

# How Vampire Electric Loads Are Wasting Your Money

## What is a vampire electric load?

A vampire (or phantom) load is the electricity consumed by an appliance when it's switched "off" or no off switch is available, yet the appliance continues to draw electrical current. The industry's term is "stand-by."

## When an appliance is switched "off," doesn't that mean it is disconnected from the electric circuit?

Not these days. Most recently-manufactured appliances continue to draw current all day, every day—and cost you money.

## Why do appliances have these loads?

Most standby vampires operate convenience features such as touch pads, remote controls, memory presets, instant-on and digital clocks, but some do nothing useful.

## How much does it matter?

In an average household, ten percent of the electricity consumed goes to the vampire load. Households with a lot of electronics can be much worse. And small loads add up: 45 vampire watts feeding off your electric power bill for a year totals nearly 400 kilowatt hours—enough energy to operate a new EnergySTAR® refrigerator for 10 months.

## Is the amount of vampire load fixed by the nature of a particular convenience such as the remote-controlled off/on feature?

No. Some brands and models operate these features much more efficiently than others.

## What are the worst offenders?

The set top boxes used by TV cable and satellite systems draw between 10 and 48 watts when off. Mini audio systems average 8 watts and go up to 24. Powered subwoofers average 10 and may include no "off" switch of any kind. Game consoles range from a fraction of a watt to 64 or more.

## Are there different kinds of standby?

Yes. Computers have a "sleep" mode and an "off" mode. Both draw smaller amounts of vampire current, with the "off" mode typically drawing the least. Computers in their "off" mode draw up to 9 watts. Computers in sleep mode range between 1 and 83 watts, with 21 watts being typical.

## Do vampires reside only in electronic equipment such as VCRs and computers?

No. Recently-manufactured washers, dryers, and dishwashers, including the Energy STAR® rated models, have vampire loads ranging as high as 5 watts.

## What can I do?

- Unplug appliances you don't use often, and as many as possible when you go on vacation.
- Use power strips for shutting off your computer and its peripherals, audio-visual equipment and other suspected groups of

electronic equipment each evening and when not in use.

- To determine the vampire loads of your own appliances, test them with a watt meter, such as P3 International's P4400 Kill-A Watt. These cost about \$25 and can be shared with friends and neighbors.
- Think about the value of the standby features before deciding whether to power off the equipment. For example, alarm systems shouldn't be powered off. Mini audio systems, appear to do nothing useful in *stand-by*. Set top boxes with record capabilities would need to be in *stand-by* for a timed recording. But if you don't have or use that feature, you might just have to wait a minute or two to reboot and download current programming information.
- Be an informed consumer. Buy EnergySTAR® rated appliances, and acquire as few TV set top boxes as your family can live with.
- Educate yourself about this subject and share what you learn with your friends and neighbors. Once you get started, you will find many other ways to reduce your energy use.

## What every homeowner should know about Vampire Electric Loads

- **What they are**
- **Why they exist**
- **What you can do about it**

*Information from the Great Falls Group of the Sierra Club, the oldest and largest grassroots Conservation organization in the U.S. We are your friends and neighbors working to build healthy, livable communities, and to conserve and restore our natural environment.*

**Join us!**  
<http://virginia.sierraclub.org/greatfalls>

## Why should we care about Vampire Loads?

They waste electricity—a scarce commodity that is getting scarcer.

They waste money. You have better things to do with it!

More than half of Virginia's electricity is generated by coal, mined by strip mining or a process called mountain-top removal. This involves literally blowing off the tops of mountains to get to the coal seams underneath. Saving electricity helps save our mountains.

Burning coal and other fossil fuels pollutes the air we breathe, causing asthma and other ailments. It is also a major cause of global warming.

Virginia's per capita energy consumption is twice that of the most conserving states, including California and New York. We can do better!

**It's 3 a.m.  
Do you know what your appliances are doing?**



**Yes, we know you turned them off: the TV, the stereo, the computer, all of them. But they're still awake and sending your money to the power company.**