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 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 therm[2] 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

---

[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.

Extension Circular 1058
Oregon State University Extension Service
Reprinted August 1984

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.

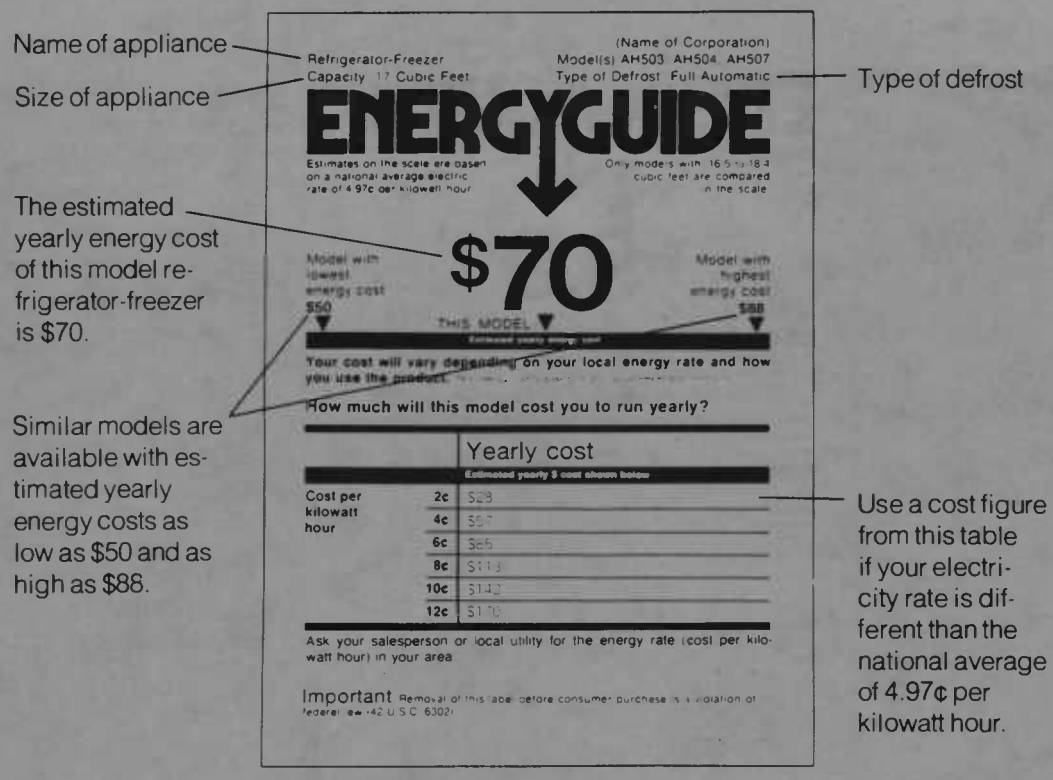
Appliance Total Cost Worksheet

		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.

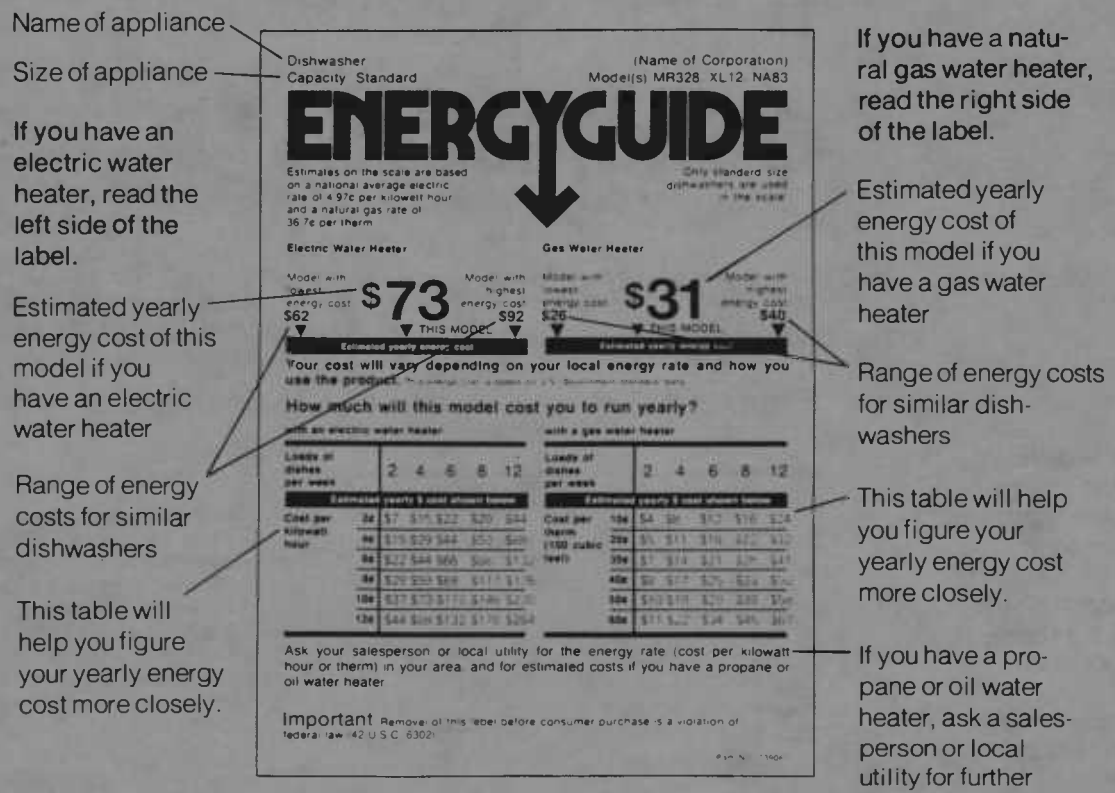
** This total cost includes the purchase price and energy costs only. It does not include (1) the cost of service or repairs; (2) earnings lost if the money used to buy the appliance could have been invested; or (3) interest charges if the appliance has been purchased on credit. For information about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



Sample

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



Sample

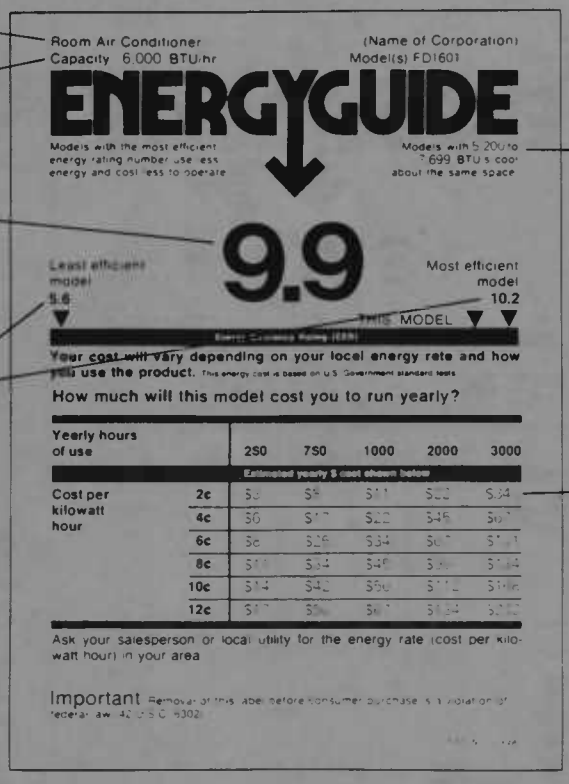
Fig. 3. Look for a label like this on room air conditioners.

Name of appliance

Cooling capacity of this model

EER (Energy Efficiency Rating) for this model

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



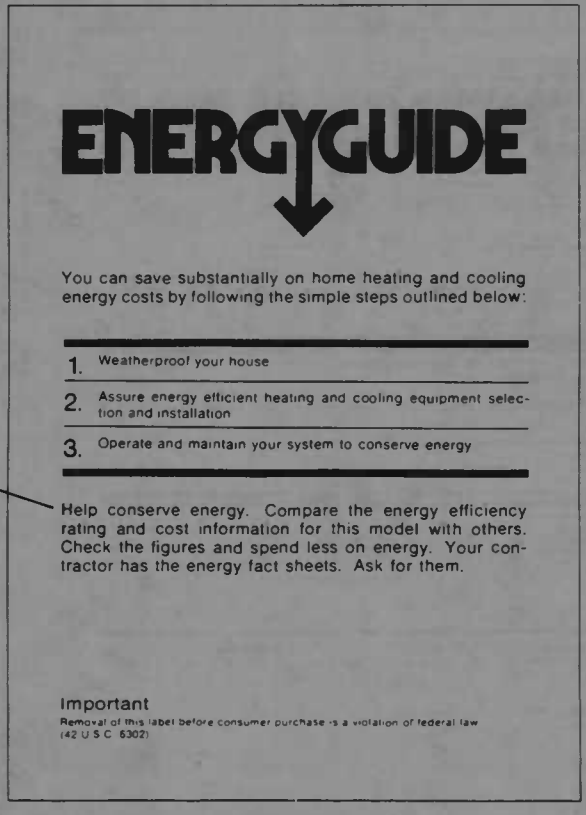
Air conditioners with cooling capacities between 5,200 and 7,699 BTU/hr are compared on this label.

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

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.



Sample

Adapted for use in Oregon from an Iowa State University Cooperative Extension Service publication.

Extension Service, Oregon State University, Corvallis, O. E. Smith, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Extension invites participation in its programs and offers them equally to all people, without discrimination.