



APPLIANCES Be smart about operating costs

Every appliance has two price tags—a purchase price and the operating cost. Smart shoppers will check out the operating costs over the life of the appliance. Here are some ways to make a smart purchase and minimize energy consumption while using your new appliance.

Energy Star

When you shop for a new appliance, learn about its energy efficiency through the yellow and black EnergyGuide label on the appliance. Look for the Energy Star label. Energy Star appliances have been identified by the U.S. Environmental Protection Agency and the Dept. of Energy as being the most energy-efficient products in their classes.

Visit www.energystar.gov to learn more.

Estimate appliance energy consumption

If you're trying to decide whether to invest in a more energy-efficient appliance or you'd like to determine your current electricity loads, you may want to estimate appliance energy consumption.

You can use this formula to estimate an appliance's energy use

$$\frac{\text{Wattage} \times \text{Hours Used Per Day}}{1,000} = \text{Daily Kilowatt-hours (kWh) consumption}$$

Note: 1 kilowatt = 1,000 watts

Multiply this by the number of days you use the appliance during the year for the annual consumption. You can then calculate the annual cost to run an appliance by multiplying the kWh per year by your local utility's rate per kWh consumed.

Look for the wattage of most appliances stamped on the bottom or back of the appliance or on its nameplate. The wattage listed is the maximum power drawn by the appliance.

Typical wattages of common household appliances:

Hairdryer = 1200–1875	Televisions
Clothes washer = 350–500	19" = 65–110
Clothes dryer = 1800–5000	36" = 133
Dishwasher = 1200–2400	53"–61" projection = 170
<i>(using the drying feature greatly increases energy consumption)</i>	Fans
Refrigerator = 725	Ceiling = 65–175
Vacuum cleaner = 1000–1440	Window = 55–250
	Water heater (40 gal.) = 4500–5500

Phantom Loads

Many devices in your home consume electricity even when they appear to be off. These phantom energy wasters include instant-on TVs, VCR displays, telephones, and computer peripherals. Phantom, or standby, loads cost U.S. consumers more than a billion dollars per year.

Help eliminate phantom loads by plugging those appliances into a plug strip equipped with its own power switch. Switch the power strip on and off when using the appliance.



When purchasing a new appliance, look for those with an Energy Star logo. These appliances use less energy, save money and help protect the environment.

Other ways to increase energy efficiency in your home

1. Put your refrigerator in a location that is not in direct sunlight or near a heat source, like the oven or dishwasher.
2. Clean the condenser coils on the back of the refrigerator at least once a year and check to make sure the door seals.
3. Defrost as needed. Buildup of ice on the coils makes the compressor run longer, wasting energy.
4. The costliest refrigerator is the one you don't really need but run anyway—the one in the garage or basement. Retire it from service.
5. Use your microwave oven. Most energy produced in a microwave goes directly to heating the food, which takes less energy than heating an entire oven.
6. Run your dishwasher only when it's full.
7. Let your dishes air dry.
8. Select a dishwasher with its own heating element so you can lower water temperature and save energy.
9. Scrape, don't rinse off large food pieces and bones. Soaking or prewashing is only recommended in case of burned-on or dried-on food.
10. Wash your clothes in cold water whenever possible.

Sources

U.S. Dept. of Energy, Energy Efficiency and Renewable Energy www.eere.energy.gov

Association of Home Appliance Manufacturers www.aham.org

Rocky Mountain Institute www.rmi.org

John Krigger, Saturn Resource Management. www.srmi.biz. Author of numerous energy efficiency books including "Surviving the Seasons and Residential Energy: Cost Savings and Comfort for Existing Buildings."