University of Wyoming Cooperative Extension Service

Cutting Home Energy Costs

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Farmers and consumers have long taken for granted plentiful supplies of low-cost energy; however, energy bills that have doubled or tripled may have some rethinking their utility usage.

The largest source of energy use in the home is space heating. In Wyoming, this is often about 60 percent of total energy consumption. Steps taken to control heating costs may have the most effect on reducing one's bill. Water heaters, appliances, and lighting account for about 35 percent of total utility bills. To trim the utility bill, here are a variety of low- and no-cost ways that can be used to reduce energy consumption.

Turn Down the Heat

Homeowners can easily save energy in the winter by setting the thermostat to 68 degrees Fahrenheit when at home and awake and lowering it when asleep or away. A good rule is that the last person out of the house should lower the thermostat. Installing a programmable thermostat will save having to remember to do this. Lowering the thermostat can save about 15 percent or more. A programmable thermostat will likely cost from $35 to $50.

Weatherize Buildings

Air leaks are a primary cause of heat loss, whether in homes or in farm buildings. Finding and stopping leaks, particularly in older buildings, can reduce heat loss by 37 percent.

To test a home for air tightness, on a windy day hold a lit incense stick next to windows, doors, electrical boxes, plumbing fixtures, electrical outlets, ceiling fixtures, attic hatches, and other locations where there is a possible air path to the outside. If the smoke stream travels horizontally, there is an air leak that may need caulking, sealing, or weather stripping.

If there is a fireplace, check for cracks around it. Keep heat in by caulking all cracks. Keep the fireplace damper closed when not in use. A glass front or glass screen will help reduce fireplace heat loss.

Insulate Adequately

Insulate the attic and all outside walls. Increasing attic insulation can reduce heat loss by up to 50 percent. In a cold climate, insulation recommendations are R-38 to R-49 for attics, R-11 to R-22 for walls, R-25 for floors, and R-11 to R-19 for crawl spaces. The R-value is a measure of insulation's ability to resist heat traveling through it.

Maintain Appliances

Keeping a heating system in good order will help mollify fuel costs. Regularly changing the filter and having a furnace inspected will help it run efficiently.

With hot water heaters, drain a bucket of water out of the bottom of the tank every one to three years. This gets rid of sediment, which can waste energy by "blocking" the water in the tank from the heating element.

To prepare for future winters, begin by auditing your energy use. An audit can be done on a Web site by answering detailed questions about your home. The automated response can help you identify upgrades to undertake. Audits include the U.S. Department of Energy's Home Energy Saver at hes.lbl.gov., Nexus Energy Software at energyguide.com, and wyoenergy.com. Another highly effective step to take for future winter energy conservation is to begin planning a windbreak that will reduce the wind's velocity around buildings.

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