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## Saving energy is easy if you keep it simple

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Where to begin? That's the question many consumers have in the face of an avalanche of information about saving energy, money, even the planet.

Many experts advise consumers to keep it simple. Look at your home as an energy system with various components that can be fine-tuned to curb energy consumption.

"There's still a place for common sense," says Mike Jones, a spokesman for the Omaha Public Power District. "Doing things like making sure to turn off the lights or the television when you're not in a room."

The second thing experts advise is to get informed about energy conservation. There's a host of information on Web sites, in news articles and at your local utilities that suggest simple ways to curb consumption.

Think about your pocketbook as well as the environment.

Many people are surprised, for example, to learn that when you turn off your TV, it's not completely off. Televisions, computers, microwave ovens and a variety of other electronics go into standby or sleep mode when turned off, but they still are using electricity.

About 75 percent of the electricity used to power home electronics — computers, TVs, VCRs, battery chargers and so on — is consumed while the products are "turned off," according to the U.S. Department of Energy.

The so-called "standby," or "phantom" or "vampire" energy losses constitute 4 percent of a residence's annual electric bill, or about \$4 billion annually for homes nationwide, the department says.

OPPD says the bill for a typical home in Omaha averages out to \$74.62 per month. Rates for a typical home will rise \$3.28 to \$77.90 a month on Jan. 1 to an annual rate of \$934.80 a year. So standby or phantom energy losses translate into \$37.39 a year, or about \$3.12 a month for the average OPPD residential customer.

The fix is simple, experts say: Buy a power strip; plug the TV, PC or other device into the strip; and after you shut them off, flip the switch on the power strip, which stops electricity from reaching the device.

"We tell the homeowner to do the easy and cheap things first," said Gary Ruliffson, energy solutions adviser at OPPD:

Among the easy things:

- Switch from incandescent to compact fluorescent lights, which use up to 75 percent less energy and last 10 to 13 times longer than incandescent bulbs. The typical incandescent bulb wastes 90 percent of the energy it uses, producing heat rather than light.

The U.S. Department of Energy says that if every U.S. household changed just one incandescent light bulb to an Energy Star-rated compact fluorescent bulb, enough electricity would be saved to light 2.5 million homes and the reduction in greenhouse gas emissions would equal the amount produced by almost 800,000 cars.

- Turn down thermostats, which can save up to 12 percent of a home's energy costs each year. Install a programmable thermostat, which will automatically raise and lower temperatures to those that you set. If a house is empty all day, it wastes energy to keep it heated at 72 degrees.
- Air dry dishes instead of using a dishwasher's drying cycle.
- Lower the temperature on hot water heaters to between 120 and 140 degrees.
- Wash only full loads of dishes and clothes. Use cold water for washing clothes when possible.

The next steps take more time and money.

Ruliffson recommends checking the home for air leaks, which, he said, can waste 20 percent to 40 percent of the

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building's heating or cooling costs. "Remember, insulation doesn't stop air infiltration."

Caulk around doors and windows, electrical and plumbing pipes, electrical outlets on exterior walls, and check the building's foundation for cracks and patch them.

After doing that, check with OPPD, or your local utility, about a home air-leakage test.

Ruliffson said that for \$275, OPPD will test the home with a computerized blower door. The test, which can take up to four hours, can detect exactly where air is leaking into or out of the home.

People usually think the home is leaking air through its windows and doors, he said. But the test frequently finds that the worst offenders are electrical and plumbing chase ways that go from the basement to the attic. Other leaks come from recessed lights and along rim joists in the basement, where the home meets the foundation.

In the past, Ruliffson said, OPPD would come out, do the tests, make suggestions for improvements and "nobody would do a thing" to make the changes. But that has started to change.

"People are starting to take action now."

Once the homeowner, or his contractor, stops the air leaks, it's time to beef up the insulation.

In the attic, Ruliffson said, many older homes are insulated only to an R-11. OPPD recommends R-49.

In the basement, R-10 is recommended as the minimum for walls. But raising the insulation value can cut heating loads almost in half, Ruliffson said.

Once the homeowner has accomplished this, it's time for a home energy audit.

OPPD's Web site has a link to the Home Energy Saver, a site that lets you evaluate the energy efficiency of your home. After answering basic questions about the home, the owner gets ideas on ways to further improve energy savings.

OPPD also offers a variety of monthly classes to help homeowners become more aware of how to go about improving energy usage. Ruliffson said the classes, which cost \$35 a person and require reservations, are listed on the utility's Web site.

Other roads to savings include upgrading heating, air conditioning and major appliances.

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