



WATER HEATERS



Electric water heaters are environmentally friendly, easy to install and emerging as a building block of the future electric grid.



REASONS TO CHOOSE ELECTRIC

- Electric water heaters may cost less money to buy, install and maintain.
- As homes become tighter, air quality becomes more and more of an issue. With electric water heaters, you don't have to worry about your family breathing in unburned hydrocarbons from the air.
- Venting problems and toxic gas build-ups are concerns with gas appliances. Electric water heaters have no flame, no carbon monoxide and no potential leaks in exhaust flues or fuel lines.
- Electric water heaters have highly insulated tanks and use less energy in heat loss recovery.
- Many electric water heaters have lifetime warranties and are made of durable, non-rusting materials. A lifetime warranty can lower your average yearly cost.
- Electric water heaters can be installed anywhere in the home, such as under steps or in a closet. Since they require no flue or fossil fuel lines, electric water heaters often can be installed closer to where you need the hot water for better efficiency and convenience.
- Electric water heaters can easily be turned off or on with a flip of a switch to save energy, or when you are away from home for several days.

FOR MORE INFORMATION VISIT

U.S. Department of Energy (DOE)
Energy Efficiency and Renewable Energy
www.energysavers.gov



Safe



Environmentally Responsible



Cost Effective



ADDING VALUE TO YOUR ELECTRIC SERVICE



Guthrie County REC

A Touchstone Energy® Cooperative



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YOUR WATER HEATER



STOP DUMPING \$\$ DOWN THE DRAIN

Typically, 80 to 90 percent of the energy used to heat water at home goes down the drain, so recapturing that heat energy and reusing it makes sense. According to the U.S. Department of Energy (DOE), a drain water heat recovery system can save 25 to 30 percent for water heating.

GET THE FACTS

Experts say that 85 percent of approximately nine million water heaters sold in the U.S. each year are replacements for old, leaking or inefficient water heaters. Familiarizing yourself with water heater options today will allow you to make an informed and energy-wise purchase when the time comes to replace that older unit.

The average lifespan of a water heater is 13 years, but due to minerals in much of Iowa's water, many units have a shorter average lifespan. Most consumers purchase water heaters only in an emergency situation because of water heater failure. When they see rusty water leaking all over the basement, they call a plumber and often buy the first water heater they can find.

The Iowa Energy Center reports that about 13 percent of your home's total energy cost each year goes toward water heating. So, it pays to spend some time thinking about what kind of water heater you want installed in your home.

OPTIONS TO CONSIDER

A solar water heating system can cut your water heating bill in half and is generally designed for use with an electric backup system.

Electric heat pump water heaters use significantly less energy to heat the same amount of water by transferring heat instead of creating it. You could save up to 15 percent on your monthly household electric bill.

By installing a drain water heat recovery system, you could lengthen the life of your existing water heater or eliminate the need for a larger tank. By increasing the hot water output capacity, growing families may discover their once insufficient unit can now deliver enough hot water to meet their needs.

REPLACING YOUR WATER HEATER

Although there are many types of water heaters today, most homeowners install dependable storage type units. Owning one of these high-efficiency electric water heaters is easy with rebate programs offered by your electric cooperative.

Some factors to consider when replacing your water heater are:

- The needs of your family. If your current water heater doesn't provide enough hot water or if your family is still growing, you may want to consider going with a larger unit.
- Tank material. A major reason that water heaters fail is from rust and corrosion. Some water heaters have plastic tanks that do not corrode.
- Energy efficiency. You may want to consider an ENERGY STAR® heat pump water heater which can reduce your water heating energy consumption by up to 70 percent compared to a standard electric water heater.
- Warranties and rebates. The rebates available from your cooperative can help lessen the financial burden of installing a new water heater. The rebate for heat pump water heaters can be over half the cost of the unit. Warranties can range from a few years to a lifetime.

ENERGY SAVING TIPS

LAUNDRY: Wash only with full loads. Use cold water rinse cycle.



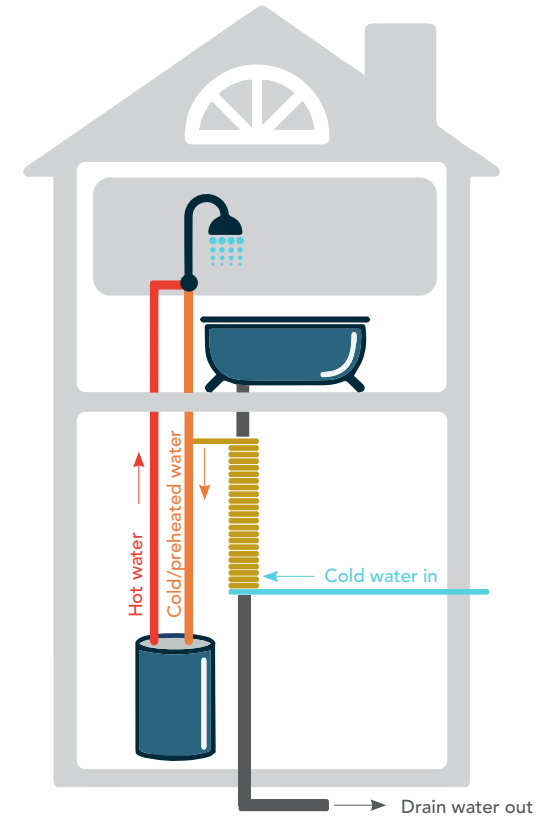
DISHWASHER: Use the air dry feature. Don't pre-rinse by hand.



BATHROOM: Use water-saving shower heads and faucet aerators. Turn off the faucet while brushing teeth or shaving.



DRAIN WATER HEAT RECOVERY SYSTEM



The typical non-storage system usually has a copper heat exchanger that replaces a vertical section of a main waste drain. As hot water flows down the drain, incoming cold water flows through a spiral copper tube wrapped tightly around the copper section of the waste drain. This heat energy transfer preheats the incoming cold water that goes to the water heater or a fixture, such as a shower.

This has two benefits that result in energy and cost savings: recycling the warmth from water already heated and cutting the recovery time for a storage tank water heater.