



# Sustainable Practices

## Computer Energy Conservation

USC

*EH&S Fact Sheet*  
*April 2006*



ENVIRONMENTAL  
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*You can help reduce CO2 emissions while helping the university save money and energy!!* Significant energy savings are possible by simply shutting down computers and office equipment when not in use.

### Did You Know That:

Personal computers use about the same amount of energy to startup as they use when they are on for about two seconds. For energy savings, consider turning off:

- the monitor if not using your PC for more than 20 minutes,
- both the CPU and monitor if not using your PC for more than 2 hours.

According to the Department of Energy, a typical CPU uses 120 Watts of electricity, while a CRT monitor consumes an added 150 W. This implies that for every 1,000 USC-owned computers X 0.12 kW X 250 workdays X 8 hours = The university uses 240,000 kWh of fossil fuel derived energy per year to run the computers during business hours.

Considering the DOE's estimated 1.45 lbs of carbon dioxide (CO<sub>2</sub>, a green-house gas) evolved per kW of power, we can see that shutting down your computer when not in use is healthy for the environment.

Most PCs reach the end of their "useful" life due to advances in technology long before the effects of being switched on and off. In fact, the less time a PC is on, the longer it will "last." PCs also produce heat, so turning them off reduces building cooling loads.

Note: Laptop computers consume considerably less energy than desktop PC's.

### Power-Down or Sleep Mode Features

Today's PC's come with a power-down or *sleep mode* feature.. Many computers power down to a sleep mode that consume around 70% less electricity than a computer without power management features. Make sure you have the power-down feature set up on your PC through your operating system software.

*Screen savers are not energy savers* and may in fact use more energy than not using one. The power-down feature may not work if you have a screen saver activated and modern monitors don't need screen savers at all.

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