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ENERGY SERIES: What about Appliances?

Quick Facts

- The average annual energy cost of a home is about $2,200 and appliances are a major part of home energy use (ENERGYSTAR).
- By using appliances with energy saving features, you can save up to $80 in your energy cost every year (ENERGYSTAR).
- Some utility companies have buy-back programs for old appliances.

When shopping for appliances, remember that there are actually three prices to consider. The first is the one everyone considers: the *purchase price.* The second price is for *repairs and maintenance*. The third price is often forgotten, but equally important: the *operating cost* of the appliance. Operating cost depends on the cost of fuel (kilowatt-hour, cubic foot, therm, etc.) in your region, how much you use the appliance as well as the way you use it, and the overall energy efficiency of the appliance. Operating cost shows up on your utility bill each month for the life of the appliance. Your refrigerator, for example, may operate effectively for 15–20 years and your dishwasher for about 10 years. You'll need to consider how any given appliance will affect your utility usage.

Naturally, you want your total expenditure to be as low as possible! Think long term: an energy efficient appliance may have a higher purchase price, but your operating costs could be significantly lower, and often, the maintenance/ repair costs on a new appliance can be lower. Check consumer advocacy print and Internet sources for information such as repair history and maintenance needs.

What should I look for when seeking an energy efficient appliance?

There are two key elements you need to look for when you shop for an energy efficient appliance: the ENERGY STAR logo and the EnergyGuide label.

What is an ENERGYSTAR logo?

ENERGYSTAR is a joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). The aim is to assist money savings and environmental protection by promoting energy-efficient products and practices. Specific minimum standards and testing procedures of each type of product set the bar for meeting strict energy-efficiency guidelines set by the EPA and DOE. If a product meets, or exceeds, the minimum standards, the product qualifies for the ENERGYSTAR label and can then be promoted as such (Figure 1).

Figure 1. Sample ENERGYSTAR logo for qualified products

Typically, ENERGY STAR qualified appliances use 10–50% less energy and/or water than their counterparts

Do all type of appliances have ENERGY STAR guidelines or specifications?

No, not all appliance types are eligible to earn the ENERGYSTAR.

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Currently, only the following appliance types have ENERGYSTAR guidelines:

- Clothes washers
- Clothes dryers
- Dehumidifiers
- Dishwashers
- Refrigerators
- Freezers
- Room air cleaners

See the ENERGYSTAR web site for more information on specific appliances https://www.energystar.gov/products/appliances

Manufacturers of these, and many other appliance types, must provide potential buyers pertinent information regarding a given product's energy consumption on the standardized EnergyGuide label.

What is the EnergyGuide label?

The EnergyGuide label (Figure 2) is a bright yellow tag that the Federal Trade Commission (FTC) developed to help consumers more easily compare energy efficiency among similar products.

Figure 2. Sample EnergyGuide label

Will I see the EnergyGuide labels on all products that use energy?

No, not all products are required to display *EnergyGuide* labels. The FTC's Appliance Labeling Rule (implemented in 1980) requires placement of the *EnergyGuide* labels on any new product in the following product lines:

- boilers,
- central air conditioners,
- clothes washers,
- dishwashers,
- freezers,
- furnaces,
- heat pumps,
- pool heaters,
- refrigerators,
- televisions,
- water heaters
- window air conditioners.

What will the EnergyGuide label tell me?

EnergyGuide labels for appliances contain three key pieces of information. First, the labels show the energy consumption or energy efficiency rating of the appliance, as determined from standard DOE tests. Second, some labels include a “range of comparability” indicating the highest and lowest energy consumption of efficiencies for all similar models. Third, labels for most appliances must provide estimated annual operating cost Manufacturers arrive at this estimate by basing their calculations on figures published by the DOE.

Remember, EnergyGuide labels won't tell you the best appliance to buy, but they do provide a lot of information to help inform your decision making. They also help consumers assess the trade-offs between the energy costs of their appliances and other expenditures.

Make sure you compare similar models with similar capacities. For example, comparing one top-loading clothes washer with another top-loader that handles the same sized batch of laundry will help you make a more informed decision than comparing models that lack such similarities.

Does an appliance with an EnergyGuide label also mean that it's ENERGYSTAR qualified?

No, a product displaying an EnergyGuide tag does not mean the appliance is ENERGYSTAR qualified. Some manufacturers are incorporating the voluntary

ENERGYSTAR logo on their qualified appliance EnergyGuide labels, but if you don't see the ENERGYSTAR logo on the bright yellow EnergyGuide tag, investigate further, the ENERGYSTAR logo might be on the appliance itself, or perhaps the item has not earned the ENERGYSTAR logo.

What are some other, more general, energy-saving tips for appliances?

If you want to keep your current appliances at their top efficiency, use the appliances as indicated in the product manuals, take care to avoid overrunning the appliances, and follow a regular maintenance schedule. When considering a new appliance, you can maximize your savings by:

- Determine how much energy the appliance uses by going to the U.S. Department of Energy's Web site at: https://www.energy.gov/energysaver/save-electricity-and-fuel/appliances-and-electronics/estimating-appliance-and-home
- Check with your local utility company to see if they offer rebates or incentives for the purchase of energy-efficient appliances (a rebate makes that energy efficient dishwasher or refrigerator an even more attractive buy, *and* some utility companies even pay you to turn in older, working inefficient models).
- Visit the ENERGYSTAR Web site at https://www.energystar.gov/rebate-finderto determine if there are any special offers or rebates available from ENERGY STAR partners; and for potentially more savings,
- Visit the Database of State Incentives for Renewable and Efficiency (DSIRE) Web site at https://www.dsireusa.org/.
- Review "Where does my Money Go?" https://www.energystar.gov/products/where_does_my_money_go

Other References and Resources

This document is excerpted and/or adapted from *Energy Efficient Homes: Appliances in General*, *http://edis.ifas.ufl.edu/document_fy1032*, by Hyun-Jeong Lee, Kathleen C. Ruppert, Wendell A. Porter, and Travis Prescott, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, 2008.

- American Council for an Energy-Efficient Economy. *Consumer Guide to Home Energy Savings: Online Guide "*Smarter House" *"*https://aceee.org/consumer-guide-home-energy-savings-online

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