
MP 4.1 – SUSTAINABLE BUILDINGS

Table of Contents

Purpose..... 2
Commencement..... 2
Application..... 2
Referral Agency..... 3
Associated Requirements 3
Referenced Standards 3
Definitions..... 3
Energy Efficiency..... 7
Energy Efficient Fixtures 7
Water Conservation..... 8
Electricity Sub-metering 8

Purpose

To ensure:

- (a) *class 1, class 2* buildings are energy and water efficient; and
- (b) the *electricity* supplied to each *meterable premises* is able to be measured appropriately.

Commencement

This version of Mandatory Part (MP) 4.1:

- (a) commences on 1 January 2010; and
- (b) replaces the version of MP 4.1 published on 24 June 2009.

Application

This part applies to the lawful carrying out of building work as indicated by ticks (✓) in the relevant columns in Table 1 below.

Note: Reference should also be made to sections 36, 37 and 61 of the *Building Act 1975*, which may affect the application of MP 4.1.

Table 1 – Application of MP 4.1

Application	Performance Criteria								
	1	2	3	4	5	6	7	8	9
Construction of <i>new class 1</i> buildings.	✓	✓		✓	✓	✓			
Construction of <i>new class 2</i> buildings.		✓		✓	✓	✓	✓	✓	✓
<i>Renovation</i> of a <i>class 1</i> building.	✓	✓							
<i>Renovation</i> of a <i>sole-occupancy unit</i> in a <i>class 2</i> building.		✓							
<i>Other renovation</i> of a <i>class 1</i> building.	✓	✓		✓	✓	✓*			
<i>Other renovation</i> of a <i>sole-occupancy unit</i> in a <i>class 2</i> building.		✓		✓	✓	✓*			
<i>Installation</i> of an <i>air-conditioner</i> in a <i>class 1</i> or <i>class 2</i> building.			✓						
Construction of a <i>new class 5</i> building.							✓	✓	✓

* **Note:** This applies to only the new work included in the plumbing approval. This is an applied provision under the *Standard Plumbing and Drainage Regulation 2003*

Referral Agency

There is no referral agency for this part.

Associated Requirements

- *Body Corporate and Community Management Act 1997*
- *Building Act 1975*
- Building Code of Australia (BCA)
- *Building Regulation 2006*
- *Electricity Act 1994*
- *Electricity Regulation 2006*
- *Electrical Safety Act 2002*
- *Electrical Safety Regulation 2002*
- *Integrated Planning Act 1997*
- *Plumbing and Drainage Act 2002*
- Plumbing Code of Australia
- *Standard Plumbing and Drainage Regulation 2003*
- *Water Efficiency Labelling and Standards Act 2005*
- *Water Supply (Safety and Reliability) Act 2008*

Referenced Standards

AS/NZS 3823.2	Performance of electrical appliances – air-conditioners and heat pumps – Energy labelling and minimum energy performance standard (MEPS) requirements
AS 62053.21: 2005	Electricity metering equipment (AC)– Particular requirements Part 21: Static meters for active energy (classes 1 and 2)
AS 1284.1:2004	Electricity metering – General purpose induction watt-hour meters

Definitions

Note: Italicised words in the text of the part are as defined below.

Acceptable solution means a relevant building solution which is deemed to satisfy the relevant *performance criterion* for the purposes of section 14 (4) (a) (ii) of the *Building Act 1975*.

Air-conditioner means an air-conditioner for which a minimum energy performance standard requirement is specified under AS/NZS 3823.2.

Alteration has the meaning given in the *Building Act 1975*.

BCA has the meaning given in the *Building Act 1975*.

Class 1 has the meaning given in the *BCA*.

Class 2 has the meaning given in the *BCA*.

Class 5 has the meaning given in the *BCA*.

Class 10a has the meaning given in the *BCA*.

Climate zone has the meaning given in the *BCA*.

Common area means an area of *common property*.

Common property means the lot allocated to the body corporate for the *community titles scheme*.

Community titles scheme has the meaning given in section 10 of the *Body Corporate and Community Management Act 1997*.

Customer has the meaning given in the *Electricity Act 1994*.

Electricity includes electric current, electrical energy and like, and any related physical qualities.

Electricity meter means a device that measures and records the production or consumption of *electricity*.

Electricity sub-meter means a device that measures and records the production or consumption of *electricity* that either:

- a) is a minimum accuracy class 1 under AS62053.21:2005; or
- b) complies with AS1284.1:2004.

Energy Efficiency Ratio (EER) means the tested average energy efficiency ratio for cooling as determined using a method listed for determining minimum energy performance standards compliance in AS/NZS 3823.2.

Energy efficient lighting is lighting with a minimum output of 27 lumens per Watt and excludes a heat lamp used in a bathroom for the purposes of radiating heat.

Installation means, for an *air-conditioner*, placing in position for use in the building and includes connecting to the building's electrical wiring either directly by a permanently fixed connection or by using a plug to access a general purpose outlet.

Meter label means a label of white heat-resistant material with black lettering fixed by means of screws, rivets or glue that clearly identifies each *meterable premise*.

Meterable premises means:

- a) the *sole occupancy unit* of a *class 2* or *class 5* building that is or will be connected to a supply of *electricity*, except where a *sole occupancy unit* of a *class 2* or *class 5* building has or will have an *electricity meter* as a *customer* of a *retail entity* or *special approval holder*; or

- b) each *storey* of a *class 5* building that is or will be connected to a supply of *electricity* where more than one *sole occupancy unit* for that *storey* has not been identified at the time of the building's development approval for building work, except where a *storey* of a *class 5* building has or will have an *electricity meter* as a *customer* of a *retail entity* or *special approval holder*.

New means new building work and does not include *renovations* to existing buildings.

Other renovation means any *alteration* or addition to an existing *class 1* building or the *sole occupancy unit* of a *class 2* building which requires a building development approval and a *plumbing approval*.

Outdoor living area means a space that:

- (i) is directly accessible from, and attached to, a living area of the *class 1* building such as a lounge, kitchen, dining and family rooms; and
- (ii) has a minimum floor area of 12.0 square metres and a minimum dimension in all directions of 2.5 metres; and
- (iii) is fully covered by a impervious roof; and
- (iv) has two or more sides open or capable of being readily opened, not including the connection between the internal living area and the outdoor living area.

Performance criteria means the outcome that must be achieved for an element of a building.

Plumbing approval means the compliance assessment processes, compliance permit or compliance certificate, under sections 78 and 79 of the *Plumbing and Drainage Act 2002* for ensuring that plumbing, drainage and on-site sewerage systems complies with the *Plumbing and Drainage Act 2002* and *Standard Plumbing and Drainage Regulation 2003*.

Renovation means any *alteration* or addition to an existing *class 1* building or the *sole occupancy unit* of a *class 2* building requiring building development approval.

Retail entity has the meaning given in the *Electricity Act 1994*.

Special approval holder has the meaning given in the *Electricity Act 1994*.

Sole-occupancy unit has the meaning given in the *BCA*.

Storey has the meaning given in the *BCA*.

Total R-Value has the meaning given in the *BCA*.

Verification method means a method of determining compliance with the stated value in section V2.6.2.1 and the definition in V2.6, Volume 2 of the *BCA* using a thermal calculation method that complies with the Australian Building Codes Board Protocol for House Energy Rating Software 2006.1.

Water service is defined by the *Water Supply (Safety and Reliability) Act 2008*.

Water service provider for premises, means the person registered under the *Water Supply (Safety and Reliability) Act 2008*, chapter 2, part 3, as the *water service provider* for retail *water services* for the premises.

PERFORMANCE CRITERIA**ACCEPTABLE SOLUTIONS****Energy Efficiency**

- P1** A *class 1* building and an enclosed *class 10a* building attached to a *class 1* building must comply with performance requirement P2.6.1 and P2.6.2 of the *BCA* (Volume 2).
- A1** A *class 1* building, and an enclosed *class 10a* building attached to a *class 1* building, complies with:
- (a) part 3.12 (Vol. 2) of the *BCA*; or
 - (b) verification using a reference building in accordance with V2.6.2 and the definition of V2.6 (Vol. 2) of the *BCA*; or
 - (c) a *verification method* indicating achievement of an energy equivalent rating of not less than 5-stars; or
 - (d) in *climate zones* 1 or 2, where the building includes an *outdoor living area*, a *verification method* indicating achievement of an energy rating of not less than;
 - (i) 4.5-stars where the *outdoor living area* roof covering achieves a *Total R-Value* of 1.5 for downward heat flow; or
 - (ii) 4-stars provided that the *outdoor living area* has at least one permanently fixed ceiling fan with a speed controller and a blade rotation diameter of not less than 900 mm and the roof covering achieves a *Total R-Value* of 1.5 for downward heat flow.

Energy Efficient Fixtures

- P2** In *class 1* and *class 2* buildings and an enclosed *class 10a* building attached to a *class 1* or *class 2* building internal lighting must be energy efficient.
- A2** *Class 1* and *class 2* buildings and an enclosed *class 10a* building attached to a *class 1* or *class 2* building have *energy efficient lighting* for a minimum of 80 per cent of total fixed internal lighting.
- P3** In *class 1* and *class 2* buildings new and replacement *air-conditioners* must be energy efficient.
- A3** In *class 1* and *class 2* buildings, new and replacement *air-conditioners* have an *EER* of at least 2.9.

PERFORMANCE CRITERIA**ACCEPTABLE SOLUTIONS****Water Conservation**

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|-----------|--|-----------|--|
| P4 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , shower roses must facilitate the efficient use of water. | A4 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , all shower roses have a minimum 3-star Water Efficiency Labelling and Standards rating. |
| | | | Note: Water Efficiency Labelling and Standards (WELS) – references the Australian Government’s labelling standards scheme for water efficient products. |
| P5 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , toilet cisterns and bowls must facilitate the efficient use of water. | A5 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , all toilets cisterns: <ul style="list-style-type: none"> (a) have a dual flush function and have a minimum 4-star Water Efficiency Labelling and Standards rating; and (b) are compatible with the size of the toilet bowl to allow for proper functioning of the toilet. |
| P6 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , tap ware must facilitate the efficient use of water. | A6 | In <i>class 1</i> and <i>class 2</i> buildings, in areas serviced by a <i>water service provider</i> , tap ware has a minimum 3-star Water Efficiency Labelling and Standards rating for taps serving: <ul style="list-style-type: none"> (a) laundry tubs; and (b) kitchen sinks; and (c) basins. |

Electricity Sub-metering

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|-----------|--|-----------|--|
| P7 | The <i>electricity</i> supplied to each <i>meterable premises</i> is able to be measured. | A7 | Each <i>meterable premises</i> has an <i>electricity sub-meter</i> installed which measures only the <i>electricity</i> supplied to that <i>meterable premises</i> . |
| P8 | An <i>electrical meter</i> must be located so it is easy and safe to read and maintain at any reasonable time. | A8 | The <i>electricity sub-meter</i> is: <ul style="list-style-type: none"> (a) installed in a <i>common area</i>; and (b) free of hindrance or obstruction to a person authorised to read and/or maintain the <i>electricity sub-meter</i>. |

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
<p>P9 The <i>electrical meter</i> for each <i>meterable premises</i> must be labelled to indicate which <i>meterable premises</i> it is associated with.</p>	<p>P9 A <i>meter label</i> identifying which <i>meterable premises</i> it is associated with is affixed or located adjacent to the <i>electrical meter</i> for each <i>meterable premises</i>.</p>