Which type of hot water service should I get?

Hot water services are responsible for about a quarter of all the energy we use in the home – so they can make a big difference to your environmental impact. This fact sheet will help you decide which is best for you.

You can get either storage hot water services (these look like big tanks) or instantaneous hot water services (these are small boxes on the wall). They are usually powered by gas, electricity or the sun.

Hot water services usually last for a while, so when deciding which one to get, think long term. Systems should be replaced on average every ten years. Think about the number of people living in your home, and also think about the running costs of different types. You’re likely to spend much more on running the system over its lifetime than buying it, so a more efficient system may well be cheaper in the long run than a cheaper less efficient system.

Storage or instantaneous?

Hot water systems come in two main types: storage and instantaneous. Storage hot water systems are large tanks which keep the water heated all the time. They are the most inefficient type of systems. Instantaneous systems are small boxes on the wall, and are sometimes called continuous flow or tankless hot water services. They heat the water as you need it, which means that you can’t run out of hot water. They are more efficient and therefore tend to have slightly lower emissions than storage hot water systems.

Gas, electric or solar?

Once you have decided if you want a storage or an instantaneous hot water system, you need to decide how you want to power it. Most systems are powered by gas, electricity or the sun, and which one you choose will make a big difference to your running costs and emissions.
Gas
• Gas results in far lower greenhouse gas emissions than electricity, so if solar hot water isn’t an option for you, gas is the next best environmental choice (unless you can afford to run an electric system on electricity generated from renewable sources, like accredited 100% GreenPower).
• Gas hot water systems have energy ratings on them – the more stars on the energy rating label the better.
• Systems with electric ignitions are more efficient than systems with pilot lights (but you get no hot water in a blackout).
• After solar, natural gas hot water services are the cheapest to run.
• If you are in an area which doesn’t have natural gas available you could consider using LPG (natural gas is the gas that usually comes through pipes, LPG is the gas you usually buy in bottles) – although this can be pricey. See page four for how LPG compares on price and emissions.
• When gas hot water services are installed inside they need a flue, which can be an issue in flats.

Electric
• Electric hot water services are heavy emitters of greenhouse gases.
• Storage electric hot water services can be run either on day-rate or off-peak electricity to reduce costs (instantaneous systems can only be run on day-rate electricity).
• Off-peak storage systems heat the water overnight, when electricity is cheaper because fewer people are using it. They are much cheaper than day-rate systems to run, but still have high greenhouse gas emissions.
• Electric hot water services run on day-rate electricity are the most expensive type of hot water service to run. The exception is systems powered by heat pumps, which are cheap to run and low on emissions, but expensive to install (roughly $3,500, while most other systems (except solar) cost roughly $1,000 to install).
• If you can’t get natural gas and can’t afford to install a solar or a heat pump system, an efficient LPG (bottled gas) system will be cheaper to run than day-rate electric and will have lower emissions.

Solar
• Solar hot water is by far the best choice for the environment, and in Victoria it should provide 60-70% of your hot water free.
• All solar hot water systems are storage systems, but they come with a booster for when sun’s not shining (which supplies the other 30-40% of your hot water). Gas or GreenPower (accredited electricity from renewable sources) are the best fuels for your booster. Solar hot water systems which use ordinary electricity for the booster are actually quite inefficient – you are better off with a gas system.
• When you factor in the rebates, the total cost of installing solar hot water in Victoria is about $2000 for cheaper systems and $5000 for longer lasting systems, which makes it a fair bit more expensive than other options.
• Installing and running a solar system over a 10-15 year period costs about the same as installing and running an efficient gas system over that period. Over longer time periods it will be cheaper to run solar.
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<th>Set-up cost</th>
<th>Greenhouse gas emissions</th>
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Other important things to think about
1. It’s worth getting the right size hot water service. To work out the right size for you, talk to your hot water service supplier, or see the fact sheet at www.sustainability.vic.gov.au/resources/documents/Choosingahotwatersystem.pdf
2. Make sure the hot water service is located close to where you use hot water.
3. Set your hot water service at the right temperature. For storage ones, this is about 60 degrees, for instantaneous ones this is 50 degrees or less.
4. To save energy, if you have a storage system and you are going away for more than a weekend, turn off the pilot light (there are usually instructions on the tank on how to do this). Alternatively, turn the dial on the tank down to 1 or to the “vacation” setting.
5. Insulate the pipes coming from your hot water service. For storage systems, insulate the first two metres of pipe, and for both types, insulate any pipe which is outside.
6. Using less hot water will cut your costs. Water saving showerheads, taking shorter showers and washing your clothes in cold water will make a very big difference.