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# Home Energy Saving Guide 8 Ways To Reduce Utility Bills



"Save Hundreds of Dollars
On Heating and Electric Bills"
by Alvin Ubell and Label Shulman

by Alvin Ubell and Label Shulmar Published November 13, 1984 Updated August 4, 2005

**D**on't let your money fly out the window - or the attic - because of wasted energy. Make a few simple adjustments and put your money in the bank instead.

If you spend \$2,000 to \$3,000 a year to heat, cool and light your house, your potential energy savings could be anywhere between \$500 and \$1,500. Government agency as well as industry experts estimate that 25% to 50% of the energy used in homes is wasted. In many cases, even a small home improvement investment can cut 2% to 25% off your utility bills. In addition, energy-saving materials and installation costs qualify for tax credits from the Federal and some state governments. (Ask your State Energy Office or tax preparer about tax credits applicable in your state.)



### **Are You Energy Aware?**

- Is there at least 12? of insulation in your attic?
- Do you turn off the lights when you leave a room?
- Do you lower the thermostat to 68°F or below when you go to sleep or leave the house?
- Are all cracks around windows and doors caulked and sealed?
- Do you have fluorescent lights in your kitchen?
- Have you cleaned the bottom or back coils on your refrigerator in the lastsix months?
- Are the air supply ducts or radiators free from obstructions, such as furniture and drapes?
- Are your heating pipes and/or air ducts insulated?
- Is the water heater temperature set below 160°F?
- Have you had your heating system inspected in the last six months?
- If you answered "NO" to any of these questions, you can start saving money now.

#### **Test Your Home Energy Quotient**

To make yourself more energy-conscious, begin by analyzing your home and your habits. Using our "Test Your E.Q." quiz as a guide, make an "inspection" tour of your house. Start at the attic and work your way down, room by room, to the basement. (In many cities, the local utility company will conduct an energy-saving inspection for you, free of charge.) Look for cracks or spaces around doors and windows. Is there adequate insulation in your attic? Between crawl spaces? Are air ducts clean? Also take time out to evaluate your living habits. Do you often fall asleep while watching TV? Do you leave lights on after you've left a room? Instead of putting on a sweater when you feel a chill, do you immediately raise the temperature on your thermostat? If you're "guilty" of any of the above, change your ways and you'll see a dramatic drop in your monthly utility bill.

Not all energy-saving measures are worth the initial cost. For example, having an automatic draft damper (a device which closes the damper on a furnace when it is not operating) added to your furnace would cost you approximately \$750. Recent tests by the U.S. Department of Energy indicate this device may save no more than 6% off your heating bill. If you pay \$1,500

a year to heat your home, and the automatic draft damper saves you an average of 3%, you'll only be saving \$45 a year. The payback on your initial investment will take 16 1/2 years-not a very good return on your investment. However, there are eight less expensive ways to lower your heating and electric bills.

#### **Eight Ways To Cut Costs**

- 1. Blanket your home. Because heat rises and escapes through the roof, an adequately insulated attic is the single most important and effective energy conservation improvement a homeowner can make. The most common household insulation materials are fiberglass and mineral wool. An easy do-it-yourself job, the cost of insulating could be between \$250 and \$450, depending upon the size of your attic. (To determine how much insulation you need to adequately "blanket" your home, consult our insulation chart below). Wrapping a "blanket" of insulation around your water heater is another effective way to reduce heat loss and save energy dollars.
- 2. Seal out the cold, seal in the heat. By caulking around doors and windows, you reduce the expensive "air filtration" when heat leaks out and cold air leaks in. Adding weatherstripping around doors and windows also prevents costly energy loss. Both caulking and weatherstripping materials are easy do-it-yourself jobs. A caulking kit can cost anywhere from \$30 to \$40. Weatherstripping costs approximately \$10. Together these measures could save you 4% and 6% off you total heating costs. Both are available in any hardware store or home center, with easy-to-follow instructions.
- **3. Lower your thermostat, increase your savings.** Why heat a house when it is empty or when everyone is sleeping under warm comforters? For an \$80 to \$100 investment in a "double set-back" thermostat, you could be saving over \$225 a year. Here's how it works: During the day, when most people are away from home, the thermostat can be set for a lower temperature, say 63° to 65°. During the evening hours, it can automatically readjust the setting up to 68° or 70°. At night, while the family sleeps, the temperature can again be set at 63°. In the morning, the thermostat can automatically be raised to 68°. Since you can save 2% to 3% percent off your energy bill for everydegree you lower the thermostat, these two daily setback can save as much as 15% to 25% off your total heating expenses.
- **4. Humidify your home.** Moist air retains heat. By investing in a humidifier for approximately \$150 to \$250, or by adapting your existing heating system to include a humidifier, you could lower you thermostat by another 2° to 4°. That means a savings of 4% to 12% off your total heating bill. In less than five years, you will have recouped you initial investment from the money you didn't spend to heat your house.
- **5. Make your heater work for you.** Have your gas-fired heating system professionally cleaned and serviced at least once a year. Installing an electronic ignition eliminates the need for a continuously burning pilot light and will increase savings significantly. Oil-fired systems should be cleaned at least twice a year. If you replace an old oil-fired system with a high efficiency retention burner, you could save as much as 20% off your heating costs. For any heating system (forced-air, hot water, steam, electric), keep radiators, air registers and ducts clean and clear of dirt and debris and free of obstructions, such as furniture and drapes. Once you've made your heating system more efficient, call your local utility company to have your oil or gas furnace "derated." Because you house is retaining more heat, your furnace output can be lowered. Not only will you be saving money on fuel, but you'll also prolong the life of your heating system.
- **6. Install storm windows.** Although the initial investment (approximately \$75 a window) is steep, storm windows help seal the home more efficiently from cold air. The saving can add up to 8% to 10% of your energy bill. And although it might take a number of years before you might start to earn dividends on this investment, storm window costs can be taken as an energy tax credit on your income tax return.
- 7. Start a "lights out" policy. Each 100 -watt bulb burning for ten hours (1 kilowatt hour) costs about 3¢ to 16¢, depending on where you live. It is cheaper to turn lights off and on when you leave and re-enter a room than to leave them on. An added bonus: Your bulbs will last longer this way. If you're the forgetful type, you might want to install an inexpensive timer device to switch lights off automatically-the savings could add up to almost 25% of your yearly electric bill.

Consider installing fluorescent lights in some areas of your home; they use less electricity than regular light bulbs. The amount of light or illumination you get from a bulb is measured in "lumens." By replacing, two 60-watt bulbs with a single 100-watt bulb, for example, you get the same amount of lumens, but save 20 watts of energy.

**8. Change your habits.** Not every energy conservation method has to cost money. You can reduce your bills by simply altering your lifestyle slightly. Wear one sweater in the house and you can lower the thermostat temperature by one degree. If you wear a heavy shirt and a sweater, you can lower it even further. (Remember, for every degree you lower the thermostat,

you can save 2% to 3% on your energy bill.) Take showers instead of baths, since showers use less hot water. If your house feels warm, don't open the windows; lower the thermostat. If you have a dishwasher, turn it off before the dry cycle and let your dishes air dry. Keep your refrigerator running efficiently by defrosting the freezer regularly, and remember to clean the condenser coils (on the back or bottom of your refrigerator) every six months.



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