



## Energy Saving Guidelines for Computers

### **Your computer can regulate its own energy consumption with your guidance**

According to the US Environmental Protection Agency:

- one half of the energy used to power computers is wasted
- using the power management settings can save \$50 per computer annually
- A typical 1000-computer organization with a 36% turn off rate can save \$40,000 annually

Operating Systems, such as Microsoft Windows and the Macintosh OS, have built-in energy management features that can be accessed via the Control Panels that enable them to be configured to turn off the monitor, the hard disks and the system.

For Windows-based PCs select the Start Menu, then Control Panel and finally Power Options. This should bring up a Power Options Properties dialog box that allows you to set the time to elapse until separate components power down. This is the same dialog box that can be accessed through the Display Control Panel under the screen saver tab.

For Macintosh computers select the Apple Menu then Control Panels and then Energy Saver. This will also bring up a dialog box for setting sleep times for the entire system, the monitor or the hard disk.

### **Suggestions for turning off computer components after a period of inactivity:**

Component	Time period
Monitor	5-10 minutes
Hard disks	30 minutes
System standby or hibernation	20 minutes

If your computer does not have a standby or sleep mode, for example Windows NT systems, turn off your monitor when it is not in use.

Shut down your computer, monitor, and personal printer or place them in a standby mode when you leave the office for more than two hours.

Shut down your computer at the end of the day and turn off the power strip to stop “phantom” loads.

Do not turn on your computer, monitor, or printer in the morning until you actually need them.

## **Does it harm the PC to turn it off?**

Older computers suffered shorter lifetimes under successive power cycling; however, computer components manufactured in the last three years are designed to enter into a lower power state or turn off under the control of the operating system. Therefore using the power management options or turning off newer computers does not appreciably shorten their lifetime. In fact, by using these features, the lifetime of newer computer components can even be extended.

## **Waking up a "sleeping" PC**

Components that are in a low power mode must be "reawakened" when needed. The time lapse for re-powering components varies. Individual components, such as the monitor or hard drive, usually become active in a matter of seconds; however reawakening the entire system from a system standby or hibernation mode can take more than a minute. You might consider reawakening the computer immediately upon entering your office by moving the mouse or pressing a key on the keyboard, and then getting settled into the office, so that the computer is fully operational when you sit down.

## **What about group printers?**

Group printers should not be turned off unless no one will be using them for an extended period of time such as overnight or over a weekend. Most group printers also have a power save mode that can be configured according to the needs of the group that it serves. For group printers, IT help desk recommends setting the standby time to 30 minutes.

## **System Standby**

- Drops power to 1-3 Watts
- Wakes up in seconds
- Saves \$10-40+ per computer annually

## **Hibernate**

- Drops power to 1-3 Watts
- Wakes up in 20+ seconds
- Saves work in the event of power loss
- Saves \$10-40+ per computer annually

## **Notes**

- Do not use screensavers as energy savers as they continue to use the monitor at full power and do not conserve energy.
- On laptops, be sure to activate these settings in the AC power profile—not just the DC (battery power) profile.

For assistance with configuring your personal computers energy management features, please call the IT Help Desk at [helpdesk@radford.edu](mailto:helpdesk@radford.edu) or by calling 7500.

