We Can Work Together

Individual energy-saving actions can add up to measurable decreases in energy use. Working with other people in your building can make an even larger impact in conservation efforts.

- **Get More Data**
  Student teams such as Green Campus and Building Sustainability@Cal are available to help investigate your energy consumption through energy surveys.

- **Work with Your Facility or Building Manager**
  See if they can offer "open houses" to give occupants tours of how the building runs.

- **Set Up a Competition**
  Challenge another building or department to see who can save the most electricity.

Find more about these ideas and other energy saving information at ***myPower.berkeley.edu***

Purchasing

Lighting

Computers

Thermal Comfort

Standby Power

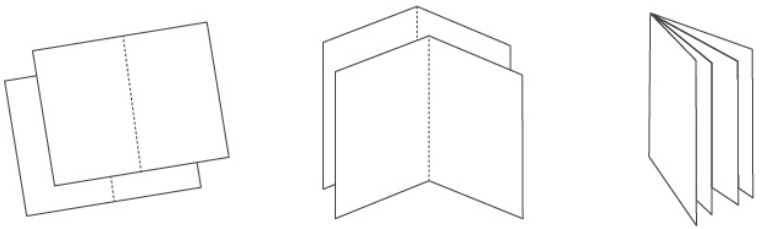
myPower at BERKELEY

SAVING ENERGY *In Your Office*

Building Upon Environmental Excellence

Tips & Ideas for Energy Conservation

Turn Your PDF Into a Booklet:



1. Print Double Sided
2. Assemble Sheets in Order
3. Fold Into Booklet

Purchasing

Choices you make about the equipment you buy can help you use less energy. For example, choosing Energy Star rated equipment can provide energy savings of up to 65%.[1] Energy Star computers and monitors can go into a deep sleep mode, while copiers are designed to be 40% more energy efficient, run cooler, and last longer.

☐ Buy Energy Efficient Equipment

Look for Energy Star or EPEAT equipment when shopping BearBuy or see if the "Environmentally Preferred" list includes an option for the equipment you want to buy.

☐ Choose a Laptop Instead of Desktop

Laptops can save up to 90% in electricity use compared to desktop models.[2]

☐ Upgrade CRT Monitors to LCDs

Save energy by buying a flat screen monitor for your desktop. An LCD monitor uses about 40% less power than a CRT.[3]

☐ Replace Old Refrigerators

New refrigerators on average use about half the energy of models from 1990.[4] Use common area refrigerators and microwaves instead of personal ones.

ENERGY STAR EPEAT

UC BearBuy

Standby Power

my power at BERKELEY

Standby power, sometimes called vampire energy or phantom power, is the energy used by some electronics that are turned off but still plugged into an outlet. This energy use is significant: it accounts for more than 100 billion kilowatt hours of annual U.S. electricity consumption and more than $10 billion in annual energy costs. Here are some ways to combat standby power in your office.[12]

☐ Unplug!

Simply unplug items that you don't use very often.

☐ Use a Power Strip

Plug in items like chargers and lamps, make the strip easily accessible, and turn it off when those items aren't being used.

☐ Check Out a Kill-a-Watt

If you want to know how much energy an electronic item is wasting when not in use, borrow a Kill-a-Watt monitor from the Office of Sustainability. Email myPower@berkeley.edu to reserve one today.

Watch a Video About How the Kill-a-Watt Works: youtu.be/1l_mo1jwh8Y

Berkeley UNIVERSITY OF CALIFORNIA

1. www.energystar.org 2. Flex Your Power, "Office Equipment Tips," www.fypower.org/res/tools/energy_tips_results.html?tips=office-equipment 3. American Council for an Energy-Efficieny Economy, www.aceee.org/consumer/refrigeration
4. Cornell University, "Computer Usage Energy Facts," computing.fs.cornell.edu/Sustainable/fsit_facts.cfm

12. Standby Power and Energy Vampires: energystar.gov/index.cfm?c=about.vampires

Thermal Comfort

Saving energy doesn't have to mean sacrificing comfort.

- ☐ **Close Doors and Windows When the Heat or AC is On**
  Also check for drafts and air leaks and report problems to your building manager.

- ☐ **Use Sunlight Wisely**
  Block direct sunlight by closing or tilting blinds to reduce cooling needs during the summer. In colder weather, leave shades and blinds open on sunny days, but close them at night to help reduce heat loss through windows.

- ☐ **Avoid Using Space Heaters**
  Portable heaters can be unsafe and use large amounts of energy. Wear extra layers instead. If the building temperature is not in an acceptable range and you're still cold, look into purchasing an efficient and safe radiant heater. The Department of Energy has some helpful guidelines.[11]

Now Recruiting Power Agents!

Power Agents are UC Berkeley volunteers committed to engaging the campus community in actions that reduce energy use in buildings.

Interested in becoming a Power Agent?
Let us know by writing to ***myPower@berkeley.edu*** or visit ***myPower.berkeley.edu*** for more information.

11. www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12600

Lighting

As much as 35% of your office energy use is dedicated to lighting.[5] The wrong amount or type of lighting in your workspace can cause eyestrain, glare, and headaches, which in turn can decrease comfort. These tips can help you manage light for comfort and energy conservation.

- ☐ **Turn Off Lights When You Don't Need Them**
  Look to eliminate unnecessary lights and use natural lighting when possible.

- ☐ **Use Task Lighting**
  If possible, turn off overhead lights and switch on a desk lamp. With low-wattage task lighting, less ambient light is needed, resulting in energy savings upwards of 40%.[6]

- ☐ **Switch to CFL or LED Light Bulbs**
  CFLs last 6–12 times longer than incandescents and use about 75% less energy. Light-emitting diode (LED) bulbs last even longer than CFLs and use a fraction of the energy.[7] Both are available in equivalent light intensity and quality.

We Can Work Together

- ☐ **Agree on Lighting Routines in Communal Spaces**
  Work with other building occupants on a routine for turning lights off when they are not needed. Post instructions for more complex switches. Install lighting timers or occupancy sensors in common areas whenever possible.

5. energystar.gov 6. National Research Council of Canada, "Task Lighting Effects on Preferred Office Lighting & Energy Savings," nrc-cnrc.gc.ca/eng/programs/irc/ie.html 7. energysavers.gov/tips/lighting.cfm

Computer equipment can make up about 5 to 10% of your office energy usage.[6] Follow these simple steps to reduce how much energy your computer equipment uses.

☐ **Turn Off:**
- Your monitor when you leave for more than 15 minutes.
- Individual printers at night or on weekends.

☐ **Avoid Screensavers**
Originally used to prevent images from being burned into older monitors, they actually cause newer ones to use more energy by preventing them from going to sleep.

☐ **Reduce Brightness and Bump Up Contrast**
Dropping brightness to the lowest setting can reduce power usage by up to 50% – just make sure that you can still easily read the screen by boosting contrast![7]

☐ **Disable Bluetooth and AirPort**
Save battery power by turning off the wireless Bluetooth and AirPort when not in use and make sure to fully charge and fully discharge your laptop battery once a month.

Did you know?

Berkeley researchers estimate that the internet uses almost 2% of global energy consumption. This includes direct use on computers and smart phones along with the energy required to build and maintain infrastructure like servers and routers.[8]

☐ **Enable Energy-Saving Features**
Make sure the Energy Star or EPEAT features are turned on. Ask IT staff if you don't know.

☐ **Keep Vents on Your Computer Clean and Unblocked**
This keeps the fans that cool your machine working more efficiently and can extend the life of your computer.

We Can Work Together

☐ **Take Advantage of the Power of Your Network**
Many printers and multi-functional devices (combining copying, printing, and scanning functions) are easy to network together so multiple people can use them.

☐ **Ask IT Staff**
See if backups and updates could be regularly done on the same day of the week, so that computers could be turned off the other days.

☐ **Virtualize Your Servers**
Consider moving your servers to the campus data center, which can reduce the total amount of energy used through virtualization and other actions. See **ist.berkeley.edu/services/catalog/datacenter** for more information.

6. Energy Information Administration, 2003 Commercial Buildings Energy Consumption Survey 7. energyefficientcomputing.blogspot.com 8. "Internet accounts for almost 2 percent of the world's total energy consumption," Paras Shah, Daily Californian, October 30, 2011.