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SAVE MONEY ■ SAVE TIME ■ SAVE ENERGY



101 easy ways to save energy

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We're on for you.



Every little bit helps: **101 easy ways to save energy**

Every year, American homes waste \$13 billion in energy, or about \$150 per family. It may not seem like using a compact fluorescent light bulb or fixing a leaky faucet will do much to reduce your energy costs or protect the environment. But if every household practiced just a few conservation tips, we could reduce energy consumption by a significant amount.

These low-cost or no-cost ideas are easy ways to lower your utility bills all year long and preserve our precious natural resources. All it takes is a few minutes each month, and you'll notice a difference – and become a Power Thinker!

Look for the \$ sign to find projects that can qualify for Rebates from Alliant Energy. Find more details on page 19.

If you'd like to learn more visit our website at **alliantenergy.com** to check out other brochures:

- Choosing & Using Appliances
- Electrical & Natural Gas Safety
- Energy-Efficient Landscaping
- Heating & Cooling Your Home
- Insulation & Weatherizing Your Home
- Lighting Your Home
- New Home Construction
- Powering Your Plug-ins

You can also find great energy efficiency tips at **powerhousetv.com**.

In Iowa and Minnesota, you can find more information about rebates and energy-efficiency programs available for Alliant Energy customers at 1-866-ALLIANT (866-255-4268) or visit **alliantenergy.com/rebates**.

In Wisconsin, visit Focus on Energy, Wisconsin's statewide program for energy efficiency and renewable energy to find out about Cash-Back Rewards currently available in Wisconsin at **focusonenergy.com** or call 1-800-762-7077.

96. 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.
97. In almost every case, a natural gas appliance is more economical to use than an electric model. The \$50-75 price difference can be paid back in energy savings in less than a year.
98. Even if an appliance is still running, it might be time to replace it. An aging water heater or refrigerator could be costing you much more than you think. If your central air conditioner is more than 10 years old, replacing it with a high-efficiency new unit will cut your summer electric bills by about one-third.[§]
99. Shop during the off-season. Many heating and cooling manufacturers offer significant rebates during seasonal sales promotions, and dealers may charge less for installation.
100. Investigate new technology carefully. Some innovations, like convection ovens or argon-filled windows, may save energy and make life more convenient; others, such as commercial-grade kitchen appliances, might be merely expensive cosmetic enhancements.
101. Look for the "ENERGY STAR®" logo. This assures the appliance exceeds minimum energy-use standards, usually by a significant amount.



Look for the
ENERGY STAR label

Heating

1. Do a home energy audit. This analyzes your home's structure, appliances and insulation, as well as your family's lifestyle. To learn more, call 1-866-ALLIANT (866-255-4268) or try the online version at alliantenergy.com/energyaudit.[§]
2. Inspect your furnace filter once a month, if its dirty replace it. Dust and dirt can clog vital parts, making your furnace run harder and eventually break down.
3. Have your heating system inspected regularly. A \$50-100 annual tune-up can help reduce your heating costs by up to five percent.[§]
4. If you have a forced-air furnace, do NOT close off 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. Plus, the cold air from unheated rooms can escape into the rest of the house, and condensation can develop on windows and walls.



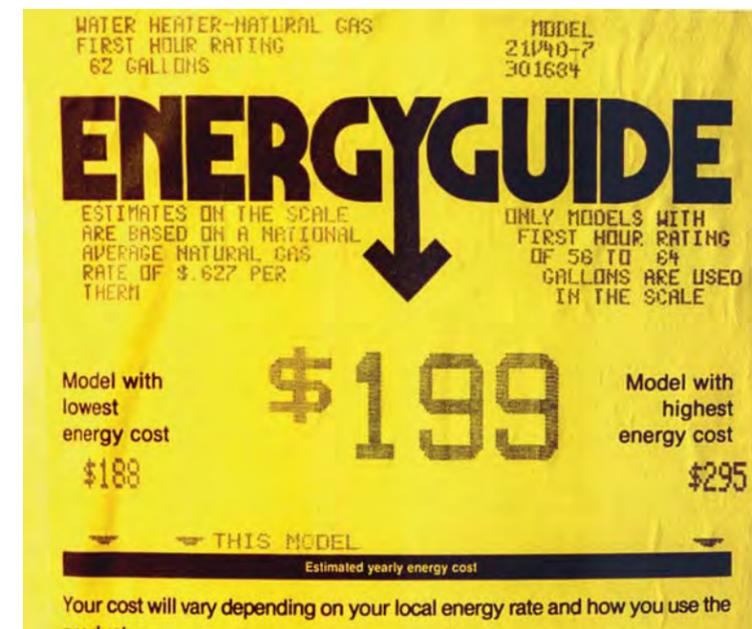
5. Install a programmable thermostat. If you use it to set back the temperature by 10 degrees for eight hours while you're asleep or away, you could lower your heating bills by 10 percent. A \$50 digital thermostat can pay for itself in energy savings in less than a year.⁸
6. Don't set the thermostat higher than you actually want it. It won't heat your home faster, and it will keep your furnace running longer than necessary.
7. Vacuum registers and vents regularly, and don't let furniture and draperies block the air flow. Plastic deflectors can direct air under tables and chairs.
8. If your home has a boiler system, avoid blocking radiators with furniture, and add a reflecting panel behind radiators. You can purchase reflectors at hardware stores, or make one yourself with plywood and aluminum foil.
9. 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.
10. During the winter, keep curtains and blinds closed at night to keep cold air out. Open them during the day to let the sun warm the room.
11. When using space heaters, be sure to turn down the furnace to reduce whole house temperature. Otherwise, you will not be saving energy.



Power Thinker Tip

The R-value of insulation, or its resistance to heat, depends on the type of material and its density. The more air pockets an insulating product has, the higher the R-value which means better insulation.

92. Give your appliances a rest when you go on vacation. Turn off and unplug everything you can. Set your water heater to the lowest setting (not below 120 degrees) and shut off the water supply to the dishwasher and washing machine.
93. Sign up for Alliant Energy's Time-of-Day Pricing. Participants pay less for energy during set hours at night and all weekend when overall demand is low. However, they also pay a premium for energy used during the day, when demand is high.
94. Many people leave their TVs on just for background noise. Consider leaving a radio on instead, a small radio makes the same sound but uses a lot less energy.
95. Always read the Energy Guide label carefully, and make sure you're comparing "apples to apples." Energy use can vary significantly even within a single brand.



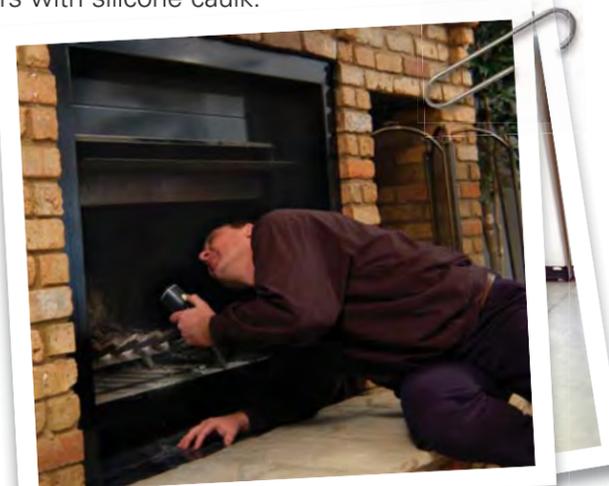
Appliances

83. Stop using that second refrigerator or freezer. A spare refrigerator can add more than \$100 to your energy bills every year.⁵
84. If you have an outdoor hot tub, keep it covered when not in use. If you have a pool, use a solar cover to let the sun heat the water.
85. Keep waterbeds covered with quilts or blankets to help retain heat. Insulate under the waterbed mattress with a sheet of rigid foam insulation.
86. Forget the screen saver, let your computer monitor go to sleep or turn it off to save the most energy.
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 percent quieter, and they significantly reduce toxic emissions.
88. Replace air-polluting and expensive charcoal or propane grills with electric or natural gas models. They're economical and more convenient – you'll never run out of fuel.
89. Turn off and unplug any electrical device that's not being used. Many appliances, especially computers, televisions and cable or satellite boxes use power even when turned off.
90. Place humidifiers and dehumidifiers away from walls and bulky furniture. These appliances work best when air circulates freely around them.
91. Reduce reliance on a humidifier by taking showers and only running the fan when needed. If vented properly, the steam naturally humidifies air.

12. If you have hardwood or tile floors, add area rugs to keep your feet warm.
13. While on vacation during the winter, leave the thermostat at 55 degrees. This will save energy and still prevent water pipes from freezing.

Fireplace

14. 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.
15. Check the seal on the fireplace 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.
16. When using the fireplace, turn down the furnace to 55 degrees. If you don't, warm air from the furnace will go up the chimney.
17. Add fire-proof caulking where the chimney meets the wall, inside and outside.
18. When the fireplace is not in use, make sure the dampers and glass doors are closed. If you never use your fireplace, plug the chimney with fiberglass insulation and seal the doors with silicone caulk.



Insulation and Air Sealing

19. Check insulation levels throughout your house. Measure attic insulation with a ruler, and check behind switchplates for sidewall insulation.
20. Install more attic insulation. Upgrading from three inches to 12 inches can cut heating and cooling costs by 20 percent.
21. Add pieces of batt insulation to the rim joists – the area along the top of the foundation where it meets the exterior walls.
22. If your basement is unheated, install blanket insulation in between exposed floor joists.
23. When choosing fiberglass insulation, the new “no-itch” or poly-wrapped products are worth the small extra cost. They’re much easier to handle and safer to work with.
24. Additional attic insulation should be installed 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.



76. Use devices like dimmers, motion detectors, occupancy sensors, photocells and timers to provide light only when needed.^s
77. Keep lamps away from thermostats; the heat produced can cause your furnace to run less than needed or your air conditioner more than needed.
78. Dust light fixtures regularly. A heavy coat of dust can block up to 50 percent of the light output.
79. Use only a single bulb in a multi-socket fixture. Be sure to check the maximum wattage the fixture allows.
80. Use solar powered landscape lighting for sidewalks and driveways.
81. Decorate with pale colors on walls, ceilings and floors. Soft tones reflect more light, and increase ambient lighting, reducing your need for lights.
82. Read light bulb packages carefully. Watts measure the amount of energy needed; lumens measure how much light a bulb produces. Energy-saving bulbs produce more lumens per watt of electricity used.



In the laundry room

68. Wash only full loads of clothes, and be sure to set the water level appropriately.
69. Use hot water only for very dirty loads, and always use cold water for the rinse cycle.
70. Clean the lint screen on the dryer every time you use the machine. A clogged lint screen can decrease efficiency in your dryer and it can be a fire hazard.
71. In the summer, dry clothes on a clothes line outside or hang dry some clothes on a rack inside during the winter.
72. Use the high-speed spin option if your washing machine offers it. The more water expelled in the washing machine makes the drying job easier.

Lighting

73. Just turn off the lights. If you are going to be out of the room for more than five minutes, turn off the light.
74. Switch to CFL (compact fluorescent light) bulbs. These bulbs use 75 percent less energy than incandescent bulbs, and they last 10 times longer.[§]
75. Invest in LED (light emitting diodes) lamps. They use even less energy than CFL bulbs.[§]



Power Thinker Tip

Compact fluorescent bulbs are great for use in hard-to-reach areas, such as hallways, closets, vaulted ceilings, etc. You won't have to climb a ladder again for years!

25. When using loose-fill insulation, be sure to distribute it evenly. Any inconsistencies can reduce the insulating value.
26. While shopping for insulation, remember that R-value measures the amount of thermal resistance. The higher the R-value, the better the insulation.[§]
27. Never cover attic vents or recessed light fixtures with insulation, and allow a three-inch clearance around chimneys and flue pipes to reduce the risk of fire.
28. Repair leaky roofs and make sure your basement is waterproofed. Wet insulation is worthless.
29. If your home has no sidewall insulation, block cold air by placing heavy furniture like bookshelves, armoires and sofas along exterior walls, and use decorative quilts as wall hangings.

Landscaping

30. Plant a tree. One well-placed shade tree can reduce your cooling costs by 25 percent. Place leafy shade trees to the south and west, and evergreens to the north.
31. Give your air-conditioner plenty of room to breathe. Make sure there is at least one foot of clearance from any shrubs or structures.



Did you know?

Before you dig call 811 at least 72 hours in advance to have a professional come locate underground utilities that could be a hazard or obstacle. It's a free service.

Cooling

32. 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.
33. When it's humid outside, close the windows – dehumidifiers end up working non-stop when windows are constantly opened and closed.
34. Use ceiling and box fans to circulate air in the house, and make sure your attic is properly ventilated. A ceiling fan should direct air downward during the summer and toward the ceiling during the winter.
35. If you use a window air conditioner, make sure it's 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.⁵
36. In summer months raise the thermostat to about 78 to 80 degrees whenever you go to bed or leave the house. A programmable thermostat will do this for you automatically.⁵
37. If your home can't accommodate central air conditioning, try a whole-house attic fan. This device removes hot air through attic vents, cooling your home about five degrees in less than ten minutes. Attic fans cost less than 25 cents per day to operate.



61. 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.
62. Use microwaves, toaster ovens, and slow-cookers when possible instead of the electric oven. They use 50 percent less energy.
63. If you have a self-cleaning oven, use this feature immediately after cooking, while the oven is still hot.
64. Use lids on pots and pans to reduce cooking times, and don't put a small pan on a large burner.
65. Keep the grease plates under range burners clean to reflect heat more efficiently.
66. Run the dishwasher only with full loads, and use the air-dry cycle. If your dishwasher has a "booster" water heater, use it; this will heat the water to the 140 degrees recommended by manufacturers, while maintaining an energy-saving 120 degrees on your primary water heater.
67. Use the right size burner on your stove. A six-inch pot on an eight-inch burner wastes 40 percent of that burner's heat.

In the kitchen

55. Check the seal on your refrigerator door by closing it on a dollar bill. Replace the gasket if you can pull the bill out easily. Appliance dealers and hardware stores sell replacement kits.
56. Don't leave the refrigerator door open. Every time it's opened, up to 30 percent of the cooled air escapes.
57. Keep the refrigerator temperature about 36 to 38 degrees, and the freezer at 0 to 5 degrees.
58. A full refrigerator runs more efficiently than an empty one, so don't be afraid to keep the pop in there. But this efficiency ends when a fridge becomes overloaded. So don't stuff and squeeze in everything.
59. Get a new refrigerator. A new Energy Star unit will use 42 percent less energy than a 30-year-old unit.
60. Don't preheat the oven on items that take many hours to bake, it's most often not needed.



Weatherize

38. During the winter, remove window air conditioners and seal the windows with caulk and weatherstripping.
39. Seal doors and windows with caulk, weather stripping, and plastic film. Doing Energy Star Home Sealing can save up to \$150 a year in energy costs.^{\$}
40. Add foam gaskets behind all outlet covers and switchplates, and use safety plugs in all unused outlets. Outlets are common sources for outdoor air to leak inside. Be sure to shut off power at the fuse box first.
41. Check for openings around your home, and then use caulk or expanding foam to seal off air leaks around your home. Be sure to check around water spigots, air conditioner hoses, dryer vents, and gas pipes for openings that need to be sealed.
42. Use heavy, lined drapes to hold back cold air coming through windows.
43. Tinted window film reduces heat gain during the summer, and limits fading in furniture and carpets.



44. Check window panes to see if they need new glazing. If the glass is loose, replace the putty (glazing) holding the pane in place.
45. If drafts sneak in under exterior doors, replace the threshold. A temporary low cost option is using a rolled-up towel or blanket.
46. If you have a door or window you never use, seal the edges with rope caulk. Don't seal them shut permanently – you might need quick ventilation or escape during an emergency.
47. 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.
48. Don't forget to weatherize the attic access. Secure batt insulation to the back of the access, and use weatherstripping to seal the opening.



Water heating

49. Take showers, not baths. A five-minute shower will use about 12.5 gallons of hot water, while filling a bathtub can use up to 20 gallons.
50. Install a water-saving showerhead. New showerheads reduce water volume while maintaining water pressure. Typical showerheads flow 2.5 gallons a minute. Low flow can go down to 0.8 gallons a minute. A typical family of four can save \$30 a year in water heating costs making the switch.
51. Fix leaky faucets. One drop per second equals more than 1,000 gallons a year down the drain.
52. Use aerators on kitchen and bathroom sink faucets. If you have hard water, clean your aerators and showerheads with vinegar to reduce mineral deposits and build up.
53. Set the water heater temperature at 120 degrees – about halfway between low and medium. This will save energy and prevent scalding, while keeping unhealthy bacteria from growing.
54. If your water heater is more than 15 years old, purchase a \$20 insulating wrap to reduce "standby" heat loss. Insulate hot water pipes where accessible.

