Air conditioners provide a space conditioning (cooling only or heating and cooling) service to improve the thermal comfort of an indoor space (such as a room, entire home or larger complex).

Air conditioners are also used in commercial and industrial buildings such as offices, shopping centres and manufacturing premises.

Residential air conditioners (also referred to as heat pumps particularly in New Zealand), were first required to carry an energy label in 1987 and have been subject to Minimum Energy Performance Standards (MEPS) since 2004.

Larger three phase air conditioners (that are normally used in non-residential situations) have been regulated for MEPS since 2001 and have a voluntary labelling scheme.

Types Of Air Conditioners

There are two main types of air conditioning products on the market:
1. refrigerative products (using the vapour compression cycle)
2. evaporative products.

Refrigerative products have been the main focus of the E3 Program (and are the focus of this page), however some research has been undertaken on evaporative products and they may be considered in the future.

Refrigerative air conditioners can supply a cooling only service, and reverse cycle products are capable of heating as well as cooling. The main types of products are as follows:

- **Split system (non-ducted):** The most common type of household air conditioners. These products have an outdoor unit that houses the compressor and condenser, and an indoor unit that is commonly mounted on a wall. They can range in size to suit a small bedroom, to much larger products that could suit large open plan living areas.

- **Window/wall units:** These products contain all parts in a single unit (rather than having a separate outdoor and indoor unit). They are installed either through windows or can be mounted into walls (where the back of the unit will be outdoors). They are typically less efficient, but cheaper to purchase and install than split systems and are suitable for cooling or heating single rooms.

- **Ducted systems:** Ducted products can provide heating and cooling for an entire home or premises, delivering warm/cool air via ducts positioned in various rooms. These systems can be zoned so that only certain areas are being conditioned (for instance only living areas during the day). Two types of systems are:

  - **domestic ducted units** are split systems that consist of a single outdoor unit connected to an indoor unit installed in the roof cavity or under the floor
  - **commercial ducted** units tend to consist of a single unit on the roof or next to a wall and are connected to the building through ductwork only. They are available in single phase and three phase power and energy labelling is voluntary for these products.

- **Multi-split systems:** Multi-splits consist of multiple indoor units connected to a single outdoor unit. These can allow for different temperatures in different rooms.

- **Double/triple split system:** An increasingly uncommon configuration that consists of a single outdoor unit and two or three indoor units that cannot be controlled individually.

- **Portable products:** Like window/wall units, portable air conditioners are unitary systems. However, they are contained entirely within the space to be conditioned (i.e. a room) and air is drawn from indoors, cooled and then expelled outside via a single duct. These products are not currently regulated - for more information see Portable air conditioners.
Regulatory Requirements For Air Conditioners

Single phase non-ducted air conditioners for household use are regulated for energy labelling in Australia and New Zealand. All three phase and single phase ducted air conditioners up to 65kW cooling capacity are regulated for Minimum Energy Performance Standards (MEPS). Manufacturers can choose to label three phase and ducted air conditioners, but this is not mandatory. MEPS details are shown on the air conditioner MEPS page.

What are we working on?

Existing air conditioner regulations and labelling requirements are being considered in the recently published combined air conditioner and chillers consultation RIS. The public submission period for the RIS closed on Friday 18 March 2016. A selection of the resubmissions are available to download.

Refer to Current Work for more detail.

Key Documents

- GEMS Determination - Air Conditioners and Heat Pumps »
- Consultation RIS: Air Conditioners and Chillers »
- Update: Proposed Changes to Air Conditioner Regulations »
- Seasonal Energy Efficiency Ratios SEER Calculator »
- Air Conditioners and Chillers - Updated Policy Proposals »
- Proposed Changes to Air Conditioner Regulations »

View all documents

About Air Conditioner Labels
Domestic single phase, non-ducted air conditioners must carry an Energy Rating Label. Labels on ducted systems are voluntary, so not all products will have one. You can still view their energy efficiency performance on the GEMS Registration Database. In manufacturer’s literature they may refer to energy efficiency ratios (EER) and co-efficients of performance (COP) which are the efficiency ratings for cooling and heating respectively. They are simply a ratio of the output (capacity) divided by the power input. They may also mention an annualised version of these metrics (AEER and ACOP). These are virtually the same thing, but deduct standby power. The Energy Rating Comparison Tool provides the power input and outputs for all products, even unlabelled ones. This allows you to calculate the EER and COP yourself. You can then compare these and choose a model with a higher EER/AEER and/or COP/ACOP.

For non-ducted household air conditioners, you can still compare models online or using the free Energy Rating app, but you can also use the label. Air conditioner labels are a little bit different to labels for other household products and have some product specific information on them.

**The stars**

Just like on other appliances, air conditioners are given star ratings, blue for
their cooling function and red for their heating function (unless the appliance is a cooling only device, and then it will have the blue stars only).

The more stars a product has, the more efficient it is. Air conditioners can currently be rated up to 10 stars. If a product is rated at 6 stars or less, it will not show the extra star ‘super efficiency rating’ band. You can see on the above example that this unit is rated 7 stars for cooling and 4 for heating, so only the cooling star arch has the additional coronet.

You can compare the efficiency of different products using the stars, however you must compare products of the same or similar size. You can find this in the middle of the label, in the capacity output box.

**Capacity output and power input**

<table>
<thead>
<tr>
<th>Capacity Output kW</th>
<th>Power Input kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.75</td>
<td>0.82</td>
</tr>
</tbody>
</table>

The capacity output figures on an air conditioner label will let you know the amount of cooling and heating the model can produce. These are the figures you should check are of similar value when comparing star ratings. See size matters for information about the importance of choosing the right sized product.

The power input shows you how much power is required to produce the heat or cooling shown in the capacity output box. If two products have the same star rating and same capacity output you can see which product is more efficient by choosing the one with the lower power input.

Some labels may also have a separate declaration within the heating output and input box, as shown above. This number will show the heating output capacity of the product when tested at 2 degrees Celsius. The main figure is based on testing at 7 degrees. When outside temperatures are below approximately 5 degrees, outdoor units can begin to ice up and this will impact on the capacity of the unit (i.e. the amount of space it can heat). This declaration is voluntary and won't be found on all models. However if you live in an area that regularly has temperatures below 5 degrees, it can be worth looking for this figure or asking your retailer or installer.

**Variable output compressor**

This box shows whether the unit has a variable output compressor, commonly known as an ‘inverter’ air conditioner. These units are able to vary the speed at which they operate to suit conditions, so on a mild summer day they won’t have to work as hard as when it’s 40 degrees outside. Traditional single speed air conditioners, which are less common today, simply turn on and off as set temperatures are met.
Demand response capability

The Demand Response (AS4755) section of the label refers to the appliances’ inbuilt capability of participating in a voluntary peak electricity demand management program. An example of such a voluntary scheme is Energex’s PeakSmart air conditioning program. This feature is only relevant to these types of voluntary programs and will not affect normal operation.

- Mode 1 means the appliance is capable of being turned off and back on.
- Mode 2 means the appliance is capable of being turned down by 50%.
- Mode 3 means the appliance is capable of being turned down by 25%.

Zoned Energy Rating Label

The energy efficiency and performance of certain appliances can be impacted by where they are installed (location) and other factors such as usage patterns and climate variations, including air temperature, water temperature, frosting, humidity and cloud cover. The EEAT is examining a move to a zone-based energy efficiency labelling system for some products or product categories.

Size Matters: Air Conditioners

When considering purchasing a new air conditioner, the most important initial step is to ensure you select a suitably sized unit. Unlike other products such as televisions, where the size of the product is obvious, air conditioners typically look similar despite having wide ranges of heating and/or cooling capacities. Sizing for air conditioners is provided as a
kilowatt (kW) capacity output figure (not to be confused with the power input, which is the amount of power required to produce the listed cooling and/or heating output) and you can find this on the energy rating label, as well as on the manufacturer's product literature.

There are many different elements within your home that will impact on the size air conditioner you’ll require. These include (but are not limited to):

- Whether you are looking to heat/cool a single room, a larger space or your entire home;
- Size of room/home (including ceiling height);
- External wall materials;
- Insulation levels; and
- How many windows you have, their glazing, shading and orientation.

Because of all these factors, it’s best to have a professional advise you on the size air conditioner to look for. There are also free online tools you can use to give yourself a rough idea, for instance the Australian Institute of Refrigeration, Air conditioning and Heating (AIRAH) offer the ‘Fair Air’ calculator.

Another element to consider is where you live. If you live in a cool climate, or where in winter temperatures are regularly below 5 degrees Celsius, it’s important that the unit you choose is able to cope in these conditions. Some models’ capacity will reduce at these times so you may find it unable to heat your space sufficiently, while others are able to continue to meet or exceed their capacity. Some manufacturers will test their products at a colder temperature and provide the capacity output for 2 degrees Celsius. This information isn’t always easy to find though, so check with your retailer or installer to see if they can assist.

Undersized units will have to work harder to heat or cool your room, and may be unable to reach and maintain your preferred temperature. Oversized products will typically be less energy efficient and they’re likely to cost more upfront as well.

Ensuring the product you have selected is an appropriate size will mean you’ll remain comfortable in your home and not use more energy than necessary.

**Air Conditioner FAQs**

**What are Star Ratings?**

**How are star ratings calculated?**
What types of air conditioners are not required to carry an energy rating label?

How do air conditioners work?

How can an air conditioner be more than 100% efficient?

How does an air conditioner compare to a normal electric heater?

Are evaporative coolers more energy efficient than conventional air conditioners?

What is an ‘inverter’ air conditioner?

If ‘inverter’ type air conditioners are more efficient, why don’t they get higher star ratings?

What does Power Input (also called Comparative Energy Consumption or CEC) mean?

What does Capacity Output mean?

**Compare Models**

**Energy Rating Calculator**

Compare the energy efficiency of fridges, televisions and computer monitors, clothes washers and dryers, dishwashers and air conditioners.

[Compare models]

**Energy Rating Calculator app**

Download the Energy Rating Calculator app from the iTunes App Store or Google Play.
Your Energy Savings Website

Visit the Australian Government's Your Energy Savings website for useful information like:

- Seniors' guide to energy saving
- Reduce your energy bills
- Home-based businesses

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Log in | E3HQ


Dated 26 August 2013

Gary Gray

Minister for Resources and Energy
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1 Name of Determination

This Determination is the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2013.

2 Commencement, Revocation and Replacement

(1) This Determination comes into force on 1 April 2014.

(2) This Determination revokes and replaces the Greenhouse and Energy Minimum Standards (Air Conditioner and Heat Pump) Determination 2012 (F2012L02129).

3 Definitions

In this Determination:


**Note 1:** *AS/NZS 3823.1.1:1998* is available from Standards Australia Limited as a superseded Standard.


**Note:** *AS/NZS 3823.1.1:2012* is available from Standards Australia Limited.


**Note 1:** *AS/NZS 3823.1.2:2001* is available from Standards Australia Limited as a superseded Standard.

**Note 2** *AS/NZS 3823.1.2:2001* includes all amendments up to and including AS/NZS 3823.1.2:2001/Amdt 5:2010 made on 18 October 2010.


**Note:** *AS/NZS 3823.1.2:2012* is available from Standards Australia Limited.

Note 1: AS/NZS 3283.1.3:2005 is available from Standards Australia Limited.

Note 2: AS/NZS 3283.1.3:2005 includes all amendments up to and including AS/NZS 3283.1.3:2005/Amdt 1 made on 22 September 2011.


Note: AS/NZS 3823.1.4:2012 is available from Standards Australia Limited.


Note: AS/NZS 3823.2:2013 is available from Standards Australia Limited.


Note: AS/NZS 3823.2:2002 is available from Standards Australia Limited.


Note: AS/NZS 4776.1.1:2008 is available from Standards Australia Limited.


Note: AS/NZS 4965.1:2008 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 Limited and Standards New Zealand, is applicable in both countries and denoted by the letters “AS/NZS” and identifying numbers and/or letters.

CIE Standard means a standard that is published by, or on behalf of, the International Commission on Illumination.
**ducted air conditioner** means an encased assembly or assemblies designed primarily to provide ducted delivery of conditioned air to an enclosed space room or zone (conditioned space), that:

(a) may be either single-package or split system; and

(b) comprises a primary source of refrigeration for cooling and dehumidification; and

(c) may include means for heating other than a heat pump, as well as means for circulating, cleaning, humidifying, ventilating or exhausting air; and

(d) may be provided in more than one assembly; the separated assemblies of which (split systems) are designed to be used together.

*Note:* This is the same meaning as in clause 3.1 of AS/NZS 3823.1.2:2012.

**ducted heat pump** means an encased assembly or assemblies designed primarily to provide ducted delivery of conditioned air to an enclosed space room or zone (conditioned space), including a prime source of refrigeration or heating, that:

(a) may be constructed to remove heat from the conditioned space and discharge it to a heat sink if cooling and dehumidification are desired from the same equipment; and

(b) may include means for circulating, cleaning, humidifying, ventilating or exhausting air; and

(c) may be provided in more than one assembly; the separated assemblies of which (split systems) are intended to be used together.

*Note:* This is the same meaning as in clause 3.2 of AS/NZS 3823.1.2:2012.

**fixed head type** means a multi-split system air conditioner or heat pump incorporating a single refrigerant circuit with a single outdoor unit and two or more indoor units, each of which can be individually controlled. The outdoor unit has a dedicated set of refrigeration ports for each individual indoor unit. The maximum number of indoor units that can be connected is limited by the number of dedicated ports on the outdoor unit.

*Note:* This is the same meaning as in subclause 1.6.10.1 of AS/NZS 3823.2:2013.

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

**multi-split system** means a split system air conditioner with a refrigeration system having two or more independently controlled indoor units of either fixed head or variable refrigerant flow (VRF) type.

*Note:* This is the same meaning as in subclause 1.6.10 of AS/NZS 3823.2:2013.

**non-ducted air conditioner** means an encased assembly or assemblies designed primarily to provide free delivery of conditioned air to an enclosed space, room or zone (conditioned space), that:

(a) may be either single-package or split system; and

(b) comprises a primary source of refrigeration for cooling and dehumidification; and
(c) may include means for heating other than a heat pump, as well as means for circulating, cleaning, humidifying, ventilating or exhausting air; and

(d) may be provided in more than one assembly; the separated assemblies of which (split systems) are designed to be used together.

Note: This is the same meaning as in clause 3.1 of AS/NZS 3823.1.1:2012.

**non-ducted heat pump** means an encased assembly or assemblies designed primarily to provide free delivery of conditioned air to an enclosed space, room or zone (conditioned space) and includes a prime source of refrigeration or heating, that:

(a) may be constructed to remove heat from the conditioned space and discharge it to a heat sink if cooling and dehumidification are desired from the same equipment; and

(b) may include means for circulating, cleaning, humidifying, ventilating or exhausting air; and

(c) may be provided in more than one assembly; the separated assemblies of which (split systems) are designed to be used together.

Note: This is the same meaning as in clause 3.2 of AS/NZS 3823.1.1:2012.

**single-phase** means a model where all components in the air conditioning system that require an external power supply require only single-phase power.

Note: This is the same meaning as in subclause 1.6.17 of AS/NZS 3823.2:2013.

**split system** means an air conditioner with separate indoor and outdoor components that are connected with refrigerant piping. The indoor unit usually lies within the conditioned space and may be installed or portable or mobile.

Note 1: The indoor unit in some configurations may feed into a duct system. Some split ducted system indoor units may have no fan and are designed to operate with an existing system (for example gas heaters).

Note 2: This is the same meaning as in subclause 1.6.19 of AS/NZS 3823.2:2013.

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

**three-phase** means a model where at least one component in the air conditioning system requires an external three-phase power supply.

Note: This is the same meaning as in subclause 1.6.27 of AS/NZS 3823.2:2013.

**variable refrigerant flow (VRF) type** means a multi-split system air conditioner or heat pump incorporating a single refrigerant circuit with one or more outdoor units and two or more indoor units each of which can be individually controlled. The outdoor unit module has a set of refrigeration ports that services the network of indoor units through branch piping and/or distribution devices.

Note 1: This is the same meaning as in subclause 1.6.10.2 of AS/NZS 3823.2:2013.

Note 2: Several other words and expressions used in this Determination have the meaning given by section 5 of the Act. For example:
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 following version of the document:
(c) if the document is the subject of a definition in section 3 of this Determination which specifies a date of effect—the version of the document that existed at that date;
(d) otherwise—the version of the document that existed at the date this Determination came into force.

Note: For example, subclause 3.11 of AS/NZS 3823.2:2013 requires that fixed head multi-split systems shall be tested in accordance with AS/NZS 3823.1.4. The applicable version of AS/NZS 3823.1.4 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 air conditioners and heat pumps of the vapour compression type with a rated total cooling capacity of 65 kilowatts or less, in the product classes set out in subsection (2).
(2) The product classes are as follows:

<table>
<thead>
<tr>
<th>Product Class</th>
<th>Products Covered by Class</th>
<th>Product Class Characteristics</th>
</tr>
</thead>
</table>
| 1             | Non-ducted air conditioners and non-ducted heat pumps | This product class comprises products with the following characteristics:  
   (a) non-ducted;  
   (b) unitary air conditioner;  
   (c) rated total cooling capacity of less than 10 kW;  
   (d) single-phase or three-phase. |
| 2             | Non-ducted air conditioners and non-ducted heat pumps | This product class comprises products with the following characteristics:  
   (a) non-ducted;  
   (b) unitary air conditioner;  
   (c) rated total cooling capacity from 10 kW to less than 19 kW;  
   (d) single-phase or three-phase. |
| 3             | Non-ducted air conditioners and non-ducted heat pumps | This product class comprises products with the following characteristics:  
   (a) non-ducted;  
   (b) split system (excluding multi-split systems);  
   (c) rated total cooling capacity of less than 4 kW;  
   (d) single-phase or three-phase. |
| 4             | Non-ducted air conditioners and non-ducted heat pumps | This product class comprises products with the following characteristics:  
   (a) non-ducted;  
   (b) split system (excluding multi-split systems);  
   (c) rated total cooling capacity from 4 kW to less than 10 kW;  
   (d) single-phase or three-phase. |
| 5             | Non-ducted air conditioners and non-ducted heat pumps | This product class comprises products with the following characteristics:  
   (a) non-ducted;  
   (b) split system (excluding multi-split systems);  
   (c) rated total cooling capacity from 10 kW to less than 19 kW;  
   (d) single-phase or three-phase. |
| 6 | Ducted air conditioners and ducted heat pumps (excluding multi-split systems) | This product class comprises products with the following characteristics:  
(a) ducted;  
(b) rated total cooling capacity of less than 10kW;  
(c) single-phase or three-phase. |
| 7 | Ducted air conditioners and ducted heat pumps (excluding multi-split systems) | This product class comprises products with the following characteristics:  
(a) ducted;  
(b) rated total cooling capacity from 10kW to less than 19kW;  
(c) single-phase or three-phase. |
| 8 | Ducted air conditioners, non-ducted air conditioners, ducted heat pumps and non-ducted heat pumps | This product class comprises products with the following characteristics:  
(a) multi-split system;  
(b) rated total cooling capacity of less than 4kW;  
(c) single-phase or three-phase. |
| 9 | Ducted air conditioners, non-ducted air conditioners, ducted heat pumps and non-ducted heat pumps | This product class comprises products with the following characteristics:  
(a) multi-split system;  
(b) rated total cooling capacity from 4kW to less than 10kW;  
(c) single-phase or three-phase. |
| 10 | Ducted air conditioners, non-ducted air conditioners, ducted heat pumps and non-ducted heat pumps | This product class comprises products with the following characteristics:  
(a) multi-split system;  
(b) rated total cooling capacity from 10kW to less than 19kW;  
(c) single-phase or three-phase. |
| 11 | Ducted air conditioners, non-ducted air conditioners, ducted heat pumps and non-ducted heat pumps | This product class comprises products with the following characteristics:  
(a) rated total cooling capacity from 19kW to 39kW;  
(b) single-phase or three-phase. |
| 12 | Ducted air conditioners, non-ducted air conditioners, ducted heat pumps and non-ducted heat pumps | This product class comprises products with the following characteristics:  
(a) rated total cooling capacity from greater than 39kW to 65kW;  
(b) single-phase or three-phase. |
| 13 | Air conditioners with water cooled condensers, water-to-air heat pumps and brine-to-air heat pumps | This product class comprises products with the following characteristics:  
(a) rated total cooling capacity of less than 39kW;  
(b) single-phase or three-phase. |
| 14 | Air conditioners with water cooled condensers, water- | This product class comprises products with the following characteristics: |
(3) For subsection 23 (2) of the Act, this Determination does not cover:

(a) close control air conditioners and liquid-chilling packages; or
(b) evaporative coolers or any other cooling systems that are not of the vapour compression type; or
(c) ground-water-sourced heat pumps or ground-loop-sourced heat pumps; or
(d) unbalanced air conditioners and spot coolers; or
(e) air conditioners powered by mains electricity specifically designed and sold only for installation in end-use mobile applications of caravans, mobile homes, camper vans, boats and rail cars; or
(f) air conditioners powered by mains electricity specifically designed and sold only for installation in specialised high temperature industrial applications, such as crane cabins used over blast furnaces; or
(g) products that solely deliver conditioned outdoor air to an indoor conditioned space.

Note 1: Regarding paragraph (a), some products excluded from the application of this Determination are subject to the application of other GEMS Determinations.

Note 2: Regarding paragraph (b), air conditioners of the vapour compression type that have an enhancement or option to assist the operating energy efficiency (for example, solar-boosted air conditioners) are not excluded from this Determination.

Note 3: Regarding paragraph (c), water-loop heat pumps are included in the application of this Determination.

Note 4: Regarding paragraph (e), units for end-use mobile applications listed at paragraph (e) are air conditioners that have been designed to cater for the expected vibrations, repetitive bumping and shock and other rough use conditions of the intended mobile application, and have design specifications and test evidence of complying with Australian/New Zealand Standard or IEC Standard requirements under such conditions.

Note 5: Regarding paragraph (e), units installed in portable buildings are included in the application of this Determination.

Note 6: This subsection reflects the exclusions specified in clause 1.2 of AS/NZS 3823.2:2013.

(4) In this section:

*brine-to-air heat pump* means a heat pump which consists of one or more factory-made assemblies which normally include an indoor conditioning coil with air-moving means, compressor(s), and refrigerant-to-brine heat...
exchanger(s), including means to provide both cooling and heating, cooling-only, or heating-only functions.

*Note 1:* When such equipment is provided in more than one assembly, the separated assemblies should be designed to be used together.

*Note 2:* Such equipment may also provide functions of sanitary water heating, air cleaning, dehumidifying, and humidifying.

*Note 3:* This is the same meaning as in clause 3.1 of AS/NZS 3823.1.3:2005.

**Close control air conditioner** means a unitary air conditioner designed for high sensible heat ratio applications that are capable of maintaining close control of both temperature and humidity. A close control air conditioner consists of one or more factory-made assemblies, which include a compressor, a direct expansion evaporator, an air-moving device and air-filtering devices, and may include a condenser, a humidifier or a reheating function.

*Note:* This is the same meaning as in clause 4.1 of AS/NZS 4965.1:2008.

**Ground loop sourced heat-pump** means a brine-to-air heat pump using a brine solution circulating through a subsurface piping loop functioning as a heat source/heat sink.

*Note 1:* The heat exchange loop may be placed in horizontal trenches or vertical bores, or be submerged in a body of surface water.

*Note 2:* The temperature of the brine is related to climatic conditions and may vary from minus 5 degrees Celsius to 40 degrees Celsius.

*Note 3:* This is the same meaning as the term ‘ground-loop heat pump application’ in clause 3.1.3 of AS/NZS 3823.1.3:2005.

**Ground water sourced heat-pump** means a water-to-air heat pump using water pumped from a well, lake or stream functioning as a heat source/heat sink.

*Note 1:* The temperature of the water is related to climatic conditions and may vary from 5 degrees Celsius to 25 degrees Celsius for deep wells.

*Note 2:* This is the same meaning as the term ‘ground-water heat pump application’ in clause 3.1.2 of AS/NZS 3823.1.3:2005.

**Liquid-chilling package** means a factory-made and prefabricated assembly (not necessarily shipped as one package) of one or more compressors, condensers and evaporators, with interconnections and accessories, designed for the purpose of cooling water, and is a machine specifically designed to make use of a vapour compression refrigeration cycle to remove heat from water and reject the heat to a cooling medium, usually air or water.

*Note:* This is the same meaning as in clause 4.10 of AS/NZS 4776.1.1:2008.

**Rated total cooling capacity** means the total cooling capacity claimed by the manufacturer for the product, as determined when tested in accordance with AS/NZS 3823.1.1, AS/NZS 3823.1.2 or AS/NZS 3823.1.4 for temperature condition T1, or for products within the scope of AS/NZS 3823.1.3, Table 1 for cooling for water loop heat pumps, as applicable.

*Note:* This is the same meaning as in subclause 1.6.13 of AS/NZS 3823.2:2013.
solar-boosted air conditioner means a single-phase or three-phase non-ducted or ducted air conditioner of the vapour compression type up to a rated total cooling capacity of 65 kW, having provision for the input of energy from a solar source and which can be configured to operate as an air source air conditioner or heat pump (with little or no solar input).

Note: This is the same meaning as in subclause 1.6.18 of AS/NZS 3823.2:2013.

spot cooler means a unitary air conditioner that lies wholly within a conditioned space and that draws air for both the evaporator and condenser from the conditioned space and expels both of these back into the conditioned space.

Note: This is the same meaning as in subclause 1.6.20 of AS/NZS 3823.2:2013.

unbalanced air conditioner means a unitary air conditioner that lies wholly within a conditioned space and that draws air from the conditioned space and expels this to outdoors. These units are typically portable or mobile.

Note: This is the same meaning as in subclause 1.6.29 of AS/NZS 3823.2:2013.

unitary air conditioner means an air conditioner where the evaporator, condenser and associated refrigeration components (for example, the compressor) are contained within a single casing.

Note 1: Unitary air conditioners may be non-ducted (for example, window/wall units) or ducted (for example, single packaged units).

Note 2: This is the same meaning as in subclause 1.6.30 of AS/NZS 3823.2:2013.

water-to-air heat pump means a heat pump which consists of one or more factory-made assemblies which normally include an indoor conditioning coil with air-moving means, compressor(s), and refrigerant-to-water heat exchanger(s), including means to provide both cooling and heating, cooling-only, or heating-only functions.

Note 1: When such equipment is provided in more than one assembly, the separated assemblies should be designed to be used together.

Note 2: Such equipment may also provide functions of sanitary water heating, air cleaning, dehumidifying, and humidifying.

Note 3: This is the same meaning as in clause 3.1 of AS/NZS 3823.1.3:2005.

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 covered by this Determination are the requirements mentioned in clause 3.2 of AS/NZS 3823.2:2013.

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 3.3 to 3.8, 3.10 and 3.11 of AS/NZS 3823.2:2013.
(3) For the purposes of subsection (2), until 30 April 2014:
   
   (a) references to AS/NZS 3823.1.1 in AS/NZS 3823.2:2013 can be read as references to either AS/NZS 3823.1.1:1998 or AS/NZS 3823.1.1:2012; and

   (b) references to AS/NZS 3823.1.2 in AS/NZS 3823.2:2013 can be read as references to either AS/NZS 3823.1.2:2001 or AS/NZS 3823.1.2:2012.

Note: From 1 May 2014, references to AS/NZS 3823.1.1 and AS/NZS 3823.1.2 are to AS/NZS 3823.1.1:2012 and AS/NZS 3823.1.2:2012, respectively.

Accuracy of simulation model – multi-split systems

(4) Where testing a product in product classes 8 to 12 that is a multi-split system using a simulation test, the simulation model used must have an accuracy, demonstrated by comparison to measured performance, equivalent to the physical test standard AS/NZS 3823.1.4:2012.

Note: The simulation model must be conducted using a simulation of performance in accordance with the requirements mentioned in clause 3.4 of AS/NZS 3823.2:2013 and AS/NZS 3823.3:2002.

7 GEMS labelling requirements

Energy labelling requirements – non-ducted, single-phase products

(1) Subject to subsections (2) and (5), for paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, the specified labelling and communication requirements for:

   (a) single-phase products in product classes 1 to 5; and

   (b) non-ducted, single-phase products in product classes 11 and 12,

are the requirements mentioned in section 2 and clause 3.9 of AS/NZS 3823.2:2013.

Exclusion from energy labelling requirements – non-ducted, single-phase products

(2) Subject to subsection (3), products otherwise covered by subsection (1) are excluded from the requirements set out in subsection (1) if they are:

   (a) designed for non-domestic applications;

   (b) not on display for sale through retail outlets; and

   (c) not promoted in any catalogue or advertising material that could be interpreted as suitable for some residential applications.

(3) For paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, if a product referred to in subsection (2) displays an energy label, the specified labelling and communication requirements are the requirements mentioned in section 2 and clause 3.9 of AS/NZS 3823.2:2013.
Energy labelling requirements – ducted, single-phase products and three-phase products

(4) Subject to subsection (5), for paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, if a product displays an energy label, the specified labelling and communication requirements for:

(a) ducted, single-phase products in product classes 6, 7, 11 and 12; and
(b) three-phase products in product classes 1 to 7, 11 and 12,

are the requirements mentioned in section 2 and clause 3.9 of AS/NZS 3823.2:2013.

Exclusion from energy labelling requirements – multi-split systems

(5) Products in product classes 8 to 10, and products otherwise covered by subsections (1) or (4) that are multi-split systems, must not display an energy label.

Exclusion from energy labelling requirements – air conditioners with water cooled condensers etc.

(6) Products in product classes 13 or 14 must not display an energy label.

Conducting tests – energy labelling requirements

(7) For paragraphs 24 (1) (b) and 26 (1) (c) of the Act, the specified requirements for conducting tests for products covered by this section of the Determination are the requirements mentioned in section 2, clauses 3.3 to 3.8, 3.10 and 3.11, and section 4 of AS/NZS 3823.2:2013.

(8) For the purposes of subsection (7), until 30 April 2014:

(a) references to AS/NZS 3823.1.1 in AS/NZS 3823.2:2013 can be read as references to either AS/NZS 3823.1.1:1998 or AS/NZS 3823.1.1:2012; and

(b) references to AS/NZS 3823.1.2 in AS/NZS 3823.2:2013 can be read as references to either AS/NZS 3823.1.2:2001 or AS/NZS 3823.1.2:2012.

Note: From 1 May 2014, references to AS/NZS 3823.1.1 and AS/NZS 3823.1.2 are to AS/NZS 3823.1.1:2012 and AS/NZS 3823.1.2:2012, respectively.

8 Other GEMS requirements

There are no other GEMS requirements for products covered by this Determination.
9 **Families of models**

For section 28 of the Act, the specified circumstances in which two or more models from a single product class covered by this Determination are in the same family of models, are the circumstances mentioned in subclause 1.6.8 of AS/NZS 3823.2:2013.

10 **Product Category**

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 (Air Conditioner and Heat Pump) Determination 2012* (F2012L02129).

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.

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**Note**

EXPLANATORY STATEMENT

Issued by the authority of the Minister for Resources, Energy and Tourism


Purpose

The Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2013 (Determination) establishes minimum energy efficiency, energy labelling and high efficiency level requirements, and associated requirements for conducting tests, for air conditioners and heat pumps.

This Determination revokes and replaces the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2012 (F2012L02129).

Background

The Act established a national framework for regulating the energy efficiency of products supplied or used within Australia, implementing Australian Government and the Council of Australian Governments (COAG) commitments to establish national legislation to regulate energy efficiency and labelling standards for appliances and other products. The national legislation permits the Australian Government to set mandatory minimum efficiency requirements for products, to drive greater energy efficiency for regulated products. The Act also allows the Australian Government to set nationally-consistent labelling requirements, to increase Australians’ awareness of options to improve energy efficiency and reduce energy consumption, energy costs and greenhouse gas emissions. The national framework replaced seven state and territory legislative frameworks, harmonising the regulation of equipment energy efficiency.

Historically, MEPS and energy labelling requirements were set out in Australian or Australian/New Zealand Standards and incorporated by reference in regulations, which were usually made under the relevant state or territory electrical safety legislation. Over time the COAG Equipment Energy Efficiency Program (E3 Program) developed the practice of setting the requirements by reference to the relevant Australian or Australian/New Zealand Standards. This practice has been continued in this Determination.

Selected definitions and text are extracted in the Determination from the relevant Australian or Australian/New Zealand Standards. This is done with the intention of making it possible to determine if a product is covered (or excluded) by the GEMS Determination without having to refer to the relevant standard.

MEPS requirements, or energy use requirements, relate to requirements for the minimum allowable energy efficiency of a product. They provide an energy efficiency
‘floor’ for that product type, below which individual models of that product type cannot be sold. The level of the floor can be raised over time, providing a means of raising the average energy efficiency of the product type.

Energy labelling requirements primarily relate to requirements for the display of energy rating labels, such as those commonly seen on products including refrigerators, dishwashers and televisions, amongst others. Energy rating labels allow consumers to compare the energy consumption of similar products, and factor potential cost savings into their purchasing decision. For some products labelling requirements also relate to specific information that must be marked on the product itself or the box in which it is supplied.

Other regulatory requirements possible under the Act include requirements relating to high efficiency levels, product performance, and the impact of the product on the environment or the health of human beings. Of these types, only product performance requirements are set in this Determination. Product performance requirements are intended to ensure that minimum efficiency requirements or a higher number of stars on an energy rating label are not achieved by reducing the effectiveness of the product in its primary function. An example of this is the setting of minimum requirements for soil removal for clothes washers.

Under the Act the Minister has limited powers to vary existing GEMS determinations. For example section 35 of the Act prevents the Minister from varying an existing determination, by providing that section 33(3) of the Acts Interpretation Act 1901 does not apply in relation to a GEMS determination.

In order for the Minister to revise any of the GEMS requirements specified in an existing determination, the Minister must first revoke the existing GEMS determination (see section 35 of the Act) and then make a replacement determination that specifies the new requirements and any relevant existing requirements from the revoked determination.

This Determination is a replacement determination. It regulates multi-split air conditioners and heat pumps within the scope of AS/NZS 3823.1.4 for the first time. It does this by calling up the requirements set out in AS/NZS 3823.2:2013. Many of the other components of this replacement Determination, including the definitions and testing requirements, remain the same as in the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2012 (F2012L02129) (the revoked Determination), and so are reproduced in the same form in this Determination.

**Legislative basis**

Under subsection 23(1) of the Act the Minister may, by legislative instrument, make a determination (a GEMS determination) that specifies one or more classes of products if the products in those classes use energy or affect the amount of energy used by other products. A GEMS determination is the vehicle by which energy efficiency requirements (GEMS level requirements), energy labelling requirements (GEMS labelling requirements) for classes of products and other requirements for a product class are established. Under section 35 of the Act, the Minister may revoke a GEMS determination and issue a replacement GEMS determination. The revoked
determination ceases to be in force immediately before the replacement determination comes into force.

Under section 36 of the Act, a replacement determination must specify whether it affects the registration of models of GEMS products. Under subsection 36(2) of the Act, if a replacement determination does not specify that it affects a model’s registration, the model is taken to be registered against the replacement determination. If a replacement determination specifies that it affects a model’s registration, then under paragraph 48(2)(c) of the Act, the model’s registration ceases to be in force from the time the replacement determination comes into force (or the beginning of the day a registration of the model against the replacement determination comes into force, whichever is the earlier).

Under section 25 of the Act the GEMS level requirements specified in a GEMS determination may be:

- requirements relating to one or more of the following:
  - the amount of energy used in operating products in relevant product classes;
  - the amount of greenhouse gases resulting from operating products in the relevant product class;
  - the effect of those products on the amount of energy used by operating other products; and

- requirements for conducting tests in relation to products in the relevant product class in order to determine whether the products meet the specified requirements.

Under section 26 of the Act the GEMS labelling requirements specified in a GEMS determination may be:

- requirements relating to the information that must be communicated in connection with supplying or offering to supply products in the relevant product class;
- requirements relating to the manner in which that information must be communicated; and
- requirements for conducting tests in relation to products in the relevant product class in order to determine whether the products meet the specified requirements.

Under section 27 of the Act other requirements that may be specified in a GEMS determination are:

- requirements for products in the relevant product class to meet a specified level (the high efficiency level);
- requirements relating to the performance of products in the relevant product class;
• requirements relating to the impact of products in that product class on the environment or on the health of human beings;

• requirements for conducting tests in relation to products in the relevant product class in order to determine whether the products meet the specified requirements; and

• requirements of a kind specified in the regulations for the purposes of this paragraph.

Consultation
The Australian Government has conducted extensive consultation with the air conditioner industry throughout the development of the regulatory approach to air conditioners and heat pumps for over ten years. Consultation was undertaken through discussion papers, stakeholder forums, steering committee meetings and stakeholder meetings.

In July 2009, COAG announced their intention to raise MEPS requirements by 10%, subject to an appropriate regulatory impact statement, from October 2011. In November 2009, this was communicated by letter to peak air conditioning industry associations along with the intention to include multi-split units in the new MEPS.

A COAG Consultation Regulatory Impact Statement (Consultation RIS) was released for public consultation in the second quarter of 2010. The Consultation RIS communicated the potential impacts, costs and benefits arising from the proposed introduction of more stringent Minimum Energy Performance Standards (MEPS) levels for air conditioners which were covered by existing State and Territory regulations. Comments from stakeholders were considered and a number of changes were agreed to address out-dated data, the stringency and timing of the MEPS implementation date, the impact of MEPS on particular categories of air conditioners and the introduction of MEPS for multi-split air conditioner units.

In February 2011, subsequent to the approval of the COAG Decision Regulatory Impact Statement (Decision RIS) and endorsement of the recommended regulatory option by the Ministerial Council on Energy (MCE), a peak industry body raised further concerns in relation to consultation, data quality, the impact of requiring physical tests for all products, and the impact on particular products of the proposed timing of implementation. Subsequent negotiations resulted in agreement to allow simulation testing in certain circumstances, a delay to the MEPS for one category of ducted air conditioner, a delay to the multi-split air conditioner MEPS until after the completion of suitable Australian/New Zealand Standards, and the creation of an Air Conditioner Advisory Committee made up of industry representatives to help facilitate more effective consultation.

Industry was further consulted in the process of completing AS/NZS 3823.2:2013 and the development of the Determination. An exposure draft of the Determination was released for comment in April 2013, and no substantive issues were raised.

Regulatory Impact
A comprehensive Decision RIS was prepared for air conditioners and heat pumps following the completion of the Consultation RIS process. The Decision RIS incorporated industry submissions and comments and reflected the modifications
agreed to in consultation. The Decision RIS was presented to the MCE for consideration in late 2010, and the MCE agreed to adopt the recommended regulatory approach on 10 December 2010. An addendum to the Decision RIS, reflecting the modifications agreed to after the original MCE endorsement (discussed above), was approved by the MCE on 8 September 2011.

**Detailed description of the Determination**

Details of the Determination are set out at Attachment A.

**Statement of compatibility with human rights**

A statement of compatibility with human rights for the purposes of Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011* is set out at Attachment B.
Details of the Determination

Section 1 – Name of Determination
This section sets out the title of the Determination.

Section 2 – Commencement, Revocation and Replacement
Section 35 of the Act provides that the Minister may revoke a GEMS determination and issue a replacement GEMS determination. The revoked determination ceases to be in force immediately before the replacement determination comes into force.

This section provides that the Determination comes into force on 1 April 2014. This Determination revokes and replaces the Greenhouse and Energy Minimum Standards (Air Conditioner and Heat Pump) Determination 2012 (F2012L02129).

Section 3 – Definitions
This section sets out definitions for key terms used in the Determination. The definitions include:

- definitions relating to the various Australian/New Zealand Standards by which the requirements of the Determination are specified;
- definitions of “ducted air conditioner” and “ducted heat pump”, which are given the same meaning as in Australian/New Zealand Standard AS/NZS 3823.1.2:2012;
- definitions of “non-ducted air conditioner” and “non-ducted heat pump”, which are given the same meaning as in Australian/New Zealand Standard AS/NZS 3823.1.1:2012;
- a definition of “multi-split system” which is given the same meaning as in Australian/New Zealand Standard AS/NZS 3823.2:2013.
- definitions of other related terms, which are given the same meaning as in Australian/New Zealand Standard AS/NZS 3823.2:2011;
- a definition of “CIE Standard”, which is a standard that is published by, or on behalf of, the International Commission on Illumination;
- a definition of “IEC Standard”, which is a standard published by, or on behalf of, the International Electrotechnical Commission; and
- a definition of “standard”, which means an Australian Standard, an Australian/New Zealand Standard, an IEC Standard or any other equivalent document.

Section 4 – Interpretation
Section 4 provides guidance for interpreting certain aspects of the Determination.
Subsection 4(1)

The purpose of this subsection is to avoid any inconsistency in terminology between the Determination (and other elements of the GEMS legislation) and the standards referenced in section 3 of the Determination. It indicates that where a term used in the Determination is not defined in any part of the GEMS legislation, but is defined in a standard referenced in section 3, for the purposes of the Determination the term has the meaning set out in the applicable standard.

Subsection 4(2)

The standards referred to in the Determination themselves refer to other documents that must be applied to give effect to the Determination. The purpose of this subsection is to specify which version of such a document, if referred to in a standard under the heading “Referenced Documents” (or an equivalent heading), is the applicable version of the document for the purposes of the Determination.

Where a relevant document is defined in section 3 of this Determination and the definition specifies a date of effect, the applicable version of the document for the purposes of the Determination is the version that existed at that specified date. Otherwise, the applicable version of the document is the version that existed on the date this Determination comes into force.

In this Determination two standards have been defined in section 3 with a date specified other than the date the instrument came into force – AS/NZS 3823.1.1:1998 with a specified date of 24 February 2006, and AS/NZS 3823.1.2:2001 with a specified date of 18 October 2010. Therefore, the applicable versions of these standards are the versions that existed on 24 February 2006 and 18 October 2010 respectively (the dates the most recent amendments to each standard was published). These standards were superseded by AS/NZS 3823.1.1:2012 and AS/NZS 3823.1.2:2012 respectively, which were published on 11 May 2012. The Determination allows registrants the option of using test methods set out in the superseded standards as alternatives to test methods in the current standards until 30 April 2014.

From 1 May 2014, however, references to AS/NZS 3823.1.1 and AS/NZS 3823.1.2 are to AS/NZS 3823.1.1:2012 and AS/NZS 3823.1.2:2012 respectively. It was not possible for the applicable version of AS/NZS 3823.1.1:1998 and AS/NZS 3823.1.2:2001 to be the versions that existed on the date the Determination was made, as these standards had been superseded by the 2012 versions. For all other documents incorporated by reference in accordance with this subsection, the application version is the date this Determination comes into force.

Section 5 – Specified product classes covered by the Determination

Section 5 sets out the scope of the Determination with respect to the class of products that it covers.
Subsection 5(1)

Subsection 5(1) provides that the Determination covers air conditioners and heat pumps of the vapour compression type with a rated cooling capacity of 65 kilowatts or less, in the product classes set out at subsection 5(2).


Subsection 5(2)

Subsection 5(2) specifies the product classes that are covered by the Determination. This subsection establishes 14 product classes for air conditioners and heat pumps covered by the Determination, based on the rated cooling capacity of the product, whether the product is ducted or non-ducted, whether the product is unitary or a split system, and if it has a water-cooled condenser or is a water-to-air or brine-to-air heat pump. Product classes 11 and 12 incorporate multi-split systems that have the specified characteristics. In this instance, the specified characteristics refer to products of a certain size. For instance, product class 11 incorporates all configurations in the size class 19-39kW (i.e. multi-splits, single-splits, ducted, unitary). Product class 12 incorporates all configurations in the size class 39-65 kW. Since products in either of these classes are rare, these products were grouped together by size, rather than size and configuration as with the other product classes.

Subsection 5(3)

This subsection sets out product classes that are not covered by the Determination. These are:

- close control air conditioners and liquid-chilling packages (these products are subject to requirements under other GEMS determinations);
- evaporative coolers or any other cooling systems that are not of the vapour compression type;
- ground-water-sourced heat pumps or ground-loop-sourced heat pumps;
- unbalanced air conditioners and spot coolers;
- air conditioners powered by mains electricity specifically designed and sold only for installation in end-use mobile applications of caravans, mobile homes, camper vans, boats and rail cars;
- products that solely deliver conditioned outdoor air to an indoor conditioned space; and

Some products not covered by this Determination may be covered by other GEMS determinations.

Subsection 5(4)

This subsection defines the terms “brine-to-air heat pump”, “close-control air conditioner”, “ground loop sourced heat-pump”, “ground water sourced heat-pump”,

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liquid-chilling package”, “multi-split system”, “solar-boosted air conditioner”, “spot cooler”, “unbalanced air conditioner”, “unitary air conditioner” and “water-to-air heat pump” for the purposes of section 5. These terms are given the same meaning as they have in the standards referenced in section 3. The terms are included here to assist in ascertaining whether a product is covered by this Determination without the need to refer to the relevant standard.

Section 6 – GEMS level requirements

Section 6 specifies GEMS level requirements for energy use for air conditioners and heat pumps covered by the Determination, including requirements for conducting tests in order to demonstrate compliance with the energy use requirements, under section 25 of the Act. These requirements replace the GEMS level requirements for energy use for air conditioners and heat pumps in the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2012 (F2012L02129) (the revoked Determination), which incorporated the energy use requirements in AS/NZS 3823.2:2011 by reference.

Subsection 6(1)

This subsection provides that the GEMS level requirements in relation to energy use are those set out in clause 3.2 of AS/NZS 3823.2:2013.

Subsection 6(2)

This subsection specifies that the requirements for conducting tests are those set out in clauses 3.3 to 3.8, 3.10 and 3.11 of AS/NZS 3823.2:2013.

Subsection 6(3)

This subsection specifies, for the purposes of subsection 6(2), that:

- until 30 April 2014, references to AS/NZS 3823.1.1 in AS/NZ 3823.2:2013 can be read as references to either AS/NZS 3823.1.1:1998 or AS/NZS 3823.1.1:2012; and
- until 30 April 2014, references to AS/NZS 3823.1.2 in AS/NZ 3823.2:2013 can be read as references to either AS/NZS 3823.1.2:2001 or AS/NZS 3823.1.2:2012.

This has the effect that registrants have the option to use the relevant test method from either the current or the superseded test standard. However, from 1 May 2014 registrants will be required to use the test method from the current test standard only.

Section 7 – GEMS labelling requirements

Section 7 specifies GEMS labelling requirements for air conditioners and heat pumps covered by the Determination, including requirements for conducting tests in order to demonstrate compliance with the energy labelling requirements, under section 26 of the Act. These requirements replace the GEMS labelling requirements for air conditioners and heat pumps in the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2012 (F2012L02129) (the revoked

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Determination), which incorporated the energy labelling requirements in AS/NZS 3823.2:2011 by reference.

Subsection 7(1)

This subsection provides that the GEMS labelling requirements for non-ducted, single-phase air conditioners and heat pumps (single-phase products in product classes 1 to 5, and non-ducted, single-phase products in product classes 11 and 12) are those set out in section 2 and 5 of AS/NZS 3823.2:2013.

Subsection 7(2)

This subsection specifies, subject to subsection 7(3), that air conditioners and heat pumps otherwise covered by subsection 7(1) are excluded from the requirements set out in that subsection if they are (a) designed for non-domestic applications, (b) not on display for sale through retail outlets, and (c) not promoted in any catalogue or advertising material that could be interpreted as suitable for some residential applications.

The intent of this subsection is to prevent air conditioners and heat pumps designed for commercial or industrial applications, but which otherwise fall within the range of products described in subsection 7(1), from being captured by the energy labelling requirements of subsection 7(1). Energy rating labels are generally not considered an effective tool for influencing purchasing decisions where products are not sold through retail outlets.

Subsection 7(3)

This subsection has the effect that if an air conditioner or heat pump otherwise excluded by subsection 7(2) displays an energy label, it must comply with the requirements set out in section 2 and clause 3.9 of AS/NZS 3823.2:2013.

Subsection 7(4)

This subsection specifies that if a ducted, single phase air conditioner or heat pump (ducted, single-phase products in product classes 6, 7, 11 and 12), or a three-phase air conditioner or heat pump (three-phase products in product classes 1 to 7, 11 and 12), displays an energy label, the GEMS labelling requirements are those set out in section 2 and clause 3.9 of AS/NZS 3823.2:2013.

Subsection 7(5)

This subsection specifies that multi-split systems (product classes 8 to 10 and the other specified product classes covered by the Determination that are multi-split systems) must not display an energy label. Multi-split systems come in a variety of possible indoor and outdoor unit combinations which would make accurately labelling a product difficult. In addition, it would be possible for more than one label to be applicable for these units: one showing a small output when configured as a small single split unit and another indicating a very large output when part of a large multi-split system. This could result in confusion for consumers, and consequently, labelling.
is not practical for this product type. For this reason, multi-split systems are excluded from any labelling requirements.

Subsection 7(6)

This subsection specifies that air conditioners with water cooled condensers, water-to-air heat pumps and brine-to-air heat pumps (product classes 13 to 14) must not display an energy label. These products are exempt from labelling requirements because the current test method for them specified in AS/NZS 3823.2:2013 takes into account different parameters compared to other regulated products, making direct comparisons between the different types of products difficult and potentially confusing for consumers.

Subsection 7(7)

The requirements for conducting tests for are those set out in section 2, clauses 3.3 to 3.8, 3.10, 3.11 and section 4 of AS/NZS 3823.2:2013.

Subsection 7(8)

This subsection specifies that for the purposes of subsection 7(7), that:

- until 30 April 2014, references to AS/NZS 3823.1.1 in AS/NZ 3823.2:2013 can be read as references to either AS/NZS 3823.1.1:1998 or AS/NZS 3823.1.1:2012; and
- until 30 April 2014, references to AS/NZS 3823.1.2 in AS/NZ 3823.2:2013 can be read as references to either AS/NZS 3823.1.2:2001 or AS/NZS 3823.1.2:2012.

This has the effect that registrants have the option to use the relevant test method from either the current or the superseded test standard. However, from 1 May 2014 registrants will be required to use the test method from the current test standard only.

Section 8 – Other GEMS requirements

There are no other GEMS requirements for air conditioners and heat pumps covered by the Determination.

Section 9 – Family of models

Section 28 of the Act provides that a GEMS determination must specify, for each product class covered by the determination, the circumstances in which two or more models in that product class are in the same family of models.

This section specifies that the family of models circumstances for air conditioners and heat pumps in a single product class covered by this Determination are those set out in subclause 1.6.8 of AS/NZS 3823.2:2013. This replaces the requirements in the Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2012 (F2012L02129) (the revoked Determination) which referenced subclause 1.6.10 of AS/NZS 3823.2:2011.
Section 10 – Product categories
Section 29 of the Act requires that a GEMS determination specify whether the products it covers are category A or category B products. Category B products are subject to higher penalties than category A products for certain offences under the Act, on the basis that category B products have a high impact on energy use or greenhouse gas production.

Section 10 specifies that air conditioners and heat pumps covered by the Determination are category A products.

Section 11 – Registrations affected by this Determination
Section 36 of the Act provides that if a replacement determination does not specify that it affects a model’s registration, the model is taken to be registered against the replacement determination.

This section specifies that the Determination does not affect the registration of any model registered against the revoked determination, the Greenhouse and Energy Minimum Standards (Air Conditioner and Heat Pump) Determination 2012. Consequently, all models registered under the revoked determination are considered to be registered against the replacement determination.
Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011


This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the Human Rights (Parliamentary Scrutiny) Act 2011.

Overview of the Legislative Instrument

The Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2013 prescribes matters relating to minimum energy efficiency and energy labelling requirements for air conditioners and heat pumps under the Greenhouse and Energy Minimum Standards Act 2012. The Determination establishes requirements for energy use and energy labelling, including requirements for conducting tests in order to demonstrate compliance with those requirements. The Determination also sets out the circumstances in which two or more models in a product class may be a family of models, and establishes the applicable product category for the purposes of calculating certain penalties under the Act.

Human rights implications

This Legislative Instrument does not engage any of the applicable rights or freedoms.

Conclusion

This Legislative Instrument is compatible with human rights as it does not raise any human rights issues.

The Hon Gary Gray AO MP
Minister for Resources, Energy and Tourism