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A Cooperative Effort for Energy Efficiency

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The truth about tankless water heaters

The tankless water heater claim

Many homeowners have seen advertisements for tankless water heaters that promise great features and big savings. An unlimited supply of hot water definitely sounds like a sweet deal. So do reduced water heating costs and instantaneous hot water on demand. But are these claims accurate?

Energy Efficiency *quick tip*

Tankless water heaters generally aren't as energy efficient as well-kept tank water heaters. Insulation, temperature setback, timers, and heat traps can all lower energy costs with tank water heaters.

Source: Cooperative Research Network

Instant hot water?

A tankless water heater is really no better at producing hot water "instantly" than a traditional tank water heater. If a tankless unit is installed in a basement the same distance from a shower as a tank water heater, it may take more time for hot water to reach the shower from the tankless unit. Tank water heaters send hot water to the plumbing lines as soon as the faucet is turned to hot. But tankless units require a little more time to start sending hot water into the lines because they have to produce it first.

They may not work well for families

Even the largest whole-house tankless unit may not supply enough hot water for simultaneous, multiple uses. Such a unit may be able to supply only two showers simultaneously or perhaps one shower, a dishwasher and a sink. If the users demand too much water, the temperature will drop. A tankless system probably won't meet the needs of a large family.

In an emergency situation, a tankless water heater doesn't provide stored potable water like a tank water heater would provide.

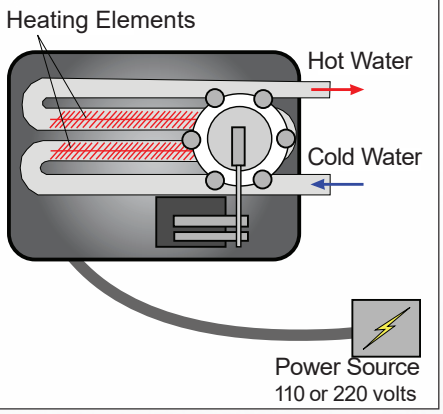
The initial investment is higher

Tankless electric water heaters are often more expensive to purchase than tank water heaters, and installation costs are normally higher as well. The higher costs are because the construction of tankless units are more complex and thus require a contractor who is highly experienced in installing the units.

Inside a tankless water heater

Unlike a traditional tank water heater, a wall-mounted tankless model does not store hot water. It heats water only as it is used, with heating elements that are activated when a hot water faucet or valve is opened.

Consumers can generally save more on energy costs by using traditional tank water heaters efficiently.



Source: U.S. Department of Energy

Did you know?

A tank water heater provides a settling point for hard water build-up. With no tank, your appliances become the settling point. This may result in a decreased life span for shower heads, faucets, clothes washers and dishwashers.

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Hidden costs

True, tankless water heaters do not require a lot of space, but they do often require an upgrade in electrical service. This means members who want to replace an existing tank water heater with a tankless unit, or add one as part of a home-remodeling project, will incur additional costs.

If a tankless water heater is installed without upgrading the electrical service, low voltage or sudden voltage drops are likely. This will cause dimming and blinking lights, and other problems.

The extra load also necessitates a larger and more expensive meter loop and main breaker panel for the house. In some cases, members also must pay for new wiring between the distribution transformer and electric meter. Check with a licensed electrician or your local electric cooperative to determine if you must upgrade your electric service connections to support a tankless water heater.

Gas tankless vs. electric tankless

Gas tankless water heaters generally do not require upgrades to a home's basic services like an electric tankless water heater does. However, the same considerations must be made when determining how many hot water faucets will be turned on at any given time and how far away the tankless heater is from sinks and showers that will be using the water. In addition, a study done by Consumer Reports states that the payback for the higher cost of a gas tankless unit is up to 22 years; longer than the 20-year projected life of many models.

Finding the right water heater

Members looking for an efficient water heater should consider a tank electric water heater that is heavily insulated. Look for an energy factor of .9 or higher. These water heaters are often the most cost effective option over the life of the water heater. ***In addition, your local electric cooperative may offer rebates on these models.***

Tips to lower your water heating use and costs

* ***Use less, pay less.*** Fix leaks, install low-flow fixtures, and purchase an energy-efficient dishwasher and clothes washer to conserve hot water.
* ***Lower the thermostat setting on your water heater.*** Each 10 degree reduction in water temperature can save three to five percent in energy costs.
* ***Insulate your tank.*** Unless your water heater's storage tank already has a high insulation value, adding insulation to it can reduce standby heat losses by 25 to 45 percent. This will save you about four to nine percent in water heating costs.

  If you don't know the insulation value of your water heater tank, touch it. A tank that's warm to the touch needs additional insulation.
* ***Insulate your hot water pipes.*** This reduces heat loss and can raise water temperature two to four degrees more than uninsulated pipes can deliver, allowing for a lower water temperature setting.

  You also won't have to wait as long for hot water when you turn on a faucet or shower head, which helps conserve water.

Source: U.S. Department of Energy

BONUS SAVINGS™

Take Control & Save your home's energy!

There are many ways you can reduce your water heating use and costs, such as insulating the tank and lowering the temperature setting. See the blue box above for additional tips. To find out more about how to save energy and money in your home, visit www.TakeControlAndSave.coop.

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