

# ENERGY STAR @ home tips

## Outside House

### A/C Unit

When buying new heating and cooling equipment such as a central air conditioning unit, proper sizing and quality installation are critical to your home's energy efficiency and comfort. Remember: Bigger doesn't always mean better. Oversized equipment can cause reduced comfort and excessive noise. Oversizing also can shorten the life of the equipment by causing it to cycle on and off more frequently than a properly sized unit. However, undersized equipment can reduce the efficiency and accelerate wear on system components, leading to early failure. Learn more about [Quality Installation of heating and air conditioning equipment](#).

[Pledge to have your cooling equipment tuned up by a professional.](#)

### Porch Light

The outdoor porch or post lamp is one of the highest used light fixtures in a home, and is the perfect place to install ENERGY STAR Certified lighting products. Many compact fluorescent light bulbs (CFLs) will fit easily into existing porch lights. Or install a new ENERGY STAR Certified outdoor fixture that saves energy through advanced CFL technology, a motion sensor and/or a photocell that turns the light on only when someone is present or on at night and off in the morning.

[Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.](#)

### Car/Garage

Give your car a break. Combine trips whenever possible. Use mass transit, walk or bike whenever possible. Leaving your car at home just 2 days a week will save 1,590 lbs. of greenhouse gas emissions each year! Keep your car well-maintained to maximize its fuel efficiency, safety, and reliability. Check your tire pressure regularly to avoid the wear and tear and decreased gas mileage that can result from under-inflated tires.

### Door Sweep

Air leaks are a large source of heat loss in the home during winter. A common place where air leaks occur is under the door leading from the house to the garage because they are often not as well sealed as doors leading directly to the outside. Install a door sweep to seal the gap between the bottom of your door and the threshold to prevent cold air from coming in and warm air from escaping from your home. Stopping this air flow will keep heated indoor living space more comfortable and prevent increased energy bills.

[Learn More.](#)

### Thermal Boundary

The exterior of your home—the outer walls, ceiling, windows, and floor—is called the "envelope" or "shell." Sealing and insulating—done by a knowledgeable homeowner or skilled contractor—can save more than \$200 a year in heating and cooling costs (or up to 10% on total annual energy bills). It will also make your home more comfortable and help your heating and cooling system run more efficiently. If your attic is accessible and you like home improvement projects, you can [Do-it-Yourself with help from our DIY Guide to Sealing and Insulating with ENERGY STAR](#), which offers step-by-step instructions for sealing common air leaks and adding insulation to the attic. You can also hire a contractor who can use special diagnostic tools to pinpoint and seal the hidden air leaks in your home before adding insulation. [Learn more.](#)

[Pledge to improve your home's envelope with caulk, spray foam, weather stripping, or by adding insulation.](#)

## Tree

Change the World, Start with ENERGY STAR

[Take the pledge](#) to save energy at home! Join with millions of Americans to take small, individual steps that make a big difference in the fight against climate change.

## Attic

The attic is one of the places where you often find the biggest air leaks, which can increase your energy bills and make you uncomfortably hot in summer and cold in winter. It is also a place that is generally accessible, making it easier to air seal and insulate to improve your home's comfort and overall energy performance.

### Attic Ventilation

Proper ventilation of the attic with natural air flow keeps the roof deck cool and dry, extending the life of roof shingles and preventing ice dams without using the energy needed to run an attic vent fan. Be sure attic soffit vents and gable vents are not blocked so air flows freely through them. Some homes have ridge vents or vents through the roof deck instead of gable vents. Learn more in the [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB).

### Ducts

Look for holes, tears, and other signs of leaking ducts and seal them using mastic or metal (foil) tape (never use 'duct tape,' as it is not long-lasting). Insulate all the ducts you can access (such as those in the attic, crawlspace, unfinished basement, or garage).

Ducts are used to distribute conditioned air throughout houses with forced-air heating and cooling systems. In typical houses, about 20% of the air that moves through the duct system is lost due to leaks, holes and poorly connected ducts. The result is an inefficient HVAC system, high utility bills, and difficulty keeping the house comfortable, no matter how the thermostat is set. See our [Duct Sealing brochure](#) (PDF, 1.31 MB) for more information on steps you can take to improve your home's duct system.

### Chimney

Always find and seal air leaks before adding more insulation. Chimneys or furnace flues that penetrate your attic floor have holes or gaps around them that can allow the air in your home to escape through the attic, increasing your energy bill and causing more drafts. Around chimney and furnace flues that can get hot, cover the gaps with metal flashing and caulk small gaps with high temperature caulk. Learn more in the [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB).

### Plumbing Stack

Plumbing stacks, vents, ducts, or electrical wires often have holes or gaps around them that can allow the air in your home to escape through the attic, increasing your energy bill and causing drafts. Seal small gaps with caulk and seal holes up to 3 inches in diameter with spray foam. Cover spaces larger than 3 inches with a piece of foam board and seal with spray foam. Learn more in the [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB).

### Attic Hatch or Door

Weather strip and insulate your home's attic hatch or door to help keep your home more comfortable and save energy. You can do this with weatherizing materials and insulation or with a pre-made attic cover available from local home improvement centers and on the web.

The exterior of your home — the outer walls, ceiling, windows, and floor — is called the "envelope" or "shell." Sealing and insulating — done by a knowledgeable homeowner or skilled contractor — can save more than \$200 a year in heating and cooling costs (or up to 10% on total annual energy bills). It will also make your home more comfortable

and help your heating and cooling system run more efficiently. If your attic is accessible and you like home improvement projects, you can Do-It-Yourself with help from our [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB), which offers step-by-step instructions for sealing common air leaks and adding insulation to the attic. You can also hire a contractor who can use special diagnostic tools to pinpoint and seal the hidden air leaks in your home before adding insulation. To get the biggest savings, the easiest place to add insulation is usually in the attic. A quick way to see if you need more insulation is to look across your uncovered attic floor. If your insulation is level with or below the attic floor joists, you probably need to add more. The recommended insulation level for most attics is R-38 (or about 12–15 inches, depending on the insulation type). In the coldest climates, insulating up to R-49 is recommended.

## Bedroom

Your bedroom can be both comfortable and energy efficient.

### Bed-Side Lamp

Replace fixtures and bulbs with ENERGY STAR Certified lighting products.

Lighting is one of the easiest places to start saving energy. Replacing your five most frequently used light fixtures or the bulbs in them with ENERGY STAR Certified lights can save \$70 a year in energy costs. ENERGY STAR Certified fixtures feature stylish designs and are available in a variety of models of lamps and fixtures. ENERGY STAR Certified compact fluorescent light bulbs (CFLs) provide high-quality light output, use less energy and last up to 10 times longer than standard incandescent light bulbs, saving money on energy bills and replacement costs.

[Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.](#)

### Light Switch

Remember to always turn off your lights when leaving a room.

### Room Air Conditioner

Considering purchasing a room air conditioner? ENERGY STAR Certified room air conditioners often include timers for better temperature control, allowing you to use the minimum amount of energy you need to cool your room.

- In the winter, be sure to insulate room air conditioners from the outside with a tight-fitting A/C unit cover, available at your local home improvement center or hardware store. This keeps heated air from escaping outside. Alternately, you can remove the window unit in the winter months to prevent energy losses.
- Be sure the window unit fits tightly in the window so outdoor air is not getting in.
- Large window A/C units should have their own separate electrical circuit so the system is not overloaded.

[View our purchasing tips.](#)

And remember, [proper sizing](#) is important for room air conditioners too!

## Window

During the winter months, replace your screens with storm windows to provide an extra barrier to the cold outside air. Caulk and weather-strip around windows and doors that leak air. If replacing windows, choose ENERGY STAR Certified models designed for your area, and save \$150-500 per year in energy costs. With proper installation to ensure all gaps around them are sealed, ENERGY STAR Certified windows can help improve your comfort, cut drafts, and reduce fading of interior furnishings.

Learn how to fix problems with [moisture on windows](#) in your home.

[Pledge to apply caulk and weather stripping around windows and doors that leak air.](#)

## Air Register

Make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork. Also make sure that all vents are clear of any furniture or rugs to improve air flow and comfort. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

## TV/DVD Combo

Look for the ENERGY STAR on consumer electronics products. Certified products use less energy without sacrificing quality or performance.

Consumer electronics play an increasingly larger role in your home's energy consumption, accounting for 15% of household electricity use. Many consumer electronics products use energy even when switched off. Electronics equipment that has earned the ENERGY STAR help save energy when off, while maintaining features like clock displays, channel settings, and remote-control functions.

## Outlet

Unplug any battery chargers or power adapters when not in use.

## Bathroom

There are many things you can do to save energy in your bathroom.

### Vanity Lights

Replace your home's five most frequently used light fixtures or the bulbs in them with models that have earned the ENERGY STAR and save \$70 each year in energy costs.

The bathroom vanity is one of the highest-use fixtures in the average home. ENERGY STAR Certified CFLs provide bright, warm light, use less energy, and generate less heat than standard lighting. Keep in mind that high humidity can shorten the life of CFLs. To avoid moisture problems, control humidity in your bathroom by running your ventilating fan during and 15 minutes after showers and baths. You can find ENERGY STAR Certified fixtures in hundreds of popular styles, including vanity lighting, at home improvement and hardware stores, lighting showrooms, and other retail stores including online outlets.

**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

### Light Switch

Remember to always turn off your lights when leaving a room.

### Vent Fan

Install a properly sized ENERGY STAR Certified ventilation fan to control moisture in the air while you shower or bathe, as well as control mold and mildew growth. Run your fan for 15 minutes after showering.

ENERGY STAR Certified ventilation fans 60% less energy on average than standard models, saving more than \$60 in electricity over the life of the fan. They are quieter and use high-performance motors and improved blade design, providing better performance and longer product life. Certified models can be found at many home improvement stores or from you HVAC or electrical contractor. Also be sure the fan duct leads to the outdoors to prevent moisture problems.

Learn how to prevent [moisture problems](#).

Learn how to prevent [mold, mildew, or musty odors](#).

## Air Register

Make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork. Also make sure that all vents are clear of any furniture or rugs to improve air flow and comfort. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

## Window

During the winter months, replace your screens with storm windows to provide an extra barrier to the cold outside air. Caulk and weather-strip around windows and doors that leak air. If replacing windows, choose ENERGY STAR Certified models designed for your area, and save \$150-500 per year in energy costs. With proper installation to ensure all gaps around them are sealed, ENERGY STAR Certified windows can help improve your comfort, cut drafts, and reduce fading of interior furnishings.

Learn how to fix problems with [moisture on windows](#) in your home.

**[Pledge to apply caulk and weather stripping around windows and doors that leak air.](#)**

## Shower

A 10-minute shower can use less water than a full bath.

With a new 2.5 gallon-per-minute (low-flow) shower head, a 10-minute shower will use about 25 gallons of water, saving you 5 gallons of water over a typical bath. A new showerhead also will save energy — up to \$145 each year on electricity — beating out both the bath and an old-fashioned showerhead.

## Sink Faucet

Repair any faucet leaks. A leaky faucet can waste gallons of water.

Hot water leaking at a rate of 1 drip per second can waste up to 1,661 gallons of water over the course of a year, and waste up to \$35 in electricity or in natural gas. Fixing drips is a cost-effective and easy way to save energy.

## Pipes

To save energy and reduce drafts, use spray foam or caulk to seal holes around penetrations, such as pipes, wiring, vents or recessed lights, that go through the home to the outside, attic, crawlspace, or an unfinished basement.

The exterior of your home — the outer walls, ceiling, windows, and floor — is called the "envelope" or "shell." Sealing and insulating — done by a knowledgeable homeowner or skilled contractor — can save more than \$200 a year in heating and cooling costs (or up to 10% on total annual energy bills). It will also make your home more comfortable and help your heating and cooling system run more efficiently.

**[Pledge to seal your home's envelope.](#)**

## Home Office

Many people now work from home. While this saves time and money on commuting, it can increase home energy bills.

## Desk Lamp

Use ENERGY STAR Certified fixtures and light bulbs. Remember to always turn off your lights when leaving a room.

Home office lights are often used for many hours a day. ENERGY STAR Certified desk lamps or compact fluorescent light bulbs (CFLs) provide high-quality light output, use 75% less energy, and last up to 10 times longer than standard incandescent light bulbs, saving money on energy bills and replacement costs.

**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

## Air Registers

Make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork. Also make sure that all vents are clear of any furniture or rugs to improve air flow and comfort. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

## Electrical Outlets

Seal holes around outlets with an inexpensive outlet gasket.

## Power Strip

Use a power strip as a central "turn off" point when you are done using equipment.

Even when turned off, electronic and IT equipment often use a small amount of electricity. U.S. households spend approximately \$100 per year to power devices while they are in a low power mode, roughly 8 percent of household electricity costs. Using a power strip for your computer and all peripheral equipment allows you to completely disconnect the power supply from the power source, eliminating standby power consumption.

## Power Adapter

Unplug battery chargers or power adapters when equipment is fully charged or disconnected from the charger.

## Multi-Function Device

Save energy and space with an ENERGY STAR Certified multi-function device that combines several capabilities (print, fax, copy, scan). Make sure power management features are enabled for additional savings.

**Pledge to purchase ENERGY STAR Certified home office equipment.**

## Computer/Monitor

Enable power management features on your home computer and monitor. And look for the ENERGY STAR when purchasing products for your home office. They use less energy without sacrificing quality or performance.

Most home office equipment is left on 24 hours a day. Remember: Office equipment that is set automatically to switch to sleep mode not only uses less energy, it runs cooler and helps the equipment last longer, allowing for savings on air conditioning, as well. In addition to power management, you can save more energy with your office equipment by doing the following:

- Avoid using a screensaver when your computer monitor is not active (let it switch to sleep mode or turn the monitor off instead.)
- Turn off machines when not in use (fax machines, printers, scanners, copiers.)
- Watch the [ENERGY STAR In Your Office](#) video to learn how ENERGY STAR Certified office equipment can help you save energy, money, and help protect the environment.



**Pledge to enable your ENERGY STAR Certified computer and monitor to sleep while you're away.**

## Living Room

The living room is a gathering spot for family and friends to spend quality time. It's also a place where you can take simple steps to be more energy-efficient.

### Table Lamp

Replace your highest-use fixtures or the light bulbs in them with ENERGY STAR models.

Living room table and floor lamps are two of the most used light fixtures in a home. Conventional torchiere lamps also can be the highest wattage light fixtures in the home. ENERGY STAR Certified lighting fixtures and replacement bulbs can be found at home improvement and hardware stores, lighting showrooms, and other retail stores, including online outlets.

### Ceiling Fan w/ Lighting

Depending on when and how you operate them, ceiling fans can provide comfort and help you save on your energy bills.

In the winter, your ceiling fan can help improve your comfort. Most fans have a switch that allows you to reverse the motor and operate the ceiling fan in the opposite direction. This produces a gentle updraft, which forces warm air near the ceiling down into the living space.

In the summer, check to make sure your fan is blowing air downward to help you feel cooler. On hotter days, dialing up the thermostat by only two degrees and using your ceiling fan can lower air conditioning costs by up to 14% over the course of the cooling season. Use low wattage CFLs in the ceiling fan light fixture for cooler light bulbs and more energy savings. And remember: Ceiling fans cool only people, not the room, so when you leave the room, turn the ceiling fan off.

**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

### Light Switch

Remember to always turn off your lights when leaving a room.

### Drapes

During cold weather, take advantage of the sun's warmth by keeping drapes open during daylight hours. To keep out the heat of the summer sun, close window shades and drapes in warm weather.

### Power Strip

Use a power strip as a central "turn off" point for electronics, video games, and computers when not in use.

### Air register

Make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork. Also make sure that all vents are clear of any furniture or rugs to improve air flow and comfort. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

### Window

During the winter months, replace your screens with storm windows to provide an extra barrier to the cold outside air. Caulk and weather-strip around windows and doors that leak air. If replacing windows, choose ENERGY STAR Certified models designed for your area, and save \$150-500 per year in energy costs. With proper installation to ensure all gaps around them are sealed, ENERGY STAR Certified windows can help improve your comfort, cut drafts, and reduce fading of interior furnishings.

Learn how to fix problems with [moisture on windows](#) in your home.

**Pledge to apply caulk and weather stripping around windows and doors that leak air.**

## Fireplace Damper

Close the flue damper tightly when not in use. Otherwise, warmed or cooled air can easily escape from the house.

A chimney is designed to remove by-products from a fire by creating a draft. The draft also pulls air from your home up the chimney-air that you've paid to cool or heat. Even without a fire in the fireplace, there still will be a draft in the chimney as long as there's a temperature difference between indoors and out. Closing the damper will keep air conditioned (or warmed) air in the living space where it belongs.

## Home Theatre System

Look for the ENERGY STAR on consumer electronics products. These products use less energy without sacrificing quality or performance. Seal any holes with caulk or spray foam where pipes or TV/cable wires and vents enter or exit your home.

Consumer electronics play an increasingly larger role in your home's energy consumption, accounting for up to 15 percent of household electricity use. Many consumer electronics products use energy even when switched off. Electronics equipment that has earned the ENERGY STAR help save energy when off, while maintaining features like clock displays, channel settings, and remote control functions.

## Outlet

Unplug any battery chargers or power adapters when not in use.

## Kitchen

From appliances and lighting to home sealing, there are several areas to improve the energy efficiency of your kitchen and save on energy bills.

## Light Fixture

Install ENERGY STAR Certified light fixtures or replace standard light bulbs with compact fluorescent light bulbs (CFLs) that have earned the ENERGY STAR.

Kitchen fixtures are some of the most used light fixtures in a home. ENERGY STAR Certified lighting fixtures are available in popular styles that may be just right for your kitchen, such as cabinet-mounted, ceiling-mounted, and recessed can models. ENERGY STAR Certified lighting provides bright, warm light while using 75% less energy, generating 70% less heat and lasting up to 10 times longer than standard lighting.

**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

## Light Switch

Remember to always turn off your lights when leaving a room.



## Floor Vents/Radiators

Make sure all air registers or floor vents are clear of furniture so that the air can circulate freely. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

## Range Hood

Install an ENERGY STAR Certified kitchen range hood to help control moisture and remove odors from cooking.

ENERGY STAR Certified ventilation fans use 60% less energy on average than standard models, saving more than \$60 in electricity costs over the life of the fan. They are quieter and use high-performance motors and improved blade design, providing better performance and longer product life. Certified models can be found at many home improvement stores or from your HVAC or electrical contractor.

## Window

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**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

## Cordless Phones

Look for ENERGY STAR Certified cordless phones that feature switch-mode power supplies and “smart” chargers for added energy savings.

## Dishwashers

Save water by scraping dishes instead of rinsing them before loading in the dishwasher. Run your dishwasher with a full load and use the air-dry option if available.

Rinsing dirty dishes before loading your dishwasher uses a lot of water and energy. Most dishwashers today can thoroughly clean dishes that have had food scraped, rather than rinsed, off — the wash cycle and detergent take care of the rest. To make the most efficient use of your dishwasher's energy and water consumption, run the dishwasher only when enough dirty dishes have accumulated for a full load.

Replacing an old dishwasher? Appliances account for about 12% of your energy bill. Newer, more energy-efficient models save energy and water. If replacing your dishwasher, consider an ENERGY STAR model, which can save energy and water.

## Refrigerator

Look for the ENERGY STAR when purchasing a new refrigerator. And recycle your old refrigerator in the garage or other room of your home, because it is costing you more money than you may think.

If your current refrigerator was made before 1993, it uses twice the amount of energy used by new models. A new ENERGY STAR Certified refrigerator uses less energy than a 60-watt light bulb run continuously. And ENERGY STAR Certified refrigerator models use at least 20% less energy than required by [current federal standards](#).

Many homes have older refrigerators in their garage or basement for overflow storage, and it can cost a lot to operate. You can save from \$300-\$700 by not running your second refrigerator over the next 5 years. By unplugging your second refrigerator and properly recycling it, you can also prevent 5,500 to 20,000 pounds of greenhouse gas emissions.

Learn what you need to know about replacing and recycling your old refrigerator.

**Pledge to recycle your old refrigerator or purchase an ENERGY STAR Certified refrigerator.**

## Range

Use the right sized pot on stove burners. A 6" pot on an 8" burner wastes over 40 percent of the burner's heat. Also, cover pots and pans to keep heat in.

Using the right sized pot on stove burners can save about \$36 annually for an electric range, or \$18 for gas. Covering pots and pans also helps you cook more efficiently and keeps your kitchen cooler.

Have a gas range? Keep the burners clean to ensure maximum efficiency. Blue flames mean good combustion; yellow flames mean service may be needed to ensure the gas is burning efficiently.

## Microwave

Use your microwave or toaster oven to reheat or cook small portions.

You can reduce cooking energy by as much as 80 percent when using your microwave for small portions. This also helps save on a/c costs in summer, since less heat is generated when compared to using your stove or oven.

## Kitchen Sink

Repair any faucet leaks. A leaky faucet can waste gallons of water. [Learn more](#).

Hot water leaking at a rate of 1 drip per second can waste up to 1,661 gallons of water over the course of a year, and waste up to \$35 in electricity or in natural gas. Fixing drips is a cost-effective and easy way to save energy.

## Dining Room

There are many things you can do to save energy in your dining room.

## Light Fixture

Replace light fixtures or the bulbs in them with ENERGY STAR Certified lighting.

Conventional chandeliers with many lights can be one of the highest wattage fixtures in the home. There are now more stylish and decorative options in energy-efficient light fixtures available. Look for ENERGY STAR Certified chandeliers, torchieres, ceiling-mounted and wall sconces at most home centers, lighting showrooms and specialty stores. ENERGY STAR Certified lighting provides bright, warm light while using 75% less energy, generating 75% less heat and lasting up to 10 times longer than standard lighting.

**Pledge to replace light fixtures and bulbs with ENERGY STAR Certified lighting products.**

## Light Switch

Remember to always turn off your lights when leaving a room.

## Programmable Thermostat

Install a programmable thermostat to automatically adjust your home's temperature settings when you're away or sleeping.

When used properly, a programmable thermostat with its four temperature settings can save about \$180 a year in energy costs. Follow these [Guidelines for Proper Use of Programmable Thermostats](#) to maximize your savings.

**Save with a manual thermostat, too!** Every degree you set your thermostat up in hot weather or down in cold weather will help you save on your overall energy bill.

[More info on saving energy with thermostats](#): It's a common misperception that it takes more energy to cool off (or heat up) a house than it takes to keep it cool all the time. Turning up the thermostat in summer (or down in winter) will always save energy. It's best to only cool (or heat) a house as much as necessary, based on occupants and time of day.

It's easy to forget to adjust the thermostat when leaving the house or going to bed, and it takes time for the house to cool off (or warm up) once the thermostat is adjusted, which can be uncomfortable. Here's where a programmable thermostat pays off, because it automatically adjusts the temperature when your home is empty, and when you go to sleep. Total energy savings will depend on your climate and the efficiency of your house and heating and cooling system.

**Pledge to use your programmable thermostat to adjust your home's temperature while you are away or asleep.**

## Floor Vents/Radiators

Make sure that the connections at vents and registers are well-sealed where they meet the floors, walls, and ceiling. These are common locations to find leaks and disconnected ductwork. Also make sure that all vents are clear of any furniture or rugs to improve air flow and comfort. If your home has radiators, place heat-resistant reflectors between radiators and walls. In the winter, this will help heat the room instead of the wall.

## Sliding Door

Apply caulking around door frames and weather-stripping around doors that do not close tightly. If replacing your sliding door, select ENERGY STAR Certified doors instead of regular clear-glass double-paned doors. You can save on energy costs while improving your comfort, cutting drafts, and reducing fading of interior furnishings.

Improve your home's "envelope" to lower your energy bill and improve your comfort. Home sealing reduces uncomfortable drafts and helps avoid moisture problems through sealing holes, cracks, and gaps in the home.

**Pledge to apply caulk and weather stripping around windows and doors that leak air.**

## Electrical Outlet

Seal any holes around your outlets with an inexpensive outlet gasket.

## Basement

The basement is a good place to make energy-efficient improvements. From appliances such as washing machines and dryers to heating and cooling equipment and home sealing, there are important steps you can take to improve your home's energy efficiency, save on energy bills, and help protect the environment.

**Retire your old refrigerator!** After heating, cooling, and hot water, your old refrigerator is probably the next largest energy user in your home. New refrigerators are much more energy-efficient than older models. Get rid of the old fridge lurking in the basement. Instead, size your refrigerator to meet your needs, and recycle the old one. If you must have an extra refrigerator or freezer, buy a new, energy-efficient model. Keep your refrigerator/freezer as full as possible, and unplug it when empty. Selling or giving away an old refrigerator means that someone else will inherit an energy waster for years to come. An older model can cost more than \$100 per year to operate. [Find out how much your old refrigerator is costing you.](#)

## Dehumidifier

Dehumidifiers can remove excess moisture (humidity) from the air in your home. It is common to have excess moisture in the basement. Ideally, the comfortable and healthy range of relative humidity is between 30 and 50 percent. Anything above or below those levels can cause problems.

Some of the most common indications that you may need a dehumidifier are: musty smells, presence of mold and mildew, rotting wood, condensation on windows, and increased allergies (if the air in your home is too moist, it will encourage the growth of mildew, mites, and mold-common allergens). To reduce humidity in your basement, make sure the dryer is not venting inside the basement. Also, be sure to check that the ground next to the foundation slopes away and outdoor downspouts lead at least 3 feet away from the foundation. If you decide you need a dehumidifier for your home, look for one that's earned the ENERGY STAR. They use less energy, and can save more than \$220 in energy costs over the life of the unit. Learn more about [what to look for when purchasing a dehumidifier.](#)

Want other ideas on how to [reduce moisture in your home?](#)

## Water Heater

By heating water only when you need it, tankless water heaters that have earned the ENERGY STAR save the typical family more than \$80 per year on gas bills compared to a standard storage model. Larger families can save even more.

[Choose the best ENERGY STAR Certified water heater for your home.](#)

Choosing a gas storage water heater that has earned the ENERGY STAR instead of a standard model can save \$20 a year. That's a \$290 savings over the 13-year lifetime of the water heater. Larger families can save even more money.

Savings resulting from turning down your water heater temperature are based on two components: reduced standby losses (heat lost from water heater into surrounding basement area); and consumption (from water demand or use in your home). Set too high, or at 140 degrees F, your water heater can waste anywhere from \$36 to \$61 annually in standby heat losses and more than \$400 in demand losses. Set at 120 degrees F, you will save energy and money.

If you have an older water heater, you can improve its insulation by wrapping it with an insulating jacket and save more than \$30 per year in excess heat loss. To help keep your hot water from cooling off before it gets to the tap, you can insulate the hot water piping, leaving the water heater for additional savings. Don't forget to turn off electric water heaters and turn down gas water heaters when going away on vacation.

## HVAC System

Dirt and neglect are the top causes of heating and cooling system inefficiency and failure. It's important to change your system's air filter regularly and have routine maintenance performed by a Certified technician. If you have older HVAC equipment that is not keeping your house comfortable, consider replacing it with a unit that has earned the ENERGY STAR. When replacing equipment, make sure to ask your contractor if they follow [ENERGY STAR Quality Installation Guidelines](#). Depending on where you live, replacing your old heating and cooling equipment with equipment that has earned the ENERGY STAR can cut your annual energy bill by more than \$200.

As much as half of your household energy use goes to heating and cooling. Replacing old equipment with more efficient equipment is one way to save. But equipment is just one part of an entire system that requires proper sizing, maintenance, properly sized and well-sealed ducts, insulating ducts in unconditioned spaces and more. For more information, get a copy of EPA's [A Guide to Energy-Efficient Heating and Cooling](#) (PDF, 2.6MB)

## Clothes Washer

Wash your laundry with cold water whenever possible. To save water, try to wash full loads or, if you must wash a partial load, reduce the level of water appropriately.

Hot water heating accounts for about 90 percent of the energy your machine uses to wash clothes — only 10 percent goes to electricity used by the washer motor. Depending on the clothes and local water quality (hardness), many homeowners can effectively do laundry exclusively with cold water, using cold water laundry detergents. Switching to cold water can save the average household more than \$40 annually (with an electric water heater) and more than \$30 annually (with a gas water heater).

Washing full loads can save you more than 3,400 gallons of water each year.

It's worth investing in a new, energy-efficient clothes washer if you are due for a replacement. Many new models are much more efficient than those manufactured 10–12 years ago. ENERGY STAR Certified clothes washers reduce energy use by about 30% compared to standard washers to clean clothes. They also reduce water consumption by over 50%, and have a better spin cycle allowing for less drying time.

## Clothes Dryer

Don't over-dry your clothes. If your dryer has a moisture sensor that will automatically turn the machine off when clothes are done, use it to avoid over drying. Remember to clean the lint trap before every load. Dry full loads, or reduce drying time for partial loads. [Learn more.](#)

It's easy to over dry your clothes, if one setting is used for various fabric types. Try to dry loads made up of similar fabrics, so the entire load dries just as the cycle ends. Many dryers come with energy-saving moisture or humidity sensors that shut off the heat when the clothes are dry. If you don't have this feature, try to match the cycle length to the size and weight of the load. A dryer operating an extra 15 minutes per load can cost you up to \$34, every year.

The lint trap is an important energy saver. Dryers work by moving heated air through wet clothes, evaporating and then venting water vapor outside. If the dryer cannot provide enough heat, or move air sufficiently through the clothes, they will take longer to dry, and may not dry at all. One of the easiest things you can do to increase drying efficiency is to clean the lint trap before each and every load. This step can save you up to \$34 each year.

## Rim joist

A common area of air leakage is along the top of the basement wall where cement or block comes in contact with the wood frame (known as the 'rim joist' or 'band joist'). Where accessible, seal the perimeter with expanding foam or caulk. Also look to seal penetrations, such as pipes and wiring, which go through the basement ceiling to the floor above.

The exterior of your home — the outer walls, ceiling, windows, and floor — is called the "envelope" or "shell." Sealing and insulating — done by a knowledgeable homeowner or skilled contractor — can save more than \$200 a year in heating and cooling costs (or up to 10% on total annual energy bills). It will also make your home more comfortable and help your heating and cooling system run more efficiently. If you like home improvement projects, you can Do-It-Yourself with help from our [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB), which offers

step-by-step instructions for sealing common air leaks found in the basement. You can also hire a contractor who can use special diagnostic tools to pinpoint and seal the hidden air leaks in your home before adding insulation.

**Pledge to seal your home's envelope with caulk or spray foam.**

## **Dryer Vent**

Vents, ducts, or electrical wires often have holes or gaps around them which can allow the air in your home to escape, increasing your energy bill and causing more drafts in your house. Seal small gaps with caulk and holes up to 3 inches in diameter with spray foam. Cover spaces larger than 3 inches with a piece of foam board and seal with spray foam. Learn more in the [DIY Guide to Sealing and Insulating with ENERGY STAR](#) (PDF, 12.7 MB).



# Energy Efficiency Tips for Homeowners

## 8 Ways to Save Energy at Home

Save energy at home with these simple low-cost and no-cost energy suggestions.

### Reduce Energy Waste with Smart Power Strips

Devices that continue to draw power when they appear to be turned off can cost up to \$200 a year in wasted energy. Fight this by regularly unplugging your devices, or let a smart power strip do the work for you. The features of advanced power strips make it easier than ever to ensure devices are fully powered down.

[Learn more](#) about smart strips equipped with motion sensors, voltage sensitivity controls and master switches, and easily learn which model is right for you.

### Maintain Your Heating and Cooling System

The average household spends more than \$2,000 a year on energy bills, with nearly half of that going to heating and cooling. A well maintained system can save a lot. Change your air filter regularly, and have a professional perform scheduled tune-ups. Do more with our [Heating and Cooling rebate](#) solution.

### Set Your Refrigerator for Optimum Cooling and Freshness

ENERGY STAR® recommends a temperature range between 35° and 38°F to keep food fresh while not wasting energy.

### Use the Cold Water Cycle in Your Washing Machine

Washing your clothes in cold water saves big on water heating costs. It also keeps colors from fading and clothes from shrinking.

## Seal Your Windows and Doors

Use caulk and weather stripping to seal air leaks around windows and doors. Homeowners save an average of \$200 per year on heating and cooling by better insulating and sealing their homes. Do more with our [Insulation and Windows program](#).

## Save the Game Console for Gaming

If you stream content to your TV, use a dedicated set-top box, smart TV or streaming-capable Blu-ray player. Game consoles use far more energy than these alternatives.

## Heat Your Water to 120°F

At an average of \$250 a year, water heating is the second largest energy cost for most households. Don't overheat your water only to mix it with cold. 120°F will give you hot showers while saving energy too.

## Upgrade Your Home's Lighting

Light your home with ENERGY STAR certified LED bulb, the simple choice for energy efficiency. LED lighting is the simple option to save energy, money and protect the planet for future generations. Find a [participating retailer](#) and start saving.