



# What is OFF?

## Eliminating standby power

Many electrical devices such as computers, monitors, speakers, stereos and speakers are designed to use electricity even when they are simply plugged in to the wall.

For example, if:

- a computer monitor is dark, but you can see a little **light** glowing anywhere on the edge of the monitor, electricity is being used;
- a laptop computer is turned off but plugged in to the electrical outlet, touch the power adapter. If the power adapter is **warm**, electricity is being used.

'Stand-by power', 'phantom load' and 'vampire power' are all terms that refer to the electricity consumption of appliances while they are switched off or in a standby mode.

### How to detect when electricity is being used:

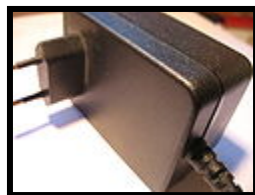
**LOOK:** Wherever there is a **light** on, electricity is being used. For example, a computer monitor is still using electricity if:

you can see a screen saver image OR if there is a light glowing anywhere on the monitor



**FEEL:** Wherever there is

**heat**, electricity is being used. For example: an electrical cord that has a power adapter built in and it is warm to touch



**LISTEN:** Wherever you hear a **fan**, electricity is being used. For example: You hear a fan and feel air coming from the back of the monitor or computer

### Why should I turn it OFF?

#### Energy Facts from EcoAction\*:

- In the average Canadian home, **5-10 percent** of the electricity consumed is used to power appliances and home electronics while these devices are on stand-by.
- Across Canada, appliances in standby mode are estimated to be using at least **5.4 terawatt-hours** — that's 5,400,000,000 kWh. Excessive standby power consumption not only wastes money, it also has an environmental impact.
- Through more efficient designs in new products, and improved power supply technologies, as well as **behaviour-related actions** such as switching off or unplugging units, reducing the standby power consumption of all devices to 1 watt or less would save 3.9 terawatt-hours.  
[emphasis added]

#### Did you know?

The power that could be saved is equivalent to the electrical consumption of all households in Manitoba and Prince Edward Island combined

### Check first!

Some schools and school boards have policies about turning off computers and other electrical devices. Check with your principal, EcoSchools representative or IT staff for their policy regarding turning off or unplugging electrical devices.



## Common devices and functions that can consume standby power

How many of these devices are in your classroom? How many are in your school? How do you know if they are using electricity?

- Computer
- Computer monitor
- Speakers
- Printer, scanner and photocopier
- SMART boards\*
- Power adapter/supply
- DVD/VCR players and some audio systems
- TVs and cable set-top box
- Microwave oven
- Devices with "Instant on" functions, with remote control receivers, or waiting for the user to interact
- Devices with a standby light or clock
- Some video game consoles (e.g. Nintendo Wii, Microsoft Xbox 360 & Sony Play-

## Energy conservation tips

### SMART boards

Smart boards use energy on standby and can be unplugged when not in use. It will start up quickly (20 seconds) and should not need to be re-configured or recalibrated.

### Laptop carts

Once fully charged, laptops do not need to stay plugged in. Schools should set up a schedule so that laptops can be unplugged over the weekend and holidays and still be fully charged for the next school day.

### Mac computers

Macintosh computers have a deep sleep function that uses very little energy. This function is active when the power light is flashing.



## Energy conservation resources at [www.ontarioecoschools.org](http://www.ontarioecoschools.org)

[EcoReview Forms](#)  
[Walkabout Worksheet Forms](#)  
[Lights Off Tally Chart](#)  
[Monitors Off Tally Chart](#)  
[Energy cards activity](#)  
[What is OFF? Powerpoint presentation](#)  
[What is OFF? Fact sheet](#)  
[Best Practices Gallery for Energy Conservation](#)

## Other energy conservation resources

Information about energy conservation and the Energy Star program  
<http://oee.nrcan.gc.ca/residential/business/manufacturers/>

Blog entries by and for high school students (easily adapted for younger students)  
<http://youthenergy.ca/?cat=4>

Electricity facts, conservation tips and games aimed at elementary students  
<http://kids.everykilowattcounts.com/en/>

\* EcoAction Facts: <http://oee.nrcan.gc.ca/residential/business/manufacturers/pdf/standby-power-fact.pdf>