

Saving Starts @ Home

The Inside Story on Conserving Energy

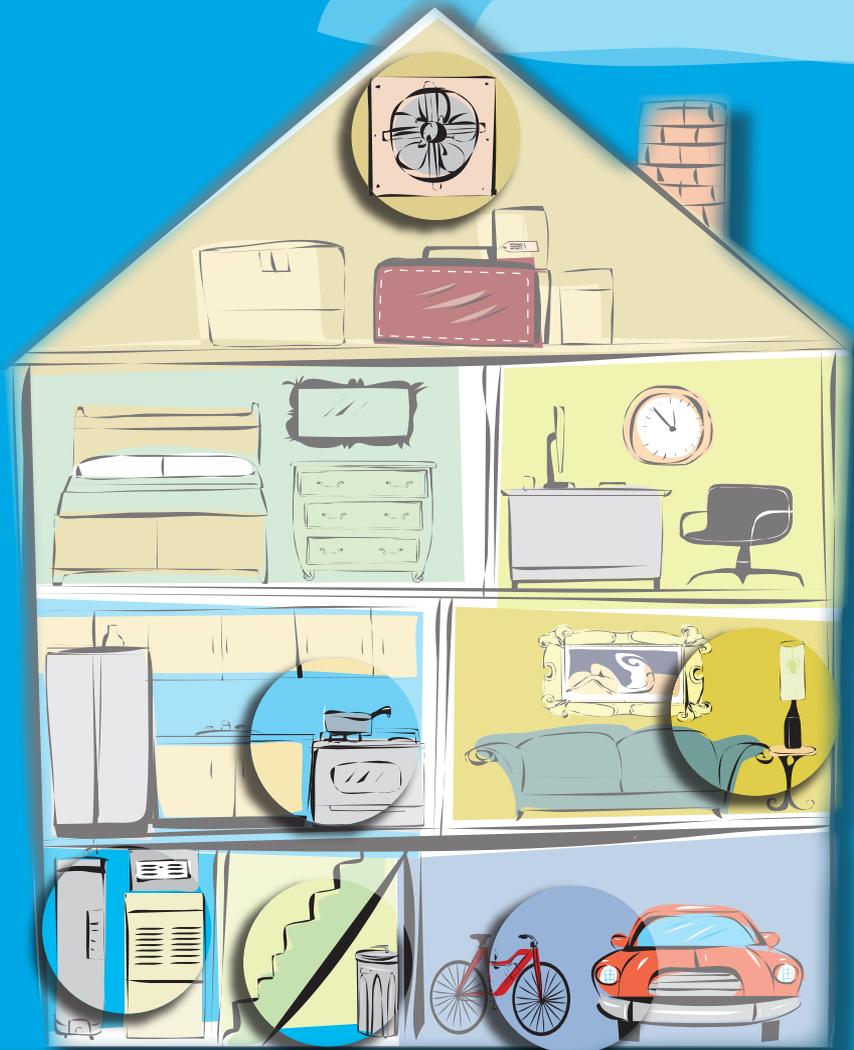


Whether you're buying a refrigerator, thinking about ways to reduce your home heating and cooling bills, or trying to save money on gas, the Federal Trade Commission (FTC), the nation's consumer protection agency, has important information that *can save you money* in every room of your home.

ftc.gov

FEDERAL TRADE COMMISSION

Toll-Free 1-877-FTC-HELP (1-877-382-4357)



[ftc.gov/energy](https://www.ftc.gov/energy)

What's Inside



utility room

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HEATING & COOLING: Take Your Home's Temperature

No matter where you live, keeping your house warm (or cool) costs money. The Department of Energy says heating or cooling your house or apartment typically eats up 56% of your utility bill. If you're interested in shaving dollars off your utility bills, it's good to know there are ways to save money all year round.

Start saving with a home energy audit. An audit is like taking your home's temperature. It can help you find out where you're wasting energy and check how well your heating and cooling systems work. You can use the do-it-yourself energy audit tool on the Department of Energy website at www.hes.lbl.gov. Check with your power company to see if they offer free or low-cost audits. If you want a more comprehensive audit, you can hire a specialist.

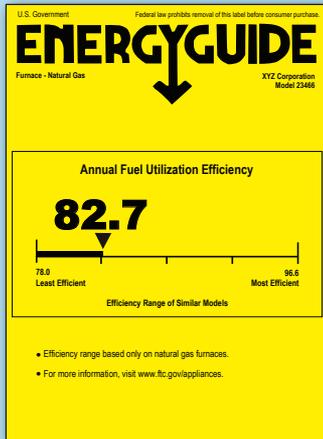
Going Shopping

Furnaces and air conditioners are important to your comfort and safety. Whether you're buying a new house, renovating an old one, or replacing an old system, choosing energy-efficient equipment can save you money.

When you go shopping for a new furnace, heat pump, air conditioner, or water heater, the price tag tells only part of the story. Before you buy, read the *EnergyGuide* label on that new furnace to find how much energy it uses. Then compare it to the label on another brand. *EnergyGuide* labels show how much energy one brand uses in comparison with others. Although some high-efficiency appliances may cost more at the outset, they can save money by lowering your energy bills.

Don't Get Burned

When energy prices rise, so do the number of ads for energy-saving products and services. Some of these ads are for gadgets and gimmicks that can't deliver big energy savings. Look carefully at the claims and check for independent information about product performance. Don't fall for unsolicited or high-pressure sales pitches from contractors or door-to-door salespeople. Make sure to ask friends and neighbors for their recommendations. Check out contractors with former customers and the Better Business Bureau. You



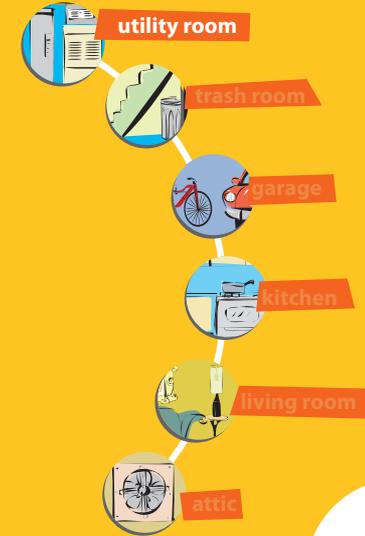
also can check with the state or local consumer protection office and the state licensing agency (or home improvement commission). If you sign a contract in your home or somewhere other than a company's permanent place of business, the FTC's "Cooling-Off Rule" gives you three business days to cancel.



UTILITY ROOM ENERGY SAVERS

Here's how you can get smart about energy for your heating and cooling systems.

- Schedule an annual tune-up for your central air conditioner, heat pump, or furnace.
- Hire a professional to seal and insulate leaky ducts and to make sure that the airflow distribution system serving your heating equipment is operating efficiently.
- Clean or replace the filters on forced-air furnaces; seal flues in the fireplaces you don't use; install drapes or other coverings on your windows; and seal holes around your plumbing and heating pipes.
- Check caulking and weatherstripping, and repair if necessary.
- Close any foundation vents in the winter and open them in the summer (if you have a crawl space under your house).
- Install ceiling fans. They'll cool you off in the summer and promote heating efficiency in the winter.
- Consider a "whole-house" fan. In the summer, it circulates cool air through the house and vents warm air through the attic. It works best at night and when the air is cooler outside than inside.
- Install a computerized thermostat that will automatically lower the indoor temperature at night and when you're away from home.



on the web:

www.hes.lbl.gov

trash room

TAKING OUT THE TRASH: Sorting Out Recycling Claims

Store shelves are filled with items that say they are eco-friendly. Some products that claim to be better for the environment live up to the hype. Others don't. Claims that a product or packaging is "environmentally friendly," "eco-safe," or "better for the environment" may sound good, but may not deliver on their promises. Look for products that explain why they are better for the environment.

Translating "Eco-Speak"

Understanding terms like "recyclable," "biodegradable," and "ozone friendly" can help you protect the environment and make better buying decisions.

"Recycled" — "Recycled" and "recyclable" may sound alike, but they mean very different things. If a label says a product is "recycled," check for more details. Unless the product or package is made of 100% recycled materials, the label must tell you how much is recycled. A product that says it's recycled from "post-consumer" material means that it's made from previously used products like newspapers, plastic bottles, glass containers, or aluminum cans. A product that says it's

recycled from "pre-consumer" material may be made of scraps from the factory. For example, a company making envelopes might recycle paper clippings left over from the manufacturing process to make other paper goods.

"Recyclable" — Claims on labels and advertising that a product is "recyclable" mean that it can be collected and used again or can be made into other useful products. A "recyclable" product is a good choice for the environment only if your community offers a recycling program for that material and you follow their rules for recycling.

Some companies make it easy for you to recycle. For example, grocery stores may take back plastic grocery bags. Some manufacturers of ink cartridges for printers may let you return empty cartridges. Check with your local recycling or solid waste officials about what can be recycled in your community.

"Biodegradable" and *"Photodegradable"* — "Biodegradable" materials break down into elements found in nature when they are exposed to air or moisture. Cleaning products, like detergents and shampoos, often say they are "biodegradable." Most of these products degrade in wastewater systems, causing no harm to

the environment. “Photodegradable” materials disintegrate when exposed to enough sunlight. However, the breakdown of any material happens very slowly in landfills, where most garbage is taken. Even “biodegradable” materials like paper or food may take decades to break down because they’re buried under tons of other garbage. Just because a product claims to be “biodegradable” or “photodegradable” doesn’t necessarily mean that it’s better for the environment, especially if it winds up in a landfill.

“Compostable” — Composting turns certain things into compost—a material that enriches the soil and returns nutrients to the earth. Some people compost yard trimmings and food scraps. Many communities collect leaves, grass, and other yard waste for composting. When you see a “compostable” claim on a product or package, it means the product can be tossed into your backyard compost pile. If you don’t have your own composting pile, you might be able to take products to a municipal composting facility.

Secret Symbols

Certain symbols on a product or package can tell you whether it’s recyclable or if it’s made from recycled materials. Deciphering those symbols can help you make better decisions for the environment.



“Chasing arrows” symbol

Many products display this symbol. Sometimes it means that a product or package is made of recycled materials.

Other times it means that the product or package is recyclable. If only one of these claims is true,

the manufacturer should say which one. Since some communities don’t accept every product or package for recycling that bears the symbol, check with your local recycling or solid waste officials before you recycle.

SPI Symbol



Manufacturers use this symbol—developed by the Society of the Plastics Industry—to label the type of plastic in a product. SPI codes range from 1 to 7. Containers labeled 1 and 2, such as soda

bottles, detergent and shampoo containers, and milk jugs, are the most likely to be accepted for recycling. Since communities have different rules about what they’ll accept, check with your local recycling or solid waste officials before you recycle.

For more information, look for the FTC’s “Green Guides” or call toll-free 1-877-FTC-HELP (1-877-382-4357), TDD: 1-866-653-4261. EPA has information on recycling at www.epa.gov or from the Pollution Prevention Information Clearinghouse at 202-566-0799.



TRASH ROOM ENERGY SAVERS

- Participate in your community’s recycling program. Don’t throw something that can be recycled into the trash.
- Look for the recycling symbol. Buy products that use recycled components or that can be recycled.
- Start a compost pile.
- To help your community save the time and money it spends separating the items it recycles from the ones it doesn’t, find out which are appropriate for the recycling bins.



on the web:

www.ftc.gov

www.epa.gov

garage

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FUEL ECONOMY: Getting Up to Speed

When gasoline prices go up, you look for ways to get better mileage from your car or truck. Whether you're shopping for a new car or maintaining the one you have, here are some tips that will save you money.

Use the Octane Level You Need. Your owner's manual tells you the recommended octane level [regular (usually 87 octane), mid-grade (usually 89 octane), and premium (usually 92 or 93 octane)] for your car. For most cars, that's regular octane. Unless your engine is knocking, buying a higher octane than your car needs is pouring money down the drain.

Beware of "Gas-Saving" Gadgets. Be skeptical about devices that claim to boost your mileage. EPA has tested over 100 of them—everything from

mixture "enhancers" to fuel line magnets—and none offered substantial savings. Some devices may even damage your engine or increase emissions. For more information and a list of tested products, visit the EPA's Consumer Information website at www.epa.gov.

Consider the Alternatives. Alternative Fuel Vehicles (AFVs) operate on fuels like methanol, ethanol, compressed natural gas, liquefied petroleum gas, or electricity. Driving a car that uses an alternative fuel may reduce harmful pollutants. The law requires labels on all new AFVs to give estimated cruising range and other important information. Compare before you buy. Find out how many miles a new AFV travels on a "tank" of fuel. Some don't go as far as gas-powered cars.

Drive More Efficiently. Smart drivers know that speeding can cost you at the pump. To make the most of your gas dollar:



GARAGE ENERGY SAVERS

- Use the octane level your car's manufacturer recommends.
- Beware of "gas saving" gadgets that claim to boost mileage.
- Consider Alternative Fuel Vehicles if you're in the market for a new car.
- Drive more efficiently—observe the posted speed limit and avoid quick starts and stops.
- Maintain your car, truck, or motorcycle—keep it tuned, check your tires, and change oil and filters regularly.
- Leave your car at home and consider walking, bicycling, or public transportation whenever you can.

- Stay within posted speed limits. Gas mileage decreases at speeds above 60 miles per hour.
- Improve your mileage up to 5% by avoiding quick starts and stops. Anticipate traffic conditions and drive gently.
- Avoid unnecessary idling. It wastes fuel, costs you money, and pollutes the air. Turn off the engine if you anticipate a wait.
- Combine errands. Several short trips can use twice as much fuel as one trip covering the same distance.
- Use overdrive gears and cruise control when appropriate. They improve highway fuel economy.
- Remove items from your trunk. An extra 100 pounds in the trunk can reduce fuel economy by up to 2%.
- Don't pack items on top of your car unless you have to. The wind resistance of a loaded roof rack can reduce fuel economy by 5%.

Maintain Your Car

- Keep your engine tuned according to your owner's manual to increase gas mileage by an average of 4%.
- Keep your tires properly inflated and aligned to increase gas mileage up to 3%.
- Change your oil according to the schedule in your owner's manual and use the manufacturer's recommended grade. Motor oil that says "Energy Conserving" on the label contains friction-reducing additives that can improve fuel economy.
- Replace air filters regularly. Clogged filters can reduce gas mileage up to 10%.

To learn more about alternative fuel vehicles, call the Department of Energy's National Alternative Fuels Hotline at 1-877-EERE-INF (1-877-337-3463) or visit the Alternative Fuels Data Center at www.eere.energy.gov. Visit www.fueleconomy.gov for more information about saving money at the gas pump.



on the web:

www.epa.gov/otaq/consumer.htm

www.eere.energy.gov

www.fueleconomy.gov

kitchen

ENERGY-EFFICIENT APPLIANCES: Everything but the Kitchen Sink

You're on a budget and need a new refrigerator. The best buy is the fridge with the lowest price, right? Not necessarily. How much an appliance costs depends on three things: purchase price, repair and maintenance costs, and energy costs. To estimate how much you'll spend on an appliance over time, you have to consider *all* these costs.

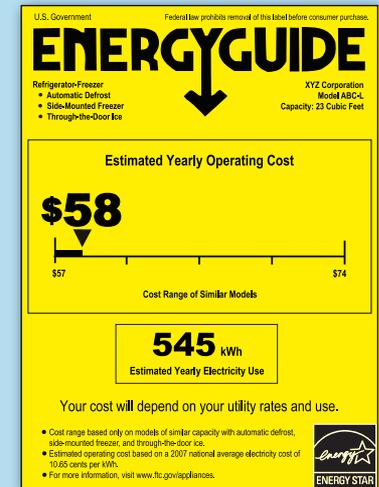
Energy efficiency is an important part of any decision. All new major home appliances must meet government energy conservation standards. Many appliances exceed these standards and can save you even more money. What makes one appliance more efficient than another? Most of the differences are on the inside. Even if two models look the same, certain features can mean a big difference in your energy bills.

Enter the *EnergyGuide*. Manufacturers must use standard tests that let you compare the annual energy use of different models. The law requires manufacturers to put these labels on the inside or outside of many types of appliances. Labels are not required on dryers, ranges, and microwaves. If you don't see a yellow *EnergyGuide* label, ask a salesperson for it.

The *EnergyGuide* label can tell you:

- capacity,
- estimated operating costs and estimated annual energy consumption (for refrigerators, freezers, dishwashers, clothes washers, and water heaters), and
- energy efficiency rating (the range of estimated annual energy consumption) of similar appliances.

Even a small benefit in energy efficiency can have a big payoff over the life of the appliance. The FTC's



Appliance Energy Database website at www.ftc.gov/appliancedata posts results from energy efficiency tests.



While shopping, look for the *Energy Star* logo. To earn the logo, appliances must meet strict standards set by the Environmental Protection Agency or the Department of Energy. Since *Energy Star* products use less energy, they can save you money

and help protect the environment. Learn more about the *Energy Star* program at www.energystar.gov.

To make an energy-smart decision:

- **Select the appropriate size and style.** Measure the space in your kitchen to be sure your new appliance will fit. Make sure that you have room to open the door fully and have enough clearance for ventilation.
- **Factor in the operating cost as well as the purchase price.** Check out your choices for refrigerators, washers, and dishwashers on the FTC's Appliance Energy Database. Use the *EnergyGuide* label to compare choices. Look for the *Energy Star* logo to find the most energy-efficient models.
- **Know where to shop.** Appliance outlets, electronics stores, local retailers, and Internet sites often carry the same brands and models. Once you've narrowed your choices, compare deals.
- **Ask about special offers.** Your local utility company may offer cash rebates, low-interest loans, or other incentive programs if you buy energy-efficient appliances.



KITCHEN ENERGY SAVERS

- Move your refrigerator away from the stove, dishwasher, or heat vents. Make sure the door seals are airtight.
- Wait until your dishwasher is full before you run it but don't overload it.
- Use pots that fit the size of the burners on your stove. Use lids so you can cook at a lower temperature.
- Match the water level and temperature settings on your washer to the size of your load. Don't fill the machine for just a few items.
- Clean your dryer lint filter before you put in a new load.
- Make sure your water heater is set to 120 degrees. Some thermostats are preset to 140 degrees, which can cost you more money.

For more information, visit the Department of Energy's Energy Efficiency and Renewable Energy Network website at www.energysavers.gov or call toll-free 1-877-EERE-INF (1-877-337-3463). Your state and local energy offices and local utility company may also have valuable information on ways to save.



on the web:

www.ftc.gov/appliancedata

www.energystar.gov

www.energysavers.gov

living room

10



SHEDDING LIGHT ON BUYING BULBS: A Bright Idea

Energy efficient lighting can save you money. The law requires light bulb manufacturers to provide information to help you choose the most energy efficient bulb. For all standard bulbs, including halogen, reflector, and compact fluorescent bulbs, the package must tell you about:

- **Light output:** How much light the bulb produces, measured in lumens. A 60-watt regular incandescent bulb yields about 855 lumens. A 15-watt compact fluorescent bulb yields about 900 lumens.
- **Energy usage:** The total electrical power a bulb uses, measured in watts.
- **Voltage:** If the bulb is not 120 volts, the voltage must appear on the label. Most bulbs run on 120 volts. Light output and efficiency decrease when you use

a bulb with voltage that is different from the voltage you use in your house. Most places in the United States operate on a 120-volt system.

- **Average life in hours:** How long the bulb will last.
- **Number of light bulbs in the package** (if more than one).

What do you need from a light bulb? You want the right amount of light, and you want it to last a long time, especially if it's for a hard-to-reach place. But you don't want it to add to your electric bill. You can get everything you want if you use a little energy know-how.

Highly efficient compact fluorescent bulbs may cost more than regular incandescent bulbs, but their efficient use of electricity and long operating life can offset the cost. Here's how: Suppose your living room table lamp is turned on for 1,000 hours a year and your local electric utility charges eight cents per kilowatt hour.



LIVING ROOM ENERGY SAVERS

Your local grocery or home store offers a dazzling array of light bulbs. Here's "watt" you need to know before you buy.

Regular incandescent bulbs. Everyday pear-shaped bulbs with a screw-in base use electricity to heat a filament until it glows white hot, producing light. About 90% of the electricity used by incandescent bulbs is lost as heat. These bulbs typically burn for 750 to 1,000 hours—or about three hours a day for a year.

Compact fluorescent bulbs. These bulbs provide as much light as regular incandescent bulbs while using just one-fourth the energy. For example, a 15-watt compact fluorescent bulb gives out the same amount of light as a 60-watt incandescent bulb. Compact fluorescent bulbs last about 10,000 hours—10 times longer than incandescent bulbs.

Incandescent spotlights and floodlights. Known as spotlights or floodlights, these bulbs are used in recessed ceiling fixtures or outdoors. A special coating helps direct and focus the light. They burn for about 2,000 hours.

Halogen bulbs. These bulbs contain a small capsule filled with halogen gas, which emits a bright white light. While standard halogen bulbs use less energy and last longer than standard incandescent bulbs, DOE cautions that halogen torchieres, frequently used in floor lamps, generate excessive heat, which can create fire hazards. Halogen torchieres also use significant amounts of energy. When possible, DOE recommends using more efficient compact fluorescent lamp bulbs instead. For more information, visit the DOE Energy Savers website at www.eere.energy.gov/consumer/tips.

General service fluorescent bulbs. More energy efficient than incandescent bulbs, general service fluorescent bulbs don't produce heat. They're thin, long tubes often used in kitchens, offices, garages, and basements. They last from 10,000 to 20,000 hours—10 to 20 times longer than incandescent bulbs.

A regular incandescent 60-watt bulb will cost less to buy, but will need to be replaced at least once a year. Compare that to a 15-watt compact fluorescent bulb, which may cost you more than a regular incandescent bulb, but may last you as long as 10 years. And your savings don't end there. The compact fluorescent bulb costs significantly less than the standard bulb to operate. The benefits of compact fluorescent bulbs? Lower operating costs, longer life, and a more efficient use of energy.

For more information, visit the Department of Energy's Energy Efficiency and Renewable Energy Network website at www.energysavers.gov or call toll-free 1-877-EERE-INF (1-877-337-3463).



on the web:

www.energysavers.gov

www.eere.energy.gov/consumer/tips

attic

INSULATION & WINDOWS: It's What's Upstairs That Counts

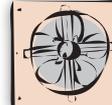
No matter where you live, your home will be more comfortable and cost less to heat and cool with the right insulation. That could mean more money in your pocket all year round.

Unless your home was designed with energy efficiency in mind, adding insulation can be a good way to save money. Most older homes were built without much insulation, which can mean high energy bills. Even if your home is new, more insulation can pay for itself in a few years and increase your home's resale value.

The ABCs of Insulation

The FTC requires insulation manufacturers and sellers to test and label their products. Generally, the higher the "R-value" the more energy you can save. When you buy insulation, installers and retailers have to give you an R-value fact sheet. New home sellers must give you information about the type, thickness, and R-value of the insulation in each part of the house. Many state or local building codes include minimum requirements for home insulation. Be sure your new home or home addition meets those codes. It will save you money in the long run.

The amount of insulation you need depends on the climate, the part of the house, and the type of heating



ATTIC ENERGY SAVERS

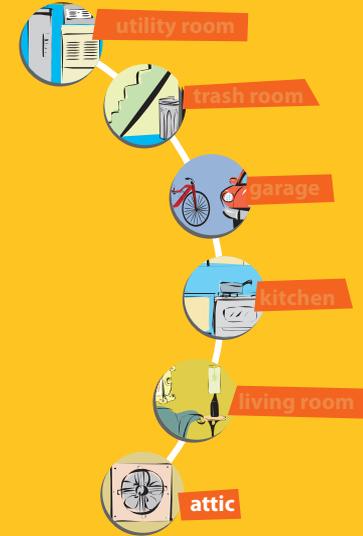
- If you're in the market for new windows, consider high-efficiency alternatives. Look for the National Fenestration Rating Council (NFRC) label, an independent industry rating system for the energy performance of windows, doors, and skylights.
- Look for windows made of low emissivity—or "low-E"—glass. Low-E glass has a special thin coating that lets in light, but reduces heat transfer. In warmer climates, consider windows with "spectrally selective coatings"—glazes that let light in, but keep heat out. In colder climates, select windows that are gas-filled to reduce heat loss.
- Plant a tree. Landscaping is a natural way to shade your home. Well-placed trees and shrubs not only save on air conditioning costs, but add value to your property, too.
- Shade room air conditioners from direct sun to reduce their workload. Clean the filters once a month and replace them as necessary.

and cooling systems (gas, oil, or electric) you have. Your attic is the best place to start. The Department of Energy has an online calculator to help you decide what's right for you. Visit the Zip Code Insulation Program website at www.ornl.gov. For more information about insulation, visit the Energy Savers website at www.energysavers.gov, or call 1-877-EERE-INF (1-877-337-3463).

The Federal Trade Commission (FTC) is the nation's consumer protection champion. The FTC works for the consumer to prevent fraud, deception, and unfair business practices in the marketplace.

The FTC provides the information consumers need to spot and avoid fraud and deception. Consumers can contact the FTC for free information on a wide range of issues, including:

- Advertising
- Buying, leasing, and renting cars
- Credit
- Debt collection
- Employment and job placement
- Identity theft
- Investment schemes
- Online shopping
- Scholarship scams
- Sweepstakes
- Telemarketing
- Work-at-home schemes
- ... and more



on the web:

[www.ornl.gov/~roofs/
Zip/ZipHome.html](http://www.ornl.gov/~roofs/Zip/ZipHome.html)

www.energysavers.gov

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