

SAVE ENERGY  
SAVE MONEY



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Did you know that the average U.S. family spends close to \$2,000 a year on energy bills? That's according to [Energy.gov](https://www.energy.gov), which also draws attention to the fastest growing contribution to American's energy use: miscellaneous electronics.

This publication is designed to help you cut energy costs in your home. With small changes, you may be able to save a little money, or perhaps even cut your energy costs in half! Best of all, many of the tips you'll find here won't cost you a penny.

To learn how to save on purchasing any of the home appliances mentioned in this publication, read Consolidated Credit's [Shop Smart and Save guide](#). The U.S. Department of Energy's, [eeCompass](#) and [Appliance Energy Use Calculator](#) can also help you compare the efficiency of any appliance you're interested in buying and help you calculate the annual cost of running that appliance.

## Heating and Cooling

Heating and cooling are the largest energy expenses in most homes, accounting for almost 35% to 40% of energy use. If your heating system is inefficient, older than 15 years, or would cost more to repair than replace, consider replacing it with an ENERGY STAR® certified heating and cooling system.

Here are some additional tips for keeping cost low when heating and cooling your home:

**Get Smart:** ENERGY STAR certified smart thermostats can help you save as much as 10% on heating and cooling every year. These thermostats are also designed to be compatible with incentive programs offered by some utility companies.

If you're looking for a cheaper option, programmable thermostats can be set up to change your home's temperatures on a schedule. Avoid programming large changes in temperature to keep your system from siphoning energy.

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You can also do this by hand by turning your thermostat down 7°–10°F for 8 hours a day at while you are work or at night in the fall and winter; turn it up in the spring and summer. This will keep the system from cycling on as much, thereby reducing your bill. (If you have a heat pump, don't do this without a smart or programmable thermostat designed for use with heat pumps.)

**Insulate:** Want to cut your heating and cooling needs by up to 30% and make your home more comfortable in the process? That's what proper insulation can do for you. Attic insulation is usually the most effective because the attic is one of the largest sources of heat gain.

To get the most out of insulating your home, make sure your attic insulation is at a level above the attic floor joists. It's recommended that most attics be insulated at an R value of 38. If you live in colder climates, insulate up to level R-49.

Don't know what R value means? The higher the R-value of your insulation, the better your walls and roofs will resist the transfer of heat. Learn how much insulation you should have for your home (based on your zip code and other information about your home) at <https://homeenergysaver.lbl.gov/consumer>.

If you need more insulation, your electric company may provide rebates or incentives for adding insulation to your home. At a minimum, the company will often provide a list of qualified contractors in your area. Contact your local electric company for more information.

**Plug the Leaks:** Money could be leaking right out of your doors and windows if you have cracks or holes that lead outdoors. You can test this by using a lit incense stick on a windy day. Hold it in front of windows, doors, electrical boxes, plumbing

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fixtures, electrical outlets, ceiling fixtures, attic hatches, or anywhere else that air may be leaking outdoors. If the smoke is moving sideways instead of straight upward, you probably have a leak.



Caulking or weather stripping can make the area airtight and save energy. You can also purchase inexpensive foam insulation that can be sprayed into cracks. Any air ducts you seal on your own should be tested by a qualified professional to ensure combustion safety and proper air flow.

***Don't Forget:*** *If you have a fireplace, make sure the damper is kept closed when it's not in use.*

**Free Is Good:** Many local power companies offer a free energy audit where they will come to your home and suggest ways you can save energy. Ask for an audit and follow their recommendations!

**Cycle Off:** Some electric companies will give you a discount if you allow them to briefly cycle off your heating or air conditioning during peak times of the day. Other electric companies charge less for electricity used during “off peak” rather than “peak” times. You can time tasks like drying clothes or running the dishwasher during those off-peak times. Ask your energy company for details.

**Get Sneaky:** Try adjusting your regular home temperature by a degree up or down (depending on the weather) until you get used to the new warmer or cooler air. Then try another degree the following week, and so on, until you're really uncomfortable. The goal is to have your heating and cooling system cycle on less frequently, thereby reducing your bill.

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**Come Clean:** Regularly clean the air conditioning coils as well as the air filter for your air conditioning and heating units. A clean system will cost less and be less likely to require expensive repairs (it's also better for air quality).

**Go with the Flow:** Most experts don't recommend closing off the heating or cooling vents in rooms you don't use to save energy. Doing so can actually make your system work less efficiently. If you have areas of the house you don't use, talk with a qualified contractor about "zone" heating or cooling. Your current system may be able to be modified to allow you to reduce or increase heating and cooling in certain parts of the house.

**Make Shade:** Shade can block direct sunlight from sunny windows and significantly cool your home (as much as 20 degrees in summer). Try planting trees or using window awnings to reduce bright sunlight. Also plant trees or shrubs to shade your air-conditioning units (be careful not to block airflow). You can save 10% of the unit's electricity cost this way!

**Be Window-Wise:** A lot of energy can be leaked through inefficient windows. To make your current single pane windows more efficient, install storm windows, which are an extra pane of glass or plastic added to a window to reduce air infiltration and boost the insulation value of a window. Energy-efficient double-pane windows are more expensive but can pay for themselves over time. If you can't afford new windows, and your house gets cold in the winter, you can buy inexpensive plastic sheeting that can be installed over windows in the winter, usually by using a hair dryer to "seal" the plastic to the



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windows. In the summer, use shades and drapes to help block out sun.

**Install Ceiling Fans:** When properly purchased and installed, ceiling fans can make a warm room seem cooler in summer, and warmer in winter. They are very inexpensive to use. Make sure you buy the right type and size for your room. The greater the angle of the blade, the more efficient the fan will be. Blades at angles of more than 12 degrees are more efficient. For more information on selecting a ceiling fan, visit the American Lighting Association's website at [alighting.com](http://alighting.com).

**Use It When You Need It:** While kitchen and bathroom exhaust or ventilator fans are good for reducing moisture, they can also pull air out of the house very quickly. So, use them when you need them, but turn them off as soon as you are done.

**Bounce It Back:** A light colored house will reflect heat, while a dark colored one will absorb it. Because roofs are almost always dark-colored (and absorb heat), there are several roof treatments that can be used to reflect heat, including an asphalt-based coating that contains reflective glass fibers and aluminum particles, and a radiant barrier of aluminum foil that can be installed on the underside of your roof. Reflective window coatings can also reduce the amount of heat absorbed into your home appliances.

**Pump It Up:** If electricity is your only choice for heating, a heat pump may be your most cost-effective option. When using a heat pump, remember not to set back the heat pump's thermostat manually because it wastes energy. Research the many varieties of heat pumps to find out what's best for your home.

For a complete guide to heating and cooling your home efficiently, visit [Energystar.gov](http://energystar.gov).

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## Clothes Washers and Dryers

Laundry clothes washers and dryers are some of the largest energy consumers of any home appliances. According to [Energy.gov](https://www.energy.gov), clothes washers have become drastically more efficient over time. If your washer is more than 10 years old, consider buying a new ENERGY STAR clothes washer. These washers use less energy, less water, and have greater capacity, allowing you to wash the same amount of laundry in fewer loads.

**Stay Cool:** Wash as much clothing in cold water as possible. Even using warm water can cut your energy use in half, and most clothes don't need to be washed in hot water to get clean. When using the clothes dryer, use the lowest heat settings even if the drying cycle is longer. This will not only save you money, but it will help your clothes last longer!

**Make It Quick:** You probably do not need to run your clothes washer for the full cycle. A 5-6 minute washing cycle will work fine for most daily loads (and make for less wear and tear on your clothing).

**Stay Clean:** Clean the dryer lint screen every time you use it, and also check the hose that connects to the wall periodically to make sure lint hasn't accumulated there. Not only can you save money, but you may prevent a fire as well.

**Hang It Up:** Install a clothesline to dry (or partially dry) clothing when the weather is nice. As an added bonus, your clothes will have a fresh smell!

**Don't Skimp:** When you do use the dryer, make sure you have a full load of clothes. It will actually take clothes longer to dry if you use a small load.

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**Pump It Up:** If you use your dryer a lot and have high electricity bill, a heat pump dryer can cut your costs by 20% to 60%.

**Clean Your Clothes with Science:** Cold water detergents can help you clean your clothes more efficiently, and detergents with the ‘he’ symbol should be used when called for by the manufacturer.

## Dishwashers

**Air Dry:** Instead of using your dishwasher to dry your dishes, let your dishes air dry.

**Fill It Up:** Run the dishwasher only when you have a full load. (FYI, it’s usually cheaper to run a fully loaded efficient dishwasher than to wash a comparable amount of dishes by hand.) Be careful not to overload your dishwasher, as this may cause it to run less efficiently.

**Scrape Away:** Most modern dishwashers boost water temperatures to 140°F . This not only helps disinfect your dishes, but it saves you thousands of gallons on rinsing. If your dishwasher has an internal heating element, turn down your home’s water heater to 120°F for additional savings.

## Refrigerators

When it comes to refrigerators, size and design matter.

The most energy efficient refrigerators are 16–20 cubic feet in size. Side- or bottom-mounted freezers use less

energy than top-mounted freezers, and refrigerators without icemakers or waterspouts also save more energy.





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**Leave Space:** Leave a few inches between the wall and your refrigerator to help your refrigerator run more efficiently.

**Come Clean:** Clean the refrigerator coils periodically (check your owner's manual). Also make sure your refrigerator is defrosting properly or it will take more energy to keep cool.

**Fill It Up:** A full refrigerator and freezer are more energy efficient. Keep yours full or use gallon jugs of water to take up unused space.

**Trash It:** An old refrigerator may be an energy hog. Consider whether the keeping a refrigerator in the garage, for example, is worth the cost. Also check for leaks by closing the door on a piece of paper. If it pulls out easily, the seal is probably worn. When you do buy a new fridge, choose an energy efficient model.

**Keep Cool:** Set refrigerators to 35°–38°F and standalone freezers at 0°F for long-term food storage. Make sure your refrigerator is placed away from the oven or dishwasher and out of direct sunlight to reduce heat exposure.

**Cover Up:** Always keep your refrigerator door closed when possible, and store liquids and foods with wraps to reduce the release of moisture, as this will make your compressor work harder.

## Finding Other Smart Ways to Save Around the House

According to [Energy.gov](https://www.energy.gov), miscellaneous electronics are the fastest growing contributions to home energy costs. The average home owns 24 home electronics products and unplugging these devices when they're not in use can help you stop this energy suck. Many devices that need to remain plugged in may have rest modes, which will use less energy.

### Lighting

Replacing at least five of your most used lightbulbs and light fixtures with ENERGY STAR certified products can cut your

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electricity costs. Don't forget: kitchen lights are among the most used in households.

**Use Fluorescents:** Compact fluorescent bulbs cost more but can save money in the long run, and last much longer.

**Bright Idea:** LED bulbs are among the most energy efficient. If you can afford them, LED lighting offers longer lifetime, more durability, and more savings!



**Turn Them Off:** Turning lights off when you leave the room will save electricity and money. For more Information on ways to cut your energy bill, contact your local power company, and visit the Department of Energy's Home Energy Saver website at [www.homeenergysaver.lbl.gov](http://www.homeenergysaver.lbl.gov).

**Time It:** Timers, photocells, and dimmers can cut your energy costs when used with compatible energy efficient bulbs and fixtures.

**Let the Sun Shine:** Instead of turning on the lights, use daylight to brighten your home. Also, consider decorating with light colors to reflect the sun.

**Go Small:** For desk work, reading or other small tasks, use small task lights.

**Get Outdoors:** Consider LED, solar powered, or ENERGY STAR lighting when brightening the outside of your home. These options will not only lower your energy costs but may reduce the risk of fire.

## Kitchen Appliances

**True Blue:** Check that your natural gas appliances burn blue flames. If you see yellow flames, check with the manufacturer or call your utility company.

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**Clean Up:** Keep your stove's burners and reflectors clean. This way, they can reflect heat better and help keep your energy costs low.

**Cover Up:** Cover pots and pans and match the size of the pan to the heating element when you cook. This will help you cook food faster and helps you use less energy.

**Go Small:** Use toasters, pressure cookers, microwaves or small convection ovens to cook small meals instead of using the stove. This helps cut kitchen energy costs and makes it easier to cool your home during the summer.

## Water Heater

According to the Department of Energy, heating water accounts for about 14% of your utility bill. Here are some tips for cutting that expense:

**Go Low:** Turn down your water heater thermostat to 120 degrees (unless your dishwasher requires a higher temperature).

**Wrap It Up:** Use insulation on your hot water heater and your hot water pipes for significant energy savings.

**Time It Right:** If you use hot water at fairly regular times (early morning and evening, for example) install a timer that will allow you to turn off the hot water heater during times when you aren't likely to use it. Hot water will still be stored in the tank for use during the times it's turned off. If you need more, for showers or the dishwasher, you can just turn the hot water heater on ahead of time.

**Invest in the Best:** Consider a new energy efficient water heater if yours is old. Tankless water heaters are especially efficient because they heat water as it passes through the appliance. They only heat water as it is needed and don't take time to

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reheat water.

**Stay Cool:** Move your faucet to the cool position when using small amounts of water. Using the hot water makes the hot water heater work even if that water never reaches the faucet.

**Trap Heat:** If your water heater does not have built-in heat traps, install heat traps to prevent heat loss.

## Conserving Water

Whether you live in a part of the country where water is plentiful or not, it's still a good idea to preserve this natural resource.



**Water Wisely:** If you must water your lawn or outdoor plants, always do it in the early morning or late evening. If you water during the heat of the day, as much as half of the water from the sprinkler will water the air! Mulch trees and plants so you won't have to water them as often to help them stay healthy.

**Watch the Grass Grow:** Put off mowing the lawn long enough to allow a taller base of grass to grow, then set your mower for a higher cut. Longer grass will retain moisture better and will actually look – and be – healthier.

**Go Local:** Instead of landscaping, try xeriscaping – using native plants and trees, especially drought-resistant varieties, to save water.

**Try Low Flow:** Energy-saving low flow showerheads can pay for themselves in just a few months. Invest in a quality low flow showerhead for the best results. Got kids who love to shower for hours? Get a timer to tell them when shower time is up.

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**Shut It Off:** Turn off the water when you're not using it – when you're brushing your teeth or shampooing your hair, for example.

**Let It Go:** Consider draining a quart of water from your water tank every three months. This will remove sediment that stops heat transfer and makes your water tank less energy efficient. (Follow the manufacturer's directions.)

**Install, Install, Install:** Installing a residential circulation pump, temperature-sensitive switch shower heads, or a drain-water waste heat recovery system can cut your energy costs. Drain-water heat recovery systems capture wastewater and can be used for showers and dishwashers.

**Repair and Replace:** Leaky faucets can use thousands of gallons of water in a short period of time. Repair or replace any leaky appliance to keep energy bills low.