

50 Easy Ways to Save Energy

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 building owner practiced just a few simple conservation ideas like the 50 easy ways to save below, we could reduce energy consumption by a significant amount.

All it takes is a few minutes each month, and you'll notice a difference - and make a difference!

GETTING STARTED

1. **Do a building energy audit.** This survey analyzes your building's structure, appliances and insulation. This will provide specific ways to save energy throughout your building.

HEATING YOUR BUILDING

2. **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.
3. **Have your heating system inspected regularly** - especially if it's natural gas. 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 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 building, reducing the effectiveness of all your insulating and weatherizing.
5. **Install a programmable thermostat.** If you use it to set back the temperature by 10 degrees for eight hours every night, you'll lower your heating bills by 10 percent. A \$50 digital thermostat can pay for itself in energy savings in less than a year.
6. **Don't set the thermostat higher than you actually want it.** It won't heat your building any 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. Inexpensive plastic deflectors can direct air under tables and chairs.
8. **If your building 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 improvement center or make one yourself with a plywood panel and aluminum foil.
9. **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.
10. **Avoid using space heaters,** including electric, kerosene or propane models. Not only are they expensive to operate, they're also very dangerous.

INSULATING YOUR BUILDING

11. **Install more attic insulation.** Check insulation levels throughout your building. Measure attic insulation with a ruler, and check behind switch plates for sidewall insulation. Upgrading from 3 inches to 12 inches can cut heating costs by 20 percent, and cooling costs by 10 percent.
12. **Add pieces of batt insulation to the rim joists** - the area along the top of the foundation where it meets the exterior walls.
13. **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.
14. **When using loose-fill, be sure to distribute the insulation evenly.** Any inconsistencies can reduce the insulating value.
15. **While shopping for insulation,** remember that R-value measures the amount of thermal resistance. The higher the R-value, the better the insulation.
16. **Have a leaky roof repaired and make sure your basement is waterproofed.** Wet insulation is worthless.

AIR CONDITIONING YOUR BUILDING

17. **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.
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. **Plant a tree.** One well-placed shade tree can reduce your cooling costs by 25 percent. For maximum benefit, place leafy shade trees to the south and west, and evergreens to the north.
20. **Use ceiling fans** to help circulate air when the space is occupied, and make sure your attic is properly ventilated (whether it's enclosed or vented to the outside). A ceiling fan should run clockwise during the summer and counter-clockwise during the winter.
21. **Raise the thermostat to about 78 to 80 degrees** whenever you leave the building. A programmable thermostat will do this for you automatically.

WEATHERIZING YOUR BUILDING

22. **Seal doors and windows with caulk, weatherstripping and plastic film.** An investment of \$50 in weatherizing supplies can reduce heating costs by two to three times that much.
23. **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 building. Be sure to shut off power at the fuse box or circuit panel first.
24. **Check the exterior of your building for air leaks,** especially around openings for windows, doors, water spigots, air conditioner hoses, dryer vents and gas pipes. Use caulk or expanding foam to seal spaces.

25. **Reflective window film** can help reduce heat gain during the summer, and it will keep furniture and carpets from fading.
26. **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.
27. **If drafts sneak in under exterior doors, replace the threshold.**
28. **Seal the edges of unused doors and windows with rope caulk.** Don't seal them shut permanently - you might need quick ventilation or escape during an emergency.
29. **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.
30. **Don't forget to weatherize the attic access.** Secure batt insulation to the back of the hatch or door, and use weatherstripping to seal the opening.

WATER HEATING

31. **Set the water heater temperature at 120 degrees** - about halfway between low and medium. This will help save energy and prevent scalding, while keeping unhealthy bacteria from growing.
32. **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.
33. **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.

LIGHTING YOUR BUILDING

34. **Switch to compact fluorescent light bulbs.** These bulbs use 75 percent less energy than typical incandescents, and they last 10 times longer.
35. **Use lighting control devices** like dimmers, motion detectors, occupancy sensors, photocells and timers to provide light only when you need it.
36. **Keep lamps away from thermostats;** the heat produced can cause your furnace to run less than needed or your air conditioner more than needed.
37. **Dust light fixtures regularly.** A heavy coat of dust can block up to 50 percent of the light output.
38. **Replace an incandescent outdoor light or high-intensity floodlight** with a high-pressure sodium fixture. The bulbs will last longer, use less energy, and handle temperature extremes better.
39. **Use low-voltage lighting kits** to light walkways, patios and decks. The soft light will also attract fewer annoying insects.
40. **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.

OTHER ENERGY SAVERS

41. **Unplug any electrical device that's not being used.** Many appliances, especially computers and televisions draw power even when turned off.
42. **When your building is vacant for the weekend, 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 other appliances.

BUYING NEW APPLIANCES

43. **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.
44. **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.
45. **Choose the capacity that's right for your business.** Whether it's a furnace or an air conditioner, it doesn't pay to purchase a unit that's too large or too small.
46. **In almost every case, a natural gas appliance is more economical** to use than an electric model. The price difference can usually be paid back in energy savings in less than a year.
47. **Replace inefficient appliances** - even if they're still working. 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.
48. **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.
49. **Look for the "EnergyStar" logo.** This designation from the Environmental Protection Agency means that the appliance exceeds minimum federal energy- use standards, usually by a significant amount.
50. **Don't forget to get a great warranty.** Also don't forget to ask about service contracts, and delivery and installation costs.