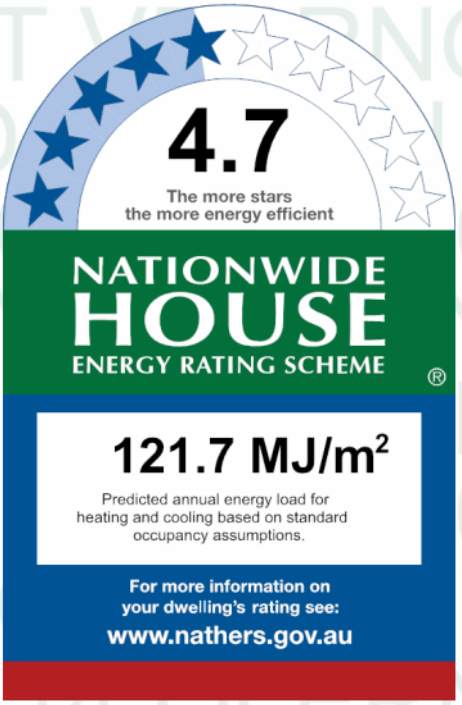
Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0005849047-01

Generated on 14 Oct 2021 using BERS Pro v4.4.0.6 (3.21)



Property

Address	14 Mount Vernon Road , Mount Vernon , NSW , 2178
Lot/DP	1/1221535
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Project No 2025, Issue C dated Aug. 21
Prepared by	ATJ Architects, Drawn BL

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	416.0	Open
Unconditioned*	185.0	**NatHERS climate zone**
Total	601.0	28
Garage	156.0	

Thermal performance

Heating	Cooling
60.8 MJ/m^2	**61.0** MJ/m^2

Accredited assessor

Name	Craig Crowther
Business name	Insight Energy
Email	info@insightenergy.com.au
Phone	07 3106 6777
Accreditation No.	DMN/12/1469
Assessor Accrediting Organisation	
Design Matters National	
Declaration of interest	Declaration completed: no conflicts

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Verification

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

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

* Refer to glossary.

Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

Apartment entrance doors

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 level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional notes

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
ALM-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-013-09 A	AWS-013-09 A 541/542 Al Sliding Door DG 6.38CPClr/8/4	3.6	0.50	0.48	0.53
AWS-067-11 A	AWS-067-11 A RES SERIES 516 FIXED WINDOW DG 3_LightBridge_ClrSI_638-10-4	2.2	0.49	0.47	0.51
AWS-031-33 A	AWS-031-33 A 463 Al Double Hung Window DG 638CPClr/8/4	4.2	0.43	0.41	0.45
AWS-003-11 A	AWS-003-11 A 502/504 Al Sliding Window DG 638CPClr/8/4	3.8	0.48	0.46	0.50
VAN-004-03 A	VAN-004-03 A SERIES 525 LOUVRE WINDOW SG 6EVanClr	4.7	0.49	0.47	0.51

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Shed	AWS-013-09 A	n/a	2400	2700	n/a	60	N	No
Kitchen/Family	AWS-067-11 A	n/a	3000	5000	n/a	35	N	No
Kitchen/Family	AWS-067-11 A	n/a	3000	2500	n/a	00	E	No
Kitchen/Family	AWS-013-09 A	n/a	3000	2700	n/a	60	E	No
Kitchen/Family	AWS-031-33 A	n/a	2100	1000	n/a	45	S	Yes
Kitchen/Family	AWS-031-33 A	n/a	2100	1000	n/a	45	S	Yes
Kitchen/Family	AWS-031-33 A	n/a	3000	1000	n/a	45	W	No
Kitchen/Family	AWS-031-33 A	n/a	3000	1000	n/a	45	W	No
Kitchen/Family	AWS-003-11 A	n/a	900	3600	n/a	30	W	No
Stairs GF	AWS-067-11 A	n/a	3000	900	n/a	00	S	No
Powder	AWS-067-11 A	n/a	3000	900	n/a	00	S	No
Entry Hall	VAN-004-03 A	n/a	3000	2820	n/a	45	S	No
Entry Hall	AWS-067-11 A	n/a	3000	500	n/a	00	S	No
Entry Hall	AWS-067-11 A	n/a	3000	2820	n/a	00	N	No
Entry Hall	AWS-067-11 A	n/a	3000	2500	n/a	00	N	No
Entry Hall	AWS-067-11 A	n/a	3000	2500	n/a	00	N	No
Entry Hall	AWS-013-09 A	n/a	3000	5200	n/a	65	N	No
Music Room	AWS-013-09 A	n/a	3000	2700	n/a	60	W	No
Bed 3	AWS-067-11 A	n/a	3000	2500	n/a	00	S	No
Bed 3	VAN-004-03 A	n/a	3000	2500	n/a	45	W	No
Bed 4	VAN-004-03 A	n/a	3000	1800	n/a	40	N	No
Ensuite Bed 4	AWS-031-33 A	n/a	3000	900	n/a	45	E	No
Laundry	ALM-004-01 A	n/a	3000	1000	n/a	90	W	No
Bed 1 WIR	AWS-031-33 A	n/a	3000	900	n/a	45	W	No
Ensuite Bed 1	VAN-004-03 A	n/a	3000	900	n/a	90	W	No
Ensuite Bed 1	VAN-004-03 A	n/a	3000	900	n/a	90	W	No
Ensuite Bed 1	VAN-004-03 A	n/a	3000	2700	n/a	30	N	No
Bed 1	VAN-004-03 A	n/a	3000	2700	n/a	30	N	No
Bed 1	VAN-004-03 A	n/a	3000	2700	n/a	30	S	Yes
Bed 1	ALM-004-01 A	n/a	3000	1000	n/a	90	E	No
Bed 2	VAN-004-03 A	n/a	3000	2700	n/a	30	E	No
Bath	AWS-031-33 A	n/a	3000	900	n/a	45	E	No
Bath	AWS-031-33 A	n/a	3000	900	n/a	45	E	No
Entry Hall	AWS-031-33 A	n/a	3000	1200	n/a	45	E	No
Entry Hall	AWS-031-33 A	n/a	3000	1200	n/a	45	S	No
Living	AWS-067-11 A	n/a	3000	5000	n/a	35	S	No

* Refer to glossary.

Roof window *type and performance*

Default* roof windows

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

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
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage 1	2400	5500	90	S
Garage 1	2400	5000	90	W
Garage 1	2400	5000	90	W
Entry Hall	3000	1840	90	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Cavity Brick	0.50	Medium	No insulation	No
EW-2	Weatherboard Cavity Panel Direct Fix	0.50	Medium	Foil, Reflective both sides + Bulk Insulation R2.7	Yes
EW-3	Brick Veneer	0.50	Medium	Foil, Reflective both sides + Bulk Insulation R2.7	Yes
EW-4	Weatherboard Cavity Panel Direct Fix	0.50	Medium	Foil, Reflective both sides + Bulk Insulation R2.7	Yes

* Refer to glossary.

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-5	Brick Veneer	0.50	Medium	Foil, Reflective both sides + Bulk Insulation R2.7	Yes

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Garage 1	EW-1	3000	1200	E	0	YES
Garage 1	EW-1	3000	545	S	0	YES
Garage 1	EW-1	3000	4100	E	0	YES
Garage 1	EW-1	3000	6000	S	0	NO
Garage 1	EW-1	3000	13845	W	0	NO
Shed	EW-1	3000	6600	N	0	NO
Shed	EW-1	3000	5045	W	0	NO
Store	EW-1	3000	2500	S	0	NO
Store	EW-1	3000	2100	W	0	YES
Store	EW-1	3000	1845	S	0	YES
Stairs LGF	EW-1	3000	2090	S	0	NO
Kitchen/Family	EW-2	3000	7000	N	1100	NO
Kitchen/Family	EW-2	3000	10900	E	700	YES
Kitchen/Family	EW-2	3000	4600	E	700	YES
Kitchen/Family	EW-2	3000	7000	S	1600	NO
Kitchen/Family	EW-2	3000	20000	W	700	NO
Stairs GF	EW-3	3000	2190	S	100	YES
Powder	EW-3	3000	1790	S	4000	NO
Entry Hall	EW-3	3000	2890	S	200	YES
Entry Hall	EW-3	3000	2590	S	4000	NO
Entry Hall	EW-3	3000	15590	N	5100	YES
Music Room	EW-2	3000	5695	W	700	YES
Bed 3	EW-2	3000	4595	S	1100	NO
Bed 3	EW-2	3000	5495	W	700	NO
Bed 4	EW-2	3000	4595	N	700	YES
Bed 4	EW-2	3000	4095	E	700	NO
Ensuite Bed 4	EW-2	3000	1895	E	700	NO
Ensuite Bed 4	EW-2	3000	2495	S	1100	NO
Bed 4 WIR	EW-2	3000	2090	S	1100	NO
Laundry	EW-2	3000	2690	W	700	NO
Bed 1 WIR	EW-2	3000	3190	W	700	NO
Ensuite Bed 1	EW-2	3000	3795	W	700	NO
Ensuite Bed 1	EW-2	3000	4595	N	1100	NO
Bed 1	EW-2	3000	5995	N	1100	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bed 1	EW-2	3000	4600	E	700	NO
Bed 1	EW-2	3000	4600	S	700	YES
Bed 1	EW-2	3000	2395	E	700	YES
Bed 2	EW-2	3000	4595	N	700	YES
Bed 2	EW-2	3000	5595	E	700	NO
Bath	EW-2	3000	2695	E	700	NO
Bath	EW-2	3000	4595	S	800	YES
Entry Hall	EW-2	3000	795	E	5300	YES
Entry Hall	EW-2	3000	2900	E	700	YES
Entry Hall	EW-2	3000	1390	S	1100	NO
Linen	EW-4	3000	595	W	700	YES
Living	EW-4	3000	3600	E	500	YES
Living	EW-4	3000	5900	S	1400	NO
Living	EW-4	3000	2600	W	3800	YES
Living	EW-5	3000	195	S	4000	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Single Skin Brick		47.00	No insulation
IW-2 - Cavity brick, plasterboard		67.00	No Insulation
IW-3 - Cavity wall, direct fix plasterboard, single gap		154.00	No insulation
IW-4 - Cavity wall, direct fix plasterboard, single gap		155.00	Bulk Insulation, No Air Gap R2

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage 1	Concrete Slab on Ground 100mm	88.70	None	No Insulation	Bare
Shed	Concrete Slab on Ground 100mm	33.30	None	No Insulation	Bare
Store	Concrete Slab on Ground 100mm	24.80	None	No Insulation	Bare
Stairs LGF	Concrete Slab on Ground 100mm	9.40	None	No Insulation	Bare
Kitchen/Family/Garage 1	Concrete Above Plasterboard 150mm	89.20		Bulk Insulation R1.5	Cork Tiles or Parquetry 8mm
Kitchen/Family/Shed	Concrete Above Plasterboard 150mm	33.60		Bulk Insulation R1.5	Cork Tiles or Parquetry 8mm
Kitchen/Family	Suspended Concrete Slab 150mm	17.00	Totally Open	No Insulation	Cork Tiles or Parquetry 8mm
Stairs GF/Stairs LGF	Concrete Above Plasterboard 150mm	5.40		Bulk Insulation R1.5	Bare
Powder/Store	Concrete Above Plasterboard 150mm	4.40		Bulk Insulation R1.5	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Entry Hall/Store	Concrete Above Plasterboard 150mm	14.80		Bulk Insulation R1.5	Cork Tiles or Parquetry 8mm
Entry Hall/Stairs LGF	Concrete Above Plasterboard 150mm	4.10		Bulk Insulation R1.5	Cork Tiles or Parquetry 8mm
Entry Hall	Suspended Concrete Slab 150mm	27.90	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Music Room	Suspended Concrete Slab 150mm	31.90	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Bed 3	Suspended Concrete Slab 150mm	24.80	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Bed 4	Suspended Concrete Slab 150mm	18.50	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Ensuite Bed 4	Suspended Concrete Slab 150mm	4.60	Enclosed	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bed 4 WIR	Suspended Concrete Slab 150mm	3.70	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Laundry	Suspended Concrete Slab 150mm	11.90	Enclosed	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bed 1 WIR	Suspended Concrete Slab 150mm	14.20	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Ensuite Bed 1	Suspended Concrete Slab 150mm	17.10	Enclosed	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bed 1	Suspended Concrete Slab 150mm	30.60	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Bed 2	Suspended Concrete Slab 150mm	25.30	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Bath	Suspended Concrete Slab 150mm	12.10	Enclosed	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Entry Hall	Suspended Concrete Slab 150mm	30.20	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Linen	Suspended Concrete Slab 150mm	5.00	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Living	Suspended Concrete Slab 150mm	24.10	Enclosed	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage 1	Plasterboard	No insulation	No
Garage 1	Concrete Above Plasterboard	Bulk Insulation R1.5	No
Shed	Plasterboard	No insulation	No
Shed	Concrete Above Plasterboard	Bulk Insulation R1.5	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	Bulk Insulation R1.5	No
Stairs LGF	Plasterboard	No insulation	No
Stairs LGF	Concrete Above Plasterboard	Bulk Insulation R1.5	No
Kitchen/Family	Plasterboard	Bulk Insulation R4	No
Stairs GF	Plasterboard	Bulk Insulation R4	No
Powder	Plasterboard	Bulk Insulation R4	No
Entry Hall	Plasterboard	Bulk Insulation R4	No
Music Room	Plasterboard	Bulk Insulation R4	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bed 3	Plasterboard	Bulk Insulation R4	No
Bed 4	Plasterboard	Bulk Insulation R4	No
Ensuite Bed 4	Plasterboard	Bulk Insulation R4	No
Bed 4 WIR	Plasterboard	Bulk Insulation R4	No
Laundry	Plasterboard	Bulk Insulation R4	No
Bed 1 WIR	Plasterboard	Bulk Insulation R4	No
Ensuite Bed 1	Plasterboard	Bulk Insulation R4	No
Bed 1	Plasterboard	Bulk Insulation R4	No
Bed 2	Plasterboard	Bulk Insulation R4	No
Bath	Plasterboard	Bulk Insulation R4	No
Entry Hall	Plasterboard	Bulk Insulation R4	No
Linen	Plasterboard	Bulk Insulation R4	No
Living	Plasterboard	Bulk Insulation R4	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Kitchen/Family	18	Downlights - LED	450	Sealed
Kitchen/Family	1	Exhaust Fans	300	Sealed
Kitchen/Family	1	Chimneys	250	Sealed
Stairs GF	1	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Entry Hall	6	Downlights - LED	150	Sealed
Music Room	6	Downlights - LED	150	Sealed
Bed 3	4	Downlights - LED	150	Sealed
Bed 4	2	Downlights - LED	150	Sealed
Ensuite Bed 4	1	Downlights - LED	150	Sealed
Ensuite Bed 4	1	Exhaust Fans	300	Sealed
Bed 4 WIR	1	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	450	Sealed
Bed 1 WIR	2	Downlights - LED	150	Sealed
Ensuite Bed 1	3	Downlights - LED	150	Sealed
Ensuite Bed 1	1	Exhaust Fans	300	Sealed
Bed 1	5	Downlights - LED	150	Sealed
Bed 2	2	Downlights - LED	150	Sealed
Bath	3	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Entry Hall	2	Downlights - LED	150	Sealed

* Refer to glossary.

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Living	6	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Kitchen/Family	2	1200
Entry Hall	1	1200
Music Room	1	1200
Bed 3	1	1200
Bed 4	1	1200
Laundry	1	1200
Bed 1	1	1200
Bed 2	1	1200
Living	1	1200

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Concrete	No Added Insulation, No air Gap	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.85	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.85	Dark

* Refer to glossary.

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings 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, indoor air temperature and local climate.

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

Glossary

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, rangehoods, 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.
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.
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 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 – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	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.
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
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 device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
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.
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.
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).

* Refer to glossary.