

# FACT SHEET COMPUTER ENERGY SAVING



## Ten frequently asked questions about saving energy used by computers.

### 1. WILL TURNING MY COMPUTER AND MONITOR ON AND OFF WEAR OUT MY SYSTEM?

No. In fact powering your computer on and off daily is a good habit for proper PC maintenance. It reduces wear on the computer fan and enables updates that require the computer to shut down. Leaving your computer on also causes dust build-up, making it vulnerable to power surges.

### 2. DO SCREEN SAVERS SAVE ENERGY?

No. Screen savers use monitors at full power and were only designed originally to prevent 'burn in' and are not needed on newer models. Not only do they draw power but they also keep the computer's central processing unit from shutting down. It is much better to set your computer to sleep mode where the monitor switches off when not in use.

### 3. DO I NEED TO TURN OFF MY MONITOR?

Yes. In general monitors consume more energy than computers. Switch them off when not in use.

### 4. ARE POWER MANAGEMENT SAVING SETTINGS AUTOMATICALLY SET ON MY COMPUTER WHEN I PURCHASE IT?

No. Power management settings allow the computer and monitor to enter low power states when idle. These settings can reduce usage on average from 60-90 watts down to 2-10 watts.<sup>2</sup> For easy to follow instructions on how to activate these settings on your computer visit [www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_power\\_mgt\\_users](http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_users). If you have a network you can potentially save hundreds of dollars in electricity costs by implementing power management over the entire network, visit: [www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_power\\_mgt\\_implementation\\_res#open\\_source](http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_implementation_res#open_source). Make sure you configure your monitor to turn off or enter power saving mode after twenty minutes or less of inactivity and your hard drive after thirty minutes of inactivity.

<sup>1</sup> State of Oregon Department of Environmental Quality, 2002, Computers and Monitors: When should I turn them off? [www.deq.state.or.us/lq/pubs/factsheets/sw/ComputersMonitors.pdf](http://www.deq.state.or.us/lq/pubs/factsheets/sw/ComputersMonitors.pdf)

<sup>2</sup> Energy Education, Are your computers wasting energy? [www.energyeducation.tx.gov/pdf/13cinv.pdf](http://www.energyeducation.tx.gov/pdf/13cinv.pdf)

### DID YOU KNOW...

- It takes 20-30 years of switching the monitor on and off five times or more per day for the frequency of faults in parts to increase!<sup>1</sup>
- 75% of a workstation's energy usage comes from the monitor.<sup>2</sup>

### 5. DOES LEAVING GAMES RUNNING IN THE BACKGROUND WHILE MULTITASKING AFFECT ENERGY CONSUMPTION?

Yes. Leaving games on while multi-tasking will not allow your computer to reduce its power usage, even if the game is paused.

### 6. HOW CAN I GET MORE FROM MY BATTERY RUN TIME?

Reducing the brightness of your screen will increase the running time of the battery. Running bluetooth and wireless capabilities drains the battery. Turn them off when not in use.

### 7. SHOULD I TURN MY COMPUTER AND PRINTER OFF AT THE WALL WHEN NOT IN USE?

Yes. Many appliances that appear to be off are actually in standby mode. While they consume only a small amount of energy the environmental impact and costs add up over the course of a year, especially if a number of appliances are left on (see <http://standby.lbl.gov/summary-table.html> for a guide on average consumption in active, idle and standby mode).

THE ECOBIZ TEAM IS ALWAYS  
AVAILABLE TO HELP YOU.

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## 8. HOW CAN I STOP MY LAPTOP FROM OVERHEATING?

Overheating reduces your laptop's performance and often causes system crashes and freezing. Laptops are especially susceptible to overheating due to their small size and lack of ventilation. Make sure you clean the laptops air vents to remove dust and dirt and don't use your computer on surfaces such as beds, couches, your lap or carpet without a flat surface underneath.

## 9. DOES IT MATTER IF I DON'T COMPLETELY SHUT DOWN MY LAPTOP BEFORE PLACING IT IN MY LAPTOP CASE?

Yes. Not shutting down your laptop completely before placing it into a laptop case can cause internal damage. Heat builds up in the case even when your computer is on standby mode. Always turn your computer completely off or use the laptop hibernation mode that puts your open documents and programs on your hard disk and then turns off your computer. Hibernation means you can still quickly resume where you left off.

## 10. WHERE CAN I RECYCLE MY OLD COMPUTER WHEN I UPGRADE?

Manufacturing the parts of a computer uses a lot of materials and energy. If you can no longer repair or upgrade your electronic equipment with parts, when you replace this equipment it is environmentally responsible to recycle your old equipment (e-waste). Most electronic equipment contains highly toxic material such as mercury, cadmium and lead which have the potential to leach from landfill into the environment, contaminating groundwater and surrounding soil and enter the food chain. Recycle the e-waste to remove hazardous components and reuse as much of the waste as you can.

Many councils have specific location or days when e-waste can be collected or dropped off at a waste transfer station, generally free of charge. Contact your local council to find out. Alternatively, many waste service providers will collect e-waste, generally for a fee. Contact your current waste service provider or visit [www.businessrecycling.com.au](http://www.businessrecycling.com.au) to find companies near you who will recycle your e-waste.

## QUICK TIP

If you don't have time to turn off all your appliances consider using an energy saving power-board that is connected to the master socket. When one appliance is turned off the power-board (generally with the main computer plugged in) senses this and automatically turns the power supplied to the other sockets connected to the board.

When the primary appliance is turned on again the power to the other controlled sockets is switched back on. These power-boards usually have one socket that operates as 'always on' if you need an appliance such as the fax to have continuous power to operate. The board also provides a high level of surge protection. Alternatively consider using a simple plug in timer.

## NEXT STEPS

1. Listen to an [ecoBiz webinar on waste efficiency](#).
2. Book your coaching session to talk about waste efficiency.
3. Monitor your waste use through the free online ecoBiz Benchmarking tool.
4. Read the [case studies](#) on the website.
5. Look for more opportunities in your business using the [ecoBiz Site Survey checklist](#).
6. Download the other [fact sheets and resources](#) for you to use in your business.

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