



Smart Energy Design Assistance Center

SMART
ENERGY
DESIGN
Assistance Center

Newsletter Vol. 3, No. 5, May 2007

www.sedac.org

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 in partnership with the Geothermal Heat Pump Consortium.

SEDAC NEWS

SEDAC CLIENT SPOTLIGHT

SEDAC has been providing services to Mr. Alan Rosenzweig of Mid-Continent Development & Construction Company. Mid-Continent operates a chain of hotels in Illinois and Indiana. At Mid-Continent's request, SEDAC conducted energy analyses of five properties. These included:

- Country Inn & Suites, Tinley Park
- Holiday Inn Select, Tinley Park
- Tinley Park Convention Center (adjacent to Holiday Inn Select)
- Hilton Garden Inn, Tinley Park
- Bolingbrook Holiday Inn

EDUCATION

May 17: 9:30 am to 5:00 pm:

Building Life-Cycle Cost

Estimation, 7 HSW LUs in AIA/CES, \$225, Multi-University Center, Oak Brook.

May 18: 9:30 am to 5:00 pm:

Basics of Architectural Lighting

7 HSW LUs in AIA/CES, \$225, Multi-University Center, Oak Brook.

June 22: 9:30 am – 12:30 pm:

Beyond Code: Energy Efficient Commercial Buildings

3 HSW LUs in AIA/CES, \$40, Multi-University Center, Oak Brook.

June 22: 1:30 pm – 3:30 pm:

Efficiency Benefits of the EPACT

2005, 2 HSW LUs in AIA/CES, \$30, Multi-University Center, Oak Brook. Call 888/633-3603 to register.

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.

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The Country Inn & Suites property was evaluated during the design phase. SEDAC recommended that the design be modified to include high efficiency PTACs and Low-E windows. Both of these recommendations were incorporated into the final design of the structure, which opened for business in March of 2007. These modifications will save about 49,000 kWh, reduce peak electric demand by about 19 kW, and save about \$5,500 per year in energy costs.

Mid-Continent is also planning to implement SEDAC recommendations of ozone laundry systems and kitchen energy conservation measures at the other properties studied. SEDAC continues to provide implementation assistance and when we contacted Mr. Rosenzweig last fall he said, "My New Years resolution is to implement as many of your suggestions for the existing properties as we can afford, and the ozone laundry is tops on the list. With the end of the ComEd rate freeze, your calculations look much better for savings."



Energy Basics for Small Business.

Module 1: The Language of Energy: 1 AIA LU/CEU-\$25.

Registration is continuous at
www.continuinged.uiuc.edu
Click on Green Design

WEBINAR

MIDWEST BUILDINGS TECHNOLOGY APPLICATIONS CENTER: Combined Heat and Power for Colleges and Universities

Tuesday, May 22, 2007, 9:00AM—11:00AM (CT) Cost: Free

Registration: www.ecw.org/mwbuildings/chpwebinar052207.pdf

USDA GRANTS - DEADLINES APPROACHING

May 18 for Grants

July 2 for Guarantee Loans and Grants

www.rurdev.usda.gov/rbs/farbill/index.html

www.farmenergy.org/appsandtools/index.php

SEDAC NEWS

CFLs – HOW TO DISPOSE OF THEM SAFELY

While CFLs do contain mercury, they can actually decrease the amount of mercury released into the environment. Mercury is emitted when coal is burned. Since CFLs use a quarter of the energy of incandescent lamps, that's 75% less mercury released by the power plant to light your businesses. The EPA estimates that CFLs reduce mercury emissions by 36% over a five-year life - once you include the mercury in the lamp itself.

High-intensity-discharge lamps also contain mercury. It is recommended that both lamps are disposed of properly to avoid mercury seeping into the groundwater. The Illinois Environmental Protection Agency, ENERGY STAR, and US EPA have useful fact sheets managing the disposal of used fluorescent and high-intensity-discharge lamps:

Links

<http://www.epa.state.il.us/land/fluorescent-lamps>.

http://www.energystar.gov/index.cfm?c=cfls.pr_cfls

<http://www.epa.gov/mercury/spills/index.htm#fluorescent>

<http://www.nema.org/lamprecycle/epafactsheet-cfl.pdf>



For a list of recyclers see www.lamprecycle.org. Also, earth911.org has extensive advice on products containing mercury sheets on at <http://www.earth911.org/master.asp?s=lib&a=mercury/contain.asp>

The National Electrical Manufacturers Association has advice at

http://www.nema.org/lamprecycle/support_files/messageforall.htm

The Association of Lighting and Mercury Recyclers - <http://www.almr.org/>



PROGRAMMABLE THERMOSTATS

Programmable thermostats are an excellent way to lower your energy consumption. You can set a schedule that reduces the use of heating and air conditioning when the building is closed. Many programmable thermostats allow you to set a separate schedule for each day of the week and several different periods of the day, based on your hours of operation. Consider heating the building to 68° when occupied and setting it back to 62° when the building is closed. During the cooling season, consider cooling the building to 76° when occupied and setting it to 80° when the building is closed.

A rule of thumb says that you will gain a 1% savings for every eight hours you set the temperature up or back one degree. So, depending on the season, if you turn up or down the thermostat 3 degrees for the entire day, you are looking at an estimated 9% savings on your energy bill – at no cost. The investment on a programmable thermostat is usually returned within a few months to two years. SEDAC recommends that each business designate someone to learn about and use all the valuable features of programmable thermostats. As a general rule, it is advisable to have at least one employee responsible for energy management issues in your business.

ENERGY STAR has a calculator to help estimate the savings from using programmable thermostats in your business. http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorProgrammableThermostat.xls

To participate in the *SB\$E program*, please contact us at: (800) 214-7954 or info@SEDAC.org
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