

Save Energy and Money

ENERGY-SAVING TIPS

Saving energy doesn't have to be hard. It can be as simple as switching to LED bulbs, closing curtains and keeping the garage door closed. Pick a few tips and work them into your daily routine.

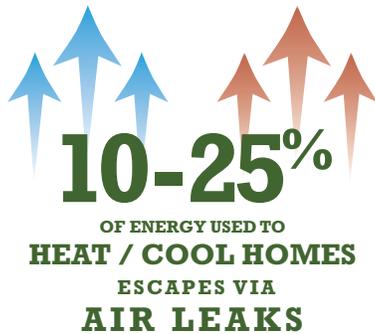
With just a few minutes a month, you'll notice a difference – and make a difference!





Weatherproofing

1. Safely repair and/or apply weather stripping to air leaks in the home – about 10 to 25% of energy used to heat / cool homes escapes via air leaks. Areas to check include dropped ceilings, recessed lighting, attic entrances, ducts, door frames, electrical outlets and switches, window frames and plumbing/utility access.



2. Add foam gaskets behind all outlet covers and switch plates, and use safety plugs in all unused outlets. These are prime places for outside air to leak into your home. Be sure to shut off power at the fuse box or circuit panel first.
3. Check window panes to see if they need new glazing. If the glass is loose, replace the putty holding the pane in place. Most types of window glazing require painting for a proper seal.
4. Choose the right kind of caulk for the job. Use latex or acrylic caulk inside - it's easy to clean and more forgiving if you're a beginner. Silicone caulk is great for outside use because it lasts longer and seals virtually any type of surface.

5. Don't forget to weatherproof the attic access. Secure batt insulation to the back of the hatch or door, and use weather stripping to seal the opening.
6. Seal doors and windows with caulk, weather stripping and plastic film. An investment of \$50 in weatherproofing supplies can reduce heating costs by two to three times that much. Don't forget the basement windows!
7. Seal the edges of unused doors and windows with rope caulk. Don't permanently seal them shut - you might need quick ventilation or escape during an emergency.
8. Reflective window film can help reduce heat gain during the summer, and it will keep furniture and carpets from fading.
9. During the winter, remove window air conditioners and seal the windows with caulk and weather stripping. You might also want to cover the central air compressor with a tarp to keep it clean.
10. If drafts sneak in under exterior doors, replace the threshold. If that's not practical, block the drafts with a rolled-up towel or blanket.
11. If your home has a large, single-pane picture window, use heavy draperies during the winter to help keep out cold air.
12. Check the exterior of your home for air leaks, especially around openings for water spigots, air conditioner hoses, dryer vents and gas pipes. Use caulk or expanding foam to seal spaces.



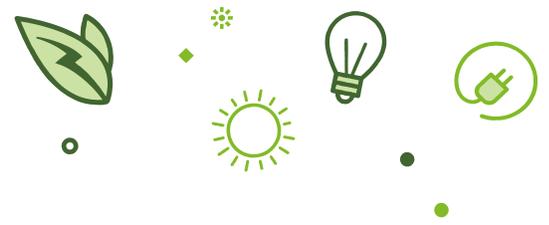


Fireplaces

- 13. Add fireproof caulk where the chimney meets the wall, inside and outside.
- 14. Check the seal on the damper by closing it off and holding a piece of tissue paper inside the firebox. If drafts blow the tissue around, repair or replace the damper.
- 15. If you have a wood-burning fireplace, have the chimney cleaned and inspected regularly, and burn only fully dried hardwoods to produce the most heat output.
- 16. When the fireplace is not in use, make sure fireplace dampers are sealed tight, and keep the glass doors closed. If you never use your fireplace, plug the chimney with fiberglass insulation and seal the doors with silicone caulk.
- 17. When using the fireplace, turn down the furnace to 55°F. If you don't, all the warm air from the furnace will go right up the chimney, wasting energy and money.

When using the fireplace, turn down the furnace to

55°



What do you call a light bulb at midnight?

A night light

What is an energy Provider's favorite dance?

The electric slide

Where do light bulbs go shopping?

The outlet stores

Why did the electrical cords break up?

There was no spark between them

What did the baby light bulb say to the mommy light bulb?

"I love you watts and watts!"



Why did the lights go out?

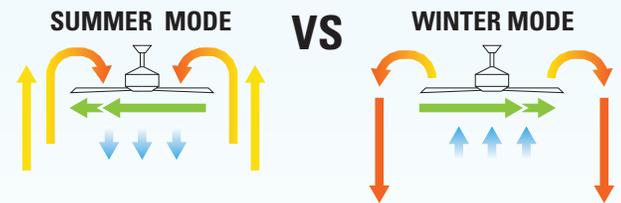
Because they liked each other!



Air Conditioning

18. During late afternoon and early evening, turn off unnecessary lights and wait to use heat-producing appliances. It's also a good idea to shade south- and west-facing windows during the hottest part of the day.
19. If you set your thermostat a little higher during summer months, you'll reduce your cooling costs 3-4% for each degree of adjustment. Changing the temperature from 74°F to 78°F could lower your energy bill by more than 10%.
20. If your home can't accommodate central air conditioning, try a whole-house fan. This device pushes hot air out through attic vents, lowering the temperature throughout your home about five degrees in less than ten minutes. Attic fans cost less than \$0.25 per day to operate.
21. Maintain your central air conditioner by cleaning the outside compressor with a garden hose (be sure to shut off power at the fuse or breaker first). Keep plantings at least one foot away for adequate airflow.
22. Make sure your window air conditioner is the proper size. It's better to get one that's too small than too large - a larger unit will start up and turn off more frequently and won't do as good a job dehumidifying the air.
23. Plant a tree. One well-placed shade tree can reduce your cooling costs by 25%. For maximum benefit, place leafy shade trees to the south and west, and evergreens to the north.
24. Raise the thermostat to about 78°F whenever you go to bed or leave the house. A Wi-Fi / Smart thermostat will do this for you automatically.
25. Set the fan on your central air conditioner to "on" rather than "auto." This will circulate air continuously, keeping the temperature more even throughout the house and aiding in dehumidification.

26. Use ceiling fans to help circulate air throughout the house, and make sure your attic is properly ventilated. A ceiling fan should run counter clockwise during the summer, and clockwise during the winter.



27. Clear high grass and other vegetation close to your outside air conditioner unit.
28. Close curtains and shades on west and south-facing windows to block sunlight and heat during the day.
29. Don't judge the efficiency of your air conditioner by the sound of the fan shutting on and off. The blower will continue to circulate cooled air throughout your home up to 15 minutes after the compressor has stopped.
30. If using an air conditioner, close outside doors and windows.
31. Install a Wi-Fi / Smart thermostat to set temperatures warmer when you are away from the house. You can reset to the cooler temperature before you arrive home.
32. Install awnings on windows that get excessive sun in the late afternoon.
33. Vacuum registers and vents regularly, and don't let furniture and draperies block the air flow. Inexpensive plastic deflectors can direct air under tables and chairs.



Lighting



34. Dust light fixtures/bulbs regularly. A heavy coat of dust can block up to 50% of the light output.

35. Keep lamps away from thermostats. The heat produced can cause your furnace to run less than needed or your air conditioner more than needed.

36. Learn how to read the label on the bulb to make sure you are buying the bulb you need. A basic understanding of Lumens (Brightness) and Color Temperature (Light Appearance) can help you to more effectively light your home.

Lighting Facts Per Bulb	
Brightness	1300 lumens
Estimated Yearly Energy Cost	\$1.93
<small>Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use</small>	
Life	27.4 years
<small>Based on 3 hrs/day</small>	
Light Appearance	
Warm Cool	
3000 K	
Energy Used	16 watts



38. Replace an incandescent outdoor light or high-intensity floodlight with a high-pressure sodium fixture or LED bulb. The bulbs will last longer and use less energy.

38. Switch to LED light bulbs. These bulbs use 90% less energy than typical incandescent bulbs, and they last 25x longer. Replacing just five bulbs can save \$75 a year.

Replacing just



5 bulbs

can save \$75 a year

40. Use lighting control devices like dimmers, motion detectors, occupancy sensors, photocells and timers to provide light only when you need it.

41. Use only a single bulb in a multi-socket fixture. Be sure to check the maximum wattage the fixture allows.

42. Use solar lights to light walkways, patios and decks. The soft light will also attract fewer annoying insects.

43. When decorating for the holidays, look for LED strands of lights to save.

37. Decorate with pale colors on walls, ceilings and floors. Soft tones reflect more light, so you can use lower wattage bulbs and delay turning on lights until later in the day. Using high-gloss paint can help as well.





Kitchen

44. Check the seal on your refrigerator door by closing it on a dollar bill. If you can pull the bill out easily, it's time to replace the gaskets. You can purchase a replacement kit from an appliance dealer or a home center.

45. Use lids on pots and pans to reduce cooking times, and don't put a small pan on a large burner.



46. Don't leave the refrigerator door open. Every time it's opened, up to 30% of the cooled air can escape. The same rule holds for the oven, too.

47. Don't overload the refrigerator or freezer. The cold air needs to circulate freely to keep foods at the proper temperature.

48. Don't worry about placing hot leftovers in the refrigerator. It won't affect energy use significantly, and cooling food to room temperature first can increase the chance of food-borne illnesses.

49. If your dishwasher has a "booster" water heater, use it. This will heat the water to the 140°F degrees recommended by manufacturers, while maintaining an energy-saving 120°F degrees on your water heater.

50. Keep the drip pans under range burners clean to reflect heat more efficiently.

52. Make sure the refrigerator is level, so the door automatically swings shut instead of open. If the floor isn't level, use shims to prop up the front of the refrigerator.

53. Run the dishwasher only with full loads, and use the air-dry cycle. The difference in energy cost between two loads per week and four loads per week can amount to \$30-\$40 per year.

The difference in energy cost between
2 loads & 4 loads
per week per week



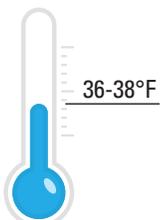
\$30-\$40
PER YEAR

54. Use smaller kitchen appliances whenever possible. Microwaves, toaster ovens and slow-cookers can use 75% less energy than a large electric oven.

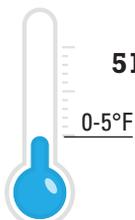
55. Use your oven's self-cleaning feature immediately after cooking, while the oven is still hot. This will reduce a lengthy warm-up time.

56. Vacuum the refrigerator coils about twice a year to keep the compressor running efficiently.

51. Keep the refrigerator temperature about 36-38°F, and the freezer at 0-5°F.



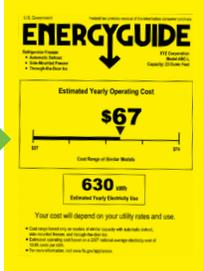
Refrigerator



Freezer



Buying New Appliances



57. Always read the Energy Guide label carefully, and make sure you're comparing "apples to apples." Energy use can range significantly even within a single brand.

- 58. Choose the capacity that's right for your family. Whether it's a furnace or a refrigerator, it doesn't pay to purchase a unit that's too large or too small.
- 59. Investigate new technology carefully. Some innovations, like convection ovens or argon-filled windows, may save energy and make life more convenient. While others, such as commercial-grade kitchen appliances, might be merely expensive 'toys'.



60. Look for the ENERGY STAR logo. This designation from the Environmental Protection Agency means that the appliance exceeds minimum federal energy-use standards, usually by a significant amount.

- 61. Remember that it pays to invest in energy efficiency. In some cases, the money you save in energy costs can pay back the purchase price in just a few years.
- 62. Replace inefficient appliances - even if they're still working. An aging water heater or refrigerator could be costing you much more than you think.



Laundry

63. Clean the lint screen on the dryer every time you use the machine. A clogged lint screen can make your dryer use up to 30% more energy - and it can be a fire hazard.

Clogged dryer lint screen can use up to

30% MORE ENERGY

Room

- 64. Dry one load of clothes immediately after another. This will minimize heat loss, reducing warm-up and drying times.
- 65. Use hot water only for very dirty loads, and always use cold water for the rinse cycle.
- 66. Remove clothes from the dryer while they're still damp and hang them up. This will save energy, prevent static and reduce wrinkles and shrinkage.



Heating

- 67. Avoid using space heaters, including electric, kerosene, or propane models. Not only are they expensive to operate, but they're also very dangerous.
- 68. Change or clean your furnace filter once a month. Dust and dirt can quickly clog vital parts, making your furnace run harder and eventually break down.
- 69. Don't set the thermostat higher than you actually want it. It won't heat your home any faster, and it will keep your furnace running longer than necessary.

70. Have your heating system inspected regularly. A \$50-100 annual tune-up can help reduce your heating costs by up to 5%.

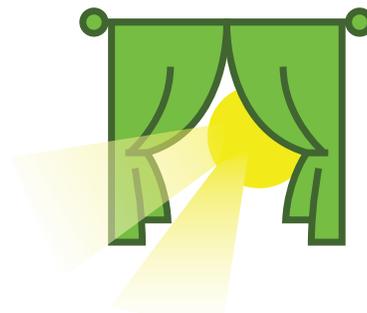


\$50-\$100
TUNE UP
can help reduce your heating costs by up to **5%**

- 71. If you have a forced-air furnace, do NOT close heat registers in unused rooms. Your furnace is designed to heat a specific square footage of space and can't sense a register is closed. It will continue working at the same pace. In addition, the cold air from unheated rooms can escape into the rest of the house, reducing the effectiveness of all your insulating and weatherizing.
- 72. If you have hardwood or tile floors, add area rugs to keep your feet warm.
- 73. If you set your thermostat a little lower during winter months, you'll reduce your heating costs 2-3% for each degree of adjustment. Changing the temperature from 72°F to 68°F could lower your energy bill by up to 10%.
- 74. If you'll be going on vacation, lower the thermostat to 55°F. This will save energy while preventing water pipes from freezing.

- 75. If your home has a boiler system, avoid covering radiators with screens or blocking them with furniture. It's also a good idea to add a reflecting panel behind radiators - you can purchase one at a home center or make one yourself with a plywood panel and aluminum foil.
- 76. If your home has electric baseboard heating, be sure to keep furniture and draperies away from the heaters, and leave at least a three-inch clearance under the heating unit.
- 77. Install a Wi-Fi / Smart thermostat. If you use it to lower the temperature by 10 degrees for eight hours every night, you could reduce your heating bills by 10%.
- 78. Set your thermostat to "auto" so that the blower fan will not operate continuously. A 1/2 HP blower fan consumes 3850 kWh annually if run around the clock, and may only need to run a third or less if set on "auto."
- 79. Vacuum registers and vents regularly, and don't let furniture and draperies block the air flow. Inexpensive plastic deflectors can direct air under tables and chairs.

80. In the winter keep curtains and blinds closed at night to keep cold air out, but open them during the day to let the sun warm the room.





Other

- 81. Smart Strips help reduce “phantom” energy usage by turning off standby power on all associated electronics (DVD players, video game consoles) when a main electronic device (like a television) is off.
- 82. Keep the refrigerator door closed as much as possible.



83. Turn off lights in empty rooms and when they are not needed.

- 84. Get rid of spare refrigerators or freezers. An extra appliance can add more than \$150 to your energy bills every year, and it's a safety hazard for small children.

An extra appliance can add

\$150+

to your energy bills yearly

- 85. If your home has no sidewall insulation, place heavy furniture like bookshelves, armoires and sofas along exterior walls, and use decorative quilts as wall hangings. This will help block cold air.
- 86. Instead of air-polluting and expensive charcoal or propane, try an electric or natural gas grill. They're more economical and more convenient - you'll never run out of fuel.

- 87. If you need a new lawn mower, consider an electric model. They're less expensive to operate (about three cents of electricity per use), 75% quieter, and they significantly reduce toxic emissions.



- 88. Keep outdoor hot tubs covered when not in use. If you have a pool, use a solar cover to use the natural warmth of the sun to heat the water.
- 89. Keep the garage door closed, especially during the winter.
- 90. Place humidifiers (winter) and dehumidifiers (summer) away from walls and bulky furniture. These appliances work best when air circulates freely around them. Be sure to clean the unit often to prevent unhealthy mold and bacteria from developing.

- 91. Unplug any electrical device that's not being used. Many appliances draw power even when turned off.

ENERGY VAMPIRES

can add **10%** or more electric bills.



- 92. Use kitchen, bath, and other ventilating fans wisely. In just 1 hour, these fans can pull out a houseful of warmed or cooled air. Turn fans off as soon as they have done the job.
- 93. When you take a vacation, don't forget to give your appliances a rest too. Turn off and unplug everything you can, set your water heater to the lowest setting and shut off the water supply to the dishwasher and washing machine.
- 94. Use light-colored shades and window coverings.



Insulating

- 95. Check insulation levels throughout your house. Measure attic insulation with a ruler, and check behind switch plates for sidewall insulation.
- 96. Choose the new "no-itch" or poly-wrapped insulation products. They're much easier to handle and safer to work with - making them worth the extra cost.
- 97. Have a leaky roof repaired and make sure your basement is waterproofed. Wet insulation is worthless.
- 98. If your basement is unheated, install blanket insulation in between exposed floor joists.
- 99. Install additional attic insulation at right angles to the previous layer. You don't have to use the same type of insulation - it's fine to use batts or blankets over loose-fill, or vice versa.
- 100. Never cover attic vents or recessed light fixtures with insulation, and allow a three-inch clearance around chimneys and flue pipes to prevent overheating and avoid the risk of fire.
- 101. When using loose-fill, be sure to distribute the insulation evenly. Any inconsistencies can reduce the insulating value.

102. While shopping for insulation, remember that R-value measures the amount of thermal resistance. The higher the R-value, the better the insulation.

Zone 5				
Attic	Walls		Floors	Crawlspaces
	2x4	2x6		
R38 to R60	R13 to R15	R19 to R21	R25 to R30	R25 to R30



- 103. Increase your attic insulation if joists are showing.
- 104. Install a cover above your attic or remove the hole and just use a hatch.

105. Install more attic insulation. Upgrading from three inches to 12 inches can cut heating costs by 20%, and cooling costs by 10%.

Upgrading from 3" to 12" can cut

HEATING COSTS BY 20% | COOLING COSTS BY 10%



Water Heating

- 106. Take shorter showers – they require less hot water.
- 107. Fix leaky faucets, especially if it's a hot water faucet. One drop per second can add up to 165 gallons a month - that's more than one person uses in two weeks.

A leaky faucet can add up to

165 GALLONS PER MONTH



- 108. If your water heater is more than 15 years old, install an insulating wrap to reduce "standby" heat loss. It's also a good idea to insulate hot water pipes where they're accessible.
- 109. Install a water-saving showerhead. Don't worry - it won't reduce your water pressure. A family of four, each taking a five-minute shower a day, can save \$250 a year in water heating costs by switching to an energy-efficient showerhead.



- 110. Set the water heater temperature at 120°F - about halfway between low and medium. This will help save energy and prevent scalding, while keeping unhealthy bacteria from growing.

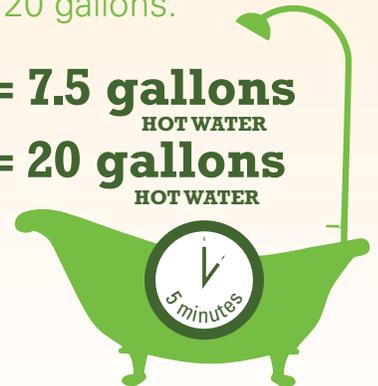
- 111. Take showers, not baths. A five-minute shower will use about 7.5 gallons of hot water, while filling a bathtub can use up to 20 gallons.

shower = 7.5 gallons

HOT WATER

bath = 20 gallons

HOT WATER



- 112. Use aerators on kitchen and bathroom sink faucets. If you have hard water, clean aerators and showerheads with vinegar regularly to reduce deposits and build-up.

Start saving today! The more tips you tackle, the more energy you will save — and potentially save on your monthly bill. Go to ElectricIdeas.com/Home to find more energy-saving tips, plus products and rebates to help you save even more.



ENERGY SAVINGS WORD SEARCH

Did you know there are many ways you can help save energy in your home? Read the energy efficiency tips below and circle the bolded words in the puzzle.

O E S P W F W A T E R S Y E S
 A L L R S A E T D E I A L S R
 T E X K E J T O G H C E P X E
 L C O O G G Z E N X C N M N W
 B T B F M X R R R T B X Q K O
 G R I S M M R A R H C L I D H
 X I S Y K Y E O H X E V A F S
 I C B X X I N Y B C N A P J I
 A I G Y Z I H F H X C F T Y E
 U T U N C W U Y X Z O M B E S
 U Y Z S E M F P O R V N V T R
 R E F R I G E R A T O R H E Q
 E V J M Q S D M D F V G N Y L
 W M E O F P N T K W I H X Q I
 G N I H T O L C R L S S B R D

Turn off **lights** any time you leave a room.

Keep the **refrigerator** door closed to save energy.

Wash **clothing** in cold water to reduce the load on your **water heater**.

Unplug items that consume **electricity** even when they're not in use, like cell phone **chargers** and coffee makers. These are known as "phantom load" **electronics**.

Take **showers** instead of baths – showers require less **water** use.

