



North American households waste \$7 billion annually in phantom power

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The biggest energy consumers in homes or offices include little-pondered technologies such as aquariums and video game consoles, according to the E Source White Paper “Mind the Gap: Taking a Comprehensive Look at Plug Load Energy Use.” E Source found that although new advances and utility incentives have made some technologies (such as lighting) more energy efficient, the proliferation of plugged-in gadgets is erasing many of those gains.

Plug loads—electrical devices that plug into an outlet—are huge energy hogs, accounting for as much as 15 percent of all residential electricity consumption and 20 percent of commercial consumption. Much of that energy is consumed even when an electronic device is turned off or in standby mode, a type of energy consumption that is often referred to as “phantom power.” Most users of residential and office electronics are unconcerned with phantom power because each individual item consumes relatively little power. However, the average home or office has multiple smartphones, TVs, clocks, computers, and other items plugged in, and the power used by these small energy consumers quickly adds up.

“North American households waste about \$7 billion a year on phantom loads alone,” says Spencer Sator, manager of the *E Source Technology Assessment Service*. “This represents 50 million tons of carbon dioxide, or enough electricity to power 6 million households.”

The E Source plug load research also revealed that:

- Kitchen appliances—such as toaster ovens and microwaves—account for 6 of the 10 largest power consumers in the home.

- A set-top cable box consumes roughly as much energy as a refrigerator over the course of a year.
- The largest common plug loads in offices are color copiers, one of which consumes up to 1,400 kilowatt-hours per year—about as much as about 30 Energy Star-rated laptop computers.

Utilities and appliance manufacturers have been working to reduce overall plug load power draw and phantom power use for years, but the rapid proliferation of electronic gadgets has thus far outpaced their progress. This has led to the projection that plug loads will become more dominant energy users than any other technology family—including lighting or air conditioning.

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