

Energy Savings Tips for the home:

Cooking

- When cooking on an electric range, use pots and pans that are properly sized to “fit” the burners. Using a small pan on a large burner wastes energy and can be a safety hazard. Always cook with lids on your pans, as this keeps the heat inside and speeds up cooking time.
- A microwave oven is an energy efficient alternative to a conventional oven. It cooks food more quickly and uses 70-80% less electricity than a conventional oven.
- Use a toaster oven, electric skillet, popcorn popper or slow cooker for specialized jobs, rather than the electric range top, since these small appliances use less energy.
- Use cold water when operating your food/waste disposal. Cold water saves energy and solidifies grease so that it will move through the drainpipes easier.
- If you have three dishes to be cooked in the oven at slightly different temperatures (325°, 350° and 375°, for example), pick the average temperature (350° in this example) to cook all three dishes at the same time.
- Try to avoid peeking at the food you are baking in the oven. Each time you open the door, the oven temperature is lowered 25 degrees.

Kitchen Appliances

- Refrigerators are big energy users. If your refrigerator door does not shut tightly, check the door seal to see if it needs to be cleaned or replaced. A door leak allows cool air to escape, forcing your refrigerator to use more energy to keep food cold.
- Check temperature settings for the most efficient appliance operation. Refrigerator temperature should be 36-38 degrees and freezer temperature should be 0-5 degrees.
- Arrange items in your refrigerator for quick removal and return. Your refrigerator cools the food but heats the kitchen. The longer the door is open, the longer the refrigerator compressor runs, heating the kitchen and raising your cooling costs.
- Eighty percent of the energy used in an automatic dishwasher goes toward heating water. Significant savings take place by running the dishwasher only when it is full. Running a half-filled dishwasher twice uses two times as much energy as running a full load once.
- Be sure to load the dishes in their proper locations. Scrape dirty dishes with cold rather than hot water.
- Flip the switch to air dry on your dishwasher or open the door after the washing cycle is complete and save 50% of the energy used to run the dishwasher.

Laundry

- Ninety percent of the energy your washer uses goes toward heating water. You can save energy dollars by using hot water only for heavily soiled laundry. Most laundry can be washed in warm water and lightly soiled loads can be washed in cold water. You can also save by using cold water rinses for each load, because the temperature of the water used during the rinse cycle will not make your clothes any cleaner.
- Doing full loads of laundry in the washer saves both energy and water. Sort and organize your laundry so that you will be doing full loads. Be careful not to overload the washer. Your clothes may not get fully clean and may need to be washed again.
- In your dryer, don't over dry clothes. Besides using more energy than is needed, over drying is hard on fabrics.
- Clean the dryer's lint filter after each use. That allows the air to circulate efficiently. The harder it is for air to circulate past your clothes, the longer the dryer must run.
- If remodeling, locate the clothes dryer in an uncooled utility room, basement or garage. In a 1,500 square foot house with eight-foot ceilings, a 200-cubic-feet-per-minute dryer located in an air-conditioned utility room and vented to the outdoors can empty a houseload of air every 60 minutes of operation. In summer, that's a lot of expensively cooled house air being heated by the dryer and blown out. Also, consider hanging clothes outside to dry.

Water Heating

- Purchase the correct size water heater. Consider the hot water 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.
- Set water thermostat to 120 degrees. You can measure this by placing a thermometer in the flow of hot water at your kitchen or bathroom sink.
- If the doors to the closet that houses your hot water heater have louvers or grills, do not cover or set anything in front of them.
- Wrapping a fiberglass blanket around your electric water heater and securing it with duct tape, or installing a ready-made insulation kit can save up to 10% on water heating costs. Most new water heaters are already insulated, so this tip is most effective for electric water heaters that are more than five years old. Also, insulate hot water pipes to reduce heat loss as the hot water is flowing to your faucets.

Home Cooling

- Plant shade trees. Outside shade can reduce air conditioning costs 30%.
- Whole-house fans can be installed in the attic or ceiling to pull fresh air through the house – usually at night when it's cooler. Although a whole-house fan does not eliminate the need for air conditioning, it can minimize air conditioning use.
- The location of an air conditioner has a lot to do with how efficient it will be. If you have a choice, locate your unit on the north, east or the best-shaded side of your home. If the unit is exposed to direct sunlight, it has to work much harder and use more energy to cool your home. Keep shrubbery away from the air conditioner since it blocks vents and reduces the unit's ability to exhaust air.
- If you have ceiling fans, run the fans and the air conditioner at the same time, but set the air conditioner a few degrees higher, to 80 or 81 degrees. With a breeze from the fans, you should feel as cool as you would at 78 degrees with no fans.
- Make sure your air conditioner is the proper size for the area you are cooling. The wrong size air conditioner will use more electricity and increase your energy bills. A unit that is too large for a given area will cool the area too quickly, causing the air conditioner to frequently turn itself on and off. If a unit shuts off quickly, chances are it hasn't been running long enough to reduce the room's humidity and you'll be uncomfortable. If your air conditioner is too small, it will run constantly on hot days without ever getting good results.
- On very hot days, you can save energy by closing the fresh air intake on your room air conditioning unit. Cooling fresh, warm outside air requires more electricity than re-cooling the air that is already circulating in your home.
- Depending on the size of your home, you can save 3% on your cooling costs for every degree you raise your thermostat in the summer. Raising the thermostat from 73 to 78 degrees can mean savings of up to 15% in cooling costs.
- Don't choose a lower air conditioning temperature when you first turn it on. It won't cool faster – whenever it's running it's cooling as fast as it can. Set low, it cools longer, not faster.
- Change the air conditioner's air filter monthly during heavy use. When it's clogged, airflow is restricted – cooling costs rise, and your system may eventually suffer a compressor failure.
- 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.
- Use light colors when painting house and trim.
- On hot summer days, the temperature in your attic can reach 150 degrees. Improving the ventilation in your attic will lower the temperature of the entire house and make your air conditioner's job a lot easier. Installing an attic fan that is controlled by a thermostat to exhaust the hot air can greatly improve the comfort of your home.

Home Heating

- Keep fireplace dampers closed when they aren't needed. Warm air will rise up the chimney and escape when the fireplace is not being used. Fireplaces with glass doors are most efficient.
- Drapes save energy effectively only if they fit tightly against the window and the floor. Usually this means a valance at the top, side guides and a weighted hem. Or, try adding in edge seals such as Velcro or magnetic

strips. Other window coverings can be effective energy savers, but only if they fit snugly on the windows. Even a vinyl shade can cut heat loss in half. More elaborate shades, such as quilted curtains, can cut those losses by 80 percent. Venetian blinds are the least-effective energy savers because they have so many gaps.

- Keep draperies and shades on south-facing windows open during the heating season to allow sunlight to enter your home. Close them at night to reduce the chill you may feel from cold windows.
- Set your thermostat to the lowest comfortable setting. Keep the temperature fairly constant, as frequent changes will use more energy.
- Clean or replace furnace filters once a month or as needed.
- Clean warm-air registers, baseboard heaters and radiators as needed. Make sure furniture, carpeting or drapes do not block them.
- Use kitchen and bath ventilating fans wisely. Turn these fans off as soon as they are no longer needed. In about one hour, these fans can pull out a houseful of warmed air.
- About 10-15% of heat loss occurs through the attic. In Wisconsin, 15-20 inches of insulation are recommended (R-49).
- Instead of turning up the heat, put on a sweater or sweatshirt. Keep a throw or blanket near your couch or favorite chair for extra warmth while reading or watching television.
- Evergreens on the north side of your house can provide shelter against cold winds and can lower your heating bill. If you plant in the fall, make sure you plant a tree with a root ball to ensure it survives the winter.
- Remember to remove window awnings in the fall. The shade they provide will make it harder for your home to remain warm.
- Storm windows and doors are energy and money savers. They can reduce heating costs by as much as 15% by preventing warm air from escaping to the outside. Double glazed and thermopane windows or even clear plastic across windows can also help minimize heat escape.
- Insulate heating ducts and hot water pipes that provide heat to the rooms in your home. This will reduce heat loss in uninsulated areas and will help your heating system work more efficiently.
- Seal cracks between the frame and the siding around doors and windows with caulk. Up to 15 % of the energy you pay for can be lost through these areas. Place your hand at the bottom of the exterior doors in your home. If you feel cold air, then you are losing heat. A temporary measure to stop heat loss involves simply rolling a towel and placing it up against the bottom of the door.

Lighting

- Make a habit of turning off lights as you leave a room, especially in summer. Lights add a lot of heat to the room – 99% of a light's energy use is converted to heat, 1% to light. Use only as much light as you need.
- Keeping lights and fixtures clean can improve efficiency as much as 20%.
- Take advantage of reflected light by placing portable fixtures near light colored walls or other surfaces.
- Replace incandescent light bulbs in high use areas with compact fluorescent ones. They use up to 70% less energy and last up to 10 times longer.
- Lighting accounts for about 15% of a home's electric use. Compact fluorescent bulbs can replace the incandescent ones most commonly used. Fluorescent bulbs are more expensive, but they last 10 times longer and use 75% less electricity.
- Consider using task lighting (lighting directed at a specific area) instead of overhead or general lighting, which may light unused areas of the room. By limiting lighting only to areas where it is needed, savings in the cost of bulbs and energy can be made.