U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Guide to Kitchen Appliances

Reducing energy and water consumption in the kitchen means choosing your new appliances with care and using your existing ones more efficiently.

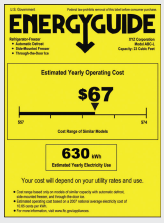
Shop Smart. Buy ENERGY STAR®.

Every appliance has two price tags: what you pay to purchase it, and what you pay for the energy and water it uses. Appliances with the ENERGY STAR label meet strict energy-efficiency criteria established by the U.S. Environmental Protection Agency. Compared to standard models, ENERGY STAR qualified refrigerators use 20% less energy and ENERGY STAR qualified dishwashers use 10% less energy and 18% less water. Make it a practice to look for the label.

Look for the labels

ENERGY STAR

Take advantage of rebates for ENERGY STAR qualified appliances. See *Further Reading* at the end of this fact sheet to learn more.



EnergyGuide

Use this label to determine the model's energy use, compare the energy use of similar ENERGY STAR qualified models, and estimate annual operating costs.

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Selecting energy-efficient kitchen appliances can save you money in utility costs. Look for appliances with the ENERGY STAR label, which meet strict energy-efficiency criteria.

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Refrigerators and Freezers

Saving energy in the kitchen starts with the refrigerator. It is typically one of the largest energy drains of all major home appliances. Guidelines on how to start saving energy are provided below.

Replace a pre-1993 refrigerator or freezer as soon as possible. Although a new refrigerator or freezer is an added expense, keep in mind that the newest ENERGY STAR qualified units cost only half as much to run as pre-1993 units. See *Further Reading* at the end of this fact sheet for guidance on when to replace refrigerators made between 1993 and 1999.

Consider buying a refrigerator with a top-mounted freezer. Top-mounted freezer models use 10% to 25% less energy than bottom-mounted or side-by-side models.

Skip the ice-maker and dispenser. Automatic ice-makers and through-the-door dispensers increase energy use by 14% to 20%. They also raise the purchase price by $75 to $250.

Purchase an appropriately sized unit. Generally, the larger the unit, the more energy it consumes. The most energy-efficient full-size refrigerators with freezers are typically 16 to 20 cubic feet. If you purchase a stand-alone freezer, consider a chest freezer because it is often more energy-efficient than an upright one.

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Dishwashers

When choosing a dishwasher, keep in mind the following:

- **Choose the right size for your home.** Compact-capacity models hold up to eight place settings and six serving pieces; standard-capacity models hold even more. If you operate a compact model frequently, you may use more energy over time than you would with a standard model.
- **Choose a dishwasher with several wash cycle options.** Energy-saving wash cycles use less water for a shorter period of time.

Resource-Efficient Practices

Refrigerators and Freezers

Follow these simple guidelines for your kitchen appliances to help keep them running smoothly and efficiently:

- **Keep the door closed.** Minimize the amount of time the door is open.
- **Just say no to a second fridge.** A second refrigerator in the basement or garage is a big energy drain. Often such units are older and cost more than $100 a year to run. See *Further Reading* at the end of this fact sheet for tips on how to recycle that old refrigerator.
- **Set at appropriate temperatures.** Keep your refrigerator temperature between 35°F and 38°F. Keep the freezer at 0°F.
- **Place your fridge in a cool place.** Position refrigerators and freezers away from heat sources such as ovens, dishwashers, and direct sunlight.
- **Allow air circulation behind the unit.** Leave a few inches between the wall and the back of the unit.
- **Keep condenser coils clean on older models.** Read the owner's manual to learn how to safely clean coils. Coil cleaning brushes can be purchased at most hardware stores.
- **Check the door seals.** Make sure the seals around the refrigerator and freezer doors are airtight. Check by closing the door on a sheet of paper. Does it hold fast? If not, replace the seals.
- **Defrost the freezer.** You must defrost manual freezers periodically to achieve energy savings; and do not allow frost to build up more than one-quarter of an inch.

Dishwashers

- **When possible, use the dishwasher.** Washing dishes by hand costs about $40 per year more in utility costs than washing them in a fully loaded dishwasher.
- **Avoid pre-rinsing dishes.** Save yourself the rinsing and just scrape food off dishes. ENERGY STAR qualified dishwashers and current detergents are designed to do the cleaning for you. If dirty dishes sit overnight, use the dishwasher rinse feature; it uses a fraction of the water compared to hand rinsing.
- **Load it up.** Dishwashers use almost the same amount of energy and water regardless of the number of dishes inside, so run full loads whenever possible.
- **Skip the heat.** Select the no-heat drying option; it dries dishes well and uses less energy.

Further Reading

ENERGY STAR on Refrigerators
www.energystar.gov/refrigerators

Rebates for ENERGY STAR Appliances
www.energysavers.gov/rebates

Financial Incentives

Tax credits, incentives, and rebates may be available in your area. Please visit **www.energysavers.gov/taxcredits** for more information.

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