

# SEDAC AT A GLANCE

*Providing effective energy strategies for public and private buildings in Illinois*



## WHO WE ARE

The Smart Energy Design Assistance Center is sponsored by the Illinois Department of Commerce and Economic Opportunity (DCEO) Illinois Energy Now program to achieve energy efficiency savings in buildings throughout the State of Illinois. SEDAC provides valuable services at no cost to Illinois businesses and public facilities. SEDAC is an applied research program at the University of Illinois at Urbana-Champaign working in collaboration with the 360 Energy Group.

## WHAT WE DO

- Energy Assessments
  - Quick advice
  - Site inspection
  - Life Cycle Cost analysis
  - Implementation Assistance
- New Construction program
- Retro-Commissioning program
  - Mini Retro-Commissioning
  - Dashboard pilot
- Training and outreach
- Energy incentive guidance

## WHO WE SERVE

**SEDAC can help with new or existing buildings**

- Local, state, and federal government
- Public or private schools
- Community colleges
- Public universities and colleges
- Public safety, water, park districts
- Commercial businesses (offices, retail, restaurants, groceries, etc.)
- Nonprofit organizations
- Multifamily housing

## SEDAC'S TOP 10 TIPS - ENERGY UPGRADES

- 1. EFFICIENT LIGHTING.** Choose efficient lighting sources and occupancy controls such as high performance T5, T8 fluorescents with electronic ballasts, delamping, CFLs, induction, and LEDs. Install LED exit signs.
- 2. AIR SEALING.** Perform air sealing at all joints, penetrations, windows, and doors. Pay close attention to top and bottom of the building.
- 3. COMMISSIONING.** Commission or retro-commission HVAC. Tune up direct digital controls or pneumatics.
- 4. TEMPERATURE SETBACKS.** Use automatic or manual controls to adjust temperature settings and system operation according to time of day and building loads.
- 5. HEATING.** Tune up existing equipment. Use high efficiency boilers and furnaces of 92% efficiency or better. Insulate hot water and steam pipes. Perform steam trap audit.
- 6. COOLING.** Use high efficiency (SEER 14+, EER 11.5+) air conditioning equipment with an outdoor air economizer.
- 7. VENTILATION.** Modulate ventilation rates based on occupancy with demand control ventilation. Limit ventilation during unoccupied hours. Consider ventilation heat recovery.
- 8. ELECTRIC MOTOR CONTROL.** Use variable frequency drives on electric motors with variable loads.
- 9. ENVELOPE.** Insulate beyond code: walls to at least R-13 plus R-11 continuous, and roofs to R-49 or R-25 continuous. Use low-E, gas-filled windows with U-values equal to or less than 0.35 (R-2.9). Illinois maximum Solar Heat Gain Coefficient (SHGC) is 0.40.
- 10. DIRECT DIGITAL CONTROLS.** Replace existing pneumatic systems with new equipment controls systems. Train staff to use system properly.

**Extra Credit:** After implementing all of these, consider **renewables** such as solar and wind.



**SMART ENERGY DESIGN ASSISTANCE CENTER**  
A PARTNER PROGRAM OF DCEO'S ILLINOIS ENERGY NOW

## DCEO CONTACTS

DCEO Public Sector  
Energy Efficiency Programs  
[www.ilenergynow.org](http://www.ilenergynow.org)

DCEO Trade Allies  
<http://www.erc.uic.edu/tradeallies/>

New Applications  
Sally Agnew, 217-785-5081  
[sally.agnew@illinois.gov](mailto:sally.agnew@illinois.gov)

Public Schools  
Community Colleges  
Byron Lloyd, 217-785-3412  
[byron.lloyd@illinois.gov](mailto:byron.lloyd@illinois.gov)

Local Government  
Andrea Reiff, 217-785-0164  
[andrea.reiff@illinois.gov](mailto:andrea.reiff@illinois.gov)

State and Federal  
Johnny Habibi, 217-785-2772  
[johnny.habibi@illinois.gov](mailto:johnny.habibi@illinois.gov)

Public Universities  
Retro.Commissioning  
New Construction  
Tom Coe, 217-785-2433  
[tom.coe@illinois.gov](mailto:tom.coe@illinois.gov)

Low Income  
Ed Hosey, 217-785-3984  
[ed.hosey@illinois.gov](mailto:ed.hosey@illinois.gov)

## UTILITY INFO AND TRADE ALLIES

ComEd Smart Ideas  
[www.comed.com](http://www.comed.com)

Ameren Illinois Utilities ActOnEnergy®  
[www.actonenergy.com](http://www.actonenergy.com)

Nicor Gas  
[www.nicorgasrebates.com](http://www.nicorgasrebates.com)

North Shore Gas  
[www.northshoregasdelivery.com](http://www.northshoregasdelivery.com)

Peoples Gas  
[www.peoplesgasdelivery.com](http://www.peoplesgasdelivery.com)

DCEO Trade Allies  
[www.erc.uic.edu/energy-efficiency/trade-allies/](http://www.erc.uic.edu/energy-efficiency/trade-allies/)

Trade Ally Service Providers  
<http://sedac.org/energy-sp-listing.html>

## APPLY FOR SEDAC SERVICES

Complete an online application at <http://apply.sedac.org>

## INFORMATION CENTER

- Web site [www.sedac.org](http://www.sedac.org)
- SEDAC monthly newsletter
- Energy efficiency incentive info
- Event and training calendar
- YouTube Videos
  - Case Study videos
  - Presentations and webinars



## EDUCATION & TRAINING

### Topics include:

- Energy efficiency strategies for all commercial and public building types
- Energy assessments
- Current energy efficiency incentives
- Green technology and sustainability
- Introduction to LEED and green buildings
- High performance design

Online training modules and custom training programs are also available.



### Missed a SEDAC presentation?

Look for it in the archives at  
<http://presentations.sedac.org>

## RESOURCES

SEDAC Energy Smart Tips at  
[www.sedac.org/publications.html](http://www.sedac.org/publications.html)

- New Construction (4 manuals)
- Convenience Stores
- Condominiums
- Hotels
- Ice Arenas
- Libraries
- Places of Worship
- Restaurants
- Schools
- Supermarkets
- Swimming Pools
- Warehouses
- Water Treatment Facilities
- Outdoor Lighting
- High Rise Building Systems
- Variable Frequency Drives
- Computer Energy Management
- Case Studies

