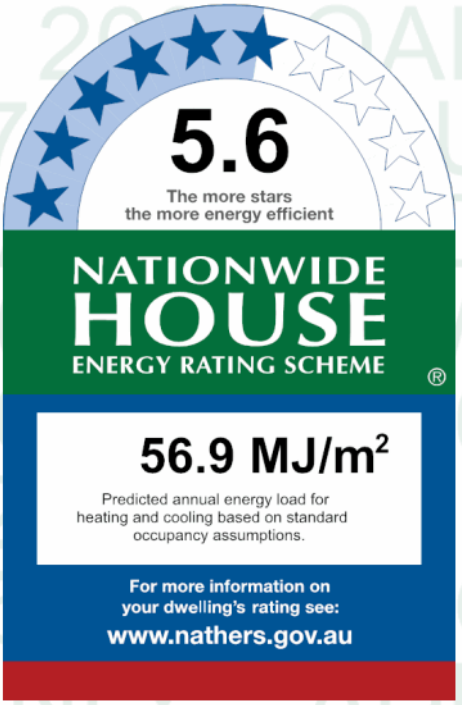
Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0005776075-02

Generated on 09 Aug 2021 using BERS Pro v4.4.0.6 (3.21)



Property

Address	16 Addison Road , Manly , NSW , 2095
Lot/DP	2/325220
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Rev A - Issued On - 23/07/2021
Prepared by	Patterson Associates LTD

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	291.0	Open
Unconditioned*	12.0	**NatHERS climate zone**
Total	303.0	56
Garage	0.0	

Thermal performance

Heating	**Cooling**
37.2 MJ/m^2	**19.7** MJ/m^2

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	None

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=WyGwmdzWp.
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.

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

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.

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-005-03 A	ALM-005-03 A Aluminium A DG Argon Fill High Solar Gain low-E -Clear	4.1	0.47	0.45	0.49
ALM-006-03 A	ALM-006-03 A Aluminium B DG Argon Fill High Solar Gain low-E -Clear	4.1	0.52	0.49	0.55

Custom* windows

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

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 2	ALM-005-03 A	n/a	1200	1800	n/a	90	SW	No
Bedroom 2	ALM-006-03 A	n/a	2030	250	n/a	00	SE	No
Bedroom 3	ALM-006-03 A	n/a	2400	2450	n/a	45	NE	No
Bedroom 3	ALM-006-03 A	n/a	2400	1640	n/a	00	SE	No
Garden Room	ALM-006-03 A	n/a	2400	4600	n/a	65	NE	No
Garden Room	ALM-006-03 A	n/a	2400	4700	n/a	65	SE	No
Garden Room	ALM-006-03 A	n/a	2400	2295	n/a	00	SW	No
Kitchen/Living	ALM-006-03 A	n/a	2900	1800	n/a	00	SE	No
Kitchen/Living	ALM-006-03 A	n/a	2900	4600	n/a	65	NE	No
Kitchen/Living	ALM-006-03 A	n/a	2900	4700	n/a	65	SE	No
Kitchen/Living	ALM-006-03 A	n/a	2900	2295	n/a	00	SW	No
Kitchen/Living	ALM-006-03 A	n/a	2900	1590	n/a	00	SE	No
Kitchen/Living	ALM-006-03 A	n/a	2900	4370	n/a	90	NW	No
Laundry	ALM-005-03 A	n/a	2500	900	n/a	90	NE	No
Entry	ALM-006-03 A	n/a	2900	250	n/a	00	SE	No
Master Ensuite	ALM-006-03 A	n/a	2400	1800	n/a	00	SE	No
Master Ensuite	ALM-006-03 A	n/a	2400	400	n/a	65	NE	No
Master Bedroom	ALM-006-03 A	n/a	2400	4700	n/a	65	SE	No
Master Bedroom	ALM-006-03 A	n/a	2400	2295	n/a	00	SW	No
Master Bedroom	ALM-006-03 A	n/a	2400	4200	n/a	65	NE	No
Bedroom 2/Study	ALM-006-03 A	n/a	2700	3290	n/a	45	NW	Yes
Bedroom 1	ALM-006-03 A	n/a	2700	3300	n/a	45	NW	Yes
Void	ALM-006-03 A	n/a	2700	1615	n/a	00	NW	Yes
Landing	ALM-006-03 A	n/a	2700	250	n/a	00	SE	No
Stairs	ALM-006-03 A	n/a	2400	1590	n/a	00	SE	No
Stairs-FF	ALM-006-03 A	n/a	2700	1590	n/a	00	SE	No
Stairs-FF	ALM-006-03 A	n/a	2000	1800	n/a	00	SW	No
Void 2	ALM-006-03 A	n/a	1535	3100	n/a	00	NE	No

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
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
Dressing	GEN-04-008a	n/a	50	1.50	SE	None	No	0.50
Master Ensuite	GEN-04-008a	n/a	50	1.40	NE	None	No	0.50
Bathroom	GEN-04-008a	n/a	50	1.00	NE	None	No	0.50
Corridor	GEN-04-008a	n/a	50	1.60	NE	None	No	0.50

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry	2900	1600	90	NW

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Stone, lined	0.50	Medium	Anti-glare foil with bulk no gap R3.7	No
EW-2	Stone, lined	0.50	Medium	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)
Bedroom 2	EW-1	2400	2695	SW	0	YES
Bedroom 2	EW-1	2400	400	SE	0	YES
Bedroom 2	EW-1	2400	495	SW	0	NO
Bedroom 3	EW-1	2400	2495	NE	700	YES

* 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-1	2400	700	NW	7300	YES
Bedroom 3	EW-1	2400	3000	NE	0	NO
Bedroom 3	EW-1	2400	1795	SE	6000	YES
Laundry	EW-2	2400	2495	SW	0	NO
Laundry	EW-2	2400	1595	NW	0	NO
Store	EW-2	2400	3490	NW	0	NO
AC Wine Cellar	EW-2	2400	1690	NW	0	NO
Garden Room	EW-2	2400	4600	NE	1800	YES
Garden Room	EW-2	2400	4700	SE	1400	NO
Garden Room	EW-2	2400	2305	SW	1600	YES
Plant	EW-2	2400	2495	NE	0	NO
Plant	EW-2	2400	1695	NW	0	NO
Kitchen/Living	EW-2	2900	6595	NE	0	NO
Kitchen/Living	EW-2	2900	1800	SE	0	YES
Kitchen/Living	EW-2	2900	4600	NE	0	YES
Kitchen/Living	EW-2	2900	4700	SE	0	NO
Kitchen/Living	EW-2	2900	2300	SW	0	YES
Kitchen/Living	EW-2	2900	1600	SE	0	YES
Kitchen/Living	EW-2	2900	1595	SW	0	NO
Kitchen/Living	EW-2	2900	4890	NW	800	NO
Pantry	EW-2	2900	1490	NE	0	NO
Laundry	EW-2	2900	2195	NE	0	NO
Laundry	EW-2	2900	1895	NW	800	NO
Entry	EW-2	2900	1495	SW	0	YES
Entry	EW-2	2900	400	SE	0	YES
Entry	EW-2	2900	5300	SW	0	NO
Entry	EW-2	2900	1695	NW	800	NO
Master Ensuite	EW-1	2700	2995	NE	200	NO
Master Ensuite	EW-1	2700	1800	SE	200	YES
Master Ensuite	EW-1	2700	395	NE	200	YES
Master Bedroom	EW-1	2700	4700	SE	200	NO
Master Bedroom	EW-1	2700	2300	SW	200	YES
Master Bedroom	EW-1	2700	4195	NE	200	NO
Bedroom 2/Study	EW-1	2700	3490	NW	1100	NO
Bedroom 1	EW-1	2700	3995	NE	200	NO
Bedroom 1	EW-1	2700	3295	NW	1100	NO
Void	EW-2	2700	3495	SW	200	NO
Void	EW-2	2700	1695	NW	1100	NO
Landing	EW-2	2700	595	SW	200	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Landing	EW-2	2700	400	SE	7500	YES
Landing	EW-2	2700	1795	SW	200	NO
Stairs	EW-2	2400	1595	SE	3700	YES
Stairs	EW-2	2400	4595	SW	0	NO
Stairs-GF	EW-2	2900	4190	SW	0	NO
Stairs-FF	EW-2	2700	1595	SE	200	YES
Stairs-FF	EW-2	2700	6695	SW	200	NO
Void 2	EW-2	2700	3290	NE	200	NO
WIR	EW-1	2400	2290	SW	0	NO
WIR	EW-1	2400	1895	NE	0	NO
WIR	EW-1	2400	700	SE	11900	YES
WIR	EW-1	2400	395	NE	700	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		321.00	Bulk Insulation, No Air Gap R1.8

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 2	Concrete Slab on Ground 200mm	13.20	None	Bulk Insulation in Contact with Floor R1.8	Carpet 10mm
Bedroom 3	Concrete Slab on Ground 200mm	16.30	None	Bulk Insulation in Contact with Floor R1.8	Carpet 10mm
Laundry	Concrete Slab on Ground 200mm	3.80	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
Store	Concrete Slab on Ground 200mm	8.40	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
AC Wine Cellar	Concrete Slab on Ground 200mm	3.90	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
Garden Room	Concrete Slab on Ground 200mm	30.80	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
ENS	Concrete Slab on Ground 200mm	9.10	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
Plant	Concrete Slab on Ground 200mm	4.10	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
Kitchen/Living/Bedroom 2	Concrete Above Plasterboard 200mm	9.30		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Bedroom 3	Concrete Above Plasterboard 200mm	16.60		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Store	Concrete Above Plasterboard 200mm	8.40		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/AC Wine Cellar	Concrete Above Plasterboard 200mm	3.70		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Garden Room	Concrete Above Plasterboard 200mm	31.00		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/ENS	Concrete Above Plasterboard 200mm	9.60		No Insulation	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living/Stairs	Concrete Above Plasterboard 200mm	2.50		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/WIR	Concrete Above Plasterboard 200mm	0.90		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/WIR	Concrete Above Plasterboard 200mm	2.50		No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Suspended Concrete Slab 200mm	2.00	Totally Open	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Pantry/Plant	Concrete Above Plasterboard 300mm	0.50		No Insulation	Ceramic Tiles 8mm
Pantry/WIR	Concrete Above Plasterboard 300mm	2.10		No Insulation	Ceramic Tiles 8mm
Laundry/Plant	Concrete Above Plasterboard 300mm	3.60		No Insulation	Ceramic Tiles 8mm
Entry/Bedroom 2	Concrete Above Plasterboard 300mm	2.70		No Insulation	Ceramic Tiles 8mm
Entry/Laundry	Concrete Above Plasterboard 300mm	3.90		No Insulation	Ceramic Tiles 8mm
Entry/WIR	Concrete Above Plasterboard 300mm	3.80		No Insulation	Ceramic Tiles 8mm
Dressing/Kitchen/Living	Concrete Above Plasterboard 300mm	9.80		No Insulation	Carpet 10mm
Master Ensuite/Kitchen/Living	Concrete Above Plasterboard 300mm	12.90		No Insulation	Ceramic Tiles 8mm
Master Bedroom/Kitchen/Living	Concrete Above Plasterboard 300mm	22.10		No Insulation	Carpet 10mm
Bedroom 2/Study/Kitchen/Living	Concrete Above Plasterboard 300mm	11.80		No Insulation	Carpet 10mm
Bedroom 1/Kitchen/Living	Concrete Above Plasterboard 300mm	5.60		No Insulation	Carpet 10mm
Bedroom 1/Pantry	Concrete Above Plasterboard 300mm	2.80		No Insulation	Carpet 10mm
Bedroom 1/Laundry	Concrete Above Plasterboard 300mm	4.10		No Insulation	Carpet 10mm
Bathroom/Kitchen/Living	Concrete Above Plasterboard 300mm	4.10		No Insulation	Ceramic Tiles 8mm
WC/Kitchen/Living	Concrete Above Plasterboard 300mm	2.20		No Insulation	Ceramic Tiles 8mm
Void/Entry	Concrete Above Plasterboard 300mm	5.70		No Insulation	Ceramic Tiles 8mm
Corridor/Kitchen/Living	Concrete Above Plasterboard 300mm	4.50		No Insulation	Ceramic Tiles 8mm
Landing/Kitchen/Living	Concrete Above Plasterboard 300mm	6.20		No Insulation	Ceramic Tiles 8mm
Landing/Entry	Concrete Above Plasterboard 300mm	3.60		No Insulation	Ceramic Tiles 8mm
Stairs	Concrete Slab on Ground 300mm	6.20	None	Bulk Insulation in Contact with Floor R1.8	Ceramic Tiles 8mm
Stairs-GF/Bedroom 2	Concrete Above Plasterboard 200mm	1.50		No Insulation	Ceramic Tiles 8mm
Stairs-GF/Stairs	Concrete Above Plasterboard 200mm	3.70		No Insulation	Ceramic Tiles 8mm
Stairs-FF/Kitchen/Living	Concrete Above Plasterboard 300mm	2.50		No Insulation	Ceramic Tiles 8mm
Stairs-FF/Entry	Concrete Above Plasterboard 300mm	1.10		No Insulation	Ceramic Tiles 8mm
Stairs-FF/Stairs-GF	Concrete Above Plasterboard 300mm	5.20		No Insulation	Ceramic Tiles 8mm
Void 2/Kitchen/Living	Concrete Above Plasterboard 300mm	1.80		No Insulation	Ceramic Tiles 8mm

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
WIR	Concrete Slab on Ground 200mm	4.50	None	Bulk Insulation in Contact with Floor R1.8	Carpet 10mm
WIR	Concrete Slab on Ground 200mm	4.50	None	Bulk Insulation in Contact with Floor R1.8	Carpet 10mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R5	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Concrete, Plasterboard	Bulk Insulation R5	No
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	Bulk Insulation R5	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	Bulk Insulation R5	No
Store	Concrete Above Plasterboard	No Insulation	No
AC Wine Cellar	Concrete, Plasterboard	Bulk Insulation R5	No
AC Wine Cellar	Concrete Above Plasterboard	No Insulation	No
Garden Room	Concrete, Plasterboard	Bulk Insulation R5	No
Garden Room	Concrete Above Plasterboard	No Insulation	No
ENS	Concrete, Plasterboard	Bulk Insulation R5	No
ENS	Concrete Above Plasterboard	No Insulation	No
Plant	Concrete, Plasterboard	Bulk Insulation R5	No
Plant	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R5	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Pantry	Concrete, Plasterboard	Bulk Insulation R5	No
Pantry	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	Bulk Insulation R5	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete, Plasterboard	Bulk Insulation R5	No
Entry	Concrete Above Plasterboard	No Insulation	No
Dressing	Plasterboard	Bulk Insulation R4	No
Master Ensuite	Plasterboard	Bulk Insulation R4	No
Master Bedroom	Plasterboard	Bulk Insulation R4	No
Bedroom 2/Study	Plasterboard	Bulk Insulation R4	No
Bedroom 1	Plasterboard	Bulk Insulation R4	No
Bathroom	Plasterboard	Bulk Insulation R4	No
WC	Plasterboard	Bulk Insulation R4	No
Void	Plasterboard	Bulk Insulation R4	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Corridor	Plasterboard	Bulk Insulation R4	No
Landing	Plasterboard	Bulk Insulation R4	No
Stairs	Concrete, Plasterboard	Bulk Insulation R5	No
Stairs	Concrete Above Plasterboard	No Insulation	No
Stairs-GF	Concrete, Plasterboard	Bulk Insulation R5	No
Stairs-GF	Concrete Above Plasterboard	No Insulation	No
Stairs-FF	Plasterboard	Bulk Insulation R4	No
Void 2	Plasterboard	Bulk Insulation R4	No
WIR	Concrete, Plasterboard	Bulk Insulation R5	No
WIR	Concrete Above Plasterboard	No Insulation	No
WIR	Concrete, Plasterboard	Bulk Insulation R5	No
WIR	Concrete Above Plasterboard	No Insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
No Data Available				

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Foil, No Gap, Reflective Side Down, Anti-glare Up	0.30	Light

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).