

# State Environmental Planning Policy (Sustainable Buildings) 2022

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New South Wales

## Status Information

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### Provisions in force

The provisions displayed in this version of the legislation have all commenced.

### Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the [Interpretation Act 1987](#).

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New South Wales

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# State Environmental Planning Policy (Sustainable Buildings) 2022



New South Wales

## Chapter 1 Preliminary

### 1.1 Name of Policy

This Policy is *State Environmental Planning Policy (Sustainable Buildings) 2022*.

### 1.2 Commencement

This Policy commences on 1 October 2023 and is required to be published on the NSW legislation website.

### 1.3 Aims of Policy

The aims of this Policy are as follows—

- (a) to encourage the design and delivery of sustainable buildings,
- (b) to ensure consistent assessment of the sustainability of buildings,
- (c) to record accurate data about the sustainability of buildings, to enable improvements to be monitored,
- (d) to monitor the embodied emissions of materials used in construction of buildings,
- (e) to minimise the consumption of energy,
- (f) to reduce greenhouse gas emissions,
- (g) to minimise the consumption of mains-supplied potable water,
- (h) to ensure good thermal performance of buildings.

### 1.4 Definitions

(1) Words used in this Policy are defined in the Dictionary in Schedule 4.

**Note—**

The Act and the *Interpretation Act 1987* contain definitions and other provisions that affect the

interpretation and application of this Policy.

- (2) In this Policy, the use of on-site fossil fuels does not include the use of back-up electricity generators.
- (3) Words used in this Policy have the same meaning as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*, unless otherwise defined in this Policy.

### **1.5 Relationship with other environmental planning instruments**

If there is an inconsistency between this Policy and another environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.

### **1.6 Maps**

- (1) A reference in this Policy to a named map adopted by this Policy is a reference to a map by that name—
  - (a) approved by the Minister when the map is adopted, and
  - (b) as amended or replaced from time to time by maps declared by environmental planning instruments to amend or replace that map, and approved by the persons making the instruments when the instruments are made.
- (2) Two or more named maps may be combined into a single map and a reference in this Policy to the named map is a reference to the relevant part or aspect of the single map.
- (3) The maps adopted by this Policy are to be kept in electronic form and made available for public access in accordance with arrangements approved by the Minister.

### **1.7 Review of development standards**

The Planning Secretary must review the development standards in this Policy—

- (a) as soon as practicable after the beginning of 2025, and
- (b) at least once every 3 years after that.

## **Chapter 2 Standards for residential development—BASIX**

### **2.1 Standards for BASIX development and BASIX optional development**

- (1) Schedule 1 sets out the standards that apply to BASIX development referred to in paragraphs (a) and (b) of the definition of **BASIX development** in the *Environmental Planning and Assessment Regulation 2021*.
- (2) Schedule 2 sets out the standards that apply to—

- (a) BASIX development referred to in paragraph (c) or (d) of the definition of **BASIX development** in the *Environmental Planning and Assessment Regulation 2021*, and
  - (b) BASIX optional development if the development application or the application for a complying development certificate was accompanied by a BASIX certificate.
- (3) The standard specified in Schedule 2, section 4 extends to a swimming pool or spa that has a capacity of less than 40,000L if the swimming pool or spa is part of development referred to in paragraph (c) of the definition of **BASIX development** in the *Environmental Planning and Assessment Regulation 2021*.
- (4) A standard specified in Schedule 1 or 2 does not apply to development involving a heritage item or in a heritage conservation area to the extent that the Planning Secretary is satisfied that the development is not capable of achieving a standard because of other development controls that apply.
- (5) Development consent must not be granted to development to which the standards specified in Schedule 1 or 2 apply unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified.

## **2.2 Standards not affected by environmental planning instruments or development control plans**

- (1) A competing provision of an environmental planning instrument or development control plan, whenever made, is of no effect to the extent to which the provision aims—
- (a) to reduce consumption of mains-supplied potable water or greenhouse gas emissions related to the use of—
    - (i) a building, or
    - (ii) the land on which a building is located, or
  - (b) to improve the thermal performance of development, or
  - (c) to quantify and report on the embodied emissions attributable to development.
- (2) Subsection (1) does not—
- (a) displace a competing provision to the extent to which the provision applies to part of BASIX development or BASIX optional development that will not be used for residential purposes, or
  - (b) apply to a competing provision that encourages, or offers incentives for, the adoption of measures beyond the measures required by provisions of the kind referred to in the definition of **competing provision**.

(3) In this section—

**competing provision** of an environmental planning instrument or development control plan means a provision that—

- (a) establishes a development standard, or
- (b) requires a consent authority to consider a matter when determining a development application, or
- (c) requires a consent authority to be satisfied about a matter before granting development consent, or
- (d) requires a consent authority to impose a condition on a development consent, or
- (e) affects the granting of a development consent or the conditions with which a development consent is granted.

## Chapter 3 Standards for non-residential development

### 3.1 Application of Chapter

- (1) This Chapter applies to development, other than development for the purposes of residential accommodation, that involves—
  - (a) the erection of a new building, if the development has an estimated development cost of \$5 million or more, or
  - (b) alterations, enlargement or extension of an existing building, if the development has an estimated development cost of \$10 million or more.
- (2) This Chapter does not apply to the following development—
  - (a) development that is permitted with or without consent or that is exempt or complying development under—
    - (i) [State Environmental Planning Policy \(Exempt and Complying Development Codes\) 2008](#), or
    - (ii) [State Environmental Planning Policy \(Resources and Energy\) 2021](#), Chapter 2, or
    - (iii) [State Environmental Planning Policy \(Transport and Infrastructure\) 2021](#), Chapter 5,
  - (b) development on land wholly in any of the following zones—
    - (i) Zones RU1, RU2 or RU3,
    - (ii) Zone E5,

- (iii) Zone IN3,
  - (iv) Zones C1, C2 or C3,
  - (v) Zones W1, W2, W3 or W4,
- (c) development for the purposes of residential care facilities.
- (3) To avoid doubt, this Chapter does not apply to development to which Chapter 2 applies.

### **3.2 Development consent for non-residential development**

- (1) In deciding whether to grant development consent to non-residential development, the consent authority must consider whether the development is designed to enable the following—
- (a) the minimisation of waste from associated demolition and construction, including by the choice and reuse of building materials,
  - (b) a reduction in peak demand for electricity, including through the use of energy efficient technology,
  - (c) a reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design,
  - (d) the generation and storage of renewable energy,
  - (e) the metering and monitoring of energy consumption,
  - (f) the minimisation of the consumption of potable water.
- (2) Development consent must not be granted to non-residential development unless the consent authority is satisfied the embodied emissions attributable to the development have been quantified.

### **3.3 Other considerations for large commercial development**

- (1) In deciding whether to grant development consent to large commercial development, the consent authority must consider whether the development minimises the use of on-site fossil fuels, as part of the goal of achieving net zero emissions in New South Wales by 2050.
- (2) Development consent must not be granted to large commercial development unless the consent authority is satisfied the development is capable of achieving the standards for energy and water use specified in Schedule 3.
- (3) For the purposes of subsection (2), development is capable of achieving a standard specified in Schedule 3 if there is a NABERS commitment agreement in place to



achieve the standard.

- (4) Subsection (2), to the extent it relates to energy use, does not apply to large commercial development on land to which the following local environmental plans apply—
  - (a) *Sydney Local Environmental Plan 2012*,
  - (b) *Sydney Local Environmental Plan (Green Square Town Centre) 2013*,
  - (c) *Sydney Local Environmental Plan (Green Square Town Centre—Stage 2) 2013*.
- (5) Despite subsection (4), subsection (2) applies to large commercial development to the extent that the development relates to prescribed serviced apartments.

### **3.4 Other considerations for certain State significant development**

- (1) This section applies to non-residential development that is declared to be State significant development by *State Environmental Planning Policy (Planning Systems) 2021*, section 2.6(1) and specified in that policy, Schedule 1, sections 13–15.
- (2) In deciding whether to grant development consent to development to which this section applies, the consent authority must consider whether the development will minimise the use of on-site fossil fuels, as part of the goal of achieving net zero emissions in New South Wales by 2050.

## **Chapter 4 Miscellaneous**

### **4.1 Repeal**

*State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004* is repealed.

### **4.2 Savings and transitional provisions**

- (1) This policy does not apply to the following—
  - (a) a development application submitted on the NSW planning portal but not finally determined before 1 October 2023,
  - (b) an application for a complying development certificate lodged on the NSW planning portal but not finally determined before 1 October 2023,
  - (c) a development application for BASIX development or BASIX optional development submitted on the NSW planning portal on or after 1 October 2023, if the BASIX certificate that accompanies the development application was issued before 1 October 2023,
  - (d) an application for a complying development certificate for BASIX development or

BASIX optional development lodged on the NSW planning portal on or after 1 October 2023, if the BASIX certificate that accompanies the application was issued before 1 October 2023,

- (e) an application for modification of a development consent under the Act, section 4.55 or 4.56 submitted on the NSW planning portal but not finally determined before 1 October 2023,
- (f) an application for modification of a development consent under the Act, section 4.55 or 4.56 submitted on the NSW planning portal on or after 1 October 2023, if the development application for the development consent was submitted on the NSW planning portal before 1 October 2023.

- (2) Section 2.1(1) does not, until the end of 30 September 2024, apply to relevant BASIX development if the contract to carry out works for the relevant BASIX development is entered into on or before 30 September 2023.

**Note—**

See also the [Environmental Planning and Assessment \(Development Certification and Fire Safety\) Regulation 2021](#) for savings and transitional provisions relating to BASIX certificates for relevant BASIX development.

- (3) Subsection (2) applies only to a contract in a form that complies with the [Home Building Act 1989](#), Part 2 or 2A.
- (4) On and from 1 October 2024, section 2.1(1) applies to relevant BASIX development, regardless of when the contract to carry out the works was entered into.
- (5) In this section—

**relevant BASIX development** means BASIX development involving the erection of a dwelling house or dual occupancy.

## **Schedule 1 Standards for erection of BASIX buildings and change of use to BASIX buildings**

section 2.1

### **Part 1 Energy and water use**

#### **1 Baseline standards**

- (1) On or before 1 October 2023, the Planning Secretary must publish the following on the NSW planning portal—
  - (a) a baseline amount of greenhouse gas emissions resulting from the use of energy attributable to occupants of types of development over a year,
  - (b) a baseline average daily amount of mains-supplied potable water use attributable

to occupants of development over a year,

(c) the standard occupancy rates.

(2) The number of occupants for development in sections 2 and 3 is to be calculated using the standard occupancy rates published under subsection (1)(c).

## 2 Energy use

- (1) This section specifies the standard for energy use for different types of development according to the climate zone in which the development will be carried out.
- (2) The standard is that the amount of greenhouse gas emissions resulting from the use of energy attributable to an occupant of the development over a year must be less than the baseline, by at least the percentage specified in Table 1 for the development.
- (3) Column 1 of Table 1 specifies the percentage for prescribed residential accommodation with a total floor area of 110m<sup>2</sup> or less.
- (4) Column 2 of Table 1 specifies the percentage for prescribed residential accommodation with a total floor area of more than 110m<sup>2</sup>.
- (5) Column 3 of Table 1 specifies the percentage for residential flat buildings and shop top housing with up to 3 storeys above ground level (existing).
- (6) Column 4 of Table 1 specifies the percentage for residential flat buildings and shop top housing with 4 or 5 storeys above ground level (existing).
- (7) Column 5 of Table 1 specifies the percentage for residential flat buildings and shop top housing with 6–20 storeys above ground level (existing).
- (8) Column 6 of Table 1 specifies the percentage for residential flat buildings and shop top housing with 21 or more storeys above ground level (existing).
- (9) If more than 1 percentage specified in Table 1 applies to particular development, the highest percentage applies.
- (10) In this section—

**baseline** means the baseline amount published under section 1(1)(a).

**total floor area** of a building means the total floor area within the finished surfaces of the walls of the building, including the floor area occupied by cupboards or built-in furniture, fixtures or fittings, but not including a garage.

**Table 1**

Climate zone	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
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8	65%	69%	63%	56%	57%	60%
9	64%	66%	64%	59%	56%	58%
10	65%	68%	65%	60%	58%	61%
11	66%	69%	66%	61%	58%	61%
14	62%	65%	50%	45%	53%	57%
15	67%	70%	63%	58%	58%	62%
17	68%	72%	67%	62%	60%	63%
18	66%	69%	62%	56%	58%	61%
20	64%	67%	57%	50%	55%	58%
24	60%	63%	52%	45%	53%	56%
25	50%	49%	27%	19%	41%	44%
27	65%	68%	61%	55%	56%	60%
28	66%	70%	62%	57%	58%	61%
46	65%	68%	62%	56%	57%	60%
48	65%	68%	59%	53%	56%	60%
56	68%	72%	67%	61%	60%	63%
65	59%	61%	47%	40%	51%	54%
69	52%	50%	30%	23%	43%	45%

### 3 Water use

- (1) This section specifies the standard for water use for development, according to the area shown on the [Water Use Map](#) in which the development will be carried out.
- (2) The standard is that the average daily amount of mains-supplied potable water use attributable to an occupant of the development over a year must be less than the baseline, by at least the percentage shown on the [Water Use Map](#) for the land on which the development will be carried out.
- (3) In this section—

**baseline** means the baseline published under section 1(1)(b).

## Part 2 Thermal performance

### 4 Application of Part

- (1) This Part specifies the standard for thermal performance for different types of development according to the climate zone in which the development will be carried out.
- (2) The standard represents the maximum amount of energy that may be used to heat and cool a dwelling to a comfortable temperature, measured in megajoules per square metre of the conditioned floor area of the dwelling over a year.

### 5 Prescribed residential accommodation

- (1) This section applies to dwellings in prescribed residential accommodation.
- (2) Column 1 of Table 2 specifies the standard for the total heating and cooling of a dwelling.
- (3) Column 2 of Table 2 specifies the standard for heating a dwelling without a suspended floor.
- (4) Column 3 of Table 2 specifies the standard for cooling a dwelling without a suspended floor.
- (5) Column 4 of Table 2 specifies the standard for heating a dwelling with a suspended floor.
- (6) Column 5 of Table 2 specifies the standard for cooling a dwelling with a suspended floor.
- (7) This section does not apply to a dwelling that has a suspended floor above a garage.
- (8) If a dwelling has a suspended floor and another type of floor, the applicable standard is the floor area weighted average of the standards for a dwelling with and without a suspended floor.
- (9) If more than 50% of the external walls of a dwelling are mud brick or rammed earth, the applicable standard is the standard for a suspended floor.

**Table 2**

Climate zone	Column 1	Column 2	Column 3	Column 4	Column 5
8	75	58.5	51.7	57.3	56.1
9	—	39.5	50	38.3	55
10	—	12	55.5	15.2	54.5

11	—	27.8	26.6	32.5	24
14	120	119	22.1	116.5	32.7
15	51	47.1	30.1	39.3	33.3
17	30	26	17.5	27	19.7
18	61	56.2	29.8	53.4	35.1
20	96	90.1	32.6	85.1	41.1
24	122	117	30	114	35
25	298	—	—	—	—
27	79	75.9	49	70.8	58.6
28	60	56	37.5	53.6	43.4
46	75	56.4	58.3	51	56.5
48	79	72.6	31.6	67.1	32.3
56	30	25	18	25.6	18.9
65	156	150	17.9	149.8	38.5
69	277	—	—	—	—

## 6 Residential flat buildings and shop-top housing with up to and including 5 storeys

- (1) This section applies to dwellings in residential flat buildings and shop-top housing with up to and including 5 storeys above ground level (existing).
- (2) Column 1 of Table 3 specifies the standard for heating a dwelling in the residential flat building or shop-top housing.
- (3) Column 2 of Table 3 specifies the standard for cooling a dwelling in the residential flat building or shop-top housing.
- (4) Column 3 of Table 3 specifies the standard for heating all dwellings in the residential flat building or shop-top housing, calculated as a weighted average according to the conditioned floor area of a dwelling.
- (5) Column 4 of Table 3 specifies the standard for cooling all dwellings in the residential flat building or shop-top housing, calculated as a weighted average according to the conditioned floor area of a dwelling.

**Table 3**

Climate zone	Column 1	Column 2	Column 3	Column 4
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8	59.8	62.9	56.3	60.6
9	41.9	53.1	39.5	50
10	12.6	58.2	12	55.5
11	29.2	28.1	27.7	26.7
14	208.2	18.4	194.4	16.5
15	53.5	35.3	49.2	35.7
17	33.9	18.8	31	19.8
18	72.4	39.4	65.4	39.6
20	132.2	53.4	118.2	53.7
24	200.1	40.6	175.8	47.1
25	503	—	475	—
27	87.4	58.5	81.2	54.7
28	69.7	54.2	63.6	49.3
46	61.5	57.8	57.3	57.6
48	107.4	35.1	98.5	35.4
56	32.9	20.4	29.7	21.2
65	250.5	28.1	215.5	46.5
69	492.1	—	455	—

## **7 Residential flat buildings and shop-top housing with 6 or more storeys**

- (1) This section applies to dwellings in residential flat buildings and shop-top housing with 6 or more storeys above ground level (existing).
- (2) Column 1 of Table 4 specifies the standard for the total heating and cooling of a dwelling in the residential flat building or shop-top housing.
- (3) Column 2 of Table 4 specifies the standard for heating a dwelling in the residential flat building or shop-top housing.
- (4) Column 3 of Table 4 specifies the standard for cooling a dwelling in the residential flat building or shop-top housing.
- (5) Column 4 of Table 4 specifies the standard for the total heating and cooling of all dwellings in the residential flat building or shop-top housing, calculated as a weighted average according to the conditioned floor area of a dwelling.

- (6) Column 5 of Table 4 specifies the standard for heating all dwellings in the residential flat building or shop-top housing, calculated as a weighted average according to the conditioned floor area of a dwelling.
- (7) Column 6 of Table 4 specifies the standard for cooling all dwellings in the residential flat building or shop-top housing, calculated as a weighted average according to the conditioned floor area of a dwelling.

**Table 4**

<b>Climate zone</b>	<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>	<b>Column 5</b>	<b>Column 6</b>
8	95	68.3	71.9	75	62.2	66.9
9	—	41.9	53.1	—	39.5	50
10	—	12.6	58.2	—	12	55.5
11	—	29.2	28.1	—	27.7	26.7
14	158	155	13.7	120	118	10
15	66	53	35	51	45.4	33
17	39	36.9	20.4	30	29.1	18.6
18	81	65.5	35.6	61	56.2	34
20	127	117.2	47.3	96	90	40.9
24	161	157.2	31.9	122	118	31.6
25	366	—	—	298	—	—
27	103	81.3	54.4	79	75	50.6
28	79	65.1	50.6	60	58	45
46	94	75.3	70.8	75	56.8	57.1
48	104	94.2	30.8	79	75.9	27.3
56	38	34.4	21.4	30	28.1	20
65	200	183.5	20.6	156	153.3	33.1
69	339	—	—	277	—	—

**Schedule 2 Standards for alterations of BASIX buildings and BASIX**



## swimming pools and spas

section 2.1

### Part 1 Energy and water use

#### 1 Toilets, showers and taps

- (1) A toilet must have—
  - (a) a flow rate of no more than 4 litres for a flush, or
  - (b) at least a 3-star WELS water rating.
- (2) A shower and a tap must have—
  - (a) a flow rate of no more than 9 litres per minute, or
  - (b) at least a 3-star WELS water rating.
- (3) In this section—

**WELS water rating** means a WELS rating in the WELS scheme under the [Water Efficiency Labelling and Standards Act 2005](#) of the Commonwealth.

#### 2 Hot water systems

A hot water system installed as part of the development must be one of the following—

- (a) a solar system that is gas-boosted, electric-boosted or wood-boosted,
- (b) an electric storage system that uses a photovoltaic system with the capacity to generate at least as much energy as required to operate the electric storage system,
- (c) an electric system that uses a heat pump,
- (d) a gas storage system,
- (e) an instantaneous gas system,
- (f) a wood combustion system.

#### 3 Lighting fixtures

The standard for lighting fixtures is that at least 40% of lighting fixtures installed as part of the development must use fluorescent, compact fluorescent or LED bulbs.

#### 4 Swimming pools and spas

- (1) A swimming pool or spa in Area A or Area B must have a pump timer.
- (2) A swimming pool or spa in Area A must have a cover.

- (3) A heated swimming pool or spa in Area B must have a cover and a rainwater tank.
- (4) A small swimming pool or spa in Area B that is not heated must—
  - (a) have a cover, or
  - (b) have a rainwater tank, or
  - (c) be shaded.
- (5) A large swimming pool or spa in Area B that is not heated must have a rainwater tank.
- (6) A rainwater tank required under this section must—
  - (a) be connected to a tap that is within 10m of the edge of the swimming pool or spa, and
  - (b) have a capacity that is equal to or greater than the volume of water lost every day through—
    - (i) evaporation from the surface of the swimming pool or spa, and
    - (ii) draining and refilling the swimming pool or spa.
- (7) In this section—

**Area A** means land shown on the [Water Use Map](#) as having a 0% or 10% water use standard, for the purposes of Schedule 1, section 3.

**Area B** means land shown on the [Water Use Map](#) as having a 20%, 30% or 40% water use standard, for the purposes of Schedule 1, section 3.

**heated—**

- (a) for a swimming pool—means heated with—
  - (i) a solar system equipped with an additional gas or electric hot water system, or
  - (ii) an electric system that uses a heat pump, or
  - (iii) a gas system, and
- (b) for a spa—means heated with one of the following—
  - (i) a solar system equipped with an additional gas or electric hot water system, or
  - (ii) an electric system that uses a heat pump, or
  - (iii) a gas system, or
  - (iv) an electric system that uses electric resistance elements.

**large swimming pool or spa** means a swimming pool or spa, or a combination of a swimming pool and spa, that has a capacity, or combined capacity, of 40,000L or more.

**small swimming pool or spa** means a swimming pool or spa, or a combination of a swimming pool and spa, that has a capacity, or combined capacity, of less than 40,000L.

**Note—**

This section extends to a swimming pool or spa that has a capacity of less than 40,000L in certain circumstances. See section 2.1(3).

## Part 2 Thermal performance

### 5 Insulation for new walls

- (1) This section specifies the standard for insulation for new walls in a building according to the climate zone in which the development will be carried out.
- (2) Table 1 specifies the minimum R-value for a new wall in a building.
- (3) Column 1 of Table 1 specifies the minimum R-value for a new external wall, other than a wall specified in subsection (4) or (5).
- (4) Column 2 of Table 1 specifies the minimum R-value for a new structural panel external wall.
- (5) Column 3 of Table 1 specifies the minimum additional R-value for a new cavity brick external wall.
- (6) Column 4 of Table 1 specifies the minimum R-value for a new internal wall shared with a garage.

**Table 1**

Climate zone	Column 1	Column 2	Column 3	Column 4
2	1.4	1.25	0	0
4	2.1	1.25	0	1.2
5	1.7	1.25	0	0
6	1.7	1.25	0	0
7	2.2	1.9	1	1.5
8	2.8	2.8	1.5	1.6

## 6 Insulation for new floors

- (1) This section specifies the standard for insulation for new floors in a building according to the climate zone in which the development will be carried out.
- (2) Table 2 specifies the minimum R-value for a new floor in a building.
- (3) Column 1 of Table 2 specifies the minimum R-value around the edge of a new slab with in-slab heating.
- (4) Column 2 of Table 2 specifies the minimum R-value, and the heat flow direction, for a new enclosed suspended floor.
- (5) Column 3 of Table 2 specifies the minimum R-value, and the heat flow direction, for a new open suspended floor.
- (6) Column 4 of Table 2 specifies the minimum R-value, and the heat flow direction, for a new suspended floor above a garage.

**Table 2**

<b>Climate zone</b>	<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>
2	1	0	0	0
4	1	1.7 down	2 down	1.2 down
5	1	1.3 down	1.5 down	0
6	1	1.7 down	2 down	0
7	1	2 down	2.5 down	1.5 down
8	1	2.5 down	3 down	1.5 down

## 7 Insulation for new ceilings and roofs

- (1) This section specifies the standard for insulation for new ceilings and roofs in a building according to the climate zone in which the development will be carried out.
- (2) Table 3 specifies the minimum R-value, and the heat flow direction, for a new ceiling or roof in a building.
- (3) Column 1 of Table 3 specifies the minimum additional R-value, and the heat flow direction, for a new ceiling or roof if the development involves a new enclosed or open suspended floor.
- (4) Column 2 of Table 3 specifies the minimum additional R-value, and the heat flow direction, for a new ceiling or roof if the development does not involve a new enclosed or open suspended floor.

- (5) In addition to the standards specified in Table 3, foil or sarking must be installed under a new roof in climate zone 2, 4, 5, 6, 7 or 8, if the new roof is medium or dark coloured, based on the solar absorptance of the roof.

**Table 3**

<b>Climate zone</b>	<b>Column 1</b>	<b>Column 2</b>
2	3 down	2.5 down
4	3.5 up	3 up
5	3 up	2.5 up
6	3.5 up	3 up
7	4 up	4.5 up
8	4.5 up	4 up

## **8 Windows and glass doors**

- (1) A new window or glass door in climate zone 8 must be—
- (a) double-glazed, or
  - (b) timber-framed and made of pyrolytic low-e glass.
- (2) A new window or glass door in climate zone 2, 4, 5, 6 or 7 must—
- (a) during winter—
    - (i) reduce heat loss from the building, and
    - (ii) increase heat gain from the radiant energy of the sun, and
  - (b) during summer—reduce heat gain from the radiant energy of the sun.
- (3) Subsection (2) does not apply to the smallest new window or glass door with an area of less than 1m<sup>2</sup>.

## **9 Skylights and glazed roofs**

- (1) A new skylight in climate zone 8 must be—
- (a) timber framed, and
  - (b) double-glazed and filled with argon gas.
- (2) A new glazed roof in climate zone 8 must be—
- (a) double-glazed, or
  - (b) timber-framed and made of pyrolytic low-e glass.

- (3) A new skylight, glazed roof or external shading structure in climate zone 2, 4, 5, 6 or 7 must—
  - (a) during winter—
    - (i) reduce heat loss from the building, and
    - (ii) increase heat gain from the radiant energy of the sun, and
  - (b) during summer—reduce heat gain from the radiant energy of the sun.
- (4) Subsection (3) does not apply to the smallest new skylight or glazed roof with an area of less than 1m<sup>2</sup>.

#### **10 Polycarbonate roofs above enclosed spaces**

- (1) A new polycarbonate roof above an enclosed space in climate zone 8 must be double-layered.
- (2) If the total area of all new polycarbonate roofs above an enclosed space is at least 2m<sup>2</sup>, a new polycarbonate roof above an enclosed space must—
  - (a) for climate zone 2, 4, 5 or 6—have a shading coefficient of less than 0.4 or external shading, and
  - (b) for climate zone 7—be double-layered.
- (3) Subsection (2) does not apply to the smallest new polycarbonate roof with an area of less than 1m<sup>2</sup>.

#### **11 Glass rooms**

- (1) This section applies to a glass room that involves—
  - (a) a total new floor area of up to 15m<sup>2</sup>, or
  - (b) a total new glass area of up to 20m<sup>2</sup>.
- (2) Sections 8(1), 9(1) and (2) and 10(1) do not apply to a glass room in climate zone 8.
- (3) Section 10(2)(b) does not apply to a glass room in climate zone 7.
- (4) If the total area of all new skylights in a glass room in climate zone 2, 4, 5 or 6 is at least 1m<sup>2</sup>, a new skylight must—
  - (a) be timber framed and double glazed, or
  - (b) have external shading.
- (5) Subsection (4) does not apply to the smallest new skylight with an area of less than 1m<sup>2</sup>.

(6) In this section—

**glass room** means a room, also known as a conservatory or sun room, comprised mainly of glass or polycarbonate that—

- (a) is separated from an existing dwelling by walls, floors or ceilings, and
- (b) can be closed off by doors and windows.

## Schedule 3 Standards for energy and water use for large commercial development

section 3.3(2)

### 1 Energy use

- (1) The standard for energy use for development for the purposes of prescribed office premises is a 5.5 star NABERS energy rating.
- (2) The standard for energy use for development for the purposes of prescribed hotel or motel accommodation is a 4 star NABERS energy rating.
- (3) The standard for energy use for development for the purposes of prescribed serviced apartments is a 4 star NABERS energy rating.
- (4) To avoid doubt, different standards may apply to the same building if it is used for different purposes.

### 2 Water use

The standard for water use for large commercial development is a 3 star NABERS water rating.

## Schedule 4 Dictionary

section 1.4

**BASIX development** has the same meaning as in the [Environmental Planning and Assessment Regulation 2021](#).

**BASIX optional development** has the same meaning as in the [Environmental Planning and Assessment Regulation 2021](#).

**climate zone** means the climate zone shown on—

- (a) for Schedule 1—the [State Environmental Planning Policy \(Sustainable Buildings\) 2022 Climate Zones for BASIX Buildings Map](#), and
- (b) for Schedule 2—the [State Environmental Planning Policy \(Sustainable Buildings\) 2022 Climate Zones for BASIX Alterations Map](#).

**conditioned floor area** of a dwelling means the floor area of conditioned areas of the dwelling, determined in accordance with the Nationwide House Energy Rating Scheme or NatHERS.

**embodied emissions**, attributable to development, means the greenhouse gas emissions resulting from the materials used to construct a building that forms part of the development, including emissions from the following—

- (a) the extraction of raw materials that are used to construct the building,
- (b) transporting materials to be manufactured,
- (c) the manufacture of the materials used to construct the building.

**enclosed suspended floor** means a suspended floor that is not open.

**estimated development cost** has the same meaning as in the [Environmental Planning and Assessment Regulation 2021](#).

**large commercial development** means non-residential development that involves—

- (a) the erection of new prescribed office premises, prescribed hotel or motel accommodation or prescribed serviced apartments, or
- (b) alterations, enlargement or extension of prescribed office premises, prescribed hotel or motel accommodation or prescribed serviced apartments, if the development has an estimated development cost of \$10 million or more.

**NABERS** means the National Australian Built Environment Rating System.

**non-residential development** means development to which Chapter 3 applies.

**open suspended floor** means a suspended floor that is—

- (a) not enclosed by walls, or
- (b) enclosed by walls and with ventilation that exceeds the minimum requirements in the *Building Code of Australia*.

**prescribed hotel or motel accommodation** means hotel or motel accommodation with at least 100 rooms.

**prescribed office premises** means office premises with a net lettable area of at least 1,000m<sup>2</sup>.

**prescribed residential accommodation** means the following—

- (a) attached dwellings,
- (b) dual occupancies,
- (c) dwelling houses,
- (d) group homes,
- (e) multi dwelling housing,



- (f) secondary dwellings,
- (g) semi-detached dwellings,
- (h) seniors housing that is a group of independent living units.

**prescribed serviced apartments** means a building with at least 100 serviced apartments.

**R-value** of building material means the thermal resistance of the material, measured by dividing the thickness of the material by its thermal conductivity.

**suspended floor** means a floor that has a void underneath the floor.

**the Act** means the [Environmental Planning and Assessment Act 1979](#).

**Water Use Map** means the [State Environmental Planning Policy \(Sustainable Buildings\) 2022 Water Use Map](#).