

ENERGYGUIDE

A Tool for Appliance Shoppers

Since May 1980 the ENERGYGUIDE has been on refrigerators, refrigerator-freezers, freezers, water heaters, clothes washers, dishwashers, room air conditioners, and furnaces. This bright yellow label is part of a national energy conservation program.¹ It can help consumers save money and energy, but many Oregonians and others are not using it to compare appliances for energy cost or efficiency. In order to take advantage of the information it can provide a better understanding of the ENERGYGUIDE is needed.

Why compare?

It costs money to operate an appliance. In fact, it can cost more to run an appliance during its lifetime than the purchase price.

Energy costs vary considerably among similar models of an

¹ The Appliance Labeling Program mandated by the Energy Policy and Conservation Act of December 1975 is a joint project of the Federal Trade Commission and the U.S. Department of Energy.

Appliances in the original program that do not have labels are clothes dryers, home heating equipment other than furnaces, television sets, kitchen ranges and ovens, humidifiers, and dehumidifiers. It was determined that the benefit to consumers would not be great enough to justify the cost of labels on these appliances.

Central air conditioners and heat pumps will have ENERGYGUIDES in the future.

² A therm equals about 1 CCF (hundred cubic feet) of natural gas.

appliance. If you shop around, you can find an appliance with the features you want—and with a lower yearly energy cost or higher efficiency.

Where will you find ENERGYGUIDE?

Check the front of the appliance. The ENERGYGUIDE will be attached with an adhesive or a hangtag. If the appliance is advertised in a catalog, the same information you'd find on the ENERGYGUIDE must be included in the description.

How do you use ENERGYGUIDE?

There are three types of ENERGYGUIDE labels:

1. A cost label (Fig. 1 and Fig. 2) must appear on new refrigerators, refrigerator-freezers, freezers, water heaters, dishwashers, and clothes washers. There are two variations. Each gives estimated yearly energy costs based on:

- a national average utility rate (cost per kilowatt hour for electricity or per therm² for natural gas).
- how much energy the appliance uses during standardized testing.

Your energy cost could be lower or higher depending on the utility rate you pay and how you use the product. The cost figure is intended as a guide to promote comparison shopping. It is not a guarantee of the actual operating cost of an appliance.

2. An EER label (Fig. 3) must appear on new room air conditioners. EER stands for energy efficiency rating. The higher the number, the less energy a model of a certain size will take to run.

EER is the ratio of cooling capacity in BTU/hour to the wattage rating—

$$\text{EER} = \frac{\text{Cooling capacity (BTU/hr)}}{\text{Wattage rating (watts)}}$$

—and is determined by performance under standardized testing.

Room air conditioners don't have cost labels, because cooling needs and corresponding costs vary from one part of the country to another.

3. The generic label (Fig. 4) must appear on all new furnaces. It gives general information on home energy conservation. It also directs you to an energy fact sheet available from the dealer or contractor.

Which model is the best buy?

Be sure you compare appliance models similar in size and features. Say you're interested in two models of a refrigerator-freezer. The ENERGYGUIDE tells you one model is more energy-efficient. If the purchase price is about the same, then the model using the least energy is the best buy.

Usually you'll find that higher energy efficiency means a higher purchase price. In such instances, the model

with the lowest total cost is the best buy. Use the Appliance Total Cost Worksheet on the next page to compare the two models. Remember, you must be comparing models with the same or similar capacity and features.

If you decide to buy the more energy-efficient refrigerator-freezer, and it is more expensive, how long will it take to recover the extra purchase cost? To find out, divide the difference in the purchase prices by the difference in the yearly energy costs. The answer gives the length of time required.

For example:

Refrigerator A costs \$550 and has an estimated yearly energy cost of \$48. Refrigerator B costs \$500 and has an estimated yearly energy cost of \$67.20.

$$\frac{\$550 - \$500}{\$67.20 - \$48} = \frac{\$50}{\$19.20} = 2.6 \text{ years}$$

If you plan to keep the refrigerator more than 2.6 years, the energy-efficient model is the better buy.

A Word of Advice

With energy costs continuing to climb, it's a good idea to be aware of how much it will take to run a new appliance. When shopping, you'll still want to compare purchase prices, features, warranties, and service availability. But add a comparison of estimated energy costs or efficiencies to the list, too. Use the ENERGYGUIDE to help you spend your appliance dollar more wisely.

Table 1. These figures indicate how long one owner normally uses new appliances.

| Appliances | Years |
|---|-------|
| Refrigerators and refrigerator-freezers | 15 |
| Freezers | 18-20 |
| Dishwashers | 11 |
| Clothes washers | 11 |
| Water heaters | 10-12 |
| Room air conditioners | 12-15 |
| Furnaces | 20 |

Source: Based on averages from Home Economics Research Journal, March 1975, p. 159, and Department of Energy estimates.

Appliance Total Cost Worksheet

| | Model 1 | Model 2 |
|--|------------|------------|
| 1. Purchase Price | \$ _____ | \$ _____ |
| 2. Total Energy Cost | | |
| a. yearly energy cost (copy from label or use table on label to estimate your cost*) | \$ _____ | \$ _____ |
| b. number of years you expect to keep appliance (see Table 1) | _____ yrs. | _____ yrs. |
| c. multiply a and b for each model | \$ _____ | \$ _____ |
| 3. Total Cost** —add 1 and 2c. | \$ _____ | \$ _____ |

* Contact the utility company or county Extension office to find out how to determine the rate you're charged for electricity or natural gas.

** This total cost includes the purchase price and energy costs only. It does not include (1) the cost of service or repairs; (2) earnings lost if the money used to buy the appliance could have been invested; or (3) interest charges if the appliance has been purchased

on credit. For information about figuring the complete life cycle cost of an appliance, contact your county Extension office. Also note this total cost doesn't take into consideration a change in energy rates.

Fig. 1. Look for a label like this on refrigerators, refrigerator-freezers, freezers, and water heaters

Name of appliance

Size of appliance

The estimated yearly energy cost of this model refrigerator-freezer is \$70.

Similar models are available with estimated yearly energy costs as low as \$50 and as high as \$88.

(Name of Corporation)
 Refrigerator-Freezer
 Capacity 17 Cubic Feet
 Model(s) AH503 AH504 AH507
 Type of Defrost Full Automatic

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Estimates on the scale are based on a national average electric rate of 4.97¢ per kilowatt hour. Only models with 16.5 to 18.4 cubic feet are compared in the scale.

Model with lowest energy cost \$50
\$70
 Model with highest energy cost \$88

THIS MODEL

Your cost will vary depending on your local energy rate and how you use the product.

How much will this model cost you to run yearly?

| Yearly cost | |
|--------------------------------------|-----------|
| Estimated yearly \$ cost shown below | |
| Cost per kilowatt hour | 2c \$29 |
| | 4c \$57 |
| | 6c \$85 |
| | 8c \$113 |
| | 10c \$142 |
| | 12c \$170 |

Ask your salesperson or local utility for the energy rate (cost per kilowatt hour) in your area.

Important Removal of this label before consumer purchase is a violation of Federal law 42 U.S.C. 6302.

Type of defrost

Use a cost figure from this table if your electricity rate is different than the national average of 4.97¢ per kilowatt hour.

Sample

Fig. 2. Look for a label like this on dishwashers and clothes washers.

Name of appliance

Size of appliance

If you have an electric water heater, read the left side of the label.

Estimated yearly energy cost of this model if you have an electric water heater

Range of energy costs for similar dishwashers

This table will help you figure your yearly energy cost more closely.

(Name of Corporation)
 Dishwasher
 Capacity Standard
 Model(s) MR328 XL12 NA83

ENERGYGUIDE

Estimates on the scale are based on a national average electric rate of 4.97¢ per kilowatt hour and a natural gas rate of 36.7¢ per therm. Only standard size dishwashers are used in the scale.

Electric Water Heater
 Gas Water Heater

Model with lowest energy cost \$62
\$73
 Model with highest energy cost \$92

Model with lowest energy cost \$26
\$31
 Model with highest energy cost \$40

THIS MODEL

Your cost will vary depending on your local energy rate and how you use the product.

How much will this model cost you to run yearly?

| with an electric water heater | | with a gas water heater | |
|-------------------------------|--------------------------------------|-------------------------|--------------------------------------|
| Load of dishes per week | Estimated yearly \$ cost shown below | Load of dishes per week | Estimated yearly \$ cost shown below |
| 2 | \$17 | 2 | \$4 |
| 4 | \$34 | 4 | \$8 |
| 6 | \$51 | 6 | \$12 |
| 8 | \$68 | 8 | \$16 |
| 10 | \$85 | 10 | \$20 |
| 12 | \$102 | 12 | \$24 |

Ask your salesperson or local utility for the energy rate (cost per kilowatt hour or therm) in your area, and for estimated costs if you have a propane or oil water heater.

Important Removal of this label before consumer purchase is a violation of Federal law 42 U.S.C. 6302.

If you have a natural gas water heater, read the right side of the label.

Estimated yearly energy cost of this model if you have a gas water heater

Range of energy costs for similar dishwashers

This table will help you figure your yearly energy cost more closely.

If you have a propane or oil water heater, ask a salesperson or local utility for further assistance.

Sample

Fig. 3. Look for a label like this on room air conditioners.

Name of appliance — Room Air Conditioner (Name of Corporation)
Capacity 6,000 BTU/hr Model(s) FDI601

Cooling capacity of this model

EER (Energy Efficiency Rating) for this model

EER ratings for similar models Remember . . . Higher is Better!

Air conditioners with cooling capacities between 5,200 and 7,699 BTU/hr are compared on this label.

This table will help you figure what your yearly energy cost might be. In Oregon hours of use generally fall between 250 and 750.

Models with the most efficient energy rating number use less energy and cost less to operate. Models with 5,200 to 7,699 BTU's cool about the same space.

Least efficient model 9.6 THIS MODEL 9.9 MOST EFFICIENT MODEL 10.2

Your cost will vary depending on your local energy rate and how you use the product. This energy cost is based on U.S. Government standard rates.

How much will this model cost you to run yearly?

| Yearly hours of use | 250 | 750 | 1000 | 2000 | 3000 |
|------------------------|--------------------------------------|------|--------|------|------|
| Cost per kilowatt hour | Estimated yearly \$ cost shown below | | | | |
| 2c | \$0 | \$6 | \$7.1 | \$12 | \$14 |
| 4c | \$0 | \$12 | \$14.2 | \$24 | \$28 |
| 6c | \$0 | \$18 | \$21.3 | \$36 | \$42 |
| 8c | \$0 | \$24 | \$28.4 | \$48 | \$56 |
| 10c | \$0 | \$30 | \$35.5 | \$60 | \$70 |
| 12c | \$0 | \$36 | \$42.6 | \$72 | \$84 |

Ask your salesperson or local utility for the energy rate (cost per kilowatt hour) in your area.

Important Removal of this label before consumer purchase is a violation of federal law (42 U.S.C. 6302)

Sample

Fig. 4. Look for a label like this on furnaces.

These fact sheets have the energy efficiency information you'll need to compare furnaces. The information is not put on the label, because many furnace purchases are made without actually seeing the appliance.

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You can save substantially on home heating and cooling energy costs by following the simple steps outlined below:

1. Weatherproof your house
2. Assure energy efficient heating and cooling equipment selection and installation
3. Operate and maintain your system to conserve energy

Help conserve energy. Compare the energy efficiency rating and cost information for this model with others. Check the figures and spend less on energy. Your contractor has the energy fact sheets. Ask for them.

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Sample

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