

# Hot water improvements



## Residential Efficiency Scorecard

The Scorecard is a home energy rating program.

An accredited assessor visits your home and looks at the building and fixed appliances. You receive a certificate with your home's energy star rating, comfort and appliance efficiency ratings.

Your Scorecard assessor gives you advice on making your home more comfortable. They make your next steps simple, so you don't miss out on energy bill savings.

To find out more about the Scorecard or to find an assessor, visit [www.victorianenergysaver.vic.gov.au/scorecard](http://www.victorianenergysaver.vic.gov.au/scorecard)

## Why the hot water system is important

Hot water systems often use a significant amount of energy and can make up a large proportion of power bills.

Your Scorecard certificate lists improvement options. Your Scorecard assessor will explain the best options to make savings on the cost of heating water.

This shows a medium rating of three out of five bars, so it would be a good idea to upgrade this system.

Look at the pie chart, focus on the larger pieces of pie to improve your home's star rating and get your energy bill down.

The pie chart percentage shows how much your hot water system contributes to the overall star rating for your house. If the pie slice is large this means you can focus on your hot water to improve your home's star rating. This example shows a home where 25% per cent of energy use is for water heating.

## Taking Action

Your Scorecard Assessor can help you understand your best options. Look at the improvement options beside the pie charts. These show more efficient appliance options, unless you already have a highly efficient system.

The Scorecard certificate may suggest upgrading to a high efficiency electric heat pump, gas or solar system as these are the most efficient systems available.

If you are not ready to upgrade your system now, make a note of the best options. When your current system needs replacing it will be simpler to make the right choice.

If the pie slice is large and you are not able to upgrade your system, you can focus on hot water use to save on your energy bill. Talk to your assessor about options. Make sure you have a water saving shower rose and none of your hot water taps are dripping.

## What is the right system for my home?

### Heat pump systems

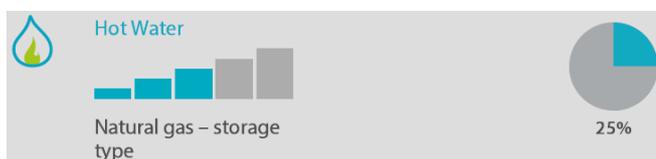
There are some very efficient heat pump systems on the market. Particularly consider a heat pump if you have a photovoltaic (PV) solar system or may install one in future. You can offset some of the energy used by the heat pump with the solar system.

There is no star rating system for heat pump water heaters. Some systems are quieter than others, choose a quieter system if this may be an issue.

## Using the Scorecard rating

Look for the hot water symbol on the second page of your Scorecard certificate.

The hot water rating shows how well your appliance performs in comparison to the most efficient systems on the market. The more bars the better.



## Solar hot water systems

Solar hot water systems are an efficient way to heat water. Much of your water can be heated free by energy from the sun.

Solar hot water systems use solar collectors to heat the water. The hot water is stored in a tank, on the roof or the ground.

Solar hot water systems usually need boosting from another energy source on cloudy days and cold nights. Boosting can be from gas, electricity, or sometimes wood fuel. You can even retrofit a solar system to some existing hot water systems. There is no star rating system for solar water heaters.

## Gas systems

Gas hot water systems can be a good option, especially if you have mains gas.

Instantaneous gas hot water systems heat only the water that you require and don't have a storage tank. These systems can be a good choice if you have variable hot water use, as you will always have enough hot water. Instantaneous systems often require larger gas pipes, which can increase the cost of installation.

Gas storage systems store hot water in a tank and can be inefficient through the energy lost from the tank. You may run out of hot water if the system is undersized. If the system is oversized, you will pay for heating water you don't use.

Gas hot water systems have a star rating. Try to choose a system with at least 5 stars. For a list of models and rating see: [www.aga.asn.au/complete\\_product\\_directory](http://www.aga.asn.au/complete_product_directory).



## Electric systems

Electric hot water storage systems can be very costly to run. They use a lot of energy to heat the water and energy is lost during storage.

Some apartments, flats and smaller homes have storage electric hot water systems that can be very

expensive to run. Systems under 250 litres generally run on peak rates. Larger units over 250 litres usually run on cheaper off-peak electricity overnight.

Electric instantaneous systems are less common and could be more efficient than electric storage heaters in some situations. These units usually require dedicated wiring due to the high currents involved, so may be more costly to install.

If you have a solar PV system you can offset some of the energy used by the hot water system. There is no star rating system for electric water heaters.

## Wood fuel systems

Wood fuel systems may be used to heat water. These are more often found in areas where wood fuel is plentiful and mains gas is not available.

The performance of wood fuelled systems can be highly variable. The type and quality of fuel, the age and maintenance of the system have an impact. Wood fuel must also be cut and stored appropriately. It is very important to protect air quality by operating the system well. Smoke can be unhealthy and inconvenient for you and your neighbours. For further information see: <http://www.epa.vic.gov.au/your-environment/air/wood-burning-and-air-quality>.

## Other things you can do

Try to install your hot water system close to where the hot water is used to minimise heat loss in the pipes.

Talk to an installer for advice on how to wrap a storage hot water system in an insulation blanket to help reduce heat loss. For gas systems the area around the pilot light should be avoided.

Insulate hot water pipes, particularly external pipes exposed to the air. Products are also available to insulate the tank hot water valve. These are an inexpensive way to reduce heat loss.

If you are going on holiday, you can turn the system off while you are away. When you return, turn it back on and allow it to reach maximum temperature before use to ensure there is no bacteria in the water.

## For more information

### Water heaters

<https://www.energyrating.gov.au/products/water-heating>

### Scorecard

[www.victorianenergysaver.vic.gov.au/scorecard](http://www.victorianenergysaver.vic.gov.au/scorecard)