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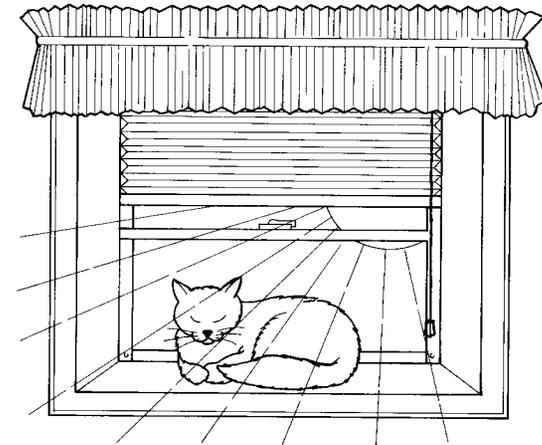
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A Resident's Guide to **Cold Weather** Energy Savings:

Lowering Utility Bills
without Losing Comfort



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and

Virginia Judd

Kouba-Cavallo Associates, Inc

Dedicated to those for whom
the low operating cost of housing is not a luxury.

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Internet-based Information Sources

Home Energy Magazine
www.HomeEnergy.org

Energy Star Information
www.EnergyStar.gov

U.S. Department of Energy
Energy Efficiency & Renewable Energy:
www.eere.energy.gov

Save Energy and Money at Home:
www.EnergySavers.gov

Energy Savers Booklet
www.eere.energy.gov/consumer/tips/

American Council for an Energy-Efficient Economy
www.ACEEE.org

Advanced Energy
www.AdvancedEnergy.org

Rocky Mountain Institute
www.RMI.org

Alliance to Save Energy
www.ASE.org

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Books on Energy Efficiency

These may also be found at your public library

Residential Energy: Cost Savings and Comfort for Existing buildings

John Krigger, Chris Dorsi

The Complete Book of Home Inspection

Norman Becker

Consumer Guide to Home Energy Savings

American Council for an Energy-Efficient Economy

available from www.ACEEE.org
or call 202-429-0193

The Healthy House

John Bower

Insulating, Sealing & Ventilating Your House

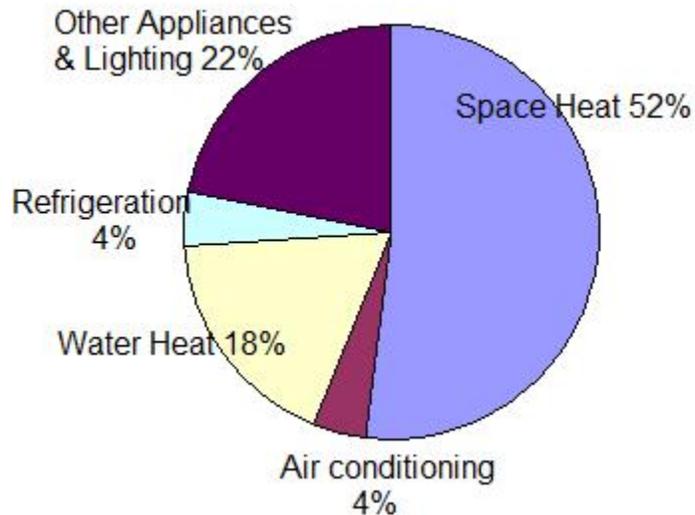
William P. Spence

Saving Energy Saves Money

No one likes paying their utility bill. So why do millions of Americans pay more than they need to? The typical family spends about \$1,900 each year on heating and cooking fuels, electricity, and water. But that same typical family could save energy and water totaling almost \$600 annually and put that money to other good uses. This booklet contains ideas on how you can save energy around your home. Whether you live in a single family house or an apartment building, there are things that you can do to keep money in your pocket rather than letting it go to utility bills. You'll also learn that saving energy doesn't require you to lose comfort.

How Do You Use Energy?

Typical Midwest Energy Use in the Home



It's probably no surprise that the largest share of energy consumed around the home is used to heat and cool the air around you. If you had to pick one place to start saving energy, lowering your heating and cooling bills would make sense. But there are other areas where savings can be found, including conserving hot water and using efficient lights and appliances.

6. Hot water shouldn't be too hot. Have your water heater set no higher than 120°. Water hotter than that can be a scalding hazard.

7. Use your exhaust fans whenever you are in the bathroom. Showers can create excess moisture that will lead to mold or mildew. Also be sure to use the exhaust fan in the kitchen when cooking.

8. Don't store things in your furnace room. They can be a fire hazard.

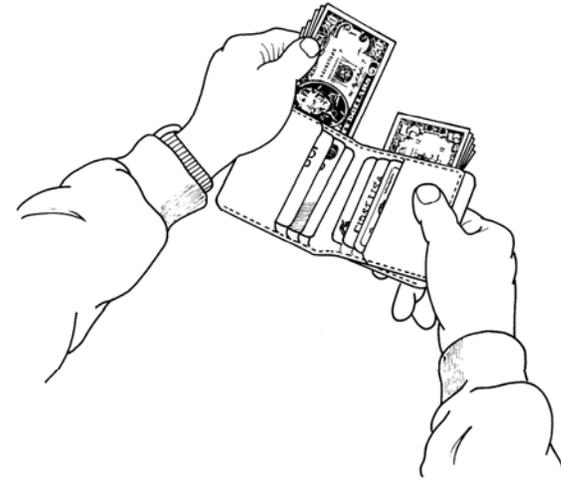
9. Whenever a light bulb burns out, replace it with a compact fluorescent light bulb.

10. Set your refrigerator to keep your food at 38°. Don't let the food compartment get too cold; it will freeze your fruits and vegetables and waste energy.

Tips for Saving Money and Maintaining Comfort

1. Don't use your stove to heat your home.
2. Don't open your windows to cool your house or apartment in winter. Turn down the thermostat or turn off a radiator.
3. Set your thermostat lower when you sleep or are leaving home for extended periods of time. Dialing down your thermostat can save up to 10 percent on your heating bill.
4. Keep your duct registers or radiators clean and clear. Don't block the heat from getting to you.
5. Open your shades to let in the sun during the daytime. Close your shades at night to keep in the heat.

The Problem of Energy Waste



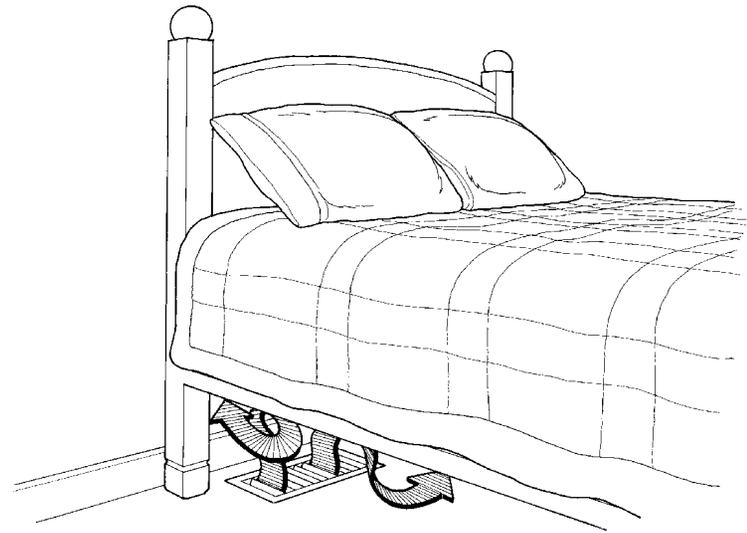
The main object of this booklet is to help you save money, but reducing energy waste without reducing your comfort is also good for the environment. Every time you save electricity, natural gas, or some other fuel, you reduce pollution. So with energy conservation, you save money and the environment.

Develop a Plan

Capturing your energy savings can take some planning. You should start by reading through this booklet and looking around your home. Ask yourself: Are there some simple, low-cost things that can be done? Almost certainly the answer will be “yes.” But you probably can also find energy conservation actions that have some cost connected with them. You may want to have an energy audit done on your home. If you do, ask the technician to give you a list of the energy measures that make sense for your home, the order in which the measures should be implemented, and the things you can do yourself. Get one of the books listed on page 22 of this booklet and plan your actions intelligently.

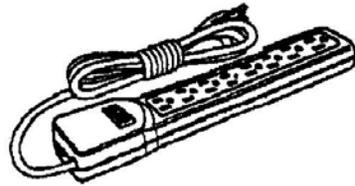
Bring the Heat to You

Your furnace or radiators work best when you let the heat get to you. Be sure your furniture is not blocking the way for warm air to circulate. Move your bed, sofa, chair, or bookcase away from the heat vents or radiators. You’ll be warmer!



Don't block the air you have paid to heat!

Use Power Strips to Fight Phantom Load



Many electric devices around your home are never really turned off. TVs, VCRs, and DVD players usually have “instant on” features that use electricity both day and night whether you are watching them or not. One way to fight this phantom electric usage is to connect all of your entertainment devices to a power strip. When you are not using them, flip the switch off. Then you can be sure they aren’t sucking up your electricity while you are sleeping.

You should also make sure your computer and its monitor, speakers, and printer are turned off when not in use. It’s a costly myth that turning them on and off will burn more electricity than leaving them on.

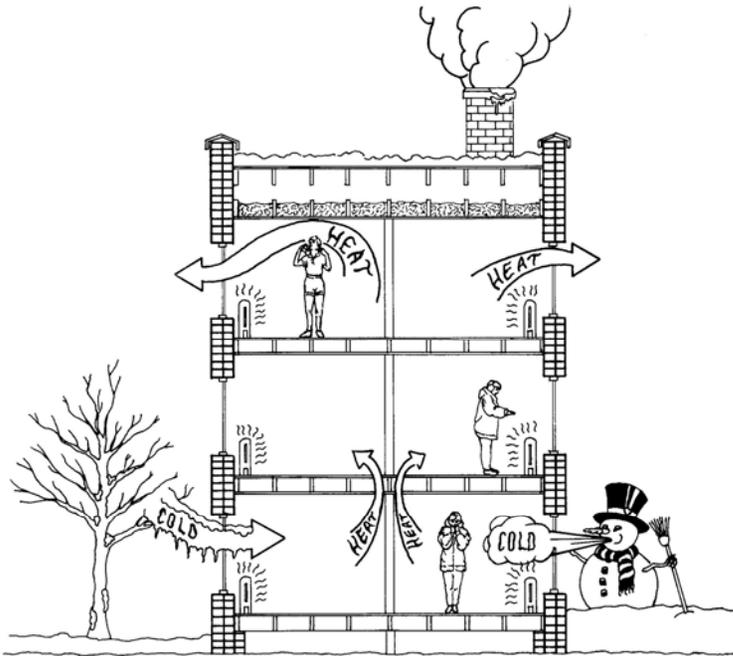
Keep the Heat In with Insulation

On a cold night, you can feel warm in bed if you are under a thick blanket. The same is true for your whole building if you have a thick layer of insulation in the walls and attic. All the heat your furnace or boiler generates with the heating fuel you pay for won’t help you one bit if it quickly moves through uninsulated walls and ceilings.

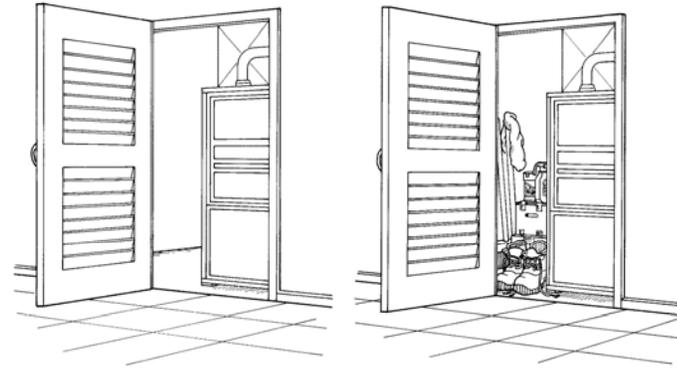
Insulation is rated by its resistance to heat movement with an R-value. In most parts of the U.S., the insulation in the walls should be at least R-13. At a minimum, attics should have R-38 (12 inches of fiberglass) in the Midwest states. Though it may be difficult and costly to add insulation to your walls, adding insulation to attics can be easy and will pay for itself in large energy savings in winter and in summer.

Tighten Up Your Home

One of the biggest sources of energy waste and reduced comfort in a home is cold air sweeping in through holes and cracks. Cold air can enter down low at the same time warm air escapes up high. Sealing those holes and cracks can be easy and inexpensive while adding to the comfort that you feel in your home.



Furnace Room Safety is Important



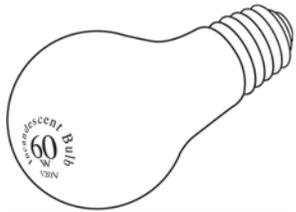
Good Idea

Bad Idea

You should think before loading up your furnace room with lots of boxes, shoes, mops, cleaning supplies, and other clutter. Items stuffed close to a furnace or water heater are fire hazards. It is a **bad idea** to use your furnace room as an extra closet. A **good idea** is to keep the area around your furnace and water heater clear. That also makes it easy to change the filter frequently!

Save Electricity with Efficient Lights

One of the best ways to save money on your electricity bills is to switch from incandescent lights to compact fluorescent lighting. Compact fluorescent bulbs (CFLs) use from 60% to 75% less energy and last about 10 times longer!



Replace any incandescent bulbs (like the one above) in a high use area with a compact fluorescent (like the one to the right). High use areas are usually kitchens, TV rooms, family rooms, and porches - or any light left on for more than 2 hours a day.



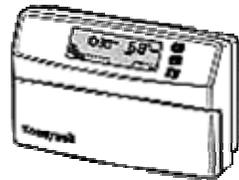
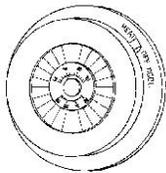
Here's what to do:

1. Find the problems: On a windy day, feel around windows, doors, and exterior walls - especially near the floor and around electrical outlets.
2. Weatherize your home: Use caulk and weatherstripping to seal up the holes and cracks that you find. Caulk is cheap, and so is weatherstripping! You can save 10 % of the energy you use to heat your home by tightening up around windows, doors, and other places where cold air comes in and warm air escapes.
3. Ask for help: If you find that there are major drafts in your home, get help. Ask for an energy audit or home energy rating by a professional who can test your home.

Set Back Your Thermostat at Night

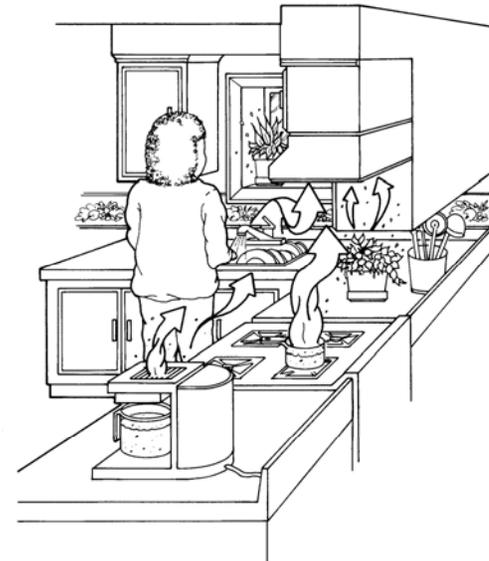
It's a myth that you can save energy dollars by leaving the temperature constant during the night rather than dialing your thermostat down while you are sleeping. Lower the temperature on your thermostat at least 5 degrees when you go to bed. You can also save money by dialing your thermostat down 5 degrees when you leave for work, school, or other daytime activities. You should adjust the thermostat whenever you go out for more than 3 hours.

A programmable thermostat allows you to preset high and low temperatures for nights as well as work/school days to consistently capture energy savings.

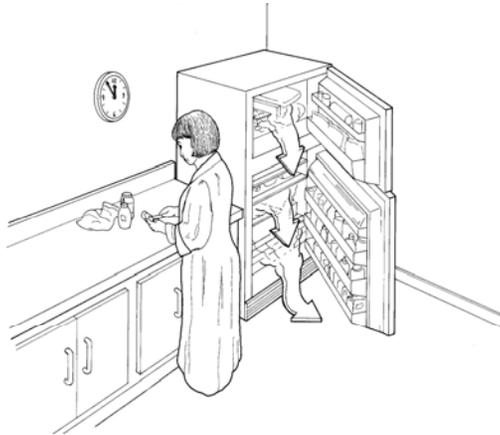


Kitchens Offer Energy Saving Opportunities

You can save money by buying appliances that have the Energy Star label. And when you are cooking, don't forget to use lids on the pots. Food will cook faster and with less energy waste.



Refrigerators Use Lots of Energy



In many homes, the refrigerator is the largest electricity-using appliance. That's not a surprise when you think that it is operating 24 hours a day, 7 days a week. Help your refrigerator use less energy by doing the following:

1. Close the refrigerator door after use.
2. Do not leave the door open while deciding what to eat.
3. Keep the food compartment no colder than 38°.

Is Energy Flying Out of Your Windows?

Windows provide free light, but they can waste energy too. If you feel drafts next to your windows, here are things you can do:

1. Close your curtains and shades after the sun goes down; open them during the day.
2. Tape clear plastic sheets up on the window frames. Many hardware stores sell special kits that are easy to put up and fit tightly on the windows.
3. Put up tight-fitting insulated window shades or thick drapes.



Save Water and Energy



You can save energy and lower your utility bills by reducing your hot water usage. It takes energy to heat water! Water heating is often the 2nd largest energy expense in your home after space heating. Also:

- Fix leaky faucets.
- Don't let hot water run unnecessarily: for instance, turn off the faucet after washing hands or while hand washing dishes.
- Take short showers: it will save hot water and will also reduce the moisture in the air that can lead to mold and mildew.
- Set your water heater no higher than 120°: this also will reduce the risk of scalding and will slow mineral buildup and corrosion in your water heater and pipes. And turn it down to vacation setting if you will be gone for at least 3 days.

Use Your Exhaust Fans

The exhaust fans in your bathroom and kitchen play an important part in keeping your home clean and comfortable. Run the fans when taking showers or cooking. The fans vent moisture and odors out of your home to keep it free of mold and mildew.

