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101 Energy Tips

Heating

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1 Purchase an energy efficient furnace. Select an energy-efficient furnace model by looking for an AFUE (annual fuel utilization efficiency) rating of 90 percent or greater.

2 Maintain the furnace. Clean your furnace filters monthly or replace if necessary.

3 Use insulation in the attic and walls. Insulate your attic to an R-value of 38 for a gas-heated home and 50 for an electrically heated home; your walls to an R-value of 19; and your sill box (upper third of your base-

ment walls) to an R-value of 10.

4 Insulate around windows and doors. Weather strip and/or caulk all areas of noticeable leaks around windows and doors.

5 Lower the temperature. Set the temperature setting on your thermostat to 60°F during the evening hours when you are sleeping and during the day when you are gone. Set the thermostat to 68°F when you are at home.

6 Turn down the thermostat when away. If you are going to be away for

an extended period of time, turn your thermostat down to save energy, but never lower than 40°F. If you have delicate houseplants, keep the setting at 50°F or higher.

7 Let the sun in. Keep window shades and drapes open during the winter months to let in the radiant heat of the sun. The sun's energy can have a noticeable effect on the temperature in your home, especially from windows that face the south and west. And you guessed it... do the opposite in the summer!

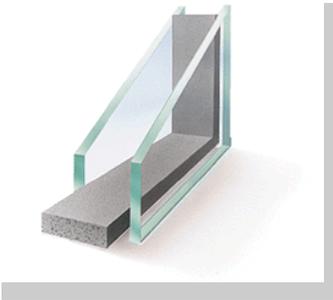
8 Warm with a space heater. A portable space heater can be a way to heat a single room without using your furnace to heat the whole house.

9 Use fireplace sparingly. Fireplaces are very

inefficient. Close the flue to eliminate drafts when not in use.

10 Purchase efficient windows. When installing new windows, select, at a minimum, double

paned (double-glazed) thermal windows. With existing single paned windows, make sure you use storm windows during the winter months.



Utility

Washers and dryers

11 Adjust the water level. Purchase and use a washer that allows you to control the load's water level. You can save energy by using less hot water for small loads.

12 Run full loads. Don't waste energy by running partial loads in both your washer and dryer.

13 Wash in warm or cold water. Use a hot water wash only when the greatest cleaning is

needed.

14 Rinse in cold water. The temperature of the rinse water has no effect on cleaning.

15 Place washer close to the water heater. The hot water doesn't have to travel as far to reach the washer. The water loses heat as it flows through the pipes. Also be sure to insulate the pipes running to your washer.

16 Don't over-dry clothes. Over-drying laundry uses more energy than

is needed and it is hard on fabrics.

17 Clean the lint filter. After each load, clean the filter to keep the dryer running efficiently.

Water heaters and water usage

18 Purchase an energy-efficient model. Although it may cost more money initially, it may be the best buy in the long run because it will cost less to operate.

19 Purchase the correct size. Consider the hot wa-



ter needs of your family. If your water heater is too large, you will waste energy; if it is too small, you will likely run out of hot water.

20 Have a contractor install your water heater near the kitchen. The kitchen is the place where you use the hottest water. This way, the hot water won't have to travel as far in the piping system, where it loses some of its heat.

21 Insulate water pipes. Use a half-inch foam or pipe tape for insulation wherever pipes are exposed. On cold water pipes, insulate four to five feet nearest to the water heater. Pipe insulation can save you up to \$25 annually.

22 Set temperature to 120°F. If you have an electric water heater, you'll have to remove the

cover plate of the thermostat to adjust the temperature. **For safety reasons, remember to turn off the water heater at the circuit breaker/fuse before changing the temperature.**

23 Repair dripping faucets promptly. If the faucet leaks hot water, you're wasting the water and the energy used to heat it. (One drop a second can waste up to 48 gallons a week!)

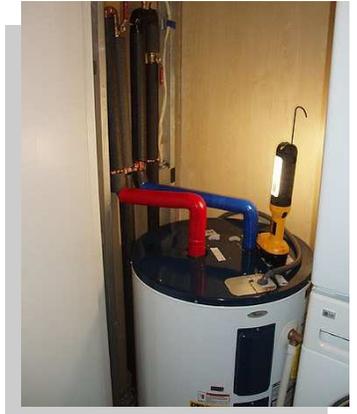
24 Install a heat loop or in-line trap. If you're adding a new water heater to your home, consider having a heat loop or in-line trap installed. These mechanisms are inexpensive to install and keep hot water in the insulated tank rather than in the piping system.

25 Reduce deposits and

build-ups. Drain a bucket of water from the bottom of the water heater once or twice a year to reduce mineral deposits and sediment build-up, which saves energy. **Don't drain the water heater, though, if you've used it for a year or more and have never drained it. The faucet may have corroded shut and could break if you force it open. Before draining the water from an electric water heater, turn off the water heater at the circuit breaker/fuse.**

26 Install energy-savers. Use low-flow showerheads in all showers in your house, as well as faucets, to save energy.

27 Install a water softener. Install a water softener to prevent mineral



Insulating your pipes can save you up to \$25 annually.





deposits from coating the elements, if you have hard water. This will save both energy and money, and will help prolong the life of your water heater.

Humidifiers and dehumidifiers

28 Purchase a low-wattage unit. If you're comparing dehumidifiers with the same capacity, check the wattages on the nameplates. A lower wattage unit that does the same job is the better value.

29 Humidity makes you feel warmer. Use a humidifier in the colder months. With the proper humidity level, you'll be able to turn your thermostat down to a lower temperature, save energy and still feel comfortable.

30 Dehumidifiers remove moisture. Use a dehumidifier in the warm, humid months to remove moisture

from the air. A dehumidifier works best when air can circulate freely through it. Place it away from walls and bulky furniture.

31 Place dehumidifier in the area with the highest humidity. For safety reasons, don't place it directly in water or near your sump pump.

32 Check for frost build up. If your unit is running in temperatures less than 70°F, check it occasionally to see if frost is building up on the coils. If so, turn the unit off until the frost melts and the room is warmer.

33 Clean the unit. Dust or vacuum the dehumidifier at least once a year before you plug it in. If your unit is difficult to clean, check the owner's manual.

Lighting

34 Use compact fluorescent light bulbs. Compact fluorescents are more efficient than standard incandescent light bulbs. The average incandescent light bulb lasts only six months, but a compact fluorescent light bulb can last up to six years and gives off the same amount of light as an incandescent light bulb while using a fraction of the energy.

35 Plan your lighting. Plan within a room to provide general background lighting and supplementary task lighting. Not every room needs the same amount of general light.

36 Use a single, higher-wattage bulb. Instead of using several lower-wattage bulbs, use these. Be sure not to exceed the manufacturer's recommended

Switching from incandescent light bulbs to compact fluorescent bulbs will save you money over the life of the bulb.



wattage for the fixture.

37 Control outdoor lighting.

To assure only dusk-to-dawn operation of your outdoor lights, make sure your fixtures are controlled by a photocell or a timer.

38 Don't waste lights. Turn off lights when not in use, even for short periods of time. (You might have to remind your kids more than once!)

39 Install a timer on indoor lights. Use timers to turn lights on and off.

40 Avoid long-life incandescent light bulbs. They are the least efficient of the incandescent bulbs and waste energy.

41 Keep bulbs and fixtures clean. Dirt and dust reduce light output and efficiency. (Hint: Don't clean bulbs and fixtures when they're hot and plugged in.)

42 Use light colors. On walls, ceilings and floors use light colors to reduce light costs. Light-colored rooms reflect more light so

you can use lower-wattage bulbs.

43 Position your lights properly. A good rule of thumb is to illuminate the entire activity area without creating distracting glares or shadows. Therefore, position your light source closer to the work area.

44 Adjust the light level.

Use dimmer controls, high/low switches, or 3-way bulbs to adjust the level of light to exactly what you need.



Turn off your computer and monitor when you are not using them.

Office

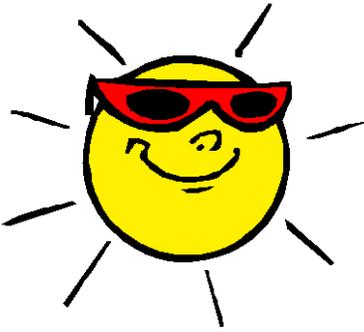
45 Purchase energy efficient equipment. Look for Energy Star® products which use less energy—they'll reduce your energy costs.

46 Install energy-efficient lighting. Use compact fluorescent lighting, which is more efficient than incandescent lighting, and will produce less heat.

47 Don't let the computer run all day. Only power-on the computer, monitor, printer and fax when you need them. Don't leave them on after you're finished work.



Cooling



Central air conditioning

48 Purchase an energy-efficient model. Select an energy-efficient central air conditioner by looking at the SEER (seasonal energy efficiency ratio) rating—the higher the rating, the more efficient the unit.

49 Hire professionals. Seek professional help in determining the size of the cooling equipment needed for your home. A contractor should measure your home to determine the size needed.

50 Replace coils. Consider changing the indoor and outdoor compressor coils when replacing an older central air conditioner to maximize efficiency.

51 Keep thermostat clear of heat. Don't position heat-producing devices such as lamps and TVs under your central air conditioner's wall-mounted thermostat. Heat rising from the device could cause the thermostat to read a temperature higher than the true room temperature and lead to overcooling of the entire house.

52 Get unit tuned-up. Have your central air conditioner tuned-up by a contractor or service technician every other year. This will prevent failures in the middle of the peak cooling season and help the unit operate more efficiently.

53 Clean and replace filter. Clean the filter monthly and replace it as needed. Your central AC uses the same

filter as your furnace. Keep condenser clear—remove and keep leaves, grass and other debris cleared away from the outside condenser.

54 Turn up the temperature. Set the room thermostat to 76°F, and higher during the sleep and work hours.

55 Keep out the sun. Close blinds, shades and drapes on the sunny side of your home during the day.

56 Cool only the rooms you use. Close unused rooms to keep conditioned air in areas where it is most needed.

57 Don't make more heat. Delay chores that produce heat and moisture until the cooler parts of the day or evening. Limit dish-

Turn off lights that still have incandescent bulbs... incandescent bulbs create 70 percent more heat than CFLs.

washing, laundering, and cooking on hot, humid days. These activities make your room more uncomfortable and require your AC to work harder.

58 Use the microwave.

Cook using your microwave oven rather than your standard oven or range. It allows less heat and humidity in the house.

59 Turn off the lights. Don't leave lights or appliances on if you don't need them. They produce heat and waste electricity.

60 Keep vents clear. Remove and keep furniture and drapes away from air vents.

61 Ventilate your attic. Remove and reduce heat buildup in your attic by having proper ventilation.

62 Keep unit out of the sun. Locate the condenser or outdoor unit of your central AC away from the sun, avoiding the south and west sides of the house.

63 Have contractor install unit away from bedrooms. Since the compressor can be noisy, have contractor install it away from bedroom windows, if possible.

Room air conditioners

64 Purchase an energy-efficient model. Select an energy efficient room air conditioner by looking at the EER (energy efficiency ratio) rating—the higher the rating, the more efficient the unit.

65 Use a timer. Consider the use of a plug-in timer to control the operation of your room air

conditioner, especially if you tend to forget to turn off the unit when you leave the house. A timer is helpful when you want the unit to start cooling just before you come home from work.

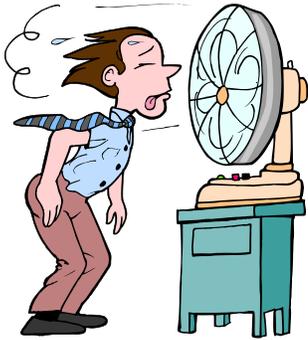
66 Purchase a unit with varying fan speeds. Select a room air conditioner with different fan speeds. This will allow faster cooling when needed and quieter, more efficient operation when it's not.

67 Keep unit centrally located. Install your room air conditioner in the window or area of the wall that is nearest to the middle of the space being cooled to allow better air circulation.

68 Seal the unit. Once a room air conditioner is in place, seal the space around it with

Using fans in conjunction with a window air conditioner will help distribute the cooled air throughout your house.





rope caulk or some other sealant so warm outside air can't leak in.

69 Don't set the thermostat at high initially.

When you first turn on your room air conditioner, set the thermostat at normal or medium. Setting it any colder won't cool the room more quickly.

70 Stay out of the sun. Locate your room air conditioner on the shady side of your home. It will operate more efficiently in a cooler location.

71 Close fresh air vent. Make sure the fresh air vent is closed when the room air conditioner is operating so you aren't cooling outside air. Open the vent when the outside air is cooler to let in fresh air.

72 Remove unit at end of cooling season. Take your room air conditioner out of the window when the cooling season is over. If you must leave the unit in place, cover the outside of the unit with a weatherproof cover and fill any cracks around the unit with removable caulk.

Fans

73 Use fans with your AC. Fans help you reduce energy costs by circulating the cool air from your air conditioner.

74 Use ceiling fans for air circulation. In hot weather, set the direction of your ceiling fan to pull the warm air up to the ceiling, away from you. In cold weather... you guessed it!... Set the direction of the ceiling fan to push the warm heated air down away from the ceiling.

75 Use a whole-house fan.

These fans are usually mounted in the attic access and are used to ventilate your entire home. Be sure to open some windows before turning on a whole-house fan.

76 Oscillate air from side to side. When placed on a table or the floor, oscillating fans work best when set to turn from side to side rather than set to blow straight ahead.

77 Maintain your fan.

Check the manufacturer's recommendations for care and maintenance of your fan. This will help control the operating costs.

Kitchen

Small appliances

78 Cook with small appliances. Cook with your toaster oven, electric skillet, popcorn popper and slow cooker for specialized jobs, rather than the range, since these small appliances use less energy.

79 Use the microwave instead. The advantage of microwave ovens is shorter cooking times—and shorter cooking times save energy.

80 Clean or replace air filters. Replace filters on exhaust hoods, humidifiers, vacuums, etc. Clogged filters impair performance and cause the units to run longer.

81 Run cold water for disposal. Cold water saves energy and solidifies

grease so that it will move through the food/waste disposal and pipes easier.

Refrigerators and freezers

82 Purchase an energy efficient model. You can save hundreds of dollars on your electric bill over the average 17-year life span of the appliance.

83 Select the right size. Determine your household's needs and then make a purchase. A unit that is too small will be overcrowded, one that is too large will waste energy.

84 Don't set the temperature colder than necessary. Set the refrigerator temperature between 36°F and 42°F. Set the freezer control so the

temperature is between -5°F and +6°F.

85 Clean the unit. Clean the dust off the condenser coils, fins and evaporator pan, and motor once or twice a year—a clean unit runs more efficiently. Unplug the unit and clean with a vacuum cleaner or long-handled brush.

86 Defrost a manual-defrost unit regularly. Frost makes your unit work harder and wastes energy. Don't allow more than one-quarter inch of frost to build up.

87 Having a second refrigerator wastes energy. You can spend up to \$120 in electricity a year. If you want to use a

Choosing energy efficient appliances for your kitchen will save you hundreds of dollars over the life span of the appliances.





second refrigerator/freezer only during the holidays and for special occasions, turn it on one to two days before you need it.

88 Stay away from direct heat. Place

refrigerator/freezer away from direct sunlight and other heat sources such as ovens or range. Heat will cause the refrigerator to use more energy.

89 Do not place unit in unheated space.

Don't place your refrigerator or automatic defrost freezer in a garage, porch or other unheated space. If the temperature drops below 60°F, the compressor may stop running, causing the temperature inside the freezer compartment to rise. Stored food could spoil.

90 Check tightness of

the seals. The refrigerator and freezer doors should seal tightly. Try sliding a dollar bill through the closed door—if you can move the bill, the seal is not tight enough.

Dishwashers

91 Run full loads. Always wait until you have a full load before running your dishwasher. Load according to the manufacturer's recommendations.

92 Use short cycles. Select the shortest cycle that will properly clean your dirty dishes.

93 Skip rinsing the dishes.

Rinsing dishes before loading them into the dishwasher wastes energy. If you must rinse, use cold water.

94 Clean the filter. If your dishwasher has a filter screen, clean it

regularly.

Ranges and ovens

95 Lower the heat. Begin cooking on a higher heat setting until liquid begins to boil. Then, lower the temperature and simmer the food until fully cooked. A fast boil doesn't cook faster than a slow boil, but it does waste energy.

96 Don't peek in the oven.

Resist the uncontrollable urge to open the oven door while baking. Every time you peek the temperature will drop 25°F. Then it will take additional energy to bring the oven temperature back up to the original cooking temperature.

97 Use retained heat. Turn off the cook top or oven a few minutes before the food has completed cooking—

Stop peeking! Opening the oven door to take a peek while baking will make the temperature inside drop 25°F.

retained heat will finish the job.

98 Select the correct size pan. Your pan size should match the surface heating unit.

99 Put a lid on it. Cook food and boil water in a

covered container whenever possible.

100 Make sure oven seals tightly. Check the seal on your oven door to make sure the door is tight. Even a small gap is enough to allow some of the oven's heat to escape.

101 Check oven temperature. Test the temperature of your oven to be sure that the temperature setting matches the actual temperature in the oven.



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