

YOU'VE GOT THE POWER TO MAKE THE MOST OF YOUR HOT WATER SYSTEM

About a third of our annual household electricity bill goes on water heating.

Using your hot water system as efficiently as you can and deciding on the right system for your household when you renovate, build or have to replace your existing system will help you cut costs, stop wasting energy and have less impact on the environment.

USE YOUR HOT WATER SYSTEM EFFICIENTLY

Here are some easy things you can do to be more energy efficient with all hot water systems.

Check your shower flow To check, run the shower at normal temperature. If it fills a 2 litre container in less than 12 seconds, it is running at a high flow rate and you could save a lot of money by using a more efficient shower head. These are available from hardware and plumbing stores.

Low flow showerheads give a good shower, using around half the water of a normal showerhead. They cost roughly \$40 – 100 and can cut hot water bills by as much as \$1000 per year!*

Some shower heads will work just as well at low and high flow rates. If you have one of these that is currently running at a high flow rate, you may be able to install a flow restrictor disc. This goes between the pipe in the wall and the shower head.

If you're building or renovating, consider putting a pressure reduction valve on the mains to reduce the water flow to the whole house. Discuss these options with your plumber.

* For a family using the shower for 40 minutes a day where the shower can fill a two litre container in six seconds.

Stop drips – inside and out

Stop hot taps dripping by replacing the washer or fitting to save energy and water. If the vent pipe in the roof or on an outside wall is dripping, you are losing heat and water. Your plumber may need to adjust the pressure-reducing valve.

Wrap the heat in!

If your electric storage cylinder and/or pipes feel warm to touch they are losing heat. Insulating the cylinder and the first metre of the hot pipe from the cylinder will help you get more value from this system — even wrapping an A grade cylinder can deliver savings.

There are a variety of wraps available from hardware stores, costing between \$60 and \$100. Installation instructions are on the packet, or go to the hot water cylinder wraps pages at www.energywise.govt.nz

You can't put a cylinder wrap on a gas hot water system.

Choose to use less hot water

Wash laundry in cold water, don't rinse dishes under running hot water and have shorter showers.

You can use a timer to help your household members see how long they are in the shower.

Take care of your system

Whatever hot water system you have, maintain it as required and have it serviced according to the manufacturer's instructions. Have a new system installed by a registered plumber and electrician.

CHOOSE THE RIGHT WATER HEATING SYSTEM

There are two main types of water heating — systems that store water and instantaneous flow systems. Both sorts are suitable for most households.

There are also options for how to heat the water — with electricity, natural gas, LPG, solar power, a heat pump or a solid fuel like wood.

Knowing how your household uses hot water will help you make better choices about how you can get the best energy efficiency and value for money.

With this information, your architect and plumber will be able to help you match your hot water needs with what's on offer in terms of systems and sizes.

Here are some things to consider as you choose a system that matches your needs and your pocket:

- **The size of your household** — how many people there are now and how many you might anticipate being there in the future.
- **How and when you use hot water** — do you need a lot at once, for example, do six people want to shower in the morning? Does your dishwasher draw on the hot water system? Do you have guests at the weekend?
- **How you'll pay** — as well as paying for the system and its installation, you'll be charged for running it and perhaps also an ongoing supply charge.

SYSTEMS THAT STORE WATER

It's important when you choose a storage system to match this to meet your household's needs or you will run out of hot water.

Electric hot water cylinders

These are the most common form of water heating in New Zealand. An electric element heats the water in an insulated tank to a temperature set by a thermostat.

If buying a new electric cylinder, consider buying a 'solar-ready' tank, which can have a solar panel, or heat pump, connected to it easily in the future.

Gas hot water cylinders

There are several gas water storage heating options that can use natural gas (mains gas) or bottled LPG.

Gas hot water cylinders can be situated inside or outside the house. Condensing systems are the most efficient type but have to be located outside.

You can't put a cylinder wrap on a gas hot water system.

These systems reheat the water more quickly than an electric system does.

Heat pump water heating

Heat pump water heaters use electricity to move heat rather than generate it. The sun heats the air around your home each day, and a heat pump water heater on the outside of your house shifts some of this heat into your hot water cylinder.

Heat pump water heaters can supply on average \$3 of hot water for every \$1 of electricity they use, making them an efficient option.

Solar water heating

A solar water heating system can provide up to 75% of your yearly hot water needs.

It can be effective anywhere in New Zealand. Over time, it can pay for itself through lower power bills.

A solar water heater works by absorbing energy from the sun in collector panels on your roof. This energy is then transferred to water stored in a hot water cylinder. When the sun can't heat enough water to meet your needs, the heat supply can be boosted by electricity, gas or a wet-back system.

You may be eligible for government financial assistance to install a solar water heating system in your home. It is worth considering solar water heating if your household uses a lot of hot water and to set yourself up to reduce your living costs in retirement.

For everything you need to know about solar water heating and about the Government's solar water heating incentives, visit www.energywise.govt.nz/solar

Adding in a wetback

You can supplement your hot water system with a wetback fitted to a wood or pellet fire, range or burner system. This makes use of an energy-efficient heating system that can itself be cost effective.

A wetback is a pipe arrangement that fits in the back of the firebox and uses heat from the fire to heat water. If you add a wetback to a new or existing burner, you'll get less heat in the room than you would without the wetback.

The type and location of the hot water cylinder can often determine if you can fit or use a wetback, so check with the fire manufacturer and a plumber.

INSTANTANEOUS HOT WATER SYSTEMS

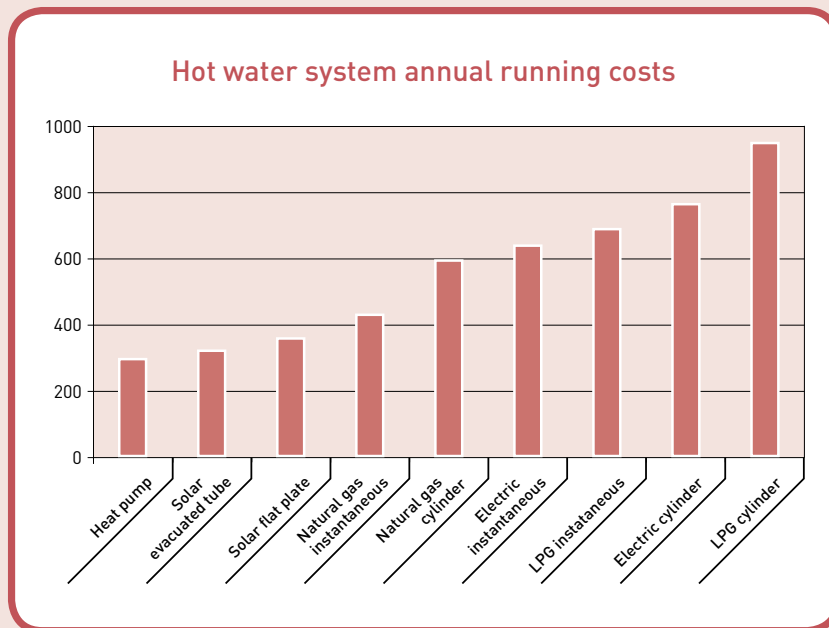
Instantaneous flow gas heaters, heat water as it runs through, so don't need a storage tank.

You won't run out of stored hot water but do have to choose a system with a flow rate that will provide enough flow of hot water for your needs.

COSTS

When looking at what a hot water system might cost you, you need to consider ongoing costs as well as the initial investment. As a guide, a gas or electric system costs between \$1500 to \$2500; a heat pump costs between \$4000 to \$5000, and a solar water heating unit averages around \$6000. These costs include installation.

Now look at the ongoing running costs:



Approximate running costs for a typical family of four

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