



PITTSBURGH SYNERGY

ENERGY SAVING TIPS: Bring the energy of the 2005 Solar Decathlon into your life!

To show that solar power and energy conservation are more than simply solar panels, Pittsburgh Synergy has compiled a introductory list of energy tips and resources to incorporate energy efficient and energy saving techniques into your life today!

Housing:

Purchasing/Building a Home

- Use passive (non-mechanical) solar methods. Passive solar involves gaining solar energy in the form of heat and light by a building's orientation, materials and construction.

- Choose a house with good solar access: most windows face the south & has unshaded sun-exposure from 9 am to 3 pm during the winter months. Avoid buildings, trees or other obstructions that shade the south wall.

- Incorporate windows to provide plenty of daylight and to permit access to cooling breezes for cross-ventilation, but do not make the mistake of assuming that solar design requires extraordinary allocations of wall space to glass. Too much glass with cause overheating/heat loss.

Maintaining a Home

- Caulk your windows and doors— The average unweatherized house in the U.S. increases the heating bill by 25 to 40 percent (The Rocky Mountain Institute, *Home-made Money, How to Save Energy and Dollars in Your Home*).

- Install 'low-e' windows, which stands for low-emissivity. Low-e films block most solar heat gain while transmitting the most visible light. Windows treated with low-e film help in both the winter and summer, with little heat leakage coming inside on a hot summer day, or leaking outside in winter.

- Use Compact Fluorescent Lights (CFL)

One CFL bulb

- lasts ten times longer and saves about \$30 in energy costs
- prevents 1,000-2,000 lbs of carbon dioxide from heating the atmosphere
- prevents 8-16 lbs of sulfur dioxide, which causes acid rain*

- Use Energy Efficient Appliances

Rating system created by the US EPA- it is a program that helps business and individuals protect the environment through superior energy efficiency (energystar.gov) *

- Clean or replace air filters.

Cleaning a dirty air conditioner filter can save 5% of the energy used.*

Lifestyle:

- During winter, close your curtains or shades at night. Open your curtains during the day. Do the opposite during the summer. Clean south-facing solar gain windows for better light and a lot more free heat.

- Turn Off Lights—Lighting accounts for 25 % of our electricity use. Turn off lights when you leave the room for more than 10 minutes. *

- Use energy-saver drying setting on dishwasher. Wipe off the dishes with a reusable rag.

*Information cited from Carnegie Mellon's Eco-Reps Manual and written by Diane Loviglio.

Continued

• **Keep your thermometer at 68° plus or minus 3°** The average person is comfortable at 68° that is if they have not been over or under active and he/she is not sick. If you are not comfortable, try adjusting your wardrobe before your thermometer, it will have a more immediate effect.*

• **Turning Computers and Monitors Off**
Setting a screen saver is not enough; in fact they don't save energy at all. Turn off your computer if you are not using it for an hour or more. The average computer uses 120 watts (75 watts for the screen and 45 watts for the CPU) whether you are using it or not (Tufts Climate Initiative ECO-Rep Training Manual p 49).

One computer on 24 hours a day will cost \$115-160 in electricity costs a year and dump 1,500 lbs of CO₂ into the atmosphere. A tree absorbs between 3-15 lbs of CO₂ each year. That means that 100-500 trees would be needed to offset the yearly emissions of one computer left on all the time (Tufts Climate Initiative ECO-Rep Training Manual p 49). Turn off your monitor if not using for 15 minutes or more. *

Additional Resources:

U.S. DOE Efficiency and Renewable Energy Network (EREN):

<http://www.eere.energy.gov/consumer/>

Environmental Protection Agencies list of environmental terms:

www.epa.gov/OCEPAterms/

Center for Renewable Energy & Sustainable Technology (CREST):

<http://www.crest.org/>

• **Put your Computer to Sleep**

Sleep mode reduces the computer's energy use by 80%. To the right are directions for setting your computer to sleep.

Windows XP

-select start-settings-control panel (in start menu)
-click the display icon in the control panel window
-in the display properties window, click the screen saver tab, then click Power in the 'energy saving features of the monitor' box

-under power schemes, select home/office desk set turn off monitor for 15 min

-click OK

Mac OS X

-go to system preferences under apple menu

-select energy saver

-set time for display sleep

-exit system preferences*

• **Put a Lid On It, Bake in Glass or Ceramic & Don't Peak**—Covered pans retain heat

and help cook food more quickly. Glass and ceramic retain heat better than metal. If a recipe calls for a metal pan, use glass and you can lower the temperature by 25 degrees! Opening the oven door lowers the temperature by 25 degrees, instead use the oven light or set a timer to check on your food. (Union of Concerned Scientists, Saving Energy In the Kitchen)*

The Energy Foundation:

<http://www.ef.org/home.cfm>

U.S. Department of Energy:

<http://www.energy.gov>

Sustainable Energy Coalition:

<http://www.sustainableenergy.org/>

Energy Star program:

<http://www.energystar.gov/>

