

Energy Savings

Heating the house is the largest use of energy in a home, accounting for 49 percent of the energy used.

by Brenda Kleinjan

A LOT HAS BEEN SAID IN RECENT MONTHS about energy conservation.

While the mainstream press seems to be discovering this topic for the first time, your local electric cooperatives have been promoting the wise and efficient use of electricity for many years.

Tops on your local energy experts' lists are preventing air infiltration and increasing insulation.

"Air infiltration is usually the largest heat loser in a house," said Russell Gall, who is in charge of member services at Charles Mix Electric Association in Lake Andes, S.D.

Minimizing a home's air infiltration – or the places where air can enter and heat escape – is key to a good plan to increase efficiency and decrease costs.

"Insulate, insulate, insulate!" Gall continues. "The cost savings in the first year will many times recoup expense. Uninsulated basement walls will usually account for a third to half of the heat loss in a house."

Another key area to save on energy is on home

entertainment equipment and computers. These devices often use considerable amounts of energy when left idling.

"A computer, monitor or printer that is in stand-by mode still uses energy," said Mike Kjose, member services/marketing director at Clay Union Electric Corporation in Vermillion, S.D.

According to the United States Department of Energy, heating the house is the largest use of energy in a home, accounting for 49 percent of the energy used. Appliances and general lighting account for 23 percent, water heating takes up 16 percent, air conditioning accounts for 7 percent and refrigerators and freezers use 5 percent of a home's energy budget.

The DOE recommends that families do an energy audit to determine their home's energy use. The audit allows homeowners to pinpoint the areas in their home that use the most energy and how to reduce those areas.

For more on energy efficiency steps you can take in your own home, contact your local electric cooperative.



Small, inexpensive home improvements can equal big energy savings. You can purchase two tubes of silicone caulk for about \$10 and fill in any gaps where heat can escape. Be sure to check your foundation, siding, windows, doors and sump pump pits.

Big Savings – Small Cost

We asked the local experts – member services personnel at your local electric cooperative to provide their top recommendations of energy-saving measures you can take in your own home. We've broken them down by the cost of implementation.

FREE THINGS TO DO:

- Put on a sweater and turn down the thermostat for your house. Just a couple of degrees lower in the winter and higher in the summer can yield great savings.
- Turn your water heater down to 120 degrees.
- Take short showers instead of baths.
- Air dry dishes instead of using your dishwasher's drying cycle.



- Turn off your computer and monitor when not in use.
- Plug home electronics, such as televisions, DVD players and other entertainment devices into power strips and then turn the power strips off when the equipment is not in use. (TVs and DVDs in standby mode

still use several watts of power.) Another good idea in this arena is to purchase a quality surge protector that will protect your equipment.

- Consolidate your refrigeration equipment. If you have three freezers, move items to two and turn the third one off. Older freezers can cost hundreds of dollars a year to run.
- Turn off lights in empty rooms.
- Close heating vents in unused rooms.
- Keep drapes and shades open in sunny windows during the day and closed at night.
- Keep garage doors closed or close quickly to prevent cold from reaching inside walls.
- Keep damper closed on fireplace when not in use to prevent heat loss up the chimney.
- Use warm or cold water whenever possible for laundry or dishwashers.

UNDER \$10

- Install a V-seal or P-seal weather stripping around outside doors. A 17-foot seal costs about \$3.50, so two doors will cost \$7 to \$9.
- Change the threshold weather stripping on outside doors. Two doors can be done for \$5.
- Purchase tubes of silicone acrylic caulk for about \$10 and caulk any gaps in foundations, siding and other places where heat can escape the home. Don't forget windows, doors, sump pump pits and elsewhere.

- Use expansion foam spray for large holes or cracks. Two cans cost about \$5 each.
- Buy a plastic window insulation kit. You can insulate five windows for about \$8.50.
- Insulate your hot water pipes. You can get 36-feet of insulation for less than \$10.
- Use a draft dodger or a rolled up towel at the base of a door to slow air infiltration.

UNDER \$50

- Change air filters.
- Change standard incandescent light bulbs to compact fluorescent. They use a third of the electricity as a standard bulb and last up to 10 times longer.
- Insulate the sill plate in the basement. This is the area along the basement wall between the first floor and the concrete wall. You can use a matt or blanket insulation, such as scraps left over from the attic insulation.
- Install a flow resistor pipe in shower heads. This can save a considerable amount of hot water. The resistor threads into the pipe and restricts the water flow.



UNDER \$100

- Make sure your heating system gets an annual tune-up, especially if it's a fossil-fuel system.
- Install reversible ceiling fans. They move cool air during the summer and help push warm air down off the ceiling during the winter.

A LITTLE OVER \$100

- Blow 3 inches of cellulose insulation (R10) into a 1,200 square foot attic (you do the work.)

UNDER \$500

- Blow 6 inches of cellulose insulation (R20) into a 1,200 square foot attic (you do the work.)

\$500 AND OVER

- Blow 12 inches of cellulose insulation (R40) into a 1,200 sq. ft. attic (you do the work.) (R 40 is the recommended value of attic insulation in our area.)
- Replace old doors with insulated energy-efficient doors or storm doors.
- Install storm or thermal windows with low-emissive glazing.
- Replace old furnace with new energy efficient heat pump for heating and cooling.

