



OHIO
UNIVERSITY

'Green' Computing Guide

*Ecology & Energy
Conservation Committee*

*Facilities & Auxiliaries
"Setting the Standard of Service Excellence"*

Energy Saving Tips for PC's

1. Common Computer Myths
2. Campus E-Waste Recycling
3. Computing the Savings
4. Energy Star Investment
5. Creating a "Green" Machine
6. Energy Savings Checklist
7. Recycle the Information

1 Common Computer Myths

Myth: It is bad to turn off the computer.

Truth: Computers are now designed to handle 40,000 on/off cycles. This is considerably more cycles than the average user will initiate in the computer's 5-7 year life span. Turning your computer off helps reduce heat stress and wear on the system.

Myth: Turning your computer off uses more energy than leaving it on.

Truth: The surge of power used by a CPU to boot up is far less than the energy used by the unit when left on for over 3 minutes.

Myth: Screen savers save energy.

Truth: Screen savers were originally designed to help protect the lifespan of monochrome monitors which are now technologically obsolete. Most screen savers do not save energy unless they actually turn off the screen or, in the case of laptops, turn off the backlight.

Myth: Network connections are lost when a PC goes into low-power/sleep mode.

Truth: Newer computers are designed to sleep on networks to prevent loss of

data or connection. CPU's with Wake on LAN (WOL) technology built-in to network cards can be left in sleep mode overnight to wake-up and receive data packets sent to the unit.

[Top](#)

Campus E-Waste Recycling

Do you have old and unused electronics stored away? Ohio University now recycles:

- CPUs, Monitors, and Printers
- Floppy Disks and Compact Discs
- Toner Cartridges and Ink Jets
- Cell Phones, Palm Pilots (PDA's)
- 2-Way Radios/Beepers/Pagers
- Audio and Video Tapes
- Batteries and Accessories

Recycle items in depositories outside dining halls, via campus mail, or by direct pick-up. For more information on recycling options call Campus Recycling at 593-0231 or on the web www.facilities.ohiou.edu/recycle

[Top](#)

3 Computing the Savings

A computer left continuously running will emit 2161 pounds of CO₂ in a year and cost \$45 a year to power at \$0.0372 per kWh. (a major cause of global warming).

Turning a computer off at night so it runs only 8 hours a day computes to a reduction of 810 kWh per year, or a 67% yearly savings.

By turning off computer units at night, Ohio University can save 6,075,000 kWh per year. This amounts to \$225,000 per year saved (for 7,500 units at \$0.0372 per kWh).

[Top](#)

Energy Star Inves

Energy Star® is an important and automated means for realizing significant power savings. An Energy Star compliant computer in sleep mode uses 70% less electricity than units without power management features.



A Standby setting (available only in Windows 95) can drop power over 90 percent from maximum. Screen recovery occurs within 1-4 seconds by hitting a key or pushing a mouse. The Suspend setting can drop power almost completely, although screen recovery can take up to 10 seconds.

Additional Energy Saving Resources:1

- Energy Star: www.energystar.gov
- Department of Energy: www.doe.gov
- Environmental Protection Agency: www.epa.gov
- OU Campus Renewal Project: www.facilities.ohiou.edu/vestar
- Network Storage on Oak: www.cns.ohiou.edu/webdav

1. Ohio University acknowledges that text and concepts in this document were adapted from energy saving information contained within the listed websites.

Top



Creating a "Green" Machine

Turn On Power Management Features:

Ohio University encourages all computer users to enable their **Power Management Features**.

- **Windows 95**– Select Start, Settings, Control Panel, and Display. Select the Screen Saver tab. Choose a predominantly black screen saver and set it to wait 5 minutes. Click the Low-Power Standby box and set for 10 minutes. Click the Shut Off Monitor box and set for 20 minutes. Click Ok or Apply.
- **Windows 98/ME/2000/XP**– Select Start, Settings, Control Panel, and Display. Select the Screen Saver tab. Choose a predominantly black screen saver and set it to wait for 5 minutes. Click on Settings to reach the power management settings. Click the Shut Off Monitor box and set for 10 minutes. Click Ok or Apply.
- **Windows NT**– does not support Energy Star, so you cannot activate the low-power settings through the Control Panel. You still can select a dark desktop background and screen saver. Energy Star still can be activated through the computer's set-up program, which varies among computer models. Contact your computer support staff if you need assistance.
- **Macintosh**– Select System Preferences from the dock (OSX) or click the Apple and select Control Panels (OS9). Select Energy Saver. Under the Sleep tab you can enable your computer, display, and hard drive to go to sleep mode after a

period of activity.

To learn more about **Power Management** please refer to the "Green Computing" website for additional detail and energy saving tips.

[Top](#)

Energy Savings Checklist 6



- Enable the standby/sleep mode and power management settings.
- Review document drafts and emails onscreen instead of printing them out.
- Power off your monitor when not in use instead of using screensavers.
- Turn off all peripherals (scanners, speakers) until they are to be used.
- Do not leave the computer running overnight and on weekends.
- Choose dark backgrounds for your screen display.
- Do not use bright-colored displays which consume more power.
- Do not turn on the printer until you are ready to print out your documents.
- Keep computer off until it is to be used.
- Reduce the light level in the room when working on the computer.
- Network/share printers where possible.
- Print on recycled-content paper.
- Use double-sided printing functions.
- E-mail communications as an alternative to paper memos and fax documents.

[Top](#)



Recycle the Information

In knowing the facts about Green Computing, please encourage fellow students, friends and co-workers to "think green" when using computer equipment. With everyone's increased cooperation we can reduce costs at Ohio University and at home, while at the same time, conserving our valuable natural resources.

[Top](#)

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