchange, Starved Rock

May 17 - 18, 2008:
Chicago Green Festival, Navy Pier

June 22 - 24, 2008:
Greening the Heartland, St. Louis

ComEd Green Ribbon Workshops:

June 10	Chicago
June 12	Downers Grove
June 19	Mundelein
June 20	Tinley Park
June 27	Rockford

ENERGY MYTHS

MYTH: Leaving fluorescent lights on is more efficient than turning them off
FACT: Though there is a surge of energy use when a fluorescent lamp is first turned on, it only lasts for about 1/10 of a second and is equivalent to about 5 seconds of normal operation. The amount of energy consumed by leaving a light on is far greater than the initial spike in energy consumption required to power a fluorescent lamp. Turn your lights off if you'll be out of the room for several minutes. Installing occupancy sensors can automatically turn off the lights in a room that has been unoccupied for a specified amount of time.
(Data from Steve Selkowitz, Lawrence Berkeley National Labs)

MYTH: Computers should remain on to save energy
FACT: Again, the small spike in initial energy consumption is greatly outweighed by the energy required to operate the computer for even a short amount of time. Enable the computer with power management options, like hibernate or stand-by. There can be hesitation to implement certain types of computer power management. Some companies leave CPUs on during the evening for security and antivirus updates. It may be possible to schedule updates at startup, during lunch, or specified times.

MYTH: Screen savers reduce energy consumption
FACT: Screen savers were designed to prevent damage to CRT and plasma monitors. They do NOT save energy and their usage can actually result in the increase of energy consumption by disabling power management settings. Employing monitor power management can result in lower energy costs and protect older monitors.

MYTH: When an appliance is off, it does not use any energy
FACT: Many devices actually consume energy even when off. Televisions, chargers, clocks, and other devices may have "vampire", or "phantom", loads, requiring standby power even when the device is "off." Though many of the standby power for individual devices can be small, it adds up to about 5% of electricity usage. Plugging devices into power strips, and actually turning them off, will reduce your energy consumption. Some power strips are enabled with occupancy sensors that will turn them off when there's no activity in the area.

MYTH: Setting a thermostat to high/low temperatures will heat/cool the room quicker
FACT: Setting your thermostat to heat to 90°F instead of 70°F will not make the room warmer any faster. The same goes for cooling a room. Leaving the thermostats at these extreme temperatures will not make you comfortable quicker, and will result in higher energy bills if you forget to return it to the normal setting.

MYTH: Programmable thermostats do not save energy
FACT: Programmable thermostats enable you to change the temperature when a building is unoccupied. In the winter, turning down the thermostat during unoccupied or inactive periods will result in less energy consumption. The same goes for turning up the temperature during the summer. Many people think otherwise. Heating a cold building uses less energy than maintaining a warm temperature. A rule of thumb is a 1% reduction in your heating/cooling bill for each degree you turn down/up a thermostat for eight hours. If your building has a simple HVAC system and is unoccupied nights and weekends, turning the thermostat down 8°F will reduce heating costs by about 16%. This does not apply to complex systems which involve simultaneous use of heating and cooling.

MYTH: Electric heating is more efficient than natural gas
FACT: Though electric resistant heaters are considered to have a "100% efficiency," they are less efficient than natural gas fired heaters when you consider total energy. Though almost all of the electricity supplying the heaters is converted to heat, the production of the electricity is itself inefficient. It is generally less expensive and energy intensive to heat with natural gas than electricity.