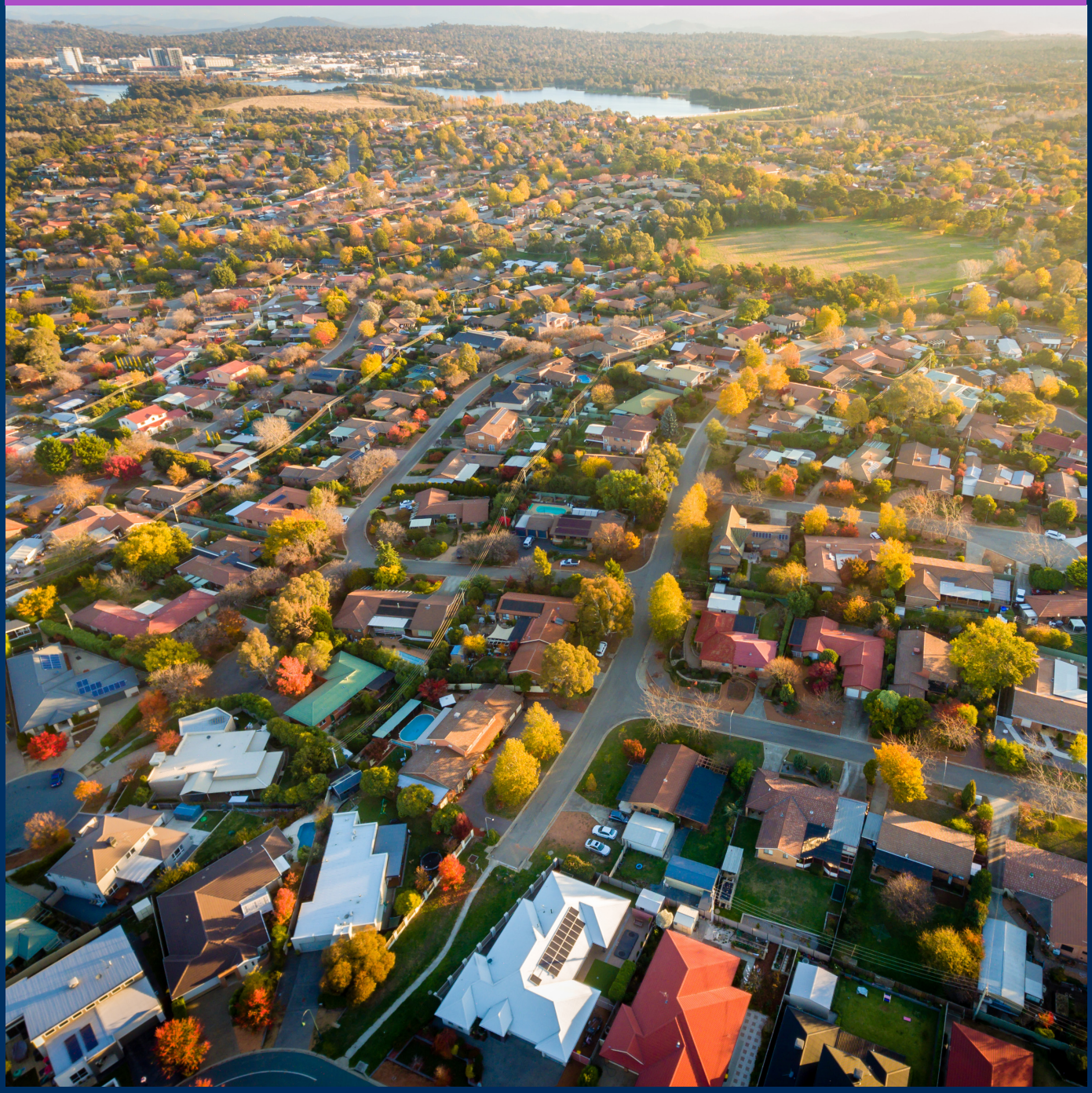
Australian Building Codes Board

NatHERS Heating and Cooling Load Limits

Standard

PREVIEW



2022

NatHERS heating and cooling load limits Standard

The Australian Building Codes Board

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The ABCB is a joint initiative of all levels of government in Australia, together with the building and plumbing industry. Its mission is to oversee issues relating to health, safety, amenity, accessibility and sustainability in building.

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Contents

1 Introduction

1.1 General

The NCC is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia.

The NCC energy efficiency provisions require dwellings to be designed and constructed to manage heat transfer through the building envelope to separately minimise heating and cooling loads.

Section 2 of this ABCB Standard contains separate heating and cooling load limits that apply to the design and construction of dwellings using the NCC's NatHERS compliance pathway for energy efficiency.

Heating and cooling load limits were first introduced in NCC 2019. New load limits have been introduced to reflect the overarching stringency increase in NCC 2022 to the equivalent of NatHERS 7 stars. These load limits have been developed using the 2022 NatHERS climate files and star bands.

1.2 Scope

This ABCB Standard provides details of the heating and cooling load limits that apply to the NatHERS compliance pathway in the NCC. These load limits are an additional requirement to the existing star ratings for Class 1 buildings, Class 2 sole-occupancy units (SOUs) and Class 4 parts of buildings.

When using the NatHERS compliance pathway for energy efficiency, the NCC requires:

- a Class 1 building to achieve a NatHERS 7-star rating, but allows a 6.5 or 6-star rating if a Class 1 building has, respectively, an outdoor living area or an outdoor living area and a ceiling fan in NCC climate zones 1 and 2; and
- Class 2 SOUs and Class 4 parts of buildings to achieve a NatHERS 7-star rating on average and a minimum star rating of 6 stars.

Accordingly, heating and cooling load limits have been developed to correspond to each of these target star ratings.

Separate heating and cooling load limits are not required to be achieved in all 69 NatHERS climate zones. This is because some climates are dominated by hot or cold weather, such

as the climate zones in the Northern Territory (NT), Tasmania (Tas) and some climates zones in Queensland (Qld) and Western Australia (WA).

New South Wales (NSW) already has separate heating and cooling load limits (or "caps") covered in its Building Sustainability Index (BASIX) thermal performance standards.

Hence, heating and cooling load limits do not apply in NSW, NT, Tas and parts of Qld and WA.

1.3 Application

The provisions of this ABCB Standard are designed for application to Class 1 buildings (houses and the like), Class 2 SOUs (apartments) and Class 4 parts of buildings, as defined in the NCC.

This ABCB Standard is referenced in the Deemed-to-Satisfy Provisions of J3D3 of NCC Volume One and Specification 42 of NCC Volume Two.

This ABCB Standard is not to be read in isolation and must only be used in conjunction with the relevant parts of the NCC outlined above (i.e. it is not a stand-alone requirement).

1.4 Normative references

The following documents are referred to in this ABCB Standard:

(a) NCC Volume One; and

(b) NCC Volume Two.

1.5 Units

This ABCB Standard uses MJ/m^2.annum for the heating and cooling load limits.

1.6 Definitions

In this ABCB Standard, terms shown in italics have the following meaning:

Heating load/cooling load: the amount of heat energy calculated by NatHERS accredited software that would need to be added to/removed from a space to maintain the temperature in an acceptable range.

Living area: a conditioned area of a dwelling, including a living, kitchen, and/or kitchen/living zone, as defined by NatHERS.

NatHERS climate zone: one of the 69 climate zones under NatHERS. (Information about NatHERS climate zones can be accessed at nathers.gov.au.)

Nationwide House Energy Rating Scheme (NatHERS): a house energy rating software scheme that facilitates consistent energy ratings (out of ten stars) from software tools that assess the energy efficiency of dwellings based on their design.

2 NatHERS heating and cooling load limits

2.1 Limitations

This ABCB Standard only applies to the NatHERS compliance pathway for energy efficiency, specified in clause J3D3 of Volume One and Specification 42 in Volume Two of the NCC. It applies to Class 1 buildings, Class 2 SOUs and Class 4 parts of buildings.

NT, Tas, NSW and parts of Qld and WA are excluded from the heating and cooling load limits. The heating and cooling load limits for the affected NatHERS climate zones are shown as 'Not Applicable' (N/A) in the following tables.

2.2 Compliance requirements

The NatHERS compliance pathway requires a building to achieve a minimum star rating and satisfy the separate heating and cooling load limits that correspond to that star rating. The applicable load limits are specified in clauses 2.3 and 2.4 of this ABCB Standard.

2.3 Application

(1) A Class 1 building must not exceed the heating and cooling load limits corresponding to–

(a) the targeted star rating in S42C2 of Volume Two of the NCC; and

(b) the floor type of the lowest living area;

where–

(c) the heating and cooling load limits in Tables 1, 3 and 5 apply if the floor is a Concrete Slab-on-Ground (CSOG); and

(d) the heating and cooling load limits in Tables 2, 4 and 6 apply if the floor is–

(i) a Suspended Floor (SF) of timber or concrete; or

(ii) a mixture of CSOG and SF.

Explanatory information

The applicable load limits for Class 1 buildings are determined by the floor type of the lowest living area, e.g. for a two-storey house this would typically be the ground floor, but could be the first floor if the ground floor is a garage.

(2) A Class 2 SOU or Class 4 part of a building, regardless of floor type, must not exceed the heating and cooling load limits in Tables 7 and 8 corresponding to the star ratings in subclause J3D3(1)(a) of Volume One of the NCC.

Explanatory information

For Class 2 SOUs, the average of all SOUs' heating and cooling loads should not exceed the heating and cooling load limits for 7 stars in Table 7. The worst performing SOU should not exceed the heating and cooling limits for 6 stars in Table 8.

2.4 NatHERS heating and cooling load limits tables

Table 1 Class 1 CSOG – Heating and cooling load limits applying to NatHERS 7 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	WA	4	50
5	N/A	N/A	N/A
6	Qld	40	75
7	Qld	12	92
8	Qld, SA	59	52
9	Qld	37	43
10	Qld	16	39
11	N/A	N/A	N/A
12	WA	25	36
13	WA	53	34
14	Qld	141	12
15	N/A	N/A	N/A
16	SA	54	37
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	Qld	48	56
20	Vic	87	34
21	Vic	48	41
22	Vic	110	12
23	N/A	N/A	N/A
24	ACT, Vic	129	34
25	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
26	N/A	N/A	N/A
27	Vic, SA	71	43
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	WA	20	86
41	WA	20	73
42	WA	19	71
43	SA	29	68
44	WA	45	39
45	SA	66	32
46	N/A	N/A	N/A
47	WA	78	37
48	N/A	N/A	N/A
49	WA	103	27
50	Qld	66	28
51	WA	57	41
52	WA	26	33
53	SA	51	38

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
54	WA	29	26
55	WA	40	15
56	N/A	N/A	N/A
57	WA	80	28
58	WA	59	6
59	SA	195	13
60	Vic	95	27
61	Vic, SA	116	15
62	Vic	80	22
63	Vic	116	11
64	Vic	96	10
65	N/A	N/A	N/A
66	Vic	169	21
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 2 Class 1 SF – Heating and cooling load limits applying to NatHERS 7 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	WA	9	50
5	N/A	N/A	N/A
6	Qld	48	72
7	Qld	17	93
8	Qld, SA	57	58
9	Qld	37	38
10	Qld	21	38
11	N/A	N/A	N/A
12	WA	26	33
13	WA	34	41
14	Qld	125	19
15	N/A	N/A	N/A
16	SA	43	46
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	Qld	49	57
20	Vic	72	37
21	Vic	47	39
22	Vic	105	18
23	N/A	N/A	N/A
24	ACT, Vic	123	41
25	N/A	N/A	N/A
26	N/A	N/A	N/A
27	Vic, SA	69	58

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	WA	18	91
41	WA	32	72
42	WA	32	68
43	SA	44	67
44	WA	46	49
45	SA	62	38
46	N/A	N/A	N/A
47	WA	56	45
48	N/A	N/A	N/A
49	WA	87	38
50	Qld	65	31
51	WA	51	48
52	WA	22	40
53	SA	45	47
54	WA	23	34
55	WA	36	24

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
56	N/A	N/A	N/A
57	WA	70	44
58	WA	57	9
59	SA	191	26
60	Vic	92	36
61	Vic, SA	110	23
62	Vic	79	37
63	Vic	116	23
64	Vic	94	18
65	N/A	N/A	N/A
66	Vic	163	43
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 3 Class 1 CSOG – Heating and cooling load limits applying to NatHERS 6.5 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	Qld	15	102
8	N/A	N/A	N/A
9	Qld	40	47
10	Qld	18	43
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	N/A	N/A	N/A
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	N/A	N/A	N/A
20	N/A	N/A	N/A
21	N/A	N/A	N/A
22	N/A	N/A	N/A
23	N/A	N/A	N/A
24	N/A	N/A	N/A
25	N/A	N/A	N/A
26	N/A	N/A	N/A
27	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	N/A	N/A	N/A
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A
45	N/A	N/A	N/A
46	N/A	N/A	N/A
47	N/A	N/A	N/A
48	N/A	N/A	N/A
49	N/A	N/A	N/A
50	N/A	N/A	N/A
51	N/A	N/A	N/A
52	N/A	N/A	N/A
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
56	N/A	N/A	N/A
57	N/A	N/A	N/A
58	N/A	N/A	N/A
59	N/A	N/A	N/A
60	N/A	N/A	N/A
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 4 Class 1 SF – Heating and cooling load limits applying to NatHERS 6.5 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	Qld	21	104
8	N/A	N/A	N/A
9	Qld	41	43
10	Qld	23	41
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	N/A	N/A	N/A
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	N/A	N/A	N/A
20	N/A	N/A	N/A
21	N/A	N/A	N/A
22	N/A	N/A	N/A
23	N/A	N/A	N/A
24	N/A	N/A	N/A
25	N/A	N/A	N/A
26	N/A	N/A	N/A
27	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	N/A	N/A	N/A
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A
45	N/A	N/A	N/A
46	N/A	N/A	N/A
47	N/A	N/A	N/A
48	N/A	N/A	N/A
49	N/A	N/A	N/A
50	N/A	N/A	N/A
51	N/A	N/A	N/A
52	N/A	N/A	N/A
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
56	N/A	N/A	N/A
57	N/A	N/A	N/A
58	N/A	N/A	N/A
59	N/A	N/A	N/A
60	N/A	N/A	N/A
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 5 Class 1 CSOG – Heating and cooling load limits applying to NatHERS 6 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	Qld	18	115
8	N/A	N/A	N/A
9	Qld	51	55
10	Qld	24	49
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	N/A	N/A	N/A
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	N/A	N/A	N/A
20	N/A	N/A	N/A
21	N/A	N/A	N/A
22	N/A	N/A	N/A
23	N/A	N/A	N/A
24	N/A	N/A	N/A
25	N/A	N/A	N/A
26	N/A	N/A	N/A
27	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	N/A	N/A	N/A
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A
45	N/A	N/A	N/A
46	N/A	N/A	N/A
47	N/A	N/A	N/A
48	N/A	N/A	N/A
49	N/A	N/A	N/A
50	N/A	N/A	N/A
51	N/A	N/A	N/A
52	N/A	N/A	N/A
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
56	N/A	N/A	N/A
57	N/A	N/A	N/A
58	N/A	N/A	N/A
59	N/A	N/A	N/A
60	N/A	N/A	N/A
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 6 Class 1 SF – Heating and cooling load limits applying to NatHERS 6 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m².annum)	Cooling load limit (MJ/m².annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	Qld	28	112
8	N/A	N/A	N/A
9	Qld	50	48
10	Qld	29	42
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	N/A	N/A	N/A
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	N/A	N/A	N/A
20	N/A	N/A	N/A
21	N/A	N/A	N/A
22	N/A	N/A	N/A
23	N/A	N/A	N/A
24	N/A	N/A	N/A
25	N/A	N/A	N/A
26	N/A	N/A	N/A
27	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	N/A	N/A	N/A
42	N/A	N/A	N/A
43	N/A	N/A	N/A
44	N/A	N/A	N/A
45	N/A	N/A	N/A
46	N/A	N/A	N/A
47	N/A	N/A	N/A
48	N/A	N/A	N/A
49	N/A	N/A	N/A
50	N/A	N/A	N/A
51	N/A	N/A	N/A
52	N/A	N/A	N/A
53	N/A	N/A	N/A
54	N/A	N/A	N/A
55	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
56	N/A	N/A	N/A
57	N/A	N/A	N/A
58	N/A	N/A	N/A
59	N/A	N/A	N/A
60	N/A	N/A	N/A
61	N/A	N/A	N/A
62	N/A	N/A	N/A
63	N/A	N/A	N/A
64	N/A	N/A	N/A
65	N/A	N/A	N/A
66	N/A	N/A	N/A
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 7 Class 2 SOUs and Class 4 parts of buildings– Heating and cooling load limits applying to NatHERS 7 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	WA	6	49
5	N/A	N/A	N/A
6	Qld	60	68
7	Qld	11	92
8	Qld, SA	59	61
9	Qld	48	35
10	Qld	23	33
11	N/A	N/A	N/A
12	WA	29	28
13	WA	53	38
14	Qld	148	8
15	N/A	N/A	N/A
16	SA	44	36
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	Qld	55	49
20	Vic	93	17
21	Vic	48	32
22	Vic	114	12
23	N/A	N/A	N/A
24	ACT, Vic	130	28
25	N/A	N/A	N/A
26	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
27	Vic, SA	72	47
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	WA	30	74
42	WA	28	72
43	SA	38	74
44	WA	44	48
45	SA	61	36
46	N/A	N/A	N/A
47	WA	66	37
48	N/A	N/A	N/A
49	WA	96	25
50	Qld	71	30
51	WA	58	39
52	WA	23	29
53	SA	49	39
54	WA	29	29

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
55	WA	41	14
56	N/A	N/A	N/A
57	WA	79	17
58	WA	59	6
59	N/A	N/A	N/A
60	Vic	88	48
61	Vic, SA	115	8
62	Vic	82	25
63	Vic	121	8
64	Vic	93	11
65	N/A	N/A	N/A
66	Vic	168	23
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

Table 8 Class 2 SOUs and Class 4 parts of buildings– Heating and cooling load limits applying to NatHERS 6 stars

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	WA	9	54
5	N/A	N/A	N/A
6	Qld	71	79
7	Qld	20	102
8	Qld, SA	68	72
9	Qld	59	43
10	Qld	25	45
11	N/A	N/A	N/A
12	WA	40	33
13	WA	61	44
14	Qld	163	11
15	N/A	N/A	N/A
16	SA	54	45
17	N/A	N/A	N/A
18	N/A	N/A	N/A
19	Qld	63	60
20	Vic	105	26
21	Vic	55	38
22	Vic	127	15
23	N/A	N/A	N/A
24	ACT, Vic	145	33
25	N/A	N/A	N/A
26	N/A	N/A	N/A

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
27	Vic, SA	81	54
28	N/A	N/A	N/A
29	N/A	N/A	N/A
30	N/A	N/A	N/A
31	N/A	N/A	N/A
32	N/A	N/A	N/A
33	N/A	N/A	N/A
34	N/A	N/A	N/A
35	N/A	N/A	N/A
36	N/A	N/A	N/A
37	N/A	N/A	N/A
38	N/A	N/A	N/A
39	N/A	N/A	N/A
40	N/A	N/A	N/A
41	WA	39	81
42	WA	38	80
43	SA	50	83
44	WA	50	56
45	SA	68	43
46	N/A	N/A	N/A
47	WA	75	42
48	N/A	N/A	N/A
49	WA	106	29
50	Qld	78	35
51	WA	65	45
52	WA	26	34
53	SA	56	46
54	WA	34	35

NatHERS climate zone	Applicable state and/or territory	Heating load limit (MJ/m^2.annum)	Cooling load limit (MJ/m^2.annum)
55	WA	47	17
56	N/A	N/A	N/A
57	WA	89	21
58	WA	68	9
59	N/A	N/A	N/A
60	Vic	103	49
61	Vic, SA	129	12
62	Vic	91	28
63	Vic	136	12
64	Vic	104	14
65	N/A	N/A	N/A
66	Vic	188	30
67	N/A	N/A	N/A
68	N/A	N/A	N/A
69	N/A	N/A	N/A

3 References

The basis for the updated load limits for NCC 2022 is included in the report on the development of new heating and cooling load limits available on the NatHERS website:

Tony Isaacs Consulting, Report, Developing new heating and cooling load limits for updated NatHERS weather data, 2021.