

Hot Water Systems For Your Home

Hot water accounts for up to a half of an average household's energy use in NSW. By being Energy Smart, it is possible to reduce your hot water costs by up to 70%.



How To Choose Your Hotwater System

The overall cost of your hot water depends on a number of factors:

- The type and correct size of water heater
- Source of fuel (e.g. solar)
- The way the system is installed
- How you use the hot water

Decision 1: Storage Or Continuous Flow?

Consider the size of your household, the system's purchase and installation price, efficiency and running costs, and life expectancy.

Storage water heaters:

- Water is heated and stored in an insulated tank ready for use throughout the day.
- Operate most economically on solar energy, natural gas or off-peak electricity. They can also run on LPG, peak electricity or solid fuels such as wood.

These systems are available as either mains pressure or constant pressure.

Continuous flow (instantaneous) water heaters:

- Heat water as required - cannot 'run out' of hot water.
- Smaller than storage systems, installed internally or externally (internal gas units must have a flue).
- Connect to the mains water supply and deliver hot water at a slightly reduced pressure.
- May have electronic remote controls for precise temperature control.
- Sized according to the number of hot water outlets likely to be used simultaneously.
- Operate most economically on natural gas, but can also use LPG and general tariff electrically.

Decision 2: Which Fuel; Electric, Gas Or Solar?

Choosing the correct fuel can make a significant difference to running costs and greenhouse gas emissions.

Natural gas

- Suitable for storage and continuous flow systems.
- Systems are rated for their energy efficiency with energy labels - the more stars, the more energy efficient.
- Internal and external models available.
- Storage gas water heaters have smaller capacities than off-peak electric systems, as water can be reheated at any time of the day or night.
- Avoid continuous flow systems with standing pilot lights.

Hot Water System

LPG

- Used in areas where natural gas is not available.
- Running costs average one-and-a-half to three times the price of natural gas or off-peak electricity.

Solar Energy

- In NSW, a solar hot water heater will provide approximately 65 - 80% of your hot water free of charge.
- All systems come with a gas, off-peak electric or solid fuel booster to supply adequate hot water during periods of low sunshine.
- Mains pressure and constant pressure systems available.
- Solar systems may be eligible for incentives of up to \$1000.

Off-Peak Electricity

- Running costs similar to natural gas.
- Not an energy efficient source of hot water.
- Only available for storage systems of 160 litres capacity or greater.
- Water is heated overnight to provide adequate hot water for daily usage.
- Twin element units can operate with a 24 hour boost at off-peak rates.
- Not available for continuous flow systems, or a capacity less than 160 litres.
- Internal and external models available.

Peak Electricity

- Used for electric continuous flow units and storage water heaters with a capacity of less than 160 litres.
- Can be very expensive to run so should only be used when other options are not possible. Install a timer on peak rate electricity storage units.
- Common in flats, units, etc where space is limited.

Heat Pumps

- High efficiency form of water heating which use around 70% less electricity than other electric water heaters. Heat is extracted from the atmosphere using a refrigerant gas and a compressor and used to heat water stored in a tank at ground level.
- Have lower running costs than normal 'peak rate' electric storage units because of their high efficiency. When used in conjunction with a timer and the off-peak tariff, running costs are even lower.
- Heat pumps may be eligible for incentives of up to \$1000.

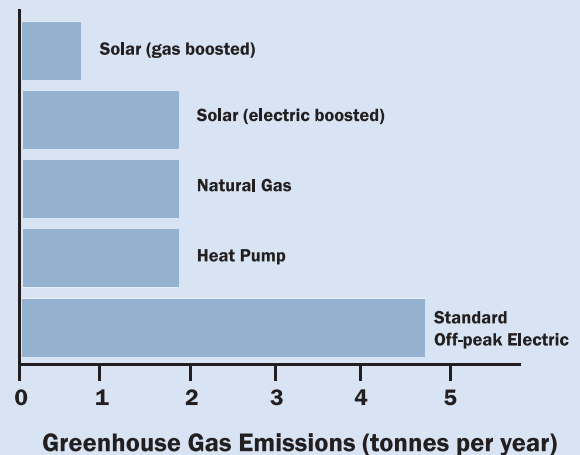
Solid Fuels (wood, briquettes, coal, etc)

- Costs of fuels vary greatly.
- Water can be heated using a 'wetback' attached to a slow combustion wood heater or stove, or a stand-alone water heater powered by solid fuel.
- Can be used in conjunction with off-peak electricity and/or solar in constant pressure storage units.
- Must not be used with mains pressure systems, unless a heat exchanger is used.

Hotwater And The Environment

Buying an Energy Smart gas, solar or heat pump water heater that uses a low greenhouse impact fuel is a great start for a healthier environment. The chart above compares the amounts of greenhouse gases (CO² equivalents) released by different fuel combinations when each supplies the same amount of heat.

Greenhouse gas emissions from hot water systems



Further Information

Port Macquarie-Hastings Council on 6581 8111 or visit www.pmhc.nsw.gov.au.

Federal Government Greenhouse Office on 1300 130 606 or visit www.greenhouse.gov.au



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