



Energy Conservation Tips

You can save energy dollars by following these simple tips. Many of them are common sense suggestions that require no tools or out of pocket expense. Over time, you will see your energy efficiency increase and your energy savings multiply.

HEATING/COOLING

- Clean or replace filters at least once a month. Dirty filters will make your system work harder and run longer than necessary. It also encourages the buildup of mold and mildew, which can make cleaning more difficult.
- Outside air conditioning units (condensers) shaded by trees or other means work more efficiently and use up to 10% less electricity. Clean your AC's condenser/evaporator coils at the beginning of the season.
- Clean coils will lower your energy costs, extend the unit's life, and provide cleaner air for you to breathe. The fin coils on the outside AC unit can be washed with a hose. Coils on inside units may be difficult to get to and might best be serviced by a trained technician.
- Keep debris, high grass and other obstacles away from the condenser so that airflow to the unit is not blocked. Blockage will make the condenser work harder and run longer.
- One of the best ways to save energy dollars is to use less air conditioning and heating. Set your thermostat at 78 in the summer and 68 in the winter. Each degree cooler or warmer will increase your energy use by 6 to 8%. For instance, setting your thermostat at 72 in the summer could increase energy use by up to 40%. The same is true if you set your thermostat for higher energy use in the winter.
- If you have central air conditioning, do not close vents in unused rooms. This could increase pressure and cause leaks in your ducts. This does not apply to homes or apartments with window units where closing off unused rooms will reduce cooling costs and increase comfort.
- New high efficiency air conditioners and heat pumps use up to 40% less electricity than older models for the same amount of running time.

INSULATION

- A home with inadequate attic insulation can lose as much as 40% of its cool air. Because heat rises, as much as 60% of heat can be lost in the wintertime in poorly insulated homes.
- The average 10 to 15 year old home has R-11 to R-15 insulation but needs R-30, about 5 to 6 additional inches.
- An attic radiant barrier, usually made of aluminum foil bonded to paper, helps block heat flow through the roof into the house during summer. It can be stapled across roof rafters in the attic and can reduce annual energy bills by 3% to 8%.

DUCTWORK

- Ducts in the attic of the average 10 to 15 year old home leak 15% to 25% of its heating and cooling. Leaking ducts can also affect air quality in your home by sucking in and redistributing pesticides, fiberglass fibers and dust.
- Ducts should be sealed with mastic sealant, a putty-like material that can be purchased at hardware stores. Because of the Texas heat, the glue on traditional duct tape dries out and loses its adhesive quality. Mastic never totally hardens so it doesn't dry out loosen with age.

FANS

- Fans blowing directly on you can make temperatures around you feel up to 4 degrees cooler. Fans blowing, but not directly on you will not produce the same effect.

REFRIGERATORS AND FREEZERS

- Refrigerators more than 10 years old use up to 50% more energy than new energy efficient models. Behind heating and cooling and water heaters, refrigerators and freezers are the biggest household energy users because they run all the time.
- Side-by-side refrigerators use about 45% more energy than refrigerators with a separate freezer on top. Upright freezers use 10% to 25% more energy than chest styled freezers because they lose more cold air when opened. Freezers that must be manually defrosted use 35% to 40% less energy than comparable frost-free models.
- Temperature settings that are too low cause refrigerators and freezers to run more than needed. The refrigerator temperature should be 36 to 38 degrees. The freezer temperature should be 0 to 5 degrees. To test: place an ordinary household thermometer in the refrigerator for 10 to 15 minutes. Be ready to read it the moment you open the door. Repeat the test for your freezer. Refrigerator temperatures set at even 10 degrees lower than recommended can increase energy use by as much as 25%.
- Make sure your refrigerator and freezer doors seal properly. To test: close door over a dollar bill. If the dollar pulls out easily, the seal around the door may need replacing or the door latch may need adjusting.
- Defrost (manual) freezers before the frost exceeds a quarter inch thick. Greater frost buildup makes the freezer work harder, running longer than necessary.
- Gently vacuum off the refrigerator's condenser coils about every three months. The coils are located in the back or under the bottom of the refrigerator. Excessive dust buildup will make the refrigerator work harder and run longer.
- Freezers can use up to 25% more energy if located in hot temperatures (such as in your garage during the summertime) than if they operate in normal household temperature conditions.
- Let foods cool before placing in refrigerator unless the recipe specifies otherwise. Warm food will cause your refrigerator to run more.
- Thaw frozen foods in the refrigerator rather than on a counter top. This is safer, plus frozen items will help cool the refrigerator as they defrost and may help reduce its running time.
- Freezers work better fully loaded.

COOKING

- Oven temperature drops by 25 to 30 degrees every time you open the oven door.
- Never place aluminum foil on an oven bottom (for instance, to catch drippings). The foil may block heat or air circulation reducing oven temperature as much as 50 degrees. It may also interfere with even browning.
- Microwave ovens use up to 70% less energy, cook food up to 75% faster and produce much less heat than an electric or gas oven.
- Cooking with tops on pots will bring liquids to a boil more quickly and will allow continued cooking at lower temperature settings. Also, trapped steam in the pot will cook food faster. This reduces energy use and heat in the kitchen.
- Glass and ceramic pans retain heat better than metal pans and can allow you to lower the baking temperature by 25 degrees.
- Try to schedule cooking in the morning so that kitchen heat does not contribute to air conditioning use during the hotter parts of the day.
- If using your oven for an hour or more, shut the kitchen off from the rest of your home and turn on the stove exhaust to help take heat out of the kitchen.
- When not in use, a kitchen exhaust fan allows hot/cold outside air to come into your home or apartment. Low-cost covers are available to cover exhaust fan openings.

WATER HEATER

- Next to heating and cooling, water heaters use the most energy in a household (14% to 20%). Lower the thermostat on your water heater to 120 degrees. This can save as much as \$45 per year.
- Wrapping your water heater with an insulation blanket can reduce its energy use by 10% to 15%. An insulating blanket will pay for itself in one year or less.
- Turn down or shut off your water heater when you will be away for extended periods.

CLOTHES DRYERS

- Dry loads of clothes back to back to take advantage of heat built up in the dryer.
- Clean the lint filter after every load. Your dryer will dry more efficiently, requiring less running time.
- Close the door to the dryer room to keep from heating up the house.

OTHER APPLIANCES

- Unplug seldom-used appliances such as extra color televisions, video tape players and computers when not in use. Even off, they continue to draw as much as 10 watts of electricity (7-kilowatt hours per month) each.
- Laptop computers use significantly less energy than desktop models.

WINDOWS AND DOORS

- Low energy windows have a special surface coating that blocks out 40% to 70% of the heat that is normally transmitted through clear glass, while allowing the full amount of light to pass through.
- Storm windows and doors can reduce the amount of cooling or heating lost through single pane glass by 50%.
- Keep blinds and drapes closed to keep your house cooler. Drapes block out sunlight and heat better than blinds.
- Tint films applied directly to windows can block out 40% to 60% of sunshine/heat.
- Solar screens on windows can block out 60% to 70% of sunlight/heat.
- As much as 10% of air-conditioned air may be leaking from your home. Caulking around windows and plumbing penetrations (under sinks) and weather stripping around doors will stop leaks.

LIGHTING

- Turn off unneeded lights, even when leaving a room for a short time. Lights generate heat that increases room temperature. Lighting accounts for about 10% of your electrical use.
- Fluorescent light bulbs use 70% less electricity than regular light bulbs, give off five times more light, emit 90% less heat and last 10 times longer. On average, a fluorescent light bulb will save about \$50 in electricity costs over its life.
- Dust building on lampshades and light bulbs can reduce lighting levels by as much as 50%.

FIREPLACE

- When not using a fireplace, keep flue dampers closed. Otherwise, air conditioning and heating continuously escape

COLORS

- More heat is transferred into homes from outside walls painted with dark colors than those painted with light colors. Dark, outside colors absorb 70% to 90% of the radiant heat that strikes the home's surface.
- Ceilings painted with light colors reflect light downward, which will make room lighting more efficient.

TREES

- Correctly positioned shade trees can reduce indoor home temperatures by up to 20 degrees and summer cooling costs by up to 40%. Also, tree-shaded neighborhoods stay up to 3 to 6 degrees cooler than tree-less neighborhoods.

For additional energy savings tips, visit www.energysavers.gov