



HELPFUL WAYS TO SAVE MONEY AND ENERGY



SAVING ENERGY AND MONEY IN YOUR HOME

The major energy users in your home— heating system, air conditioning, water heater, refrigerator, dryer, lighting — all contribute to your overall utility bill.

This brochure offers tips to help you use them more efficiently, lower your energy use and save money on your monthly energy bill.

SEALING AIR LEAKS

- Insulate your attic floor or top floor ceiling to a minimum of R-49. R-values indicate the resistance of an insulation material to heat flow. The higher the R number, the more effective the insulating capacity. R-values appear on the packages of insulation materials.
- Don't insulate over eave vents or on top of recessed lighting fixtures or other heat producing equipment on the attic floor. Also keep insulation at least 3 inches away from the sides of these types of fixtures.
- Insulate heating and cooling ducts in unheated or uncooled areas.
- Don't let air seep into your home through the attic access door. Check the door to make sure it is well insulated and weather stripped— otherwise, you'll be wasting fuel to heat or cool the attic.
- Test windows and doors for air tightness. Add weather stripping and caulk where necessary.
- Install storm windows. Combination screen and storm windows (triple-track glass combination) are the most convenient because they can be opened easily when there's no need to run heating or cooling equipment.

WATER HEATING

- Buy a high efficiency water heater. When you need a new water heater, purchase a unit with a high Energy Factor (EF) rating. EF ratings such as those of 91 and above correspond with greater efficiency. The higher the rating the more efficiently the unit will operate.
- Purchase the correct size heater. Consider your family's hot water needs. If your water heater is too large, it uses more energy than needed. If it is too small, you may run out of hot water.
- Install your water heater near the kitchen. The kitchen is where you use the hottest water. When the water heater is located near the kitchen, hot water doesn't have to travel as far and less heat is lost.
- Install a heat loop or in-line trap. If you add a new water heater to your home, consider having a heat loop or in-line trap installed. These mechanisms can be inexpensive to install and keep hot water from moving into the piping system when you are not using hot water. Ask your plumbing contractor for details.
- Turn down the water heater temperature dial to 120 degrees F, or to the "warm" setting if you have a dishwasher. Be sure to check your manufacturer's instructions for minimum water temperature.
- Insulate the outside of your electric water heater with an insulation blanket to reduce heat loss. Also insulate water pipes with half-inch foam or pipe tape for insulation wherever pipes are exposed. On cold water pipes, insulate four to five feet nearest to the water heater. If you use a gas hot water heater, be careful not to cover the water heater's bottom, thermostat, burner compartment or the flue at the top. Follow the manufacturer's recommendations.

- Consider natural gas on-demand or tankless water heaters, which heat water directly without using a storage tank. You can save up to 30% compared with a standard natural gas storage tank water heater.

YOUR HEATING SYSTEM

- Keep your heating equipment well tuned with periodic maintenance by a professional service representative.
- Set your thermostat at 68 degrees F during the day and 60 degrees F at night. You can save 3 percent on your heating costs for every degree you reduce the temperature below 70 degrees F for the entire heating season. Special advice to heat pump owners: heat pumps need to stay at a constant setting unless you have a programmable electronic heat pump thermostat with adaptive recovery. Check with your heating or air conditioning contractor to determine the type of thermostat you have.
- If you have a simple open-masonry fireplace, consider installing a glass screen, a convective grate, a radiant grate or a fireplace insert. They'll help cut down on the loss of warm air through the fireplace chimney.
- Close fireplace dampers, if possible, when not in use and run your natural gas logs only when you are in the room to enjoy them.
- Make sure to have all furnaces, flues and chimneys inspected every year by qualified industry professionals to ensure their efficiency and safety.
- Clean or replace the filter in your forced-air heating and cooling systems each month. Foam filters can be rinsed with water but be sure they are dry before replacing. Fiberglass filters need to be replaced periodically.
- Keep draperies and shades open during the day to let the sunshine in; close them at night.

- Check the duct work for air leaks about once a year if you have a forced-air heating system. To do this, feel around the duct joints for escaping air when the fan is on. Relatively small leaks can be easily repaired by covering holes or cracks with duct tape. More stubborn problems may require caulking as well as taping.
- Weatherize your home by weather stripping or caulking around doors and windows. This will help keep heat from your system inside the home.
- Adjust the thermostat in small degree changes – your home won't heat or cool faster by cranking it up.
- Consider installing a programmable thermostat. Programmable thermostats can save up to 10% of heating and cooling costs annually.
- When leaving the house for the day, turn down your heat setting a few degrees. This will save energy while you are away.

YOUR COOLING SYSTEM

- Be sure the air conditioner is fully charged with freon so it operates efficiently and keep your cooling system well tuned with periodic maintenance by a professional service representative.
- When selecting a central air conditioning unit, be sure to choose one with the proper capacity and highest efficiency, don't oversize it.
- Choose a central air conditioning unit or room air conditioning unit that uses a minimal amount of electricity to complete its task. High Seasonal Energy Efficiency Ratios (SEERs) – such as 13.0 SEER and above – correspond with greater efficiency. Energy Efficiency Ratios (EERs) provide the same guidance for room-air conditioning units.
- Install a whole-house ventilating fan in your attic or in an upstairs window to help air circulate in

your home. Although not a replacement for a central air conditioning system, a fan is an effective way to stay comfortable on milder days. Remember to cover and insulate it during the winter to prevent heat loss.

- Don't set your thermostat at a colder setting than normal when you turn your air conditioner on. It will not cool faster, but it will cool to a lower temperature than you need and use more energy.
- Consider using a ceiling fan with your window air conditioner to spread the cooled air to other rooms. But be sure the air conditioner is large enough to help cool the additional space.
- Keep lamps or television sets away from the thermostat. Heat from these appliances is sensed by the thermostat and could cause your system to run longer than necessary.
- No matter what kind of central air conditioning system you have, clean the outside condenser coil once a year. To clean, turn off the unit and spray the coils with water at a low pressure. High water pressure may bend the fins. Try to spray from the top of the unit down and outward.
- Use duct tape to seal the cracks between each section of an air duct on your central air conditioning or forced heating system.
- Keep lights low or off when not needed. Electric lights generate heat and add to the load on your air conditioner.
- Plant shade trees strategically around your home. Properly selected and planted shade trees can save up to \$80 annually on the average electric bill.
- Use window or whole house ventilating fans to cool your home.
- Use vents and exhaust fans to pull heat and moisture from the attic, kitchen, bath and

laundry directly to the outside, if you don't have air conditioning.

- When leaving the house for the day, turn up your air setting a few degrees. This will save energy while you are away.

BATHROOM ENERGY SAVERS

- Take showers rather than baths, but limit both your showering time and the water flow to save energy.
- Install a water-flow controller in the pipe at the showerhead. This saves a considerable amount of hot water and the energy used to produce it.
- Use low flow showerheads in all showers and faucet aerator in the bathroom sink.
- Don't let water run while shaving or brushing your teeth. This wastes hot water and the energy used to heat it.

LAUNDRY

- Place the washer close to the water heater also. Water loses heat as it flows through pipes. When the washer is located near the water heater, hot water doesn't have to travel as far to reach the washer, and less heat is lost. Insulating the pipes between the water heater and washer helps retain heat.
- Wash clothes in warm or cold water. Rinse in cold water.
- Fill washers and clothes dryers but do not overload them.
- Clean the lint screen after each load of laundry and check the exhaust regularly. A lint screen in need of cleaning and a clogged exhaust can lengthen drying time and increase the amount of energy used.
- Save energy by using a clothesline. Doing so can

make clothes seem fresher and dryer than those emerging from a dryer.

- Place a dry towel in the dryer with each load of wet clothes to absorb dampness and reduce drying time.
- Save energy needed for ironing by hanging clothes in the bathroom while you're bathing or showering. By doing so you can steam some wrinkles out and cut down on ironing time. If possible, iron a large load of clothes at a time.

KITCHEN ENERGY SAVERS

- Use cold water rather than hot to operate your food disposal. Cold water also helps get rid of grease by solidifying it, so it can then be ground up and washed away.
- Install an aerator in your kitchen sink faucet.
- Boil water in a kettle or covered pan as the water will come to a boil faster and use less energy.
- Keep range-top burners and reflectors clean. They will reflect heat better and you will save energy.
- Get in the habit of turning off the elements or surface units on your electric stove several minutes before completing the allotted cooking time. The heating element will stay hot long enough to finish the cooking without wasting electricity.
- Turn off the oven five to 10 minutes before cooking time is up and let trapped heat finish the cooking and avoid opening the oven door repeatedly to check food that is cooking. This allows heat to escape and results in the use of more energy to complete the cooking of your food. Instead watch the clock or use a timer.
- Don't preheat the oven unless absolutely necessary and then for no more than 10 minutes.

- Use pressure cookers and microwave ovens if you have them. They save energy by reducing cooking times.
- Avoid using the broiler. It is a big energy user.
- Clean or replace air filters. Replace filters on exhaust hoods, humidifiers, vacuums, etc. Clogged filters impair performance and cause the units to run longer and use more energy.
- If you use a gas stove, keep your burners clean to ensure maximum efficiency. Blue flames mean good combustion; yellow flames mean service may be needed to ensure the gas is burning efficiently.

DISHWASHING

- When buying a dishwasher, look for an energy-efficient model with air power and/or overnight dry setting. These features automatically turn off the dishwasher after the rinse cycle. This can save you up to 10 percent of your dishwashing energy costs.
- Don't use the "rinse-hold" on your machine for just a few soiled dishes. It uses three to seven gallons of hot water each time you use it.
- Clean the filter. If your dishwasher has a filter screen, clean it regularly. A clean appliance runs more efficiently.

REFRIGERATOR/FREEZER

- Set the refrigerator thermostat at 38 degrees F for fresh food compartments and 5 degrees F for freezer compartment. A small thermometer placed in the refrigerator or freezer will help you set it correctly. Separate freezers for long term storage should be kept at zero degrees F. Open the refrigerator or freezer door only when necessary and don't hold it open any longer than necessary.

- Regularly defrost manual-defrost refrigerators and freezers. Frost buildup increases the amount of energy needed to keep the refrigerator at its proper temperature. Never allow frost to build up more than one quarter of an inch.
- Vacuum refrigerator coils at least every three months. The dirt buildup makes the refrigerator use more energy to keep contents cool.
- If possible, don't place your refrigerator or freezer in direct sunlight or near the stove. Heat will cause the unit to use more energy to stay cold.
- Make sure your refrigerator door seals airtight. Test them by closing the door on a piece of paper or dollar bill so it is half in and half out of the refrigerator. If you can pull the paper or dollar out easily, the hinge may need adjusting or the seal may need replacing.
- If you keep a second refrigerator in your garage or basement, keep empty space filled with gallon water jugs. The extra storage helps to maintain the temperature inside.

HOME OFFICE AND ELECTRONICS TIPS

- Select energy-efficient office equipment and turn off machines when they are not in use to result in significant energy savings.
- Use an ENERGY STAR-labeled computer which can save 30%-65% more energy than computers without this designation, depending on usage.
- Spend large portions of time in low-power mode to not only save energy but to help equipment run cooler and last longer.
- Put your laptop AC adapter on a power strip that can be turned off (or will turn off automatically) to maximize savings; the transformer in the AC adapter draws power continuously, even when the laptop is not plugged into the adapter.

- Use the power management settings on computers and monitors for significant savings. It is a common misperception that screen savers reduce a monitor's energy use. Use automatic switching to sleep mode or simply turn it off.
- Consider buying a laptop for your next computer upgrade; laptops use much less energy than desktop computers.
- Use Smart Power Strips to save energy and be able to shut down multiple items quickly.
- Reduce vampire loads by using a Smart Power Strip. Vampire loads are all of those chargers that are plugged in but not charging anything at the moment. Chargers use energy when not being used, so unplug them until needed, put computers to sleep and learn how to activate the power management features on your computer.
- Purchase a good selection of high-quality rechargeable batteries and a charging unit. You'll save money in the long run and keep hazardous materials out of our environment. Use rechargeable batteries for products like cordless phones and digital cameras. Studies have shown they are more cost effective than disposable batteries.
- Unplug battery chargers when the batteries are fully charged or the chargers are not in use.

LIGHTING

- Use compact fluorescent bulbs. They produce about three to four times as much light per watt as incandescent bulbs. While compact fluorescents are initially more expensive, they last up to 10 times longer.
- Halogen bulbs are another energy efficient choice for indoor and outdoor lighting. They use about 25 percent less energy than traditional incandescent bulbs and produce an intense white light making them ideal for spot,

flood, and security lighting. Halogen torchieres, however, can pose a fire hazard due to the high temperatures produced by these bulbs.

- Purchase holiday light strings that feature LEDs or light-emitting diodes. LED lights use 90 percent less energy than standard incandescent bulbs.
- Turn off lights in any room not being used, even if your absence will only be momentary.
- When changing bulbs, use the lowest wattage possible or convenient. In many cases a lower wattage bulb can be substituted for the one currently being used.
- Light-zone your home and save electricity. Concentrate lighting in reading and work areas, and where it's needed for safety such as in stairwells. Reduce lighting in other areas, but avoid very sharp contrasts.
- Consider installing solid-state dimmers. They make it easy to save energy by reducing the lighting intensity in a room.
- Use one large bulb instead of several small ones in areas where bright light is needed.
- Turn on outdoor lights only when needed and install lights with motion detectors so they come on only when needed.
- Use timers, motion detectors, heat sensors or photocell controls for light fixtures when possible.
- Removing one light bulb from your garage door opener is a creative energy saving tip.

These tips are some of the top tips that we provide to our customers. These tips are derived from experience within the energy industry as well as from various resources such as energystar.gov and energysavers.gov. We continuously seek new tips to pass along to our customers for saving money and energy. Caution: The elderly, infants and persons with circulatory problems may require higher indoor temperatures (above 65 degrees F at all times) to avoid health problems. Please seek the advice of your physician regarding winter and summer thermostat settings in your home.