



**SMART  
ENERGY  
DESIGN**  
Assistance Center

# Smart Energy Design Assistance Center

Fact Sheet, revised June 2008

[www.sedac.org](http://www.sedac.org)

## SEDAC

The Smart Energy Design Assistance Center (SEDAC) provides advice and analyses enabling private and public facilities in the State of Illinois to increase their economic viability 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.

SEDAC can help small business owners affected by a natural disaster determine how to improve their energy efficiency as they rebuild. Please contact us at 1-800-214-7954 or visit our website [www.sedac.org](http://www.sedac.org)



## DISASTER RECOVERY FOR SMALL BUSINESS

Natural disasters like tornadoes, hurricanes, earthquakes, and floods can be devastating for the small business. Rebuilding or major repair-work is expensive and inconvenient. Water damage, mold, and mildew can add to the headaches of cleaning up. However, such events can provide a unique opportunity to invest in energy efficient technologies, which can immediately reduce energy use and cost –AND improve long-term profitability. It is just as easy and often costs the same to do repairs using energy efficient materials and products.

● **The following energy efficiency opportunities can be utilized to help your business. You can use this checklist to talk to your contractor:**

### 1. If the building has sustained structural damages.

- Upgrade the amount of insulation you have in your building envelope.  
Walls: R-13 minimum; attics R-38 minimum.
- Install more energy efficient windows than you had previously, ideally low-E with a U-value of less than 0.35.
- Use ENERGY STAR® high reflectance roofing material.
- Seal building to reduce air infiltration.

### 2. If the building's lighting needs upgrading as part of the renovations.

- Use compact fluorescent lights instead of incandescent lights.
- Use high-performance T8 fluorescent lights and electronic ballasts ("Super T8s").
- Install occupancy sensors.
- Install bi-level switching.
- Consider daylighting.
- Use LED exit signs.

### 3. If the HVAC systems need repairing or replaced.

- Re-check the sizing of your systems before putting in another of the same size, just in case your building's heating and cooling needs have changed over the years, especially if you upgrade the envelope. Bigger is not better.
- Replace your older and/or damaged systems with new high-efficiency units - sealed combustion boilers/furnaces (90% or better) and air conditioners with a SEER of 13 or greater.
- Install high efficiency roof top units.
- Use a system that incorporates exhaust air heat recovery (if applicable).
- Seal your existing ductwork.
- Install a geothermal heat pump if applicable - [www.geoexchange.org](http://www.geoexchange.org).
- Install programmable zone thermostats.
- Control ventilation based on occupancy.

### 4. If the office equipment sustained damage.

- Replace computer equipment with new components like flat screen monitors and laptops that use less energy or offer energy saving modes.
- Look into any other potential equipment purchases to see if a more energy efficient model is offered over the type you had before.

## more energy efficiency tips

### 5. If any of these products need replacing, use **ENERGY STAR** products:

- Appliances
- Heating and Cooling
- Building Envelope
- Office Equipment
- Lighting
- Commercial Food Service
- Other Commercial Products

### 6. If the building is a hotel/motel and/or a restaurant.

- Use low flow faucet aerators, shower heads, and 1.6 gpf toilets.
- Use a low-flow commercial faucet sprayer.
- Use demand controlled kitchen exhaust.
- Specify high efficiency motors.
- Consider instantaneous water heaters.
- Use vending machine energy controls.

### 7. If the building has water damage.

Try these web sites for advice on mold and mildew:

- FEMA  
[www.fema.gov](http://www.fema.gov)
- ENVIRONMENTAL PROTECTION AGENCY  
[www.epa.gov/mold/](http://www.epa.gov/mold/)
- ENERGY STAR  
[www.energystar.gov/index.cfm?c=home\\_solutions.hm\\_improvement\\_moldmildew](http://www.energystar.gov/index.cfm?c=home_solutions.hm_improvement_moldmildew)
- ILLINOIS DEPARTMENT OF PUBLIC HEALTH  
[www.idph.state.il.us/envhealth/pdf/moldmildew.pdf](http://www.idph.state.il.us/envhealth/pdf/moldmildew.pdf)
- UNIVERSITY OF ILLINOIS EXTENSION  
[www.urbanext.uiuc.edu/thriftyliving/tl-preventmildew.html](http://www.urbanext.uiuc.edu/thriftyliving/tl-preventmildew.html)  
[www.urbanext.uiuc.edu/thriftyliving/tl-removemildew.html](http://www.urbanext.uiuc.edu/thriftyliving/tl-removemildew.html)
- AIA Checklist for Tornado/Hurricane Damaged Structure Inspection  
[www.aia.org/liv\\_disaster\\_checklist](http://www.aia.org/liv_disaster_checklist)

### ● What incentives are available for making energy efficient repairs?

As part of the new Illinois Energy Efficiency Portfolio Standard (EEPS), **ComEd** and **Ameren** have incentive programs for commercial and residential customers; DCEO has a program for the public sector. See [www.ileeps.org](http://www.ileeps.org) for more information.

### ● What Tax Credits are available for making energy-efficient repairs to commercial property?

**The Energy Policy Act 2005** provides a tax deduction of up to \$1.80/sf for investment in energy-efficient commercial building property as part of new construction or renovation that is certified to reduce total annual energy and power costs to at least 50% less than a building satisfying the 90.1-2001 Standard. Qualifying systems include interior lighting systems, building envelopes, heating, cooling, ventilation, and hot water systems. EPAAct information can be found at [www.SEDAC.org](http://www.SEDAC.org). Call for advice and interpretation on guidance to date.

### ● Are there any building code implications for my building repair?

**The Illinois Energy Conservation Code for Commercial Buildings** was updated in October 2007 to use the 2006 International Energy Conservation Code (IECC). It applies to all buildings for which a building permit application is received by a municipality or county. It applies to any addition, alteration, renovation, or repair to any existing commercial structure. The State Code is a minimum and local codes may refer to newer versions of the IECC and supersede the State Code. SEDAC can provide advice and guidance on the Illinois Energy Code.

## FIND HELP

**READY ILLINOIS**  
[www.ready.illinois.gov](http://www.ready.illinois.gov)

**ILLINOIS EMERGENCY  
MANAGEMENT AGENCY**  
[www.state.il.us/iema](http://www.state.il.us/iema)

**FEDERAL EMERGENCY  
MANAGEMENT AGENCY**  
[www.fema.gov](http://www.fema.gov)

**AMERICAN RED CROSS**  
[www.redcross.org/](http://www.redcross.org/)

**ENERGY STAR**  
[www.energystar.gov](http://www.energystar.gov)

Find inspiration from the  
Greensburg, Kansas  
experience

[www.greensburgks.org](http://www.greensburgks.org)

To participate in the Smart Energy program, contact us at: (800) 214-7954 or [info@SEDAC.org](mailto:info@SEDAC.org)  
Smart Energy Design Assistance Center, 1 East St. Mary's Road, Champaign, IL 61820  
[www.sedac.org](http://www.sedac.org)