



# **Greenhouse and Energy Minimum Standards (Incandescent Lamps for General Lighting Services) Determination 2012<sup>1</sup>**

## *Greenhouse and Energy Minimum Standards Act 2012*

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I, MARK DREYFUS, Parliamentary Secretary for Climate Change and Energy Efficiency, make this Determination under section 23 of the *Greenhouse and Energy Minimum Standards Act 2012*.

Dated                      25 October 2012

MARK DREYFUS

Parliamentary Secretary for Climate Change and Energy Efficiency

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## 1 Name of Determination

This Determination is the *Greenhouse and Energy Minimum Standards (Incandescent Lamps for General Lighting Services) Determination 2012*.

## 2 Commencement

This Determination comes into force on the day after it is registered.

## 3 Definitions

In this Determination:

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

*AS/NZS 4934.1(Int):2008* means *Interim Australian/New Zealand Standard 4934.1(Int):2008 – Incandescent lamps for general lighting services – Part 1: Test methods – Energy performance*, as it existed on the day this Determination came into force.

*Note 1:* AS/NZS 4934.1(Int):2008 is available from Standards Australia Limited.

*Note 2:* AS/NZS 4934.1(Int):2008 includes all amendments up to and including AS/NZS 4934.1(Int):2008 /Amdt 1: 2011 made on 20 April 2011.

*AS 4934.2:2011* means *Australian Standard 4934.2-2011 – Incandescent lamps for general lighting services – Part 2: Minimum Energy Performance Standards (MEPS) requirements*, as it existed on the day this Determination came into force.

*Note:* AS/NZS 4934.2:2011 is available from Standards Australia Limited.

*Australian/New Zealand Standard* means a standard that is jointly published by Standards Australia 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.

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

*extra low voltage* means a voltage not exceeding 50 volts alternating current r.m.s., 120 volts ripple-free direct current.

*Note:* This is the same meaning as in subclause 1.3.3 AS/NZS 4934.1(Int):2008.

*general lighting* means substantially uniform lighting of an area without provision for special local requirements.

*Note:* This is the same meaning as in clause 845-09-06 IEC 60050-845 Ed.1.

*IEC 60630 Edition 2.5* means *International Electrotechnical Commission - Maximum lamp outlines for incandescent lamps*, as it existed on the day this Determination came into force.

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*Note 1:* IEC 60630 Edition 2.5 is available from Standards Australia Limited.

*Note 2:* IEC 60630 Edition 2.5 includes all amendments up to and including IEC 60630 Edition 2.5/Amdt 6 Ed 2.0 made on 25 April 2005.

**IEC Standard** means a standard published by, or on behalf of, the International Electrotechnical Commission with letters “IEC” and a number.

**incandescent lamp** includes a tungsten filament lamp and a tungsten halogen lamp.

**ripple-free** means a r.m.s. ripple voltage not more than 10 percent of the direct current component where the maximum peak value does not exceed 140 volts for a nominal 120 volts ripple-free direct current system and 70 volts for a nominal 60 volts ripple-free direct current system.

**r.m.s.** means root mean square.

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

**tungsten filament lamp** means a vacuum, or inert gas-filled, lamp containing tungsten filament housed in a glass envelope.

*Note:* This is the same meaning as in subclause 1.3.13 AS/NZS 4934.1(Int):2008.

**tungsten halogen lamp** means a gas-filled lamp, containing halogen or a halogen compound and tungsten filament housed in a glass envelope.

*Note:* This is the same meaning as in subclause 1.3.14 AS/NZS 4934.1(Int):2008.

*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 a term or phrase is not defined under the Act, the Regulations to the Act or in this Determination, but the term is defined in a standard mentioned specifically in section 3 of this Determination, the term or phrase is to be read for the purposes of this Determination as having the meaning of the term under the relevant standard.

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*Applicable version of documents incorporated into standards*

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

is the version of the document, including a standard, that existed at the date this Determination came into force.

*Note:* For example subclause 5.2.2 of AS 4934.2:2011 requires that a test report in accordance with AS/NZS 4934.1(Int):2008 be submitted by a manufacturer. The applicable version of AS/NZS 4934.1(Int):2008 is the version that existed at the date this Determination came into force.

## **5 Specified product classes covered by this Determination**

- (1) This Determination covers incandescent lamps used in general lighting services in the product classes set out in following table:

<b>Product class</b>	<b>Products covered by class</b>	<b>Product class characteristics</b>
1	GLS tungsten filament lamps as described at subclause 1.1.2 of AS 4934.2:2011	This product class comprises products with the following characteristics: <ul style="list-style-type: none"><li>(a) shape: A50-A65, PS50-PS65, M50-M65, T50-T65 (as described in IEC 60630 Edition 2) or E50-E65;</li><li>(b) cap: E14, E26, E27, B15 or B22d;</li><li>(c) nominal voltage: greater than or equal to 220 volts; and</li><li>(d) nominal wattage: less than 150 watts,</li></ul> except if the product is also a coloured lamp, a reflector lamp, a crown-reflector lamp or a lamp with a halogen gas fill.
2	Extra low voltage halogen non-reflector lamps as described at subclause 1.1.3 of AS 4934.2:2011	This product class comprises products with the following characteristics: <ul style="list-style-type: none"><li>(a) tungsten halogen lamp burner;</li><li>(b) shape: single-ended capsule, non-reflector;</li><li>(c) cap: bi-pin; and</li></ul>

		(d) nominal voltage: 5-14 volts inclusive, except if the product is also a coloured lamp, a reflector lamp, a crown-reflector lamp or a lamp with a halogen gas fill.
3	Candle tungsten filament lamps as described at subclause 1.1.4 of AS 4934.2:2011.	This product class comprises products with the following characteristics: (a) shape: candle or B (as described in IEC 60630 Edition 2.5) including twisted and bent-tip candle; (b) cap: E14, E26, E27, B15 or B22d; (c) nominal voltage: greater than 220 volt; and (d) nominal wattage: greater than 25 watts, except if the product is also a coloured lamp, a reflector lamp, a crown-reflector lamp or a lamp with a halogen gas fill.
4	Fancy round tungsten filament lamps as described at subclause 1.1.5 of AS 4934.2:2011.	This product class comprises products with the following characteristics: (a) shape: round, P (described in IEC 60630 Edition 2.5), G or globe; (b) cap: E14, E26, E27, B15 or B22d; (c) nominal voltage: greater than 220 volts; and (d) nominal wattage: greater than 25 watts except if the product is also a coloured lamp, a reflector lamp, a crown-reflector lamp or a lamp with a halogen gas fill.
5	Decorative tungsten filament lamps as described at subclause 1.1.6 of AS 4934.2:2011	This product class comprises products with the following characteristics: (a) shape: decorative shapes; (b) cap: E14, E26, E27, B15 or B22d; (c) nominal voltage: greater than

		<p>220 volts; and</p> <p>(d) nominal wattage: greater than 25 watts,</p> <p>except if the product is also a coloured lamp, a reflector lamp, a crown-reflector lamp, a pilot lamps, a lamp with a halogen gas fill or a lamp that has the same shape as product classes 1 to 4.</p>
6	<p>Mains voltage halogen non-reflector lamps as described at subclause 1.1.7 of AS 4934.2:2011</p>	<p>This product class comprises products with the following characteristics:</p> <p>(a) tungsten halogen lamp burner, non-reflector;</p> <p>(b) shape: single-ended;</p> <p>(c) cap: E14, E26, E27, B15 or B22d; and</p> <p>(d) nominal voltage: greater than 220 volts,</p> <p>except if the product is also a coloured lamp, a reflector lamp or a crown-reflector lamp.</p>
7	<p>Extra low voltage halogen reflector lamps as described at subclause 1.1.8 of AS 4934.2:2011</p>	<p>This product class comprises products with the following characteristics:</p> <p>(a) tungsten halogen lamp burner, reflector;</p> <p>(b) shape: MR 11-16;</p> <p>(c) cap: bi-pin; and</p> <p>(d) nominal voltage: 5-24 volts inclusive,</p> <p>except if the product is also a coloured lamp.</p>
8	<p>Mains voltage reflector (including halogen) as described at subclause 1.1.9 of AS 4934.2:2011</p>	<p>This product class comprises products with the following characteristics:</p> <p>(a) tungsten filament or tungsten halogen lamp burner, with reflector;</p> <p>(b) shape: PAR, ER, R, RE, XR, YR, ZR or MR 11-16;</p> <p>(c) cap: E14, E26, E27, B15 or B22d or GU10; and</p> <p>(d) nominal voltage: greater than 220 volts,</p> <p>except if the product is also a</p>

		coloured lamp.
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*Note 1:* This subsection reflects the scope specified in clause 1.1 of AS 4934.2:2011 and clause 1.1 of AS/NZS 4934.1(Int):2008.

*Note 2:* Products that are not covered by these classes are not covered by this Determination. In addition subsection (2) sets out several specific products that are not covered.

- (2) For subsection 23 (2) of the Act, the Determination does not cover:
- (a) automotive lamps; and
  - (b) the following special purpose lamps:
    - (i) lamps intended for traffic signals as outlined in *AS 4113.1:1993 Traffic signal lamps Part 1: Lamps for 240V a.c. operation*;
    - (ii) very long life lamps intended for air or sea navigation purposes;
    - (iii) lamps with a temperature rating greater than 300 degrees Celsius intended for use in ovens;
    - (iv) infra-red lamps; and
    - (v) reinforced construction (rough use or vibration) lamps, that are not intended for general purpose illumination and have packaging (and accompanying product information) that states clearly and prominently the special purpose of the lamp and that the lamp is not intended for general purpose illumination.

*Note:* The term 'special purpose lamps' has the same meaning as in subclause 3.1 AS 4934.2:2011.

*Note:* This subsection reflects the exclusions in clause 1.2 of AS 4934.2:2011.

## 6 GEMS level requirements

### *Energy use and greenhouse gas production*

- (1) For paragraphs 24 (1) (a) and 25 (a) of the Act, the specified energy use requirements for products in product classes 1 to 5 and product class 7 are the requirements mentioned in clauses 4.2 and 4.3 of AS/NZS 4934.2:2011.
- (2) Subject to subsection 6 (3) of this Determination, for paragraphs 24 (1) (a) and 25 (a) of the Act, the specified energy use requirements for products in product class 6 are the requirements mentioned in clauses 4.2 and 4.3 of AS/NZS 4934.2:2011.
- (3) For paragraphs 24 (1) (a) and 25 (a) of the Act, until 30 September 2013 the specified energy use requirements for products in product class 6 include the alternative initial efficacy requirement set out in clause 4.3 of AS/NZS 4934.2:2011.

### *Conducting tests*

- (4) For paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests for products in product classes 1 to 7 are the requirements mentioned in section 2 of AS/NZS 4934.1(Int):2008.

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*GEMS level requirements for product class 8*

- (5) There are no GEMS level requirements for products in product class 8.

**7 GEMS labelling requirements**

*Labelling information and communication requirements*

- (1) For paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, the specified labelling requirements for products in product classes 1 to 8 are the requirements mentioned in clause 4.5 of AS/NZS 4934.2:2011.

*Conducting tests*

- (2) For paragraphs 24 (1) (b) and 26 (1) (c) of the Act, the specified requirements for conducting tests for products in products classes 1 to 8 are the requirements mentioned in section 2 of AS/NZS 4934.1(Int):2008.

**8 Other GEMS requirements**

*Product performance*

- (1) For subsection 24 (2) and paragraph 27 (1) (b) of the Act, the specified requirements relating to the performance of products in product classes 1 to 6 and product class 8 are the lifetime and lumen maintenance requirements mentioned in table 1 of clause 4.2 of AS/NZS 4934.2:2011.
- (2) For subsection 24 (2) and paragraph 27 (1) (b) of the Act, the specified requirements relating to the performance of products in product class 7 are:
- (a) the lifetime and lumen maintenance requirements mentioned in table 1.1 of clause 4.2 of AS/NZS 4934.2:2011; and
- (b) the maximum wattage for requirements in clause 4.4 of AS/NZS 4934.2:2011.

*Conducting tests*

- (3) For subsection 24 (2) and paragraph 27 (1) (e) of the Act, the specified requirements for conducting tests for products in product classes 1 to 8 in relation to paragraph 27 (1) (b), are the requirements mentioned in section 2 of AS/NZS 4934.1(Int):2008.

**9 Families of models**

- (1) Subject to subsection 9 (2) of this Determination, for section 28 of the Act the specified circumstances, in which 2 or more models from a single product class covered by this Determination are in the same family of models, are when the models:
- (a) are in the same product class;

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- (b) are of a single brand;
  - (c) rely on the same test report that sets out the results of testing conducted in accordance with section 6, 7 and 8 of this Determination;
  - (d) have the same physical characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination including, but not limited to, the following:
    - (i) overall size;
    - (ii) geometric form factor;
    - (iii) any other dimensions, components or component arrangements that may affect performance; and
  - (e) have the same energy performance characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination including, but not limited to, the following:
    - (i) efficacy; and
    - (ii) wattage; and
  - (f) have the same product performance characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination including, but not limited to, the following:
    - (i) lifetime;
    - (ii) lumen maintenance; and
    - (iii) maximum wattage.
- (2) For subsection (1), a model cannot be a member of a family of models if its inclusion in that family would lead to the family consisting of more than 4 models.

## **10 Product Categories**

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

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### **Note**

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