



Greenhouse and Energy Minimum Standards (Computers) Determination 2013¹

Greenhouse and Energy Minimum Standards Act 2012

I, GARY GRAY, Minister for Resources, Energy and Tourism, make this Determination under section 23 of the *Greenhouse and Energy Minimum Standards Act 2012*.

Dated 30 April 2013

Gary Gray
Minister for Resources, Energy and Tourism

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1 Name of Determination

This Determination is the *Greenhouse and Energy Minimum Standards (Computers) Determination 2013*.

2 Commencement

This Determination comes into force on 1 October 2013.

3 Definitions

(1) In this Determination:

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

AS/NZS 4665.1:2005 means *Australian/New Zealand Standard AS/NZS 4665.1:2005 Performance of external power supplies Part 1: Test method and energy performance mark*, as it existed on 27 February 2009.

Note 1: AS/NZS 4665.1:2005 is available from Standards Australia Limited.

Note 2: AS/NZS 4665.1:2005 includes all amendments up to and including AS/NZS 4665.1:2005 /Amdt:1 made on 27 February 2009.

AS/NZS 5813.1:2012 means *Australian/New Zealand Standard AS/NZS 5813.1:2012 Information technology equipment - Energy performance of computers Part 1: Methods of measurement of energy performance*, as it existed on 17 July 2012.

Note: AS/NZS 5813.1:2012 is available from Standards Australia Limited.

AS/NZS 5813.2:2012 means *Australian/New Zealand Standard AS/NZS 5813.1:2012 Information technology equipment - Energy performance of computers Part 2: Minimum energy performance standards (MEPS) for computers*, as it existed on 17 July 2012.

Note 1: AS/NZS 5813.2:2012 is available from Standards Australia Limited.

Note 2: AS/NZS 5813.2:2012 includes all amendments up to and including AS/NZS 5813.2:2002 /Amdt 1:2013 made on 8 March 2013.

AS/NZS 5814.1:2012 means *Australian/New Zealand Standard AS/NZS 5814.1:2012 Information technology equipment - Energy performance of internal power supplies Part 1: Methods of measurement of energy performance*, as it existed on 17 July 2012.

Note: AS/NZS 5814.1:2012 is available from Standards Australia Limited.

deemed-to-comply computer—see subsection 6(2).

computer—see subsection 3(2).

desktop computer—see subsection 3(3).

digitizer means an input device that enables the entry of drawings and sketches into a computer.

external power supply means a power supply external to the computer casing and which:

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- (a) is designed to convert line voltage alternating current input from the mains to lower direct current voltage(s) for the purpose of powering the computer; and
- (b) is connected to the computer via a removable or hard-wired electrical connection.

game controller means an input device used to control a video game.

integrated desktop computer—see subsection 3(3).

keyboard means a set of typewriter-like keys that enables the entry of data into a computer.

mouse means a hand-held device that controls the movement of the cursor or pointer on a computer screen.

notebook computer—see subsection 3(3).

small-scale server—see subsection 3(3).

Note: Pursuant to paragraph 13(1)(b) of the *Legislative Instruments Act 2003*, expressions used in this declaration have the same meaning as in the Act. For example, section 5 of the Act defines the following expressions:

- category A product
- covered by
- family of models
- GEMS
- GEMS labelling requirements
- GEMS level requirements
- model
- product classes
- supply

Meaning of computer

- (2) **Computer** means a device which performs logical operations and processes data and which, at a minimum, is composed of:
- (a) a central processing unit (CPU) to perform operations; and
- (b) support for user input devices such as a keyboard, mouse, digitizer or game controller; and
- (c) an integrated display screen or the ability to support an external display screen to output information or both.
- (3) The word **computer** also includes the types of computer set out in the following table.

Column 1 Item	Column 2 Type of computer	Column 3 Definition of type of computer
1	Desktop computer	A computer intended to be located in a permanent location (for example on a desk or the floor) and which is designed to use an external display, keyboard and mouse whether or not those things are supplied with the computer at the time of purchase.
2	Integrated desktop computer	<p>A computer which contains the computer and computer display in a single housing, which receives its AC power through a single cable and which is in one of the following forms:</p> <p>(a) a product where the computer display and computer are physically combined into a single unit; or</p> <p>(b) a product packaged as a single product where the computer display is separate but is connected to the main chassis by a DC power cord and both the computer and computer display are powered from a single power supply.</p>
3	Notebook computer	<p>A computer which:</p> <p>(a) is designed specifically for portability; and</p> <p>(b) is capable of being powered by an integrated battery or other portable battery source; and</p> <p>(c) has an integrated display.</p> <p>A notebook computer also includes a computer which is marketed or sold as a "netbook" or "laptop" computer.</p>
4	Tablet computer	A notebook computer which is supplied with both a touch-sensitive screen and a physical keyboard.

Column 1 Item	Column 2 Type of computer	Column 3 Definition of type of computer
5	Small-scale server	<p>A computer which:</p> <p>(a) is designed to be a storage host for other computers; and</p> <p>(b) is marketed for non-data centre operation, such as home or small office use; and</p> <p>(c) includes all data processing, storage and network interfacing in the one form factor; and</p> <p>(d) is designed to be operational at all times and to have little or no unscheduled downtime; and</p> <p>(e) is capable of operating in a simultaneous multi-user environment serving several users through networked client units.</p>

4 Interpretation

- (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 specifically mentioned 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, the key terms for ascertaining if a product is covered by this Determination are defined in this Determination.

- (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 ‘Normative References’ 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.

5 Specified product classes covered by this Determination

(Act, section 23)

Products that are covered by this Determination

- (1) This Determination covers computers specified in the table following this subsection which are designed to be connected to 230 or 240 volts mains voltage via:
- (a) a direct connection; or
 - (b) an external power supply permanently connected to the product; or
 - (c) an external power supply that can be disconnected from the product.

Column 1 Class	Column 2 Description of class
Class 1	Notebook computers and tablet computers
Class 2	Desktop computers
Class 3	Integrated desktop computers
Class 4	Small-scale servers

Products that are not covered by this Determination

- (2) Despite subsection (1), the products described in Columns 2 and 3 of the following table are not covered by this Determination.

Column 1 Item	Column 2 Description of product not covered by this Determination	Column 3 Detailed description (if applicable)
1	Hand-held computing devices	For example, personal digital assistants (PDAs), palmtop computers and smart phones.
2	Game consoles	A stand-alone computer-like device the primary purpose of which is to play computer games, with the primary input being a special hand held controller rather than a keyboard or mouse.
3	Handheld gaming devices	A handheld device the primary purpose of which is to play computer games.
4	Blade personal computers	A computer entirely contained in a thin, modular circuit card and which is designed to be placed in a centralised and secure location such as a server rack.

Column 1 Item	Column 2 Description of product not covered by this Determination	Column 3 Detailed description (if applicable)
5	Workstations	<p>A high performance, single-user computer which:</p> <p>(a) is marketed as a workstation; and</p> <p>(b) has a mean time between failures (MTBF) of at least 15,000 hours based on either Bellcore TR-NWT-000332, issue 6, 12/97 or field collected data; and</p> <p>(c) supports error-correcting code or buffered memory or both; and</p> <p>(d) has at least three of the following six characteristics:</p> <ul style="list-style-type: none"> (i) support for a PCI-E 6-pin 12V supplemental power feed for high-end graphics; (ii) the system is wired for greater than ×4 PCI-E on the motherboard in addition to the graphics slot or slots and PCI-X support; (iii) does not support Uniform Memory Access (UMA) graphics; (iv) five or more PCI, PCIe or PCI-X slots; (v) capable of multi-processor support for two or more physically separate processors; or (vi) be qualified by at least two Independent Software Vendor (ISV) product certifications.

Column 1 Item	Column 2 Description of product not covered by this Determination	Column 3 Detailed description (if applicable)
6	Mobile workstations	A high performance, single-user computer which: (a) is marketed as a mobile workstation; (b) is qualified by at least two Independent Software Vendor (ISV) product certifications; (c) is open graphics library (open GL) certified; (d) has a discrete GPU greater than or equal to G3; and (e) contains a docking station interface.
7	Computer servers that are not small-scale servers	
8	Slate computers	A computer which lacks a physical keyboard and which: (a) is supplied only with touchscreen input; and (b) can be connected to a network only via a wireless system (for example, Wi-Fi or 3G); and (c) is primarily powered from an internal battery.
9	Thin client computers	An independently-powered computer that relies on a connection to remote computing resources to obtain primary functionality, in circumstances where that remote computing resource undertakes the main computing functions (for example, program execution, data storage and interaction with Internet resources).

Column 1 Item	Column 2 Description of product not covered by this Determination	Column 3 Detailed description (if applicable)
10	High-end Category D computers	A computer that has: <ul style="list-style-type: none"> (a) four or more physical processor cores; and (b) a discrete GPU greater than or equal to category G5 with a data width (frame buffer width) greater than or equal to 192 bits; and (c) system memory greater than or equal to six gigabytes; and (d) greater than or equal to two channels of memory; and (e) greater than or equal to two PICEs slot single-ended points of ×8 or ×16 configuration; and (f) a power supply unit of greater than or equal to 500W nameplate output rating.

6 GEMS level requirements

(Act, section 25)

GEMS level requirements for products covered by this Determination

- (1) The energy use requirements for a product covered by this Determination, other than a deemed-to-comply computer, are the requirements:
 - (a) in the case of a Class 1, Class 2 or Class 3 product—set out in subclauses 4.5.1 and 4.5.2 of AS/NZS 5813.2:2012 in relation to the typical energy consumption; and
 - (b) in the case of a Class 4 product—set out in subclause 4.5.3 of AS/NZS 5813.2:2012 in relation to the idle power mode consumption and the standby (off) power mode consumption.

GEMS level requirements for deemed-to-comply computers

- (2) A computer is a **deemed-to-comply computer** if no more than 200 computers of the same model have been or will be supplied:
 - (a) in the year which commences on the date after this Determination commences on which the first computer of the same model was supplied; and
 - (b) for each year after the date mentioned in paragraph (a), the year ending on the date of the anniversary of the date mentioned in paragraph (a).
- (3) The energy use requirements for a deemed-to-comply computer are the requirements set out in clause 4.4 of AS/NZS 5813.2:2012.

Conducting tests

- (4) The requirements for conducting tests for products covered by this Determination, other than deemed-to-comply computers, are the requirements mentioned in section 2 (General Conditions for Measurement) and section 3 (Measurement Approach) of AS/NZS 5813.1:2012.
- (5) The requirements for conducting tests for deemed-to-comply products are:
 - (a) for products with a direct connection to mains power—the requirements mentioned in sections 2 (General Conditions for Measurement), 3 (Loading Criteria for Testing Efficiency) and 4 (Measurement Approach) of AS/NZS 5814.1:2012; and
 - (b) for products powered by an external power supply—the requirements mentioned in subsections 6(2) to 6(4) of the *Greenhouse and Energy Minimum Standards (External Power Supplies) Determination 2012*.

7 GEMS labelling requirements

(Act, section 26)

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

8 Other GEMS requirements

(Act, section 27)

Product performance

- (1) The specified requirements relating to the performance of products covered by this Determination are the requirements mentioned in section 4.3 (Network and Power Management Requirements) of AS/NZS 5813.2:2012.

Conducting tests

- (2) The requirements for conducting tests for products covered by this Determination are the requirements mentioned in section 2 (General Conditions for Measurement) and section 3 (Measurement Approach) of AS/NZS 5813.1:2012.

9 Families of models

(Act, section 28)

- (1) The circumstances in which two or more models of product in a single product class covered by this Determination are in the same family of models are the circumstances mentioned in clause 1.5.7 of AS/NZS 5813.2:2012.
- (2) However, 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 10 models.

10 Product Categories

(Act, section 29)

The products covered by this Determination are category A products.

Note: This product category is a category set for the purposes of the Act. It is different from the categories of computer which are provided for in AS/NZS 5813.2:2012.

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>.