



# **Greenhouse and Energy Minimum Standards (Gas Water Heaters) Determination 2017<sup>1</sup>**

## *Greenhouse and Energy Minimum Standards Act 2012*

---

I, JOSH FRYDENBERG, Minister for the Environment and Energy, make this Determination under sections 23 and 35 of the *Greenhouse and Energy Minimum Standards Act 2012*.

Dated            7 December 2017

JOSH FRYDENBERG

Minister for the Environment and Energy

---

---

## **COPYRIGHT**

© 2017 Commonwealth of Australia

This Determination includes material from Australian Standards and/or Australian/New Zealand Standards, which are copyright Standards Australia Ltd. Apart from reproduction for personal and non-commercial use, and uses permitted under the *Copyright Act 1968*, Standards Australia Ltd material may not be reproduced without permission or licence.

With the exception of the Commonwealth Coat of Arms, Commonwealth copyright material is licensed under the Creative Commons Attribution-Non-Commercial-ShareAlike 4.0 International Licence. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>.

You are free to copy, communicate and adapt the Commonwealth copyright material, so long as you attribute the Commonwealth of Australia.

Complete Australian/New Zealand Standards are available for purchase from Standards Australia Ltd. Requests and inquiries concerning other reproduction and rights pertaining to standards should be directed to SAI Global Limited.

---

## 1 Name of Determination

This Determination is the *Greenhouse and Energy Minimum Standards (Gas Water Heaters) Determination 2017*.

## 2 Commencement

- (1) This Determination commences on the day after it is registered.
- (2) This Determination revokes and replaces the *Greenhouse and Energy Minimum Standards (Gas Water Heaters) Determination 2013*.

## 3 Definitions

In this Determination:

*Act* means the *Greenhouse and Energy Minimum Standards Act 2012*.

**AS/NZS 4552.2:2010** means *Australian/New Zealand Standard 4552.2:2010—Gas fired water heaters for hot water supply and/or central heating—Part 2: Minimum energy performance standards for gas water heaters*, as it existed the date this Determination came into force.

*Note:* AS/NZS 4552.2:2010 is available from Standards Australia Limited.

**AS/NZS 5263.0:2017** means *Australian/New Zealand Standard 5263.0:2017—Gas Appliances—Part 0: General requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 5263.0:2017 is available from Standards Australia Limited.

**AS/NZS 5263.1.2:2016** means *Australian/New Zealand Standard 5263.1.2:2016—Gas Appliances—Part 1.2: Gas fired water heaters for hot water supply and/or central heating*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 5263.1.2:2016 is available from Standards Australia Limited.

**Australian/New Zealand Standard** means a standard that is jointly published by Standards Australia Limited and Standards New Zealand, is applicable in both countries and denoted by the letters “AS/NZS” and identifying numbers and/or letters.

**Australian Standard** means a standard that is published by Standards Australia Limited denoted by the letters “AS” and identifying numbers and/or letters.

**IEC Standard** means a standard that is published by, or on behalf of, the International Electrotechnical Commission.

**standard** means an Australian Standard, an Australian/New Zealand Standard, an IEC Standard or any other equivalent document.

*Note:* Several other words and expressions used in this Determination have the meaning given by section 5 of the Act. For example:

- category A product
- covered by

- 
- family of models
  - GEMS
  - GEMS labelling requirements
  - GEMS level requirements
  - model
  - product classes

## **4 Interpretation**

### *Applicable definitions of terms or phrases*

- (1) If there is inconsistency in the definitions of words or expressions, words or expressions will be interpreted in the following order of priority to the extent of any inconsistency:
  - (a) the Act;
  - (b) this Determination;
  - (c) the standards.
- (2) A word or expression defined in a standard mentioned specifically in section 3 of this Determination has the meaning given to it in the relevant standard.

*Note:* Notwithstanding this, for convenience to users, the key terms used to ascertain if a product is covered by this Determination are defined in this Determination.

### *Applicable version of documents incorporated into standards*

- (3) For the purposes of this Determination the applicable version of any:
  - (a) standard; or
  - (b) other document that:
    - (i) is referred to in a standard under the heading ‘Referenced Documents’, or under an equivalent heading in a standard; and
    - (ii) must be applied to give effect to this Determination or a standard referred to in this Determination,

is the version of the standard or other document that is current on the date this Determination came into force.

*Note:* For example clause 1.3 of AS/NZS 5263.1.2:2016 provides that the definitions given in AS 5263.0 apply in addition to those given in AS/NZS 5263.1.2:2016 itself. AS 5263.0 has been superseded by AS/NZS 5263.0:2017, and therefore the applicable version of AS 5263.0 is AS/NZS 5263.0:2017.

---

## 5 Specified product classes covered by this Determination

- (1) This Determination covers water heaters that come within the product classes set out in subsection (2) and that:
  - (a) are fired with natural gas (NG), liquefied petroleum gas (LPG) or simulated natural gas (SNG); and
  - (b) operate using natural draught, or fan assisted, combustion systems.
- (2) The product classes are as follows:

Product class	Products covered by class
1	Storage water heaters that: <ol style="list-style-type: none"><li>(i) have a nominal gas consumption equal to or less than 50 megajoules per hour; and</li><li>(ii) have a storage capacity equal to or greater than 30 litres; and</li><li>(iii) are not certified only for installation indoors.</li></ol>
2	Instantaneous water heaters that: <ol style="list-style-type: none"><li>(i) have a nominal gas consumption equal to or less than 250 megajoules per hour; and</li><li>(ii) have a heat output equal or greater than 13.1 kilowatts.</li></ol>

- (3) For the purposes of section 23 (2) of the Act, this Determination does not cover combination appliances.
- (4) In this section:

**storage capacity** means the quantity of water measured in litres (L) contained within the storage vessel of a storage water heater.

*Note:* This is the same meaning as in subclause 1.3.217 of AS/NZS 5263.1.2:2016.

**central heating boiler** means an appliance that is designed to heat and supply water at a temperature not exceeding 99 degrees Celsius for hydronic heating purposes.

*Note:* This is the same meaning as in subclause 1.3.202 of AS/NZS 5263.1.2-2016.

**combination appliance** means an appliance that is designed to perform the functions of both a central heating boiler and a water heater, by means of two separate water circuits.

*Note:* This is the same meaning as in subclause 1.3.204 of AS/NZS 5263.1.2-2016.

**fan assisted combustion system** means a system within an appliance that is an integral part of the appliance and is a system that, by mechanical means, does either or both of the following:

- (a) draws or blows all or part of the combustion air; or

---

(b) evacuates the products of combustion.

*Note:* This is the same meaning as in subclause 1.3.34 of AS/NZS 5263.0:2017.

**heat output** means the amount of heat transferred to the water per unit time under specified conditions.

*Note:* This is the same meaning as in subclause 1.3.208 of AS/NZS 5263.1.2:2016.

**hydronic** means a classification relating to a system of heating or cooling that involves the transfer of heat by circulation of a fluid (usually water) in a closed circuit which may or may not be vented.

*Note:* This is the same meaning as in subclause 1.3.209 of AS/NZS 5263.1.2:2016.

**instantaneous water heater** means a water heater or central heating boiler in which gas, except for any pilot flame, burns only when water is discharged from the outlet of the appliance.

*Note:* This is the same meaning as in subclause 1.3.210 of AS/NZS 5263.1.2:2016.

**liquefied petroleum gas (LPG)** means a gas composed predominantly of any of the following hydrocarbons, or any combination of them, in the vapour phase: propane; propene (propylene); butane; and butene (butylene).

*Note:* This is the same meaning as in subclause 1.3.56.5 of AS/NZS 5263.0:2017.

**natural gas (NG)** means a hydrocarbon gas consisting primarily of methane.

*Note:* This is the same meaning as in subclause 1.3.56.1 of AS/NZS 5263.0:2017.

**nominal gas consumption** means the appliance gas consumption, in megajoules per hour (MJ/h), as stated in the manufacturer's specifications, instructions, in general communications, and on the appliance.

*Note:* This is the same meaning as in subclause 1.3.89 of AS/NZS 5263.0:2017.

**simulated natural gas (SNG)** means a gas in air mixture comprising approximately 55 per cent commercial propane and 45 per cent air.

*Note:* This is the same meaning as in subclause 1.3.56.2 of AS/NZS 5263.0:2017.

**storage water heater** means a water heater that incorporates a thermally insulated container in which the water is heated and stored for subsequent use.

*Note:* This is the same meaning as in subclause 1.3.218 of AS/NZS 5263.1.2:2016.

**water heater** means an appliance that is designed to heat and supply water at a temperature not exceeding 99 degrees Celsius for drinking or sanitary purposes, or both drinking and sanitary purposes.

*Note:* This is the same meaning as in subclause 1.3.220 of AS/NZS 5263.1.2:2016.

---

## 6 GEMS level requirements

### *Energy use and greenhouse gas production*

- (1) For the purposes of paragraphs 24 (1) (a) and 25 (a) of the Act, the specified energy use requirements are the requirements mentioned in section 2.1 of AS/NZS 4552.2:2010 but excluding the words “or AS/NZS 4452.3 (when published)” that appear in that section of the standard.

*Note:* AS/NZS 4552.2:2010 contained certain references in anticipation of a new version of the standard, AS/NZS 4552.3:2005, being published. That later version of the standard had not been published as at the date this Determination came into force, and, therefore, the references to the later version of the standard do not apply in conducting tests pursuant to this Determination.

### *Conducting tests*

- (2) For the purposes of paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests are the requirements mentioned in paragraph AA3.1 (Annual energy consumption) of Appendix AA of AS/NZS 5263.1.2:2016.

## 7 GEMS labelling requirements

There are no GEMS labelling requirements for products covered by this Determination.

## 8 Other GEMS requirements

### *Product performance*

- (1) For the purposes of subsection 24 (2) and paragraph 27 (1) (b) of the Act, the specified requirements relating to the performance of products are the requirements mentioned in clause 5.13 of AS/NZS 5263.1.2:2016 that relate to the minimum thermal efficiency requirement.

### *Conducting tests*

- (2) For the purposes of subsection 24 (2) and paragraph 27 (1) (e) of the Act, the specified requirements for conducting tests in relation to paragraph 27 (1) (b) of the Act are the requirements relevant to thermal efficiency mentioned in:
  - (a) for products in product class 1, paragraph ZC107 (Thermal Efficiency Test—Storage Water Heaters) of Appendix ZC of AS/NZS 5263.1.2:2016; and
  - (b) for products in product class 2, paragraph ZC108 (Thermal Efficiency, Water Heating Capacity, Start-up Heat Capacity and Electrical Power Consumption Test—Instantaneous Water Heaters and Circulators) of Appendix ZC of AS/NZS 5263.1.2:2016.

---

## 9 Families of models

### *Families of models – product class 1*

- (1) For section 28 of the Act, the specified circumstances in which two or more models of products in product class 1 are in the same family of models, are when the models:
- (a) are of a single brand;
  - (b) rely on the same test report that sets out the results of testing conducted in compliance with section 6, 7 or 8 of this Determination;
  - (c) have the same physical characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination, including but not limited to:
    - (i) nominal gas consumption;
    - (ii) storage capacity;
    - (iii) installation type (indoor only, outdoor only or both);
    - (iv) provision for temperature adjustment (if applicable);
    - (v) provision for in-built water mixing (if applicable);
    - (vi) provision for solar in-line boosting (if applicable); and
  - (d) have the same claimed energy performance characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination, including but not limited to:
    - (i) average annual energy consumption; and
    - (ii) thermal efficiency.

### *Families of models – product class 2*

- (2) For section 28 of the Act, the specified circumstances in which two or more models of products in product class 2 are in the same family of models, are when the models:
- (a) are of a single brand;
  - (b) rely on the same test report that sets out the results of testing conducted in compliance with section 6, 7 or 8 of this Determination; and
  - (c) have the same physical characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination, including but not limited to:
    - (i) nominal gas consumption;
    - (ii) installation type (indoor only, outdoor only or both);
    - (iii) provision for temperature adjustment (if applicable);
    - (iv) provision for in-built water mixing (if applicable);



- 
- (v) provision for solar in-line boosting (if applicable); and
  - (d) have the same claimed energy performance characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination, including but not limited to:
    - (i) average annual energy consumption; and
    - (ii) thermal efficiency.

## **10 Product categories**

For section 29 of the Act, the products covered by this Determination are category A products.

## **11 Registrations affected by this Determination**

For section 36 of the Act, this Determination does not affect the registration of any model registered against the *Greenhouse and Energy Minimum Standards (Gas Water Heaters) Determination 2013*.

*Note:* If a model's registration is not affected the model is taken to be registered against this Determination. See section 36 of the Act.

---

## **Note**

1. All legislative instruments and compilations are registered on the Federal Register of Legislation kept under the *Legislation Act 2003*. See <http://www.legislation.gov.au>.