

Replace or Upgrade Water Heater; Residential Only

Activity No.

WH1

1. Activity Specific Definitions

Gas water heater or solar gas means a water heater that has a primary or boost fuel source of natural gas (methane) or LPG.

Class 1 and class 2 dwellings are as defined by the National Construction Code.

2. Activity Description (Summary)

Install or replace a water heater

3. Activity Eligibility Requirements

A new or replacement water heater installed to service a South Australian

- established class 1 dwelling, or
- class 2 dwelling (new or established)

The following is excluded:

- Installation of a water heater undertaken as part of class 1 building work requiring approval under the *Development Act 1993*. This includes water heaters installed to service a new class 1 dwelling.

4. Installed Product Requirements

1. Only gas, solar electric, solar gas or heat pump water heaters are included in the specification.
2. Gas water heaters shall be rated at a minimum of 5 stars in accordance with AS4552 and listed in the Directory of AGA Certified Products.
3. Solar electric and gas boosted solar systems with a tank size ≤ 220 litres shall earn ≥ 17 STCs for Zone 3
4. Solar electric and gas boosted solar systems $220 < \text{tank size} \leq 400$ litres shall earn ≥ 27 STCs for Zone 3.
5. Solar electric and gas boosted solar systems $400 < \text{tank size} \leq 700$ litres shall earn ≥ 38 STCs for Zone 3.
6. Heat pump water heaters shall earn ≥ 27 STCs when assessed under AS/NZS 4234 for Zone 3 and shall earn ≥ 26 STCs when assessed under AS/NZS 4234 for Zone 4.

5. Minimum Installation Requirements

1. The water heater must be installed in accordance with relevant installation standards including, but not limited, to AS/NZS 3500:2003 (plumbing and drainage standards); AS/NZS 3500.4 (Plumbing and drainage - Heated water services), AS 4552:2005 (gas hot water systems); AS/NZS 60335.2.21:2002 (electric storage water heaters); AS/NZS 60335.2.35:2004 (instantaneous water heaters).
2. All products shall be installed in accordance with the manufacturers' installation instructions and specifications.
3. Any replaced water heater must be removed from the premises.
4. The activity must be completed and certified in accordance with any relevant code or codes of practice and other relevant legislation applying to the activity, including any licensing, registration, statutory approval, activity certification, health, safety, environmental or waste disposal requirements.
5. Where required, a Certificate of Compliance must be provided and retained for verification purposes.

6. Activity energy savings

The normalised energy saved from undertaking this activity is equal to:

Normalised Energy Savings (GJ)=Savings factor, as per the table below:

| Activity Description | Savings Factor | |
|---|--|---|
| | For a water heater installed to service an established class 1 dwelling that is not connected to a reticulated gas supply or a class 2 dwelling (new or established) | For a water heater installed to service an established class 1 dwelling that is connected to a reticulated gas supply |
| Install gas water heater with a rating of 5-stars or more | 49.7 | 0.0 |
| Install a gas water heater with a rating of 6-stars or more | 54.2 | 4.5 |

| | | |
|---------------------------------------|--------------|-------------|
| Install a solar electric water heater | 113.0 | 37.3 |
| Install a solar gas water heater | 132.5 | 56.8 |
| Install a heat pump water heater | 103 | 27.3 |

7. Guidance Notes (Informative only – not mandatory)

1. This activity is to encourage households to exceed, where applicable, water heater installation requirements. These requirements are given effect by the South Australian Water Heater Installation Requirements document issued as part of the Plumbing Standard published by the Technical Regulator pursuant to sections 66 and 67 of the *Water Industry Act 2012*. This document is available at <http://sa.gov.au/otrplumbing>.
2. There may be restrictions on the use of roof mounted systems that use ethylene glycol (or other anti-freeze agents) where roof water is collected for human consumption.
3. Products listed by the Clean Energy Regulator can be found on <http://ret.cleanenergyregulator.gov.au/>
4. All reasonable endeavours should be used to recycle removed water heaters
5. Main gas, LPG and other gas systems are permitted under this specification.
6. AGA Directory, refer to http://www.aga.asn.au/product_directory
7. For the solar water heater calculator, refer to Clean Energy Regulator's web site: <https://www.rec-registry.gov.au/swhCalculatorInit.shtml>