



ENERGY

Easy and Inexpensive Home Energy Ideas no. 10.619

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Quick Facts...

There are many easy and inexpensive ways to conserve energy in your home, and keep money in your pocket.

Controlling your thermostat at energy efficient, yet comfortable, temperatures is the easiest way to cut down energy costs.

Other ideas include lowering your water temperature, insulating the water heater, plugging leaks, installing storm windows, cleaning your furnace filter, using a low-flow showerhead, washing with cold water, maintaining appliances, and using compact fluorescent lamps.

Coloradans are affected by rising energy costs and a growing concern that we need to start living a more sustainable lifestyle. A great place to start is reducing energy use in your home. Below are 10 easy and inexpensive home energy ideas to save on your energy bill by as much as 40 percent, and in the process, conserve natural resources.

Control Your Thermostat. You can reduce your heating bill by keeping your thermostat at an energy efficient and comfortable setting during the day and turning it down at night when you go to bed and when you are away from home. A recommended temperature is 68 F during the day and 60 F when you are sleeping or away during the heating months. You can save about 1 percent for every degree you lower your thermostat. If you feel chilly, try putting on a fleece or using a blanket while watching TV.

Lower Your Water Temperature. Your hot water is probably hotter than what you need. Most water heaters are set at 140 F, which is needed only if you have a dishwasher without a booster heater. Turn the temperature down to 120 F (medium setting on a gas heater dial), and you can reduce your water heating costs 6 percent to 10 percent. Many electric heaters have both an upper and a lower thermostat to adjust. Be sure to turn the electricity off at the circuit breaker first before adjusting an electric water heater.

Insulate Your Water Heater. Wrapping your water heater tank in a blanket of fiberglass insulation can reduce heat loss 25 percent to 45 percent, resulting in a savings of 4 percent to 9 percent on your water heating bill. Water heater jacket kits are available for \$20 to \$30 at your local hardware store or through your utility company. Read and carefully follow the installation directions. It is especially important not to block air intakes and exhaust vents on gas models, and thermostat access panels on electric heaters with insulation. Insulation wraps and jackets work well for older water heaters and those located in unheated areas. An insulation wrap might not be recommended for newer water heaters that are already well-insulated, so check your water heater manual.

Plug Leaks. You can reduce your home's heat loss quickly and easily with inexpensive materials. To reduce air leakage under exterior doors, buy an inexpensive door sweep. If your door leaks around the entire frame, install foam weatherstripping with adhesive backing between the door and the frame. If you do not use your fireplace much and it does not have a door, make sure the damper is closed and the opening is sealed. Cardboard and tape can effectively do the job. Use caulk to seal along the basement sill plate and around door and window frames. Also seal small holes around water pipes and stuff or spray insulation into larger holes around plumbing fixtures. Heat also leaks out of light switches and



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References

Energy Star, www.energystar.gov

Montana Weatherization Training Center,
www.weatherization.org/energytopics.htm

University of Georgia Cooperative
Extension, www.fcs.uga.edu/ext/housing/wew.php

U.S. Department of Energy, www.energy.gov/energyefficiency/buildings.htm

Washington State University Cooperative
Extension, www.energyideas.org

Xcel, www.xcelenergy.com/residential/saveenergy_money

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electrical outlets. Inexpensive foam gaskets that fit behind the cover plates easily solve this problem. Every hole you plug means fewer drafts and lower heating bills.

Install Storm Windows. On windows, use clear weatherstrip tape along the gap where the glass meets the frame and seal any cracks. On double-hung windows, tape over the pulley hole and use rope caulk between the upper and lower windows. Once you have sealed air leaks around your windows, you can double their insulating value by installing storm windows. This is especially important if you currently have single-pane windows. Adding another layer of glass or plastic creates a dead air space, and trapped air is a good insulator. Plastic film window kits are the lowest cost option and can be easily installed on the inside of your existing windows. Be sure the air space is at least 1/2 inch and not more than 4 inches.

Clean or Replace Your Furnace Filter. All forced air furnaces have filters that keep dust and dirt from blowing into your house. If they are not periodically cleaned or replaced, dirty filters can greatly affect the furnace's heating ability and waste energy. Some filters are disposable, while others can be washed and reused. Do not reuse disposable filters. A new filter can often be purchased at a low cost. Clean or replace your furnace filter(s) every one to three months during the heating season.

Use a Low-Flow Showerhead. A standard showerhead sprays you with up to 8 gallons per minute of warm water. Replacing it with a quality low-flow showerhead allows you to use only 1 to 2 gallons of water per minute. Most people hardly notice a difference, except in their utility bill. Low-flow showerheads cost between \$10 to \$50 and quickly pay for themselves by reducing water consumption and energy used to heat the water.

Wash with Cold Water. Water heating accounts for about 90 percent of the energy used by washing machines. Washing in hot water costs 20 to 40 cents per load. That adds up and is unnecessary, except for special loads such as diapers or stained clothes. Energy-wise it makes sense to wash in cold water using cold water detergents, and wash full loads whenever possible. You might also hang wet clothes on an indoor or outdoor clothes line to save dryer electricity.

Watch Your Appliances. Refrigerators cost \$5 to \$8 per month to operate and account for 6 percent of your home's total energy use. To keep out warm room air, keep the refrigerator door closed as much as possible. It also helps to regularly clean dust out of the coils and to minimize freezer ice build-up. Keep the refrigerator compartment at 35 to 40 F and the freezer compartment at 0 to 5 F. Keep a stand-alone freezer set at 0 F. Having a refrigerator with automatic moisture control can also help keep energy use down. Some other ideas are to cook small meals in a microwave and to shut off your TV or computer when not in use. Use a switchable power strip to prevent "ghost loads" that draw electricity even when an appliance is not turned on. Run the dishwasher only with a full load and then air dry your dishes. When the time comes to purchase a new appliance, make sure it is Energy Star rated.



Replace Your Lighting. Turn off lights when not in use, and use task lighting whenever possible. Replace your incandescent light bulbs with compact florescent lamps (CFLs), especially in frequently used light fixtures. While CFLs cost more than regular incandescent bulbs, they last much longer, use less energy, and produce less heat for the same amount of light. In the long-run CFLs reduce your energy bill and quickly pay for themselves.