

# Energy-Saving Tips for Homeowners

## Increase Comfort. Increase Savings.

### Residential Energy Consumption at a Glance:

*The average household spent \$1,873 on energy in 2005.*

#### Where do the energy dollars go?

Appliances and lighting account for over 45 percent of the average household's energy costs. Space heating accounts for another 30 percent. Water heating and air conditioning account for the remaining energy expenditures in the average household.

*Households spent more money on electricity than on all other fuels combined.*

Households spent a total of \$225 billion on energy in 2005 — almost two-thirds of that (\$141 billion) was used to purchase electricity. The remaining amount was spent on natural gas (\$60 billion); fuel oil (\$13 billion); propane (\$11 billion); and kerosene (\$1 billion).

*Simple conservation measures can reduce energy use as much as 20% for little or no up-front cost.*

### Insulation:

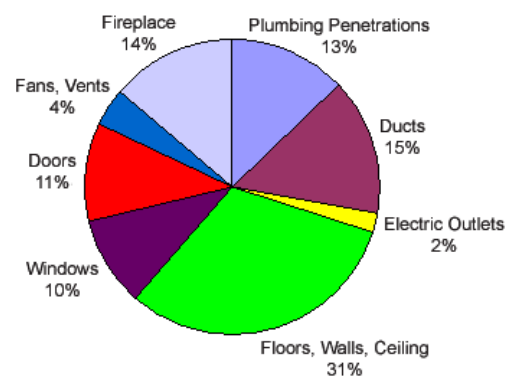
- Adding insulation to your attic, floor, and/or walls reduces the amount of heated (or cooled) air that escapes to the outdoors.
- Fiberglass batts are readily available at local lumber supply stores and can be installed by either a homeowner or building professional.
- Be sure the paper facing is placed towards the warm side of the cavity.
- Blown insulation usually requires a professional, but is a great choice for attics as it ensures a great insulation and gets into even hard-to-reach spaces.



### Air Sealing:

- Although you can't always see them, there are dozens of tiny gaps in your ceiling, walls, and floors where air flows in and out of your home. Run your hand around the windows and doors in your home or in front of an electrical outlet on an exterior wall on a cold, windy day. If you can feel cold air coming in, you should improve your air sealing.
- Select a 50 Year or Lifetime silicone based acrylic caulk. These are available in several colors and many are paintable. Cost runs at about \$3.00 per tube.

#### Where Drafts Occur in your Home



## Where to Seal

### Around windows and doors

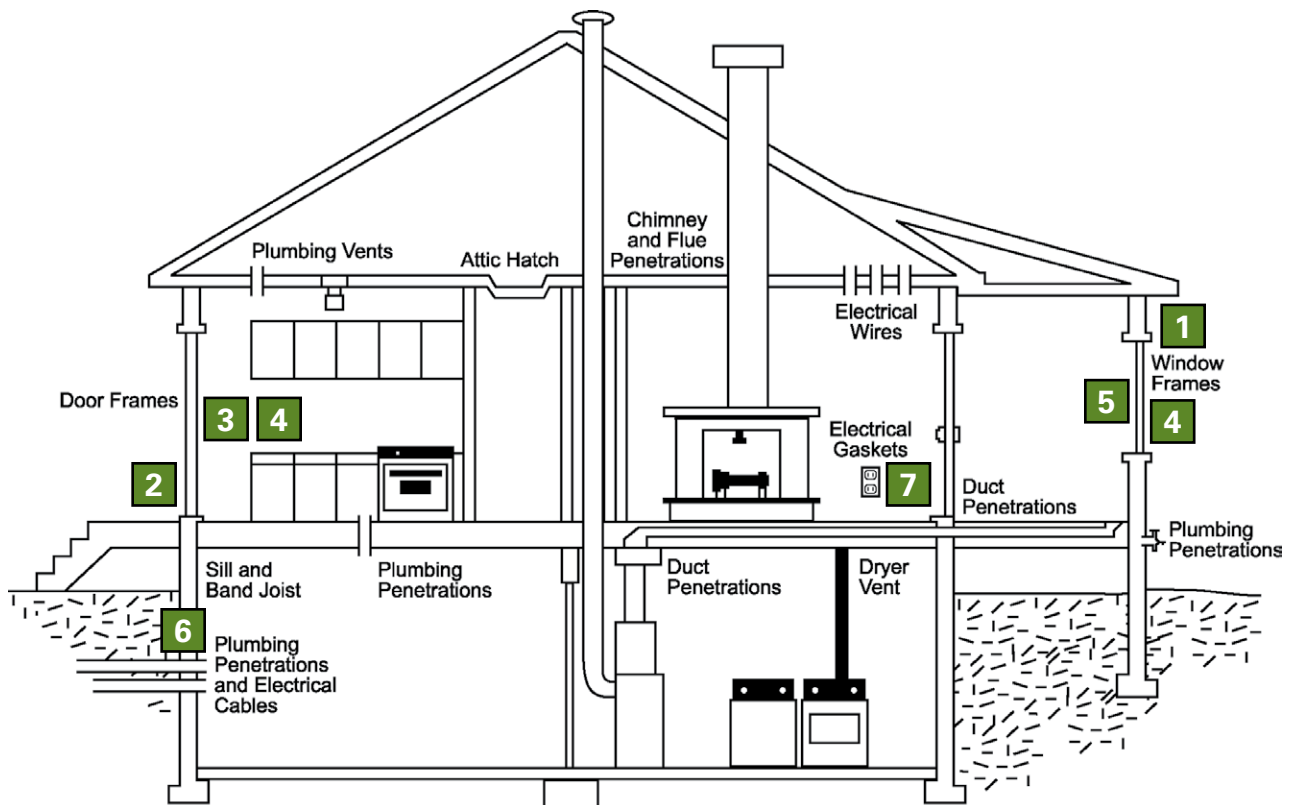
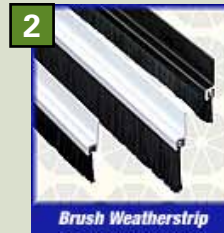
- 1 Make sure windows and storm windows close tightly and are locked.
- 2 Install door sweep at the bottom of exterior and basement doors.
- 3 Install foam weatherstripping at door stops (both exterior doors and doors to unheated basements or attics).
- 4 Caulk around window and door trim on the interior or exterior.
- 5 Install plastic film or shrink wrap on windows.

### Plumbing and electrical penetrations in the basement and attic

- 6 Use caulk or foam such as "Great Stuff" or "DapTex" to fill holes drilled for wiring and plumbing, e.g. around drains and supply lines to the kitchen sink and first floor bath fixtures.

### Receptacles and switches

- 7 Put foam gaskets behind receptacle and switch plates on exterior walls.



## Where Leaks Occur in your Home

## Thermostat Settings:

- Turn your thermostat down in the winter and up in the summer when you will not be at home for several hours or when you go to bed.
- You can install a programmable thermostat that automatically raises and lowers temperature settings. Programmable thermostats cost from \$40 - \$100.



## Furnaces and Heat Pumps:

- Change the filter in your furnace or heat pump every month or two. Use a pleated filter rather than the fiber ones. They cost a little more but are more effective and can be changed every two months versus every month in most cases.
- Have your furnace and/or heat pump cleaned and checked by a professional at the start of every heating or cooling season.
- Minimize the use of electric space heaters. Even the smallest models cost about \$3 per day to operate — a \$90 increase in your monthly utility bill if left on continuously.
- If replacing a furnace or boiler, use an ENERGY STAR® model.



## Air Conditioning:

- Use windows, fans, and dehumidifiers to make you feel more comfortable. They use less energy than air conditioners.
- If replacing an air conditioner, use an ENERGY STAR model.
- Remove window air conditioning units in the winter or cover with plastic and insulation.

## Ductwork:

- Seal any joints in exposed ductwork with foil tape or mastic. Insulate ducts in your basement or attic.



## Water Heaters:

- Wrap your water heater with an insulating blanket, but make sure you don't cover up the air intake near the thermostat on a gas water heater.
- Insulate hot and cold water pipes within five feet of the water heater.
- Consider replacing your water heater if it's more than 10 years old. That could increase the efficiency by 10 percent or more.
- Take more showers than baths. You use 15-25 gallons of hot water for a bath, but less than 10 gallons during a 5-minute shower.
- Turn the thermostat on the water heater to 120°F or medium temperature.
- Turn off your electric water heater if you are away from home for several days.

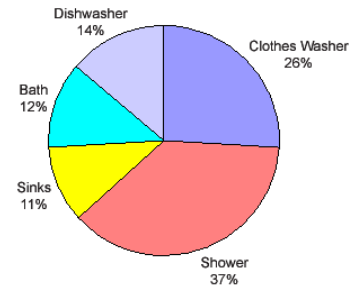


## Hot Water Use:

- Use “cold water only” as often as you can — especially for short draws.
- If you do dishes by hand, fill the sink with wash water rather than washing under running water. If you use a dishwasher, make sure you have a full load — likewise with loads of laundry.
- Use the “energy saver” and/or “water saver” setting on your dishwasher.
- Wash laundry in warm or cold water, not hot.
- Replace your showerhead with low-flow shower head.

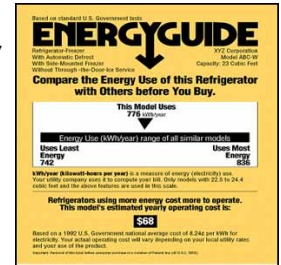


## Hot Water Usage



## Appliances:

- If you are buying a new appliance such as refrigerator, dishwasher, or washing machine, buy an energy-efficient model. Look for the ENERGY STAR logo or the Energy Guide label.
- Dry clothes outdoors.
- Air dry dishes.



## Refrigerators

1. Set the temperature for only as cold as you need. Usually, refrigerator at 37°F – 40°F; freezer at 5°F.
2. Allow hot food to cool completely before putting it in the refrigerator.
3. Clean the coils on the back of the refrigerator and the air intake grill about every six months.
4. Do not keep refrigerators or freezers in a garage. The compressor will work harder during hot months.
5. Keep your freezer relatively full as it will operate more efficiently.
6. Defrost your freezer regularly if it is manual defrost. Don't let ice build up more than a quarter-inch.

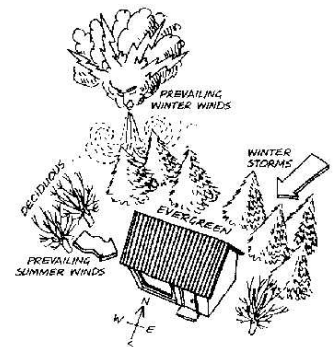
## Lights:

- Turn lights off when you leave a room.
- Replace incandescent bulbs with fluorescent or compact fluorescent bulbs. A cfl will use about two-thirds less electricity than a standard bulb.
- Consider installing light and motion sensors on outdoor light fixtures.



## Landscaping:

- Plant deciduous trees on the South and West sides of the house to help shade windows in the summer.
- Plant evergreens on the North and West sides of the house to help buffer the house from winter winds.



## Computers:

- Turn off your computer when you are finished using it. If left on all the time, your computer will use more electricity than a 100-watt light bulb, and cost you about \$70 per year.



For more information, please call the NAHB Research Center at 800-638-8556 or contact us at [www.nahbrc.com/BAcontact](http://www.nahbrc.com/BAcontact).