

Ask a Builder



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I've heard tankless hot water systems can save money for domestic water heating. How do I know if it's right for me?

Unlike conventional water heaters which must continuously expend some energy to maintain a large volume of heated stored water to meet demand, tankless water heating systems (also called on-demand or instantaneous water heaters), heat water only when it is needed. Since tankless heaters do not have a tank (or only a very small buffer tank), water is heated as it passes through the unit and travels to the demand source.

Tankless heaters offer endless hot water while still offering the potential to save energy by reducing standby losses – which is heat lost from water in the system to the surrounding air. Tankless systems generally take up less room but are usually more expensive to install. Because they require electricity, they will not work in a power outage.

Is a tankless system right for you?

1. What kind of fuel do you use for water heating?

Tankless systems exist for most common energy sources, including natural gas, propane, fuel oil, and electricity. Each fuel type will have its own considerations, including cost, availability, and storage (if required). These variables will need to be compared to the cost and efficiency of a traditional heated water storage system. Make sure your system can deliver the required flow range with the type of fuel source you have available locally. For instance, many on-demand electric systems may have difficulty modulating (adjusting) from a small demand (such as a bathroom sink) to a large demand (such as a washer and a shower running at the same time), but may do very well within a narrower flow range.

2. Do you have a recirculation system?

This means the system recirculates a small amount of hot water from the tank through the pipes and back so you have immediate hot water when you turn on the faucet. Tankless systems typically do not work with a recirculation system because they require a minimum flow rate to heat water.

3. Do you typically use hot water for more than one thing at a time? For instance, do you run the dishwasher after dinner while taking a shower?

If so, you may have to install a larger tankless system to meet demand potential. Know your source water temperature. The incoming water temperatures in Fairbanks can be cold, often within 10 degrees of freezing. This may require a larger tankless system to heat the water properly – especially if there is simultaneous demand from several sources.

4. Has your heating professional installed tankless systems before?

Don't be afraid to ask your installer for names and phone numbers of past clients. Ask them how the system has worked for them.

5. Is your water heater located in the garage?

Tankless heaters are not recommended in unconditioned areas because the water in the unit or in the pipes

could potentially freeze. If you're interested in a tankless system, you should ask an installer about moving the heater indoors. 6. Will you abuse the possibility of endless hot water? Be honest....tankless heaters present the possibility of never-ending showers. Any energy savings from a tankless heater will be negated if your hot water use increases. Ask a Builder articles promote home awareness for the Cold Climate Housing Research Center. If you have a question, contact CCHRC at info@cchrc.org or 907-457-3454.