



# **Greenhouse and Energy Minimum Standards (Ballasts for Fluorescent Lamps) 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 (Ballasts for Fluorescent Lamps) 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 2293 series* means *Australian Standard 2293 Emergency escape lighting and exit signs for buildings – System design, installation, and operation*, as it existed on the date this Determination came into force.

*Note:* AS 2293 series is available from Standards Australia Limited

*AS 2380 series* means *Australian Standard 2380 Electrical equipment for explosive atmospheres – Explosion-protection techniques – General requirements*, as it existed on the date this Determination came into force.

*Note:* AS 2380 series is available from Standards Australia Limited

*AS/NZS 4783.1:2001* means *Australian/New Zealand Standard 4783.1:2001 Performance of electrical lighting equipment—Ballasts for fluorescent lamps - Part 1: Method of measurement to determine energy consumption and performance of ballasts-lamp circuits*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 4783.1:2001 is available from Standards Australia Limited.

*AS/NZS 4783.2:2002* means *Australian/New Zealand Standard 4783.2:2002 Performance of electrical lighting equipment—Ballasts for fluorescent lamps - Part 2: Energy labelling and minimum energy performance standards requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 4783.2:2002 is available from Standards Australia Limited.

*AS/NZS 60079 series* means *Australian/New Zealand Standard 60079 Explosive atmospheres – Equipment – General requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 60079 series is available from Standards Australia Limited.

*AS/NZS 60921:2002* means *Australian/New Zealand Standard 60921:2002 Ballasts for tubular fluorescent lamps—Performance requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 60921:2002 is available from Standards Australia Limited.

*AS/NZS 60929:2005* means *Australian/New Zealand Standard 60929:2005 A.C. supplied electronic ballasts for tubular fluorescent lamps—Performance requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 60929:2005 is available from Standards Australia Limited.

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**AS/NZS 61241 series** means *Australian/New Zealand Standard AS/NZS 61241 Electrical apparatus for use in the presence of combustible dust – General requirements*, as it existed on the date this Determination came into force.

*Note:* AS/NZS 61241 series is available from Standards Australia Limited.

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

**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.

**ballast** means, for a fluorescent lamp, a unit inserted between the electricity supply and one or more discharge lamps which, by means of inductance, capacitance, or a combination of inductance and capacitance, serves mainly to limit the current of lamp(s) to the required value. The ballast may consist of one or more separate components. It may also include means for transforming the supply voltage and arrangements which help provide the starting voltage, preheating current, prevent cold starting, reduce stroboscopic effects, correct the power-factor and/or suppress radio interference. The term includes the components in a variety of ballast circuits, for example, rapid start, instant start, and quick start.

*Note:* This is the same meaning as in clause 4.2 of AS/NZS4783.1:2001.

**ballast lumen factor** has the same meaning as in clause 4.4 of AS/NZS 4783.1:2001.

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

**energy efficiency index classification** means an alphanumeric indicator (dimensionless) related to the corrected total input power of a ballast-lamp circuit under test, ranging from A (most efficient) to D (least efficient).

*Note:* This is the same meaning as in clause 4.1 of AS/NZS 4783.2:2002.

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

**luminaire** means an apparatus which distributes, filters or transforms the light transmitted from one or more lamps and which includes, except the lamps themselves, all the parts necessary for fixing and protecting the lamps and, where necessary, circuit auxiliaries together with the means for connecting them to the electric supply.

**standard** means an Australian Standard, an Australian/New Zealand Standard, a CIE 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

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- 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.

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

### *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 5.1.1 of AS/NZS 4783.2:2002 provides that at least one ballast shall be tested in accordance with AS/NZS 4783.1:2001. The applicable version of AS/NZS 4783.1:2001 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 ballasts in the product classes set out at subsection (2), that are of ferromagnetic or electronic type, and:
  - (a) are intended for use with fluorescent lamps with a rated lamp power ranging from 10 watts to 70 watts; and
  - (b) are for use on 50 hertz supplies of 230 volt, 240 volt, or 250 volt, or a range which includes one or more of these voltages; and
  - (c) whether supplied as separate components or as part of a luminaire.

*Note 1:* This subsection reflects the scope specified in clause 1 of AS/NZS 4783.2:2002 and subclause 6.4.1 of AS/NZS 4783.2:2002.

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*Note 2:* This subsection specifies products that are covered by the Determination. See subsection (3) for products that are not covered.

(2) The product classes are as follows:

**Product class      Products covered by class**

- 1            Ferromagnetic ballasts with a rated voltage of 250 volt or greater.
- 2            Ferromagnetic ballasts with a rated voltage of 240 volt or greater and less than 250 volt.
- 3            Electronic ballasts and ferromagnetic ballasts not included within class 1 or class 2.

- (3) For subsection 23 (2) of the Act, this Determination does not cover:
- (a) ballasts primarily for use on direct current electrical supply or batteries; or
  - (b) ballasts primarily for the production of light outside the visible spectrum, that is, 400 nm to 800 nm; or
  - (c) ballasts used in exit signs within the scope of AS/NZS 2293; or
  - (d) ballasts for hazardous area lighting equipment, within the scope of AS 2380, AS/NZS 60079 and AS/NZS 61241 series of Standards.

*Note:* This subsection reflects the exclusions specified in clauses 1 (a) to 1 (d) of AS/NZS 4783.2:2002.

## **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 are the requirements mentioned in:
- (a) for products in product class 1, paragraph 6.4.1 (a) of AS/NZS 4783.2:2002; and
  - (b) for products in product class 2, paragraph 6.4.1 (b) of AS/NZS 4783.2:2002; and
  - (c) for products in product class 3, paragraph 6.4.1 (c) of AS/NZS 4783.2:2002.

### *Conducting tests*

- (2) For paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests for products covered by this Determination are the requirements mentioned in clauses 5.1 to 5.3 of AS/NZS 4783.2:2002.

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## **7 GEMS labelling requirements**

### *Labelling and communication requirements*

For paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, the specified labelling and communication requirements are the requirements mentioned in clause 5.4 of AS/NZS 4783.2:2002 in relation to the energy efficiency index classification.

### *Conducting tests*

For paragraphs 24 (1) (b) and 26 (1) (c) of the Act, the specified requirements for conducting tests are the requirements mentioned in clause 5.1 to 5.3 of AS/NZS 4783.2:2002 in relation to the energy efficiency index classification markings.

## **8 Other GEMS requirements**

### *Product performance*

- (1) For subsection 24 (2) and paragraph 27 (1) (b) of the Act, the specified requirements relating to product performance for products covered by this Determination are the requirements mentioned in:
  - (a) clause 6.2 of AS/NZS 4783.2:2002 in relation to performance prerequisites; and
  - (b) clause 6.3 of AS/NZS 4783.2:2002 in relation to ballast lumen factor.

### *Conducting tests*

- (2) For subsection 24 (2) and paragraph 27 (1) (e) of the Act, the specified requirements for conducting tests in relation to paragraph 27 (1) (b) are the requirements mentioned in:
  - (a) for products in all product classes, section 5 of AS/NZS 4783.1:2001 in relation to ballast lumen factor; and
  - (b) for ferromagnetic ballasts in all product classes, section 3 of AS/NZS 60921:2002, as applicable, in relation to performance prerequisites; and
  - (c) for electronic ballasts in product class 3, section 4 of AS/NZS 60929:2005 as applicable, in relation to performance prerequisites.

## **9 Families of models**

- (1) 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 of a single brand; and
  - (b) rely on the same test report that sets out the results of testing conducted in accordance with sections 6, 7 and 8 of this Determination; and

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- (c) have the same physical characteristics that are relevant to complying with sections 6, 7 and 8 of this Determination; and
  - (d) 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:
    - (i) energy efficiency index classification; and
    - (ii) 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>.