Save Money & Save the Environment:
A Consumer Guide To Buying Energy Efficient Products For the Home

CONSUMER RESEARCH COUNCIL


DID YOU KNOW . . .

That every time you buy new heating or cooling equipment, appliances, consumer electronics, or office equipment for your home, your choices affect the environment? Smart buying choices not only help the air we breathe but also reduce our energy bills month after month. You can save money and the environment by understanding the basics about home energy use and by selecting the most energy efficient products. This guide is designed to help you do just that.

Much of the energy consumed in homes is produced by power plants that burn fossil fuels like coal, oil and natural gas. Pollution from these fuel sources harms the environment and can cause respiratory disease, smog, and acid rain. It also contributes to global climate change. In fact, the average home causes more air pollution than the average car.

Buying energy efficient products is one of the smartest ways consumers can reduce energy use and help prevent air pollution. A household that buys energy efficient equipment instead of standard new equipment can substantially reduce carbon dioxide emissions over the lifetime of the products—pollution savings equivalent to taking a car off the road for seven years. Using energy efficient products in your home can also reduce nitrogen oxides, which are primary contributors to smog and acid rain.

Energy efficient products also save money. When we receive our monthly energy bill, many of us think there is little we can do to reduce monthly costs—besides adjusting our thermostat. But this is not true! The products you select can significantly affect that monthly bill. You can reduce your energy bill by about 30 percent when you purchase energy efficient products.

These savings can add up. The average American household spends approximately $1,300 per year on energy costs. Thus, the average household can save $400 a year on their energy bills by purchasing energy efficient products, and some households can save even more. If you live in an area with higher average energy prices or extremes in weather temperatures or if your major appliances are old, chances are your annual bills are even more, and so are the potential savings.

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### Buying Energy Efficient Products for Your Home

#### Look for the ENERGY STAR® label

**What is ENERGY STAR®?**

ENERGY STAR® is the label given by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) to appliances and products that exceed federal energy efficiency standards. This label helps consumers quickly and easily identify those products that will save energy and save money. ENERGY STAR® labeled appliances, for example, often exceed the efficiency levels of other new products on the shelf by 20%, but in some cases by as much as 75%. This high level of energy efficiency reduces the cost of operating the product or appliance throughout the course of its lifetime.

Manufacturers and retailers place the ENERGY STAR® label on those models that meet the labeling criteria. The ENERGY STAR® can be found on the product itself, on the packaging, or in advertising. If you cannot find the label, ask a salesperson or call the toll-free ENERGY STAR® Hotline at 1-888-STAR-YES (1-888-782-7937).

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#### Look for the EnergyGuide

Major appliances have a big yellow tag called the EnergyGuide. It is provided to help consumers compare the operating cost of similar models when shopping for new appliances. All new refrigerators, freezers, water heaters, dishwashers, clothes washers, room air conditioners, central air conditioners, heat pumps, furnaces and boilers have an EnergyGuide label.
Make Your Home Energy Efficient

Natural Gas and Oil Furnace Systems—Have a professional assess your needs and recommend the type and size of system you should purchase. Size is one of the most important factors affecting the efficiency of these systems. Too large a system costs more and operates inefficiently. Bigger is not always better. For ENERGY STAR® furnaces, the AFUE* is 90 or higher.

Central Air-to-Air Heat Pumps—If you live in a cool climate, look for a heat pump with a high HSPF*. Contact a professional for advice on purchasing air-to-air heat pumps. ENERGY STAR® heat pumps are in the top 25% for efficiency.

Central Air Conditioners—Look for ENERGY STAR® units—they have a SEER* rating of 12 or above. Contact a professional for advice on sizing a central air system. ACs that bear the ENERGY STAR® label are at least 20% more efficient than new air conditioners and may be twice as efficient as some existing systems.

Questions about ENERGY STAR® products? Call the toll-free ENERGY STAR® Hotline at 1-888-STAR-YES.

Clothes Washers—Look for features that help cut water use: front loading design, automatic water level controls, “suds-saver” features, spin cycle adjustment, and large capacity. ENERGY STAR® clothes washers are twice as efficient as standard models.

Room Air Conditioners—Buy a correctly sized and energy efficient unit. The higher the EER*, the more efficient the unit. If the room is very sunny, increase capacity by 10%. For a kitchen unit, increase the capacity by up to 4,000 BtuS per hour. ENERGY STAR® units exceed minimum federal standards by at least 15%. What size to buy?

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<th>Area in square feet</th>
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Annual Fuel Utilization Efficiency (AFUE*) and Heating Seasonal Performance Factor (HSPF*) are measures of heating efficiency. Seasonal Energy Efficiency Ratio (SEER*) and Energy Efficiency Ratio (EER*) are measures of cooling efficiency. The higher the efficiency level for any particular product, the more energy it will save.

TV/VCR Combination Units—ENERGY STAR® units require 6 watts or less of power; can provide energy savings of up to 70% over conventional models. They consume as much as 20 watts while on.
Windows—Look for the ENERGY STAR®. The NFRC (National Fenestration Rating Council) rates and certifies for both U-factor and Solar Heat Gain. The lower the number, the greater the efficiency. Look for ENERGY STAR® rated windows.

Residential Lighting Fixtures—Look for ENERGY STAR® rated fixtures, which use 20% less energy than standard fixtures.

Televisions & VCRs—To maintain energy efficiency, TV's require 3 watts or less and VCRs require 4 watts or less. ENERGY STAR® rated models use 40% less energy than conventional models.

Dishwashers—Look for models with smart controls. Ask how many cycles a dishwasher has. ENERGY STAR® dishwashers have less than 400 cycle hours and use less energy than conventional models.

Refrigerators are now at least 20% more efficient than side by side models with the freezer on top. Look for ENERGY STAR® rated refrigerators with an energy-efficient door seal. ENERGY STAR® rated refrigerators use 20% less energy than standard models.

Programmable Thermostats—A programmable thermostat allows you to pre-set different temperature programs to meet your comfort needs efficiently during different times of the day or week. ENERGY STAR® thermostats have two programs with four temperature settings each.

Buying a new home? Ask your local builders about ENERGY STAR® homes.
produc{}s! Energy star (Environmental Protection Agency) also provides a label that means a window is rated for the energy benefits.

Look for ENERGY STAR® lighting fixtures. They are more energy efficient than regular ones and also meet safety, reliability and quality guidelines.

TVs and VCRs continue to use energy even when turned off in modes like remote control and channel memory. ENERGY STAR® reduces energy use when switched off—an energy savings of up to 75% over models which consume as much as 12 watts while off. ENERGY STAR® reduces energy use when they are in the off position—as much as 70% less than models which use as much as 13 watts.

Look for features that will reduce water use, such as booster heaters and control valves that help reduce the amount of water used. Energy Star dishwashers have an Energy Factor of 0.52 or greater, 13% better than standard dishwashers.

Refrigerators and Freezers—Refrigerators with freezers on top are more efficient than side-by-side units. Look for an "energy saver" switch on models. When purchasing a frost-free refrigerator, buy one with an "Energy Star" model. Look for heavy door hinges, which create a good seal. ENERGY STAR®-labeled units exceed federal standards by at least 20%.

More Ways to Save Energy Dollars:
- Caulk and weatherstrip leaky windows and doors.
- Caulk and seal air leaks where plumbing, ducting or electrical wiring go through exterior walls.
- Repair leaky faucets promptly, a leaky faucet wastes gallons of water in a short period of time.
- Insulate your hot water heater. Always follow installation instructions carefully when installing an insulation jacket.
- Clean or replace furnace or heat pump filters once a month or as needed.
- Keep your fireplace damper closed unless a fire is going.
**Frequently Asked Questions**

**Q:** Do products that are energy efficient cost more?

**A:** Energy efficient products do not necessarily cost more. While some do have higher up-front costs, energy efficient products cost less to operate over the product's lifetime. They also often offer better performance, as well. Thus, it's important not only to compare the price of the product but also to examine the second or hidden price tag—what you will pay as part of your energy bill, month after month. When you consider total costs, energy efficient products almost always save money.

**Q:** How do energy efficient products compare to standard products?

**A:** Products bearing the ENERGY STAR® label perform as well or better than standard equipment. By purchasing ENERGY STAR® products you will not sacrifice any performance features.

**Q:** Where can I find ENERGY STAR® products?

**A:** Check with your local retailers. For additional information, call the ENERGY STAR® toll-free Hotline at 1-888-STAR-YES (782-7937) or check the ENERGY STAR® website at www.energystar.gov.

**Q:** Will an energy efficient heating or cooling system reduce the comfort level in my home?

**A:** No. Energy efficient products function in the same manner as your existing products. They simply do so while consuming less energy. In fact, some energy efficient products may actually improve the comfort level of your home by maintaining a constant temperature evenly throughout the day.

**Q:** What happens if the contractor I call doesn't know about ENERGY STAR® or energy efficient products?

**A:** Call the ENERGY STAR® toll-free Hotline to identify products that are part of the ENERGY STAR® program. A contractor that doesn't want to install energy efficient products is taking away your opportunity to reduce your monthly energy bill. Be persistent and insist that energy efficient products be used.

**Q:** Is there financial help available to offset the higher initial cost of some of these products?

**A:** Yes. Private financing companies offer ENERGY STAR® loans with longer terms and competitive interest rates for ENERGY STAR® heating and cooling equipment compared to financing commonly available when you purchase standard heating and cooling equipment. For information on where to call to apply for ENERGY STAR® financing, call the ENERGY STAR® toll-free Hotline. It is wise to shop around for the best loan rates and terms. Also, check with your local utility to see if it offers rebates toward the purchase of energy-efficient equipment.

**Q:** I want to have my equipment installed properly to ensure the best operation. How do I find a contractor?

**A:**

1. Ask friends for recommendations of good contractors they have used.
2. Look in the Yellow Pages for a list of local companies.
3. Ask about previous experience and check references.
4. Check with your county or state consumer protection office or your local Better Business Bureau to review consumer complaints or other investigations.
5. Look for licensed, insured and bonded contractors.
6. Get three bids with details in writing.
7. Consider warranties, service, and reputation as well as price.
8. If installing a very high-efficiency furnace or boiler, ask if the contractor has any special training in this type of installation.

**Q:** What happens if the contractor I call tells me he or she can save me money with a less expensive non-energy efficient model?

**A:** Ask what it costs to operate the system annually and compare it to other comparable models. Remember: there are two price tags—1) the cost of the product when you buy it and 2) the cost to run it over its useful life.

**Q:** Is the ENERGY STAR® label going to be given to more products in addition to the ones you've mentioned?

**A:** Yes. The Environmental Protection Agency and the Department of Energy are working with the various industries and manufacturers to identify additional products which may qualify for the label.

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**Other Resources**

- **Alliance to Save Energy**
  P.O. Box 33939
  Washington, D. C. 20033-0939
  (202) 857-0666
  www.asempg.org

- **Energy Efficiency and Renewable Clearinghouse (EREC)**
  PO Box 3048
  Merrifield, VA 22116
  Toll-Free: 1-800-DOE-EREC
  (363-5732)
  www.eren.doe.gov

- **American Council for an Energy-Efficient Economy (ACEEE)**
  1001 Connecticut Avenue NW Suite 801
  Washington, D. C. 20036
  (202) 429-8873
  (Research & Conferences)
  (202) 429-0063—(Publications)
  www.aceee.org

- **U.S. Department of Energy**
  Energy Savers: Tips on Saving Energy and Money at Home
  www.energystar.gov

- **Clearinghouse Fact Sheets**
  available via:
  www.eren.doe.gov/erec/factsheets

- **U.S. Environmental Protection Agency—ENERGY STAR® Program**
  401 M Street SW (6202)
  Washington, D. C. 20460
  Toll-Free: 1-888-ENERGY-YES (782-7937)
  www.energystar.gov