Nationwide House Energy Rating Scheme® NatHERS® Certificate No. 0011585692-02

Generated on 17 Dec 2024 using BERS Pro v5.2.3 (3.23)

Property

Address	15 Baltic Street, FAIRLIGHT , NSW , 2094
Lot/DP	Lot 14 DP 4449
NCC class*	1a
Floor/all Floors	G of 3 floors
Type	New Home

Plans

Main plan	Rev B Issue Date: 12/12/2024
Prepared by	Mont Architects

Construction and environment

Assessed floor area [m2]*	
Conditioned*	188.3
Unconditioned*	42.8
Total	273.8
Garage	42.8

Exposure type
Suburban

NatHERS climate zone
56 Mascot (Sydney Airport)

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056

Assessor Accrediting Organisation
HERA

Declaration of interest Declaration completed: no conflicts

NCC Requirements

NCC provisions	Volume Two
Strate/Territory variation	Yes

National Construction Code (NCC) requirements

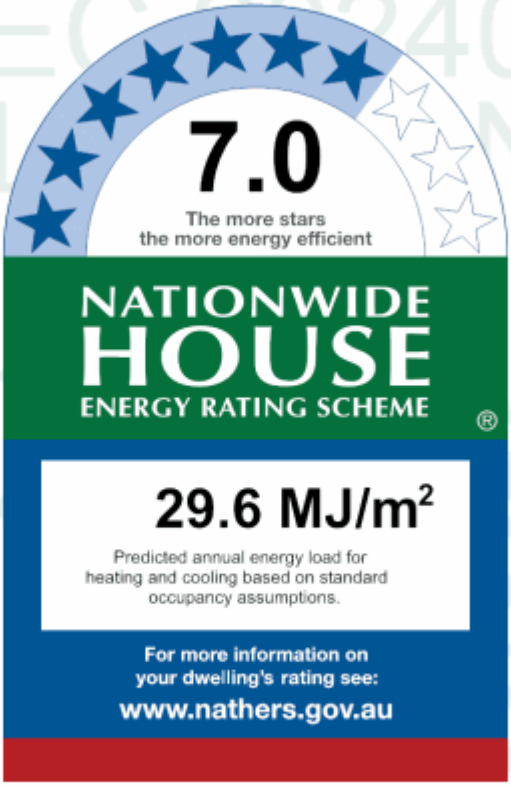
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance Star rating



Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	15.7	13.8
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=XKAvTBjsZ . When using either link, ensure you are visiting hstar.com.au

* Refer to glossary

About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard 2022: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting Options:

Floor Type:

CSOG – Concrete Slab on Ground
SF – Suspended Floor (or a mixture of CSOG and SF)
NA – Not Applicable

NCC Climate Zone 1 or 2:

Yes
No
NA – Not Applicable

Outdoor Living Area:

Yes
No
NA – Not Applicable

Outdoor Living Area Ceiling Fan:

Yes
No
NA – Not Applicable

Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use

No Whole of Home performance assessment conducted for this certificate

Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost

No Whole of Home performance assessment conducted for this certificate

* Refer to glossary.

Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.	☐	☐		☐	☐
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown	☐	☐	☐	☐	☐

* Refer to glossary.

Certificate check

Continued

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)					
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?	☐	☐	☐	☐	☐
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

*Obscure glazing has been modelled as clear glass as it has similar thermal properties.

Room *schedule*

Room	Zone Type	Area [m^2]
Entry	Daytime	10.53
Plant Room	Unconditioned	28.88
Garage	Garage	42.76
Stairs_GF	Daytime	4.84
Void	Unconditioned	1.6
Dining/Living	Living	50.28
Powder	Unconditioned	2.29
Linen	Daytime	2.59
Laundry	Unconditioned	5.46
Stairs_FF	Daytime	16.09
Bedroom 1	Bedroom	23.15
ENS 1	Nighttime	6.41
Bedroom 4	Bedroom	12.86
Bedroom 3	Bedroom	13.1
Bath_FF	Unconditioned	6.14
Bedroom 2	Bedroom	17.18
Kitchen	Kitchen/Living	19.78
Family	Living	21.35

Window and glazed door *type and performance*

Default windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
HBFWD-020-056	Thermally Broken Aluminium Fixed Window DG DG	2.0	0.54	0.51	0.57
HAHDD-035-045	Aluminium Hinged Door DG DG	3.5	0.44	0.42	0.46
HASDD-035-045	Aluminium Sliding Door DG DG	3.5	0.43	0.41	0.46
HBFWD-020-033	Thermally Broken Aluminium Fixed Window DG DG	1.9	0.32	0.30	0.34

* Refer to glossary.

Custom windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALS-086-030	Aluminium Sliding Door DG AGG PLUS Clr Iam 6.38/12/6	2.0	0.54	0.51	0.57
ALS-022-007	Aluminium Louvre Window SG 6LE	4.5	0.53	0.51	0.56
ALS-028-001	Aluminium Fixed Window DG 4Clr/10/4Clr	3.3	0.69	0.66	0.73
ALS-028-004	Aluminium Fixed Window DG 4ET/10/4Clr	2.7	0.63	0.60	0.66
ALS-027-022	Aluminium Fixed Window SG 10.38CPGy40	3.8	0.43	0.41	0.45
A&L-108-024	Thermally Broken Aluminium Sliding Door DG 4PbG/12Ar/4Pbg	1.9	0.51	0.48	0.53
ALS-086-036	Aluminium Sliding Door DG AGG MAX Clr Iam 6/12/6.38	1.9	0.26	0.25	0.27

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Void	HBFWD-020-056-001	W2.01	1997	1080	Fixed	00	N	Yes
Dining/Living	ALS-086-030-001	W2.02	2700	5105	Sliding	60	N	No
Dining/Living	ALS-022-007-001	W2.03	2000	900	Louvre	90	E	No
Dining/Living	ALS-022-007-001	W2.04	1930	900	Louvre	90	E	No
Dining/Living	ALS-086-030-001	W2.12	2700	2471	Sliding	45	S	No
Dining/Living	ALS-022-007-001	W2.13	2100	900	Louvre	90	W	No
Powder	ALS-022-007-001	W2.05	1730	375	Louvre	90	E	No
Laundry	ALS-028-001-001	W2.06	1050	1700	Fixed	00	E	No
Laundry	ALS-022-007-001	W3	1050	900	Louvre	90	E	No
Laundry	HAHDD-035-045-001	W2.07	2440	980	Casement	90	S	No
Stairs_FF	ALS-028-004-001	W3.16	1560	900	Fixed	00	N	No
Stairs_FF	ALS-028-004-001	W3.14	1730	4293	Fixed	00	W	Yes
Stairs_FF	ALS-028-004-001	W3.15	1555	900	Fixed	00	S	No
Bedroom 1	ALS-022-007-001	W3.17	1861	790	Louvre	10	W	No
Bedroom 1	HASDD-035-045-001	W3.01	2400	3200	Sliding	60	N	No
ENS 1	ALS-022-007-001	W3.02	1596	845	Louvre	90	N	No
Bedroom 4	ALS-022-007-001	W3.03	1600	817	Louvre	90	E	No

* Refer to glossary.

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 4	ALS-022-007-001	W3.04	1600	817	Louvre	90	E	No
Bedroom 3	ALS-022-007-001	W3.05	1600	817	Louvre	90	E	No
Bedroom 3	ALS-022-007-001	W3.06	1600	817	Louvre	90	E	No
Bath_FF	ALS-022-007-001	W3.07	1596	845	Louvre	90	S	No
Bedroom 2	ALS-022-007-001	W3.08	1765	700	Louvre	90	E	No
Bedroom 2	ALS-027-022-001	W3.09	1765	700	Fixed	00	E	No
Bedroom 2	ALS-027-022-001	W3.10	1765	845	Fixed	00	S	No
Bedroom 2	ALS-027-022-001	W3.11	1765	845	Fixed	00	S	No
Bedroom 2	A&L-108-024-002	W3.12	1765	700	Fixed	00	W	No
Bedroom 2	ALS-022-007-001	W3.13	1765	700	Louvre	90	W	No
Kitchen	ALS-086-036-001	W2.11	2700	4287	Sliding	60	W	No
Family	ALS-086-036-001	W2.08	2700	4161	Sliding	60	S	No
Family	HBFWD-020-033-001	W2.09	2000	605	Fixed	00	W	No
Family	ALS-086-036-001	W2.10	2700	2471	Sliding	45	N	No

Roof window* *type and performance value*

Default roof windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
DG-Generic-02 A	DG-Generic-02 A Clear AI DG DEFAULT ROOF WINDOW System 02	4.2	0.72	0.68	1.40

Custom roof windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
ENS 1	DG-Generic-02 A	S6	0	620	770	E	Yes	Yes
Bath_FF	DG-Generic-02 A	S5	0	1667	430	E	Yes	Yes

* Refer to glossary.

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame	0.5

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m^2]	Orientation	Outdoor shade	Diffuser
Void	GEN-04-008a	S9	50	1.32	W	None	No
Dining/Living	GEN-04-008a	S8	50	1.40	W	None	No
Powder	GEN-04-008a	S4	50	0.63	E	None	No
Family	GEN-04-008a	S1	50	1.71	W	None	No

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Entry	2040	820	90	N
Plant Room	785	2984	90	E
Plant Room	2100	920	90	S
Garage	2400	4800	90	N

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Cavity Brick	0.30		Foil reflective both sides of the Bulk Insulation R1.7	Yes
EW-2	Weatherboard Timber Stud Frame Panel Direct Fix	0.30		Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Entry	EW-1	2510	1100	W	0	No
Entry	EW-1	2510	7100	W	0	No
Entry	EW-1	2510	1595	N	4000	No
Entry	EW-1	2510	1195	S	9200	No
Plant Room	EW-1	2510	5095	E	0	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Plant Room	EW-1	2510	5795	S	9200	No
Garage	EW-1	2510	4000	W	1600	No
Garage	EW-1	2510	6100	N	0	No
Garage	EW-1	2510	7100	E	0	No
Garage	EW-1	2510	700	S	0	No
Stairs_GF	EW-1	2700	4190	W	0	No
Void	EW-1	2700	1395	W	0	No
Void	EW-2	2700	1195	N	3700	Yes
Dining/Living	EW-2	2700	5795	N	3700	Yes
Dining/Living	EW-2	2700	8195	E	0	No
Dining/Living	EW-2	2700	2900	S	4500	No
Dining/Living	EW-1	2700	1295	W	0	No
Dining/Living	EW-1	2700	1290	W	0	No
Powder	EW-2	2700	1090	E	0	No
Linen	EW-2	2700	1195	E	0	No
Laundry	EW-2	2700	2695	E	0	No
Laundry	EW-2	2700	1600	S	1000	Yes
Laundry	EW-2	2700	1000	W	5400	No
Laundry	EW-2	2700	795	S	2000	No
Stairs_FF	EW-2	3000	1195	N	450	No
Stairs_FF	EW-2	3000	1295	W	500	No
Stairs_FF	EW-2	3000	500	N	15900	No
Stairs_FF	EW-2	3000	4500	W	1000	No
Stairs_FF	EW-2	3000	1800	S	10150	No
Stairs_FF	EW-2	3000	5500	W	150	No
Bedroom 1	EW-2	3000	4700	W	550	No
Bedroom 1	EW-2	3000	4200	N	1200	No
Bedroom 1	EW-2	3000	3895	E	450	No
ENS 1	EW-2	3000	1000	N	450	No
ENS 1	EW-2	3000	1895	E	150	No
Bedroom 4	EW-2	3000	3490	E	175	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 3	EW-2	3000	4190	E	175	No
Bath_FF	EW-2	3000	1895	E	200	No
Bath_FF	EW-2	3000	1000	S	550	No
Bedroom 2	EW-2	3000	4495	E	450	No
Bedroom 2	EW-2	3000	4100	S	450	No
Bedroom 2	EW-2	3000	3895	W	500	No
Kitchen	EW-2	2700	5190	E	0	No
Kitchen	EW-2	2700	4490	W	0	No
Family	EW-2	2700	4595	S	2000	Yes
Family	EW-1	2700	4700	W	0	No
Family	EW-2	2700	2900	N	4500	No

Internal wall *type*

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	97.61	Bulk Insulation, No Air Gap R2.5
IW-002	Timber Stud Frame, Direct Fix Plasterboard	17.55	Bulk Insulation, No Air Gap R2
IW-003	Timber Stud Frame, Direct Fix Plasterboard	85.59	No insulation

Floor *type*

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Entry	Concrete Slab on Ground 200mm	10.46	None	No Insulation	Cork Tiles or Parquetry 8mm
Plant Room	Concrete Slab on Ground 200mm	28.88	None	No Insulation	Bare
Garage	Concrete Slab on Ground 200mm	42.76	None	No Insulation	Bare
Stairs_GF / Entry	Concrete Timber Framed Above Plasterboard 300mm	0.00		Foil Sided Bulk R3.5	Cork Tiles or Parquetry 8mm
Void / Entry	Concrete Timber Framed Above Plasterboard 300mm	0.00		Foil Sided Bulk R3.5	Cork Tiles or Parquetry 8mm
Dining/Living / Entry	Concrete Timber Framed Above Plasterboard 300mm	3.95		Foil Sided Bulk R3.5	Cork Tiles or Parquetry 8mm
Dining/Living / Plant Room	Concrete Timber Framed Above Plasterboard 300mm	29.18		Foil Sided Bulk R3.5	Cork Tiles or Parquetry 8mm
Dining/Living / Garage	Concrete Timber Framed Above Plasterboard 300mm	16.34		Foil Sided Bulk R3.5	Cork Tiles or Parquetry 8mm

* Refer to glossary.

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Powder	Concrete Slab on Ground 370mm	2.29	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Linen	Concrete Slab on Ground 370mm	2.59	None	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab on Ground 370mm	5.46	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Stairs_FF / Stairs_GF	Concrete Timber Framed Above Plasterboard 300mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Stairs_FF / Dining/Living	Concrete Timber Framed Above Plasterboard 300mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Stairs_FF / Family	Concrete Timber Framed Above Plasterboard 300mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Stairs_FF	Suspended Concrete Slab 300mm	4.00	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Bedroom 1 / Dining/Living	Concrete Timber Framed Above Plasterboard 300mm	14.75		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Suspended Concrete Slab 300mm	7.86	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
ENS 1 / Dining/Living	Concrete Timber Framed Above Plasterboard 300mm	6.42		No Insulation	Ceramic Tiles 8mm
Bedroom 4 / Dining/Living	Concrete Timber Framed Above Plasterboard 300mm	12.86		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3 / Dining/Living	Concrete Timber Framed Above Plasterboard 300mm	1.55		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3 / Kitchen	Concrete Timber Framed Above Plasterboard 300mm	10.97		No Insulation	Cork Tiles or Parquetry 8mm
Bath_FF / Kitchen	Concrete Timber Framed Above Plasterboard 300mm	4.95		No Insulation	Ceramic Tiles 8mm
Bath_FF / Family	Concrete Timber Framed Above Plasterboard 300mm	0.69		No Insulation	Ceramic Tiles 8mm
Bedroom 2 / Powder	Concrete Timber Framed Above Plasterboard 300mm	0.57		No Insulation	Cork Tiles or Parquetry 8mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 2 / Linen	Concrete Timber Framed Above Plasterboard 300mm	0.65		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2 / Laundry	Concrete Timber Framed Above Plasterboard 300mm	1.05		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2 / Family	Concrete Timber Framed Above Plasterboard 300mm	11.94		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Suspended Concrete Slab 300mm	1.74	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Kitchen	Concrete Slab on Ground 100mm	19.78	None	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Family	Concrete Slab on Ground 370mm	21.35	None	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Entry	Plasterboard on Timber	Bulk Insulation R4.5	
Entry	Concrete Timber Framed Above Plasterboard	Foil Sided Bulk R3.5	
Plant Room	Plasterboard on Timber	Bulk Insulation R4.5	
Plant Room	Concrete Timber Framed Above Plasterboard	Foil Sided Bulk R3.5	
Garage	Plasterboard on Timber	Bulk Insulation R4.5	
Garage	Concrete Timber Framed Above Plasterboard	Foil Sided Bulk R3.5	
Stairs_GF	Concrete Timber Framed Above Plasterboard	No Insulation	
Void	Plasterboard on Timber	Bulk Insulation R3.5	
Dining/Living	Plasterboard on Timber	Bulk Insulation R3.5	
Dining/Living	Concrete Timber Framed Above Plasterboard	No Insulation	
Powder	Plasterboard on Timber	Bulk Insulation R3.5	
Powder	Concrete Timber Framed Above Plasterboard	No Insulation	
Linen	Plasterboard on Timber	Bulk Insulation R3.5	
Linen	Concrete Timber Framed Above Plasterboard	No Insulation	

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Laundry	Plasterboard on Timber	Bulk Insulation R3.5	
Laundry	Concrete Timber Framed Above Plasterboard	No Insulation	
Stairs_FF	Plasterboard on Timber	Bulk Insulation R4.5	
Bedroom 1	Plasterboard on Timber	Bulk Insulation R4.5	
ENS 1	Plasterboard on Timber	Bulk Insulation R4.5	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R4.5	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R4.5	
Bath_FF	Plasterboard on Timber	Bulk Insulation R4.5	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R4.5	
Kitchen	Plasterboard on Timber	Bulk Insulation R3.5	
Kitchen	Concrete Timber Framed Above Plasterboard	No Insulation	
Family	Plasterboard on Timber	Bulk Insulation R3.5	
Family	Concrete Timber Framed Above Plasterboard	No Insulation	

Ceiling *penetrations**

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Entry	3	Downlights - LED	50	Sealed
Plant Room	6	Downlights - LED	50	Sealed
Stairs_GF	1	Downlights - LED	50	Sealed
Dining/Living	11	Downlights - LED	50	Sealed
Powder	1	Downlights - LED	50	Unsealed
Powder	1	Exhaust Fans	300	Unsealed
Linen	1	Downlights - LED	50	Sealed
Laundry	2	Downlights - LED	50	Unsealed
Laundry	1	Exhaust Fans	300	Unsealed
Stairs_FF	4	Downlights - LED	50	Sealed
Bedroom 1	5	Downlights - LED	50	Sealed
ENS 1	2	Downlights - LED	50	Sealed
ENS 1	1	Exhaust Fans	300	Sealed
Bedroom 4	3	Downlights - LED	50	Sealed
Bedroom 3	3	Downlights - LED	50	Sealed
Bath_FF	2	Downlights - LED	50	Unsealed

* Refer to glossary.

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Bath_FF	1	Exhaust Fans	300	Unsealed
Bedroom 2	4	Downlights - LED	50	Sealed
Kitchen	4	Downlights - LED	50	Sealed
Kitchen	1	Exhaust Fans	300	Sealed
Family	5	Downlights - LED	50	Sealed

Ceiling *fans*

Location	Quantity	Diameter [mm]
Dining/Living	1	1400
Bedroom 1	1	1400
Bedroom 4	1	1400
Bedroom 3	1	1400
Bedroom 2	1	1400
Family	1	1400

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Waterproofing Membrane	No Added Insulation, No air Gap	0.50	Medium
Corrugated Iron Timber Frame	Bulk, Reflective Side Down, Anti-glare Up R1.8	0.50	Medium
Corrugated Iron Timber Frame	Bulk, Reflective Side Down, Anti-glare Up R1.8	0.30	Light

Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
No Data Available				

Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m^2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Hot water system

Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC	Zone 3 Substitution tolerance ranges		Assessed daily load [litres]
					lower limit	upper limit	
No Data Available							

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

Onsite Renewable Energy *Schedule*

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery *Schedule*

System Type	Size [Battery Storage Capacity]
No Data Available	

* Refer to glossary.

Explanatory notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

Glossary

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
COP	Coefficient of performance
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)