Home Tips Everyone Can Use By Lou Prinzi, CRI/RPI

What Wattage

If you live in a typical U.S. home, your appliances and home electronics consume close to 20 percent of the electricity appearing on your monthly electric bill. Appliances that are the biggest power guzzlers include washers and dryers, computers, dishwashers, refrigerators, water heaters, televisions and CD players.

When it's time to replace these items, reading federally mandated EnergyGuide labels found on most appliances can provide information about a product's electricity usage and efficiency. The ENERGY STAR labels alert you to the brands of home electronics that meet strict energy efficiency criteria established by the U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA).

How do you decide if it's time to invest in more energy-efficient appliances? Start by estimating the electricity consumption of each of your appliances using this formula: Total watts x number of hours per day your appliance is using electricity divided by 1000 (1 kilowatt (kW) equals 1000 watts). This formula and further explanation can also be found on the government's Energy Efficiency and Renewable Energy at Dept. of Energy at eere.energy.gov.

You can use a personal computer as an example:

(120 Watts used by monitor + 150 Watts used by CPU x 4 hours/day x 365 days/year) divided by 1000 = 394 kWh. Then multiply 8.5 cents by 394 kWh. Eight and a half cents is a good average for electricity rates around the country. Thus, the yearly cost for running the computer is \$33.51/year.

Calculating your appliances energy consumption using this formula will give you an idea of what you're paying to run each appliance daily, monthly or yearly.

Keep in mind that many appliances continue to draw small amounts of power when they are switched "off". These power draws, called "phantom loads" occur in most electrical appliances. While most phantom loads do increase the appliance's energy consumption, you can reduce phantom load by unplugging the appliance.

Wondering whether to turn off your PC or laptop for energy savings? Here are some guidelines: Though there is a small surge in energy when a computer starts up, this small amount of energy is still less than the energy used when a computer is running for long periods of time. For energy savings, turn off the monitor if you aren't going to use your PC again within the next twenty minutes. Turn off the CPU and monitor if you'll be away from your PC for more than 2 hours.

You can also plug monitors, printers, and other accessories into a power strip/surge protector. When your equipment is not in use for extended periods, you can turn the components off on the power strip to prevent them from drawing power even when shut off. And don't worry about wearing out your PC. Newer, faster and cheaper models will render your PC or laptop outdated well before the effects of being switched on and off have a negative impact on their service. PCs also produce heat, so turning them off reduces building cooling loads.

If your PC has a sleep mode, use it. ENERGY STAR computers power down to a sleep mode that consumes 15 Watts or less power, about 70% less electricity than a computer without power management features.

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