

Nationwide House Energy Rating Scheme®

NatHERS® Certificate No.

Generated on 01 Mar 2024 using Hero 3.1.0.6

Property

Address UNIT 2, 69 Hilltop, Tallwoods Village,
NSW, 2430

Lot/DP 115/1022280

NCC Class* 1a

Floor/all Floors 2 of 2 floors

Type New

Plans

Main Plan Azzizi/A-15.02.24

Prepared by TS

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 201.6	Suburban
Unconditioned* 5.4	NatHERS climate zone
Total 253.1	15 - Williamstown AMO
Garage 46.1	



Accredited assessor

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Assessor Accrediting Organisation HERA

Declaration of interest No Conflict of Interest

NCC Requirements

BCA provisions Volume 2

State/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 J2D2(2)(a) and (3) 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



46.2 MJ/m²

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	26.6	19.6
Load limits	40	33

Features determining load limits

Floor type
(lowest conditioned area) CSOG

NCC climate zone 1 or 2 N

Outdoor living area N

Outdoor living area ceiling fan N

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

* 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 and 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: 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

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

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.

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 who should check each item.
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 on the NatHERS-stamped plans?	☐	☐	☐	☐	☐

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?		☐	☐	☐	☐
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Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
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Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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Whole of Home performance check (not applicable if a Whole of Home 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?	☐	☐	☐	☐	☐
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Does the heating 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?	☐	☐	☐	☐	☐
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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?	☐	☐	☐	☐	☐
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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?	☐	☐	☐	☐	☐
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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?	☐	☐	☐	☐	☐
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Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
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Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
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Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
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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

Default ceiling penetration density calculated as lighting plan has not been provided. All openable windows are assumed to be fully openable as per NCC 2022 > Volume 2 > H5P2 (fall prevention barriers) are in place. North Pointer shown on the plans has been calculated to be the True North. No trees have been modelled as no relevant information has been provided. For all insulation installed the rating called out in the NatHERS is the primary factor and not its description. If these are not in place then this NatHERS must be revised.

Room schedule

Room	Zone Type	Area (m²)
GARAGE	Garage	46.13
ENTRY/HALL	Day Time	22.95
STAIRS GF	Day Time	3.71
STUDY RUMPUS	Living	12.72
BED 01	Bedroom	13.46
BED 02	Bedroom	18.33
LAUNDRY	Day Time	7.80
BATHROOM	Day Time	5.77
KLD	Kitchen/Living	92.91
MASTER	Bedroom	13.75
WIR MB	Night Time	7.44
ENSUITE MB	Night Time	6.23
WC FF	Unconditioned	5.38

Window and glazed door type and performance

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ALM-005-01 A	Aluminium A DG Argon Fill Clear-Clear	4.50	0.50	0.47	0.53
ALM-006-01 A	Aluminium B DG Argon Fill Clear-Clear	4.50	0.61	0.58	0.64
ALM-006-04 A	Aluminium B DG Argon Fill Low Solar Gain low-E -Clear	4.80	0.34	0.32	0.36

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	ALM-005-01 A	W102	1500	2400	Tilt & Turn	90	SSE	None
BED 02	ALM-006-01 A	SD21	2400	2100	Sliding Door	45	NNW	None
ENSUITE MB	ALM-005-01 A	W103	600	1600	Tilt & Turn	90	NNW	None
KLD	ALM-006-04 A	SD14	2400	4200	Sliding Door	60	SSE	None
KLD	ALM-006-04 A	SD15	2400	4200	Sliding Door	60	ENE	None
KLD	ALM-005-01 A	W110	2100	1500	Tilt & Turn	90	SSE	None
KLD	ALM-005-01 A	W111	2100	1500	Tilt & Turn	90	SSE	None
KLD	ALM-005-01 A	W112	2100	1500	Tilt & Turn	90	SSE	None
KLD	ALM-005-01 A	W106	600	3000	Tilt & Turn	90	ENE	None
MASTER	ALM-005-01 A	W104	800	3000	Tilt & Turn	90	NNW	None
STUDY RUMPUS	ALM-006-04 A	SD22	2400	2100	Sliding Door	45	NNW	None
WC FF	ALM-005-01 A	W105	600	1600	Tilt & Turn	90	NNW	None

Roof window *type and performance value*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

Skylight type and performance

Skylight ID	Skylight description
None	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
ENTRY/HALL	2100	1000	90	SSE
GARAGE	2100	1000	0	NNW
GARAGE	2200	3500	0	SSE

External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
DINC-200-PB*2-A	DINCELL 200mm Concrete partition wall - PB*2	0.50	Medium	2.73	No
DINC-200-PB*2-B	DINCELL 200mm Concrete partition wall - PB*2	0.50	Medium	0.00	No
FC-NOCAV-A	Fibre-Cement Clad Direct-Fix (No Cavity) Stud Wall	0.44	Medium (Shale Grey)	2.73	No
FC-NOCAV-B	Fibre-Cement Clad Direct-Fix (No Cavity) Stud Wall	0.25	Light (White)	2.73	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orient- ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01	FC-NOCAV-A	2600	4486	SSE	263	Yes
BED 01	FC-NOCAV-A	2600	1645	WSW	6605	Yes
BED 02	FC-NOCAV-A	2600	3327	NNW		Yes
ENSUITE MB	FC-NOCAV-B	2400	3112	NNW		No
ENTRY/HALL	FC-NOCAV-A	2600	2408	SSE	2532	Yes
GARAGE	FC-NOCAV-A	2600	4046	NNW		Yes
GARAGE	FC-NOCAV-A	2600	4046	SSE	2516	Yes
GARAGE	DINC-200-PB*2-A	2600	11401	WSW		No
GARAGE	DINC-200-PB*2-B	800	11249	WSW		No
KLD	FC-NOCAV-A	2400	1190	NNW		No
KLD	FC-NOCAV-A	3300	5019	SSE	5080	Yes
KLD	FC-NOCAV-A	3500	5117	ENE	4966	Yes
KLD	FC-NOCAV-A	3750	6260	SSE		No
KLD	FC-NOCAV-A	3650	1506	WSW		Yes
KLD	FC-NOCAV-A	3000	5777	ENE		No
KLD	FC-NOCAV-A	3300	421	ENE		No
MASTER	FC-NOCAV-B	2400	3916	NNW		No
STUDY RUMPUS	FC-NOCAV-A	2600	3665	NNW		Yes
STUDY RUMPUS	FC-NOCAV-A	2600	94	WSW		Yes
WC FF	FC-NOCAV-B	2400	2688	NNW		No
WC FF	FC-NOCAV-B	2500	2001	ENE		No

Internal wall *type*

Wall ID	Wall Type	Area (m²)	Bulk insulation
DINC-200-PB*2	DINCELL 200mm Concrete partition wall - PB*2	60.7	0.00
INT-PB	Internal Plasterboard Stud Wall	26.8	2.73

* Refer to glossary.

Internal wall type

Wall ID	Wall Type	Area (m ²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	116.5	0.00

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
BATHROOM	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	5.8	Enclosed (Disc.)	4.00	Tile
BED 01	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	13.5	Enclosed (Disc.)	4.00	Tile
BED 02	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	18.3	Enclosed (Disc.)	4.00	Tile
ENSUITE MB	TIMB-001: Suspended Timber Floor	6.3	N/A	0.15	Tile
ENTRY/HALL	CSOG-200: Concrete Slab on Ground (200mm)	1.7	N/A	2.50	Tile
ENTRY/HALL	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	21.3	Enclosed (Disc.)	4.00	Tile
GARAGE	CSOG-200: Concrete Slab on Ground (200mm)	46.1	N/A	0.00	Exposed
KLD	TIMB-001: Suspended Timber Floor	24.1	N/A	2.50	Tile
KLD	TIMB-001: Suspended Timber Floor	54.0	N/A	0.15	Tile
KLD	TIMB-001: Suspended Timber Floor	14.8	N/A	4.00	Tile
LAUNDRY	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	7.8	Enclosed (Disc.)	4.00	Tile
MASTER	TIMB-001: Suspended Timber Floor	13.4	N/A	2.50	Tile
MASTER	TIMB-001: Suspended Timber Floor	0.3	N/A	0.15	Tile
STAIRS GF	CSOG-200: Concrete Slab on Ground (200mm)	1.9	N/A	2.50	Tile
STAIRS GF	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	1.8	Enclosed (Disc.)	4.00	Tile
STUDY RUMPUS	CSOG-200: Concrete Slab on Ground (200mm)	1.6	N/A	2.50	Tile
STUDY RUMPUS	SUSP-CONC-200-LINED: Suspended Concrete Slab Floor (200mm) - Lined Below	11.1	Enclosed (Disc.)	4.00	Tile
WC FF	TIMB-001: Suspended Timber Floor	5.4	N/A	0.15	Tile
WIR MB	TIMB-001: Suspended Timber Floor	7.4	N/A	2.50	Tile

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
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Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATHROOM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
ENSUITE MB	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
ENTRY/HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
KLD	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
MASTER	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
WC FF	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
WIR MB	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATHROOM	1	Downlight	190	Sealed
BATHROOM	1	Exhaust Fan	350	Sealed
BED 01	2	Downlight	190	Sealed
BED 02	3	Downlight	190	Sealed
ENSUITE MB	1	Downlight	190	Sealed
ENSUITE MB	1	Exhaust Fan	350	Sealed
ENTRY/HALL	3	Downlight	190	Sealed
KLD	13	Downlight	190	Sealed
KLD	1	Exhaust Fan	260	Sealed
LAUNDRY	1	Downlight	190	Sealed
LAUNDRY	1	Exhaust Fan	350	Sealed
MASTER	2	Downlight	190	Sealed
STAIRS GF	1	Downlight	190	Sealed
STUDY RUMPUS	2	Downlight	190	Sealed
WC FF	1	Downlight	190	Sealed

* Refer to glossary.

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
WC FF	1	Exhaust Fan	350	Sealed
WIR MB	1	Downlight	190	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
KLD	2	2400

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	1.30	0.50	Medium
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	1.30	0.44	Medium (Shale Grey)

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)
None				

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

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
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.
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.
COP	Coefficient of performance
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 - 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 .
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.
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.
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 Regulatory
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, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
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	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

* Refer to glossary.