

The Biggest User

Learn how to estimate your home appliances' energy use

You've had your fridge forever. With the exception of some crumbling parts of the seal, it's in pretty good shape and keeps your food cold. Why worry about budgeting for an upgrade?

For starters, inefficient appliances can have a huge effect on your home's monthly electric bill. Replacing a refrigerator made before 1993 with a new, Energy Star-rated model could knock \$65 to \$100 off your power costs each year.

When evaluating older appliances, one key question emerges: Which is the biggest user? To estimate the energy consumption of an appliance, use this general formula provided by the U.S. Department of Energy's EnergySavers.gov:

$(\text{Wattage} \times \text{Hours used per day} \times \text{Days used per year}) \div 1,000 = \text{Annual kilowatt-hours used}$

Remember: 1,000 watts = 1 kilowatt.

Then calculate the annual cost to use an appliance by multiplying the kWh per year by the price you pay per kWh used.

You can find the wattage of most appliances stamped on the bottom or back or on the nameplate. The wattage listed shows the maximum power drawn by the appliance. Because some appliances have a range of settings—just like the volume on a radio—the actual amount of power consumed depends on the setting.

Keep in mind that as electronics and appliances become more technologically savvy, they often draw power even while turned off. A good indicator of this so-called “phantom load” is a light on the device that stays on all the time.

Phantom load will add a few watt-hours to energy consumption, but a few watt-hours on each of your many electronic devices add up. To avoid this silent power draw, unplug the device or invest in a “smart” power strip, which allows certain electronics—like a cable box, which takes time to reboot after it's been unplugged—to continue using electricity while others can be completely shut down.

Once you calculate how much money you spend to run aging home appliances, in a new appliance may have other benefits, too. For example, not only have clothes washers become 64 percent more energy efficient since 2000, but the

tub size has increased by 9 percent. With a new model, you can wash more clothes for less money every month.