

Home & Environment

Saving Energy and Money At Home and on the Road

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According to the U.S. Department of Energy, in 2009 the average American family spent approximately \$1,900 on home utility bills. Not only is this amount a burden for the family budget, but it is also costly to the environment. Each year, the electricity produced by fossil fuels for a single home results in more carbon dioxide released into the air than that produced by two average cars. In addition to home energy use, transportation accounts for 67 percent of all U.S. oil consumption. However, you can save energy and money at home and on the road by making a few simple changes in your day-to-day routine.

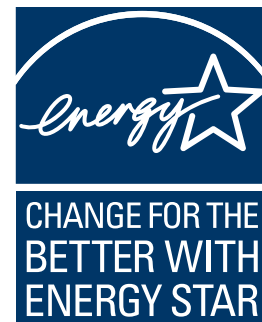
Tips to Save Energy and Money

Following are 15 suggestions to help you save money, reduce your energy consumption, and preserve our natural resources.

including appliances, computers and electronics, heating and cooling equipment, lighting and fans, and even plumbing equipment. For more information about ENERGY STAR, visit their website at <http://www.energystar.gov/>.

ENERGY STAR

1. Purchase ENERGY STAR-qualified products. ENERGY STAR is a program sponsored by the U.S. Environmental Protection Agency and the U.S. Department of Energy. When you see the ENERGY STAR logo on a product you know that it is an energy-efficient product. The ENERGY STAR logo can be found on a wide variety of products



Temperature Control

2. An easy way to adjust the temperature is by installing a programmable thermostat. Programmable thermostats take the guesswork out of temperature control by allowing you to pre-set the thermostat to lower or higher temperatures (depending on the season) during periods when no one is home or you are sleeping. Remember to look for the ENERGY STAR logo when purchasing a programmable thermostat. If you have a heat pump, be sure the programmable thermostat is labeled for use with a heat pump.

- As much as a 10 percent savings can be seen on heating and cooling bills per year by simply adjusting your thermostat by 10 to 15 percent for 8 hours.
- Have your heating and cooling system checked seasonally, and clean or change your air filter monthly. A dusty air filter can result in increased energy use and costs, and premature equipment failure.
- During winter months, open your south-facing shades and curtains on sunny days to let the warmth of the sun in, and close them on cold nights to prevent heat loss.
- During summer months, close shades and curtains during the day to prevent increased heat from the sun.



Lighting

3. Replace traditional incandescent light bulbs with ENERGY STAR-qualified compact fluorescent light bulbs (CFLs). A CFL (when used properly) lasts up to ten times longer, uses approximately one-fourth the energy, and produces 25 percent less heat while producing more light per watt than a traditional incandescent bulb. The amount of money saved using a CFL will depend upon the cost of the bulb and the rate you pay for electricity. A savings of \$30 or more in electricity costs can be expected over the lifetime of the bulb when compared to a traditional incandescent bulb.

Large Appliances

4. Check the temperature of refrigerators and freezers to make sure temperatures are within the recommended ranges.
5. Cover and/or wrap all liquids and foods in the refrigerator. Uncovered liquids and foods release moisture, making the refrigerator work harder.
6. Set your dishwasher to the water-saving or short cycle. (Check manufacturer's instructions.) Only run the dishwasher with a full load. Allow your dishes to air dry instead of using the dishwasher's drying cycle. Some dishwashers may have an automatic air-dry switch; however, for dishwashers without an air-dry switch, turn off the control knob after the final rinse and prop the door open slightly to allow dishes to dry.

When possible, buy CFLs in multi-packs as opposed to single packs, which will reduce the unit price to a cost that approaches incandescent pricing.



Small Appliances and Electronics

7. Use a small electric pan or toaster oven as opposed to a large stove or oven for small meals and snacks.
8. Turn off or unplug small appliances and electronics when not in use. Electronics such as televisions, DVD players, stereos, cell phone chargers and cords, and kitchen appliances account for approximately 15 percent of electricity use in the home. Even when turned off many electronics continue to use small amounts of energy. These “phantom loads” can be avoided by unplugging the electronic and/or cord or by using a power strip. A power strip eliminates energy consumption by disconnecting the power supply from the power source. Take the home office as an example. Each piece of equipment can account for a few extra watts up to 20 or even 40 extra watts in the “off” or “stand-by” mode. By simply flipping the switch on a power strip you can conserve energy and save money.

Water

9. As a general rule, when turning on the tap use cold water whenever possible. Hot water requires energy.
10. When boiling water, use a covered pan. The water will boil faster, saving energy.
11. Lower the thermostat setting on your hot water heater to 120°F or lower.
12. Take short showers (preferably 3 to 4 minutes or fewer). In addition to shorter showers, install a low-flow showerhead. The typical showerhead uses 2.5 gallons of water per minute; WaterSense-labeled showerheads use 2 (or fewer) gallons of water per minute. If you only have a bathtub available, take a bath with fewer than 5 inches of water.
13. Wash full loads of clothes. If you must wash smaller loads, adjust the water-level control to the appropriate setting.

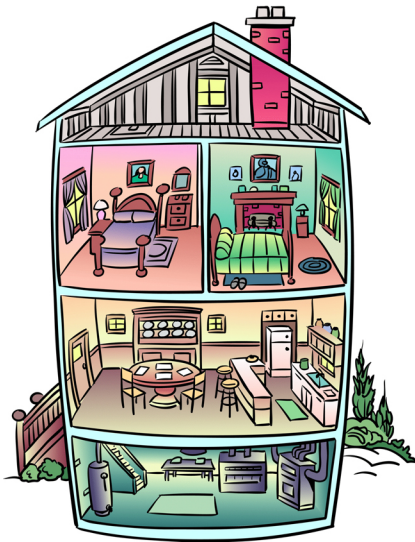
Transportation

14. Drive sensibly to improve your gas mileage. Speeding, rapid acceleration, and hard braking can lower your highway gas mileage by 33 percent and your city mileage by 5 percent.
15. Avoid needless vehicle idling. If you plan to be parked for longer than 10 seconds, turn your engine off.

On average, water heating accounts for 12 percent of home utility bills and is the third largest home energy expense.



The WaterSense program is sponsored by the U.S. Environmental Protection Agency to promote products that are water-efficient and high-performing, such as toilets, showerheads, faucets, and faucet accessories. The WaterSense label indicates a water-efficient product that is independently certified to perform as well as or better than standard models. WaterSense-labeled products can be found at home improvement stores. For more information, visit the WaterSense website at www.epa.gov/watersense/.



Whole-house Approach

Think of your home as an energy system where all the parts rely upon each other. For example, your heating and cooling system is not just your furnace or air conditioning unit. In a whole-house approach, the heating and cooling system starts with your furnace or air conditioning unit but also includes the network of ducts that transport the warm or cool air, home exterior walls, attic, windows, and doors. The duct network, as well as the walls, attic, windows, and doors, must be properly insulated and sealed. The furnace and/or air conditioning unit must be well maintained for energy to be used efficiently and not wasted. Using this approach it is easy to remember that if energy is wasted, dollars paid for that energy use are wasted too.

Resources

- Energy Savers Booklet. (2009). Retrieved March 12, 2010, from http://www1.eere.energy.gov/consumer/tips/pdfs/energy_savers.pdf.
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- Save Energy at Home: ENERGY STAR. (n.d.). Retrieved March 12, 2010, from http://www.energystar.gov/index.cfm?c=products.pr_save_energy_at_home.
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