

One of the best ways to reduce electricity bills and usage is to find and destroy vampires in the home. These vampires are appliances and equipment that suck up power even when they are turned off, such as lamps, TV's, toasters and stereos. They are any appliances that display a clock while otherwise idle, such as a microwave oven, coffee maker or DVD player. Many ordinary items are actually energy vampires in disguise.

Vampires can also be things that charge, such as cell phones, PDAs, toothbrushes or portable tools, some of which continue to use electricity even after they are charged to capacity. Your cable box, too, is perpetually drawing current as it talks to the network. Have an Internet phone? That's always on, ready to take a message.

Other culprits are anything with an external power supply, meaning an AC adapter (also known as a wall transformer, power pack, or "wall wart").

These wall warts convert AC electricity into DC electricity. The conversion is most efficient with large power draws, such as refrigerators, and least efficient with devices that require little power, such as digital clocks.

Vampire power is also called "phantom load" and standby power. About 40 percent of the electricity being used to power your home electronics is consumed while they are in standby mode.

The latest estimates are that 5 percent of electricity used in the United States is being used for stand-by power. In 2000, a group of researchers from Lawrence Berkeley National Laboratory estimated that each year Americans spend about \$4 billion on standby power. Generating that much electricity puts roughly 27 million tons of CO<sub>2</sub>-equivalent emissions into the atmosphere (more than 3.7 million cars' worth) every year.

While the amount of low-power mode energy required by most new appliances is going down, the number of appliances (from washing machines to air conditioners) with continual power needs is increasing—eclipsing those savings. The U.S. Department of Energy estimates that standby power could consume as much as 20 percent of household electricity by 2010.

### **What Can You Do In Your Home?**

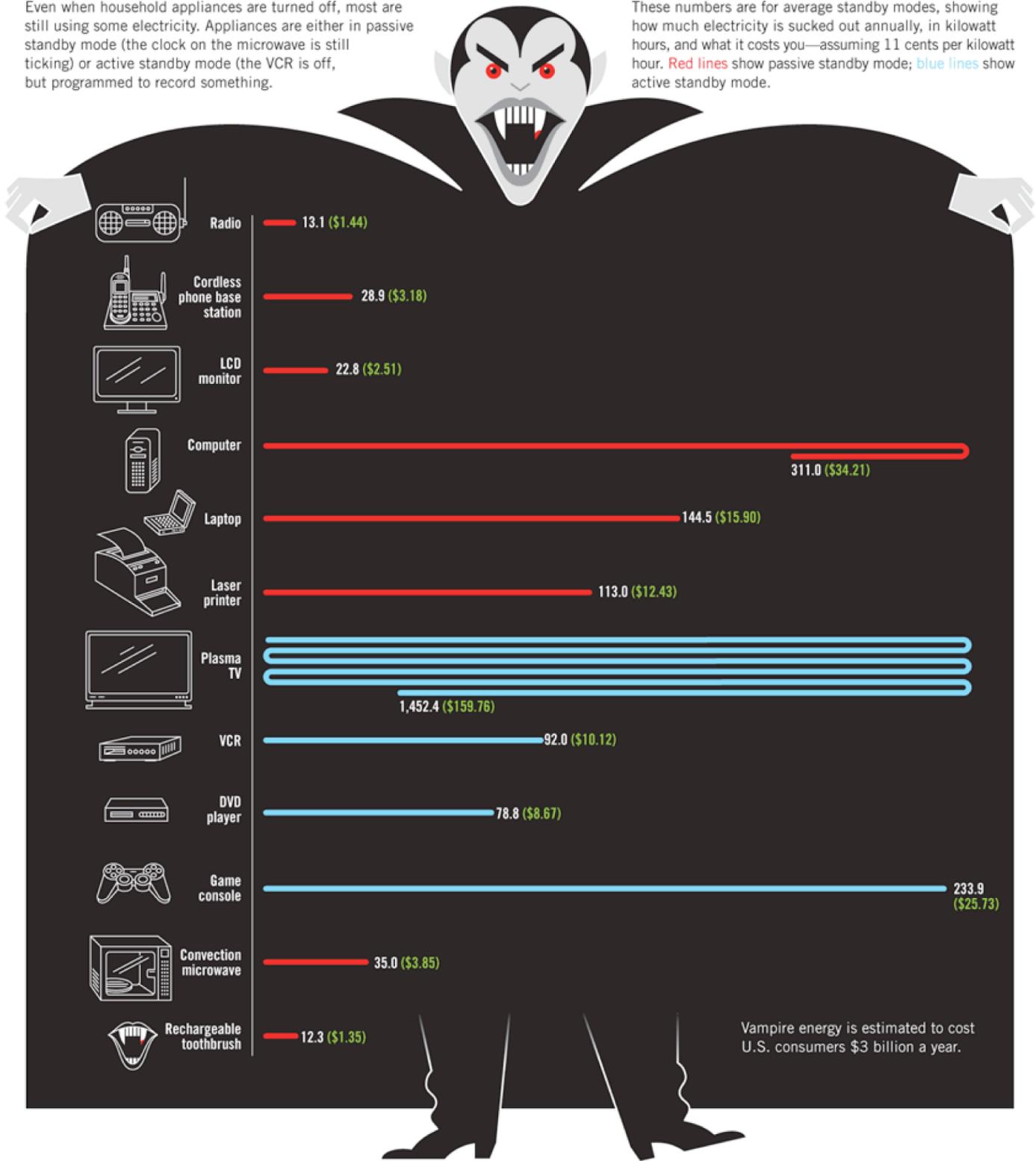
This is where vampire slayers come in.

Unplugging everything that is not in use is not always inconvenient. A simple and inexpensive way to slay energy vampires is with plug-in adapters with an on/off switch. You can purchase them at your local hardware store. You can even get a socket that automatically switches a device off when it has gone into standby. Try using the manual switch adapters for kitchen appliances, TV, and floor lamps – you'll be amazed!

# Vampire Energy

Even when household appliances are turned off, most are still using some electricity. Appliances are either in passive standby mode (the clock on the microwave is still ticking) or active standby mode (the VCR is off, but programmed to record something).

These numbers are for average standby modes, showing how much electricity is sucked out annually, in kilowatt hours, and what it costs you—assuming 11 cents per kilowatt hour. **Red lines** show passive standby mode; **blue lines** show active standby mode.



Vampire energy is estimated to cost U.S. consumers \$3 billion a year.

SOURCES 2005 Intrusive Residential Standby Service Report; Department of Energy