



Carnegie Mellon's Electricity Info

As of the fiscal year 2005, Carnegie Mellon uses 6% wind power, 21% natural gas, 48% coal and 25% nuclear for electricity.

Most of the larger residences like West Wing/Resnick and Morewood Gardens are connected to the central steam system. The central steam/heating plant is the Bellefield Boiler located in the hollow between Carnegie Mellon and the Carnegie Museums & Library. It's the building with the two large smokestacks. Carnegie Mellon, University of Pittsburgh, UPMC and Phipps all get our steam from this plant.

Energy consumed by electric appliances is measured in kWh's (kilowatt hours), while energy consumed by gas appliances is measured in Btu's (British thermal units).

Power x Time = Energy

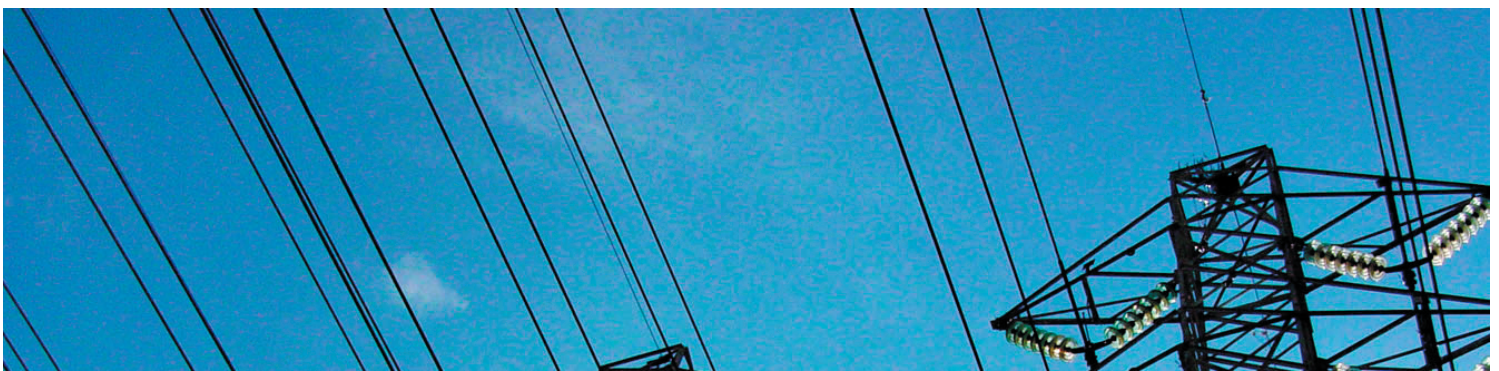
Why conserve energy?

- *Fossil fuels pollute the air and cause global warming*
- *Mining coal destroys landscapes by flattening mountaintops and filling in valleys and streams*
- *To reduce the University's operating budget*

Every Dollar Spent on Energy...

...is One Less Dollar Spent on Education!

(Brad Hochberg)





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Ways to conserve energy!

Recycle

Recycling one aluminum can saves enough energy to run a television for 3 hours or light a 100-watt bulb for 20 hours. (UVM Eco-Rep Handbook)

Turn Off Lights

Lighting accounts for 25 % of our electricity use. Turn off lights when you leave the room for more than 10 minutes!

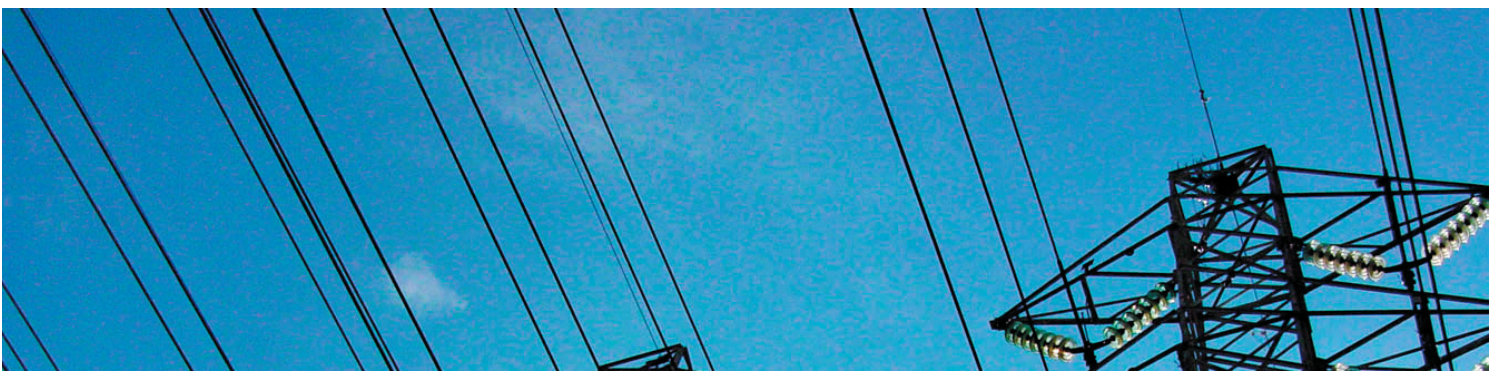
Use Compact Fluorescent Lights (CFL)

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 in its lifetime (Tufts Climate Initiative ECO-Rep Training Manual p 48).

Keep Windows Closed & Hidden

Keep your windows closed when the heat is on. If you have little or no control over the amount of heat in your room and you must open your windows also please contact your Housing Facilities Coordinator so they have a chance to address the situation. Having the heat on and windows open at the same time is just energy dollars blowing out the window.

Close blinds after the sun goes down to keep more heat in your room during the winter and also keep your blinds down in the summer to keep the heat from coming in through the windows in the summer.





Ways to conserve energy!

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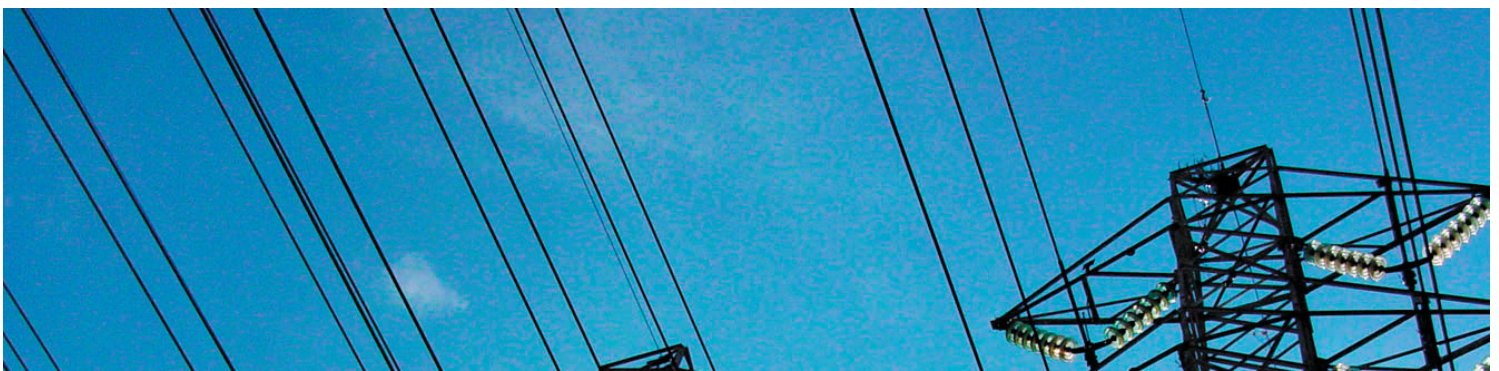
Keep Your Thermometer at 68° plus or minus 3°

The average person is comfortable at 68° that is if they have not been over or under active and they are 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.





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Ways to conserve energy!

(continued)

Put your Computer to Sleep

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

Windows XP

select start-settings-control panel from start menu
double-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

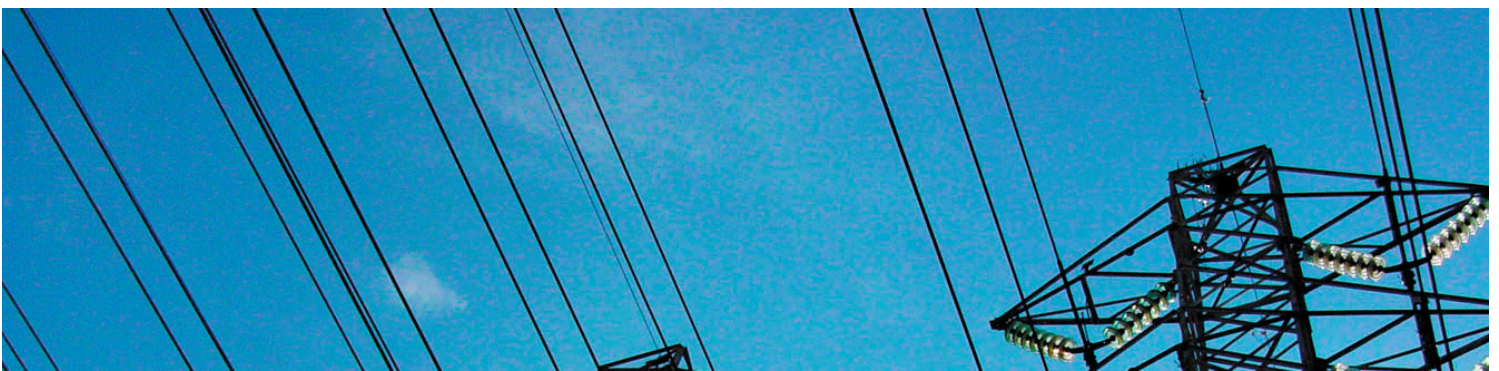
go to system preferences under apple menu
select energy saver
set time for display sleep
exit system preferences

Use Energy Efficient Appliances

Energy Star is a 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)

Vending Misers

Buy your soda and candy from the Vending Misers. They are the vending machines that "wake up" as you walk past them. They have motion sensors on them so if no one walks by for 15 minutes, the lights and refrigeration compressors are turned off to conserve energy.





21.

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)

Washing Machines

Every residence on campus has new Energy Star washing machines that are front loading, which means they use the least amount of water and they extract more water from the clothes, which reduces drying time.

Much of the energy consumed by a washer is used to heat the water, so unless you need to get a stain out, use the cold or warm water settings.

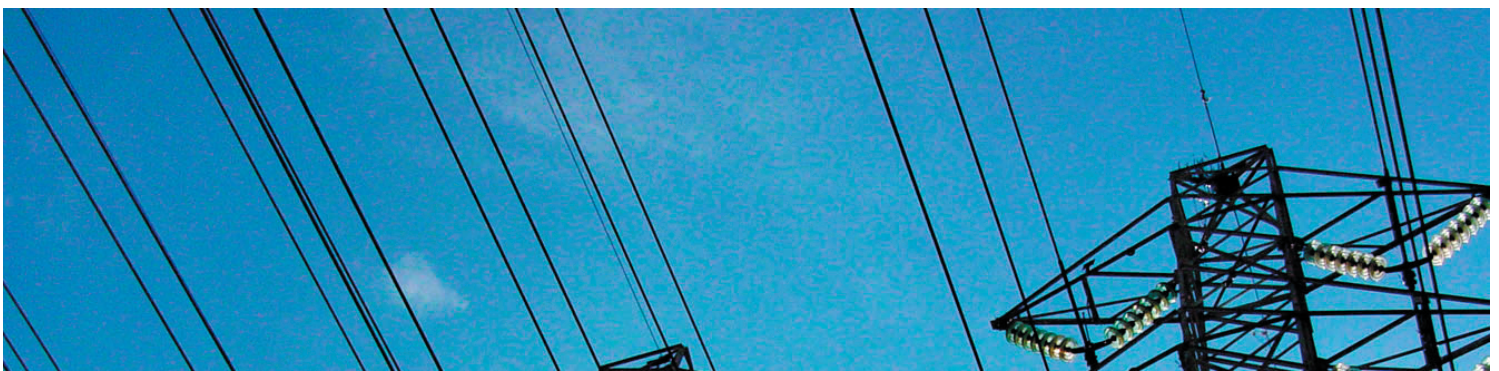
Since the washing machines don't have a means of adjusting their water levels according to how much laundry you are washing, wait until you have a full load to wash your clothes.

Dryers

There are no Energy Star dryers on the market yet, however there are ones with a moisture sensor that automatically shuts the machine off when clothes are dry. The new dryers that were installed all over campus just last year do not have this moisture sensor. Stop the dryer after 35 minutes; this is usually sufficient, even if you are drying towels and jeans.

Ways to
conserve
energy!

(continued)





22.

Action Items:

□ Understanding your Energy Bill

Invite Brad Hochberg (bradh@) to your house to teach your residents how to read the energy meter and energy bill and they'll each get a free thermometer for their room!

□ Test Appliances with the "Kill a Watt" Meter

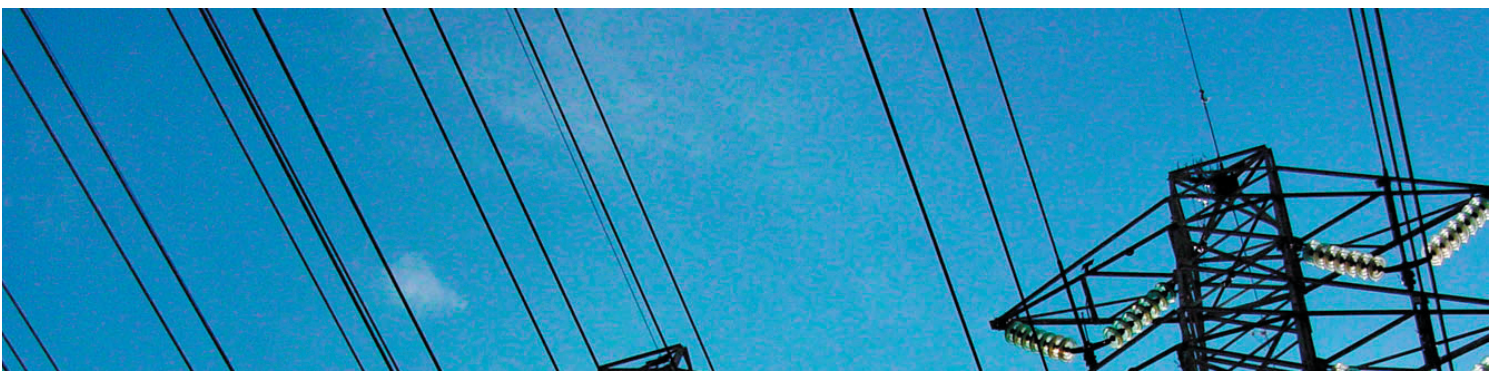
Walk around your building one night and measure how many kilowatt hours (kWh) your peer's appliances use using the "kill-a-watt" meter. Whoever has the most energy efficient appliance gets a prize!

□ Energy Star Cheat Sheet

Make a list of energy star appliances such as microwaves, TV's, printers, scanners, DVD player, phone, hair dryers and minifridges and tell where to buy them in the Pittsburgh area and how much they cost.

□ Light Bulb Exchange in New House

On Mon October 24th at 7pm we will be exchanging incandescent light bulbs with compact fluorescent light bulbs and giving out a slice of pizza to the first 50 students that come by New House TV Lounge.





23.

❑ **Put Solar Panels on your House**

Draw or photoshop solar panels onto the roof of your house and propose it to the Housing Facilities Coordinator and Energy Coordinator (bradh@) on campus.

❑ **Drape your Windows**

Make drapes out of heavy fabric to help keep the hot air in your room.

❑ **Make a Clothesline**

Tie a string between two tree branches or buy a drying rack to use in the warmer weather outside.

❑ **Sleep Is Good**

Advertise this campaign to your peers. Go to www.cmu.edu/greenpractices/green_initiatives/what_sleep.html and get a free smoothie for putting your computer asleep.

Action Items:

(continued)

