

Choosing the right water heater for you

Dear Jim: I replaced the electric water heater once already and this one is leaking after only eight years. Are there any water heaters that last longer, provide more hot water for showers and use less electricity? - Ed. H.

Dear Ed: Depending upon the water conditions in your area, how well you maintain your water heater and its initial quality, eight years may be a reasonable life. I have an electric water heater in my own all-electric home. It is more than 12 years old and still going strong.

Do not despair though. There are some new conventional metal tank-type electric water heaters with lifetime warranties against the water tank rusting out and leaking. Other designs use an all-polymer (plastic) design which cannot rust out and leak. They have a lifetime no-leak warranty and may be a good choice for your home, which seems to be hard on water heater tanks.

When purchasing an electric water heater, whether you have experienced previous problems or not, you should consider the tank warranty. The least expensive models will typically offer a six-year warranty, but will likely last longer. More expensive, top-of-the-line models often offer a 10- or 12-year warranty. These all use a standard glass-lined steel water tank inside and an outer insulated steel jacket.

All-polymer water heaters are not only leak proof, but also one of the most energy efficient. The inner tank is designed in a test tube shape with a domed top and bottom. The outer shell of the water heater is made of tough polyethylene, similar to a garbage can. The wide gap between the tank and shell is filled with thick foam insulation. With the test tube shape, there is extra insulation thickness at the top where the water is hottest.

An electric water heater, unlike a gas model, is a very simple device. Nearly all of the electricity is used by the two heating elements heating the

water in the tank. The difference in the efficiency levels (operating costs) among various models depends primarily upon the amount of tank insulation.

Most new water heaters use foam insulation around the water tank. In the most efficient models, a minimum of three inches of insulation is used. The insulation is foamed in place so all the gaps between the tank and the outer skin are completely filled.

If you have time, you can research and compare their insulation levels. An easier method to compare the operating costs is to compare their EF (energy factors). EF's range from about .80 to .96. For an average family, installing a model with the highest EF can save up to \$100 annually as compared to your old model. Water heaters also have the yellow Energy Guide labels to help you determine the savings among various models.

If your family uses hot water mainly for morning showers and during the evening, select a water heater with a built-in timer. You can adjust it to shut off the heating elements certain hours of the day and night when hot water is not needed. Its electronic brain switches on the elements early enough so the water is hot at the time set. This feature can reduce operating costs by up to 15 percent.

Another option is an adjustable control with four different settings. There is a standard single-temperature setting similar to all electric water heaters. A second setting is a no-scald mode. This limits the water temperature

and is ideal with children and the elderly. A third setting is an automatic energy-saver mode. The water heater remembers your hot water usage patterns and adjusts the heating accordingly. The fourth setting is a vacation mode which allows the tank temperature to drop to 50 degrees.

Unless you select a new water heater with a higher FHR, you will not get much more hot water for morning



New water heaters save money, last longer

showers. The hot water output from a water heater is indicated by its FHR (first hour rating). This is the number of gallons of hot water it can supply in one hour in the morning. This is a function of how large (in gallons) the tank is and how much additional water the elements can heat in one hour.

Write James Dullely, Rural Montana, 6906 Royalgreen Dr., Cincinnati, OH 45244 for (instantly download-www.dullely.com) Utility Bills Update No. 647 - buyer's guide of 12 manufacturers (55 models) of efficient electric water heaters listing water outputs, EF's, warranties, features, and a savings/payback chart. Please include \$3.00 and a business-size SASE.