Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0006958565-01

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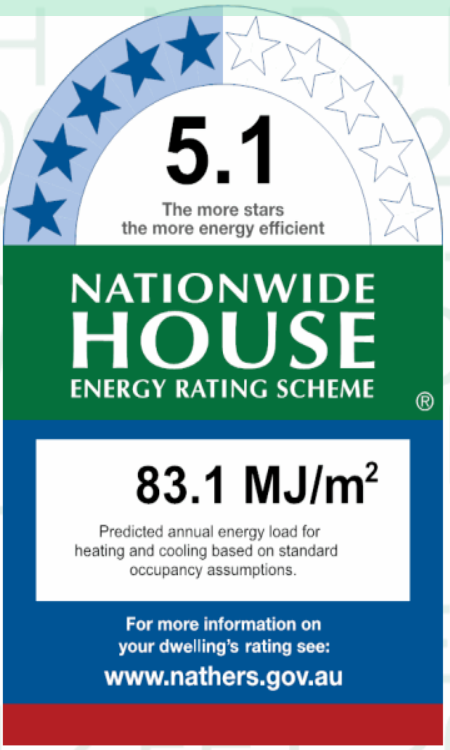

Property

Address	2 Ferry Road , Ettalong Beach , NSW , 2257
Lot/DP	4/10108
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	REV A, 22/10/2021
Prepared by	Osmond McLeod Architects

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	248.0	Suburban
Unconditioned*	21.0	**NatHERS climate zone**
Total	269.0	15
Garage	0.0	

Thermal performance

Heating	Cooling
53.2 MJ/m^2	29.9 MJ/m^2

Accredited assessor

Name	Andrew Lorriman
Business name	Goal Zero Thermal Performance Assessors
Email	andrew@goalzerothermal.com.au
Phone	0407 134 583
Accreditation No.	DMN/17/1827
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 www.hstar.com.au/QR/Generate?p=TzSaqHQTu.
When using either link, ensure you are visiting www.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

Thermal Assessment Requirements:

Roof:

Colorbond - Bulk, reflective side down, no air gap above R1.3. 2 & 5 deg pitch (Light in color)

Ceilings:

Internal - Concrete above plasterboard, bulk insulation R2.0

External - Plasterboard with timber, bulk insulation R4.0

External walls:

Fibro Cavity panel direct fix - bulk insulation R2.5 (Medium)

Brick Veneer - bulk insulation R2.5 (Medium)

Cavity Brick - Bulk, reflective both sides R2.5 (Medium)

Internal walls:

Cavity wall, direct fix plasterboard

Cavity wall, direct fix plasterboard, bulk insulation R2.5 (walls between laundry/bath/PDR & living areas)

Floors:
Ground - 300mm Waffle pod. Carpet, Timber & Tile coverings
First floor - Suspended Concrete (150mm), bulk insulation in contact with floor R2.0. Timber & tile coverings

Glazing:
Double Hung Windows - 638GySn, aluminium, U-value 4.68, SHGC 0.38
Fixed Windows - 638ComPlyGry, aluminium, U-value 3.92, SHGC 0.45
Entry Doors - 6.38CPGy/8/4, aluminium, U-value 3.71, SHGC 0.30 (Double glazed)
Bi-Fold Doors - 638CPGy/8/4, aluminium, U-value 3.94, SHGC 0.31 (Double glazed)
Sliding Windows - 638GySn, aluminium, U-value 4.87, SHGC 0.38
Fixed Windows - 4_LightBridge_GySI_638-10-4, aluminium, U-value 2.17, SHGC 0.32 (Double glazed)
Louvre Windows - 6mmGry, aluminium, U-value 6.11, SHGC 0.39
Sliding Doors - 005 AGG PRIME Gy 6_10_4, aluminium, U-value 3.20, SHGC 0.33 (Double Glazed)
Sliding Doors - 6.38CPGy, aluminium, U-value 4.36, SHGC 0.43

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
No Data Available					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-005-18 A	AWS-005-18 A 514 Al Double Hung Window SG 638GySn	4.7	0.38	0.36	0.40
AWS-066-01 A	AWS-066-01 A RES SERIES 516 FIXED WINDOW SG 638ComPlyGry	3.9	0.45	0.43	0.47
AWS-019-11 A	AWS-019-11 A 549 ED Al Entry Door DG 638CPGy/8/4	3.7	0.30	0.29	0.32
AWS-017-11 A	AWS-017-11 A 548 BF Al BiFold Door DG 638CPGy/8/4	3.9	0.31	0.29	0.33
AWS-001-18 A	AWS-001-18 A 502/504 Al Sliding Window SG 638GySn	4.9	0.38	0.36	0.40
AWS-067-12 A	AWS-067-12 A RES SERIES 516 FIXED WINDOW DG 4_LightBridge_GySI_638-10-4	2.2	0.32	0.30	0.34
AWS-058-07 A	AWS-058-07 A SERIES 525 LOUVRE SERIES 400 CENTREGLAZED SG 6mmGry	6.1	0.39	0.37	0.41
AWS-013-51 A	AWS-013-51 A 541/542 Al Sliding Door DG 005_AGG PRIME Gy 6_10_4	3.2	0.33	0.31	0.35
AWS-011-20 A	AWS-011-20 A 541/542 Al Sliding Door SG 6.38CPGy	4.4	0.43	0.41	0.45

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 2	AWS-005-18 A	n/a	2400	600	n/a	45	NE	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 2	AWS-005-18 A	n/a	2400	600	n/a	45	NE	No
Bedroom 2	AWS-066-01 A	n/a	2100	917	n/a	00	NW	No
Bedroom 2	AWS-005-18 A	n/a	2100	1884	n/a	45	NW	No
Bedroom 3	AWS-005-18 A	n/a	2400	600	n/a	45	NE	No
Bedroom 3	AWS-005-18 A	n/a	2400	600	n/a	45	NE	No
Laundry	AWS-019-11 A	n/a	2120	900	n/a	90	NE	No
Laundry	AWS-066-01 A	n/a	280	900	n/a	00	NE	No
Lounge	AWS-005-18 A	n/a	2400	900	n/a	45	NE	No
Lounge	AWS-005-18 A	n/a	2400	900	n/a	45	NE	No
Lounge	AWS-017-11 A	n/a	2400	3400	n/a	90	SE	No
Lounge	AWS-017-11 A	n/a	2400	3400	n/a	90	SE	No
Lounge	AWS-001-18 A	n/a	600	4600	n/a	45	SW	No
PDR	AWS-066-01 A	n/a	600	600	n/a	00	SW	No
Lounge	AWS-067-12 A	n/a	600	2600	n/a	00	NE	No
Lounge	AWS-019-11 A	n/a	2100	2200	n/a	90	SW	No
Bath	AWS-001-18 A	n/a	600	3000	n/a	45	SW	No
ENS Bed 1	AWS-001-18 A	n/a	600	1200	n/a	45	SW	No
Bedroom 1	AWS-058-07 A	n/a	2400	900	n/a	90	SW	No
Bedroom 1	AWS-066-01 A	n/a	2100	917	n/a	00	NW	No
Bedroom 1	AWS-005-18 A	n/a	2100	1884	n/a	45	NW	No
Kitchen/Living	AWS-001-18 A	n/a	2400	2700	n/a	45	NE	No
Kitchen/Living	AWS-001-18 A	n/a	1100	1426	n/a	45	NE	No
Kitchen/Living	AWS-001-18 A	n/a	1100	4500	n/a	45	NE	No
Kitchen/Living	AWS-067-12 A	n/a	1100	2700	n/a	00	NE	No
Kitchen/Living	AWS-067-12 A	n/a	1700	5290	n/a	00	SW	No
Kitchen/Living	AWS-058-07 A	n/a	1700	1800	n/a	90	SW	No
Kitchen/Living	AWS-066-01 A	n/a	1700	690	n/a	00	NW	No
Kitchen/Living	AWS-013-51 A	n/a	2700	2800	n/a	45	NW	No
Kitchen/Living	AWS-013-51 A	n/a	2700	4200	n/a	45	NW	No
Kitchen/Living	AWS-067-12 A	n/a	700	4085	n/a	00	SW	No Shading
Kitchen/Living	AWS-067-12 A	n/a	700	6990	n/a	00	SW	No Shading
Kitchen/Living	AWS-067-12 A	n/a	874	3975	n/a	00	NW	No Shading
WIR Master	AWS-001-18 A	n/a	600	2400	n/a	45	NE	No
ENS Master	AWS-001-18 A	n/a	600	2000	n/a	45	NE	No
ENS Master	AWS-001-18 A	n/a	600	2400	n/a	45	SE	No
Master	AWS-011-20 A	n/a	2400	3400	n/a	45	SE	No
Master	AWS-066-01 A	n/a	1800	1200	n/a	00	SW	No
Master	AWS-066-01 A	n/a	1800	1200	n/a	00	SW	No
Master	AWS-067-12 A	n/a	836	6125	n/a	00	NE	No Shading

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Master	AWS-067-12 A	n/a	681	3567	n/a	00	SE	No Shading
PDR FF	AWS-001-18 A	n/a	900	600	n/a	10	SW	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
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
PDR	2100	820	90	SW

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	Foil reflective both sides of the Bulk Insulation R2.5	Yes
EW-2	Brick Veneer	0.50	Medium	Bulk Insulation R2.5	No

* Refer to glossary.

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-3	Fibro Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2.5	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	2700	3895	NE	100	NO
Bedroom 2	EW-1	2700	4095	NW	4213	NO
Bedroom 3	EW-1	2700	4790	NE	100	NO
Laundry	EW-1	2700	2090	NE	100	NO
Lounge	EW-1	3660	4895	NE	100	NO
Lounge	EW-1	3660	3600	SE	2500	NO
Lounge	EW-1	2700	3900	SE	2500	NO
Lounge	EW-1	2700	4895	SW	100	NO
PDR	EW-1	2700	1895	SW	100	NO
PDR	EW-1	2700	1095	NW	13900	YES
Lounge	EW-1	2700	2790	NE	100	NO
Lounge	EW-1	2700	200	SW	1200	YES
Lounge	EW-1	2700	200	NW	13963	YES
Lounge	EW-1	2700	2795	SW	2000	YES
Bath	EW-1	2700	1600	SE	12300	YES
Bath	EW-1	2700	3295	SW	400	NO
ENS Bed 1	EW-1	2700	1490	SW	400	NO
Bedroom 1	EW-1	2700	3895	SW	400	NO
Bedroom 1	EW-1	2700	3695	NW	2625	NO
Kitchen/Living	EW-2	4550	11495	NE	600	NO
Kitchen/Living	EW-3	2700	10395	SW	200	NO
Kitchen/Living	EW-3	2700	3400	NW	2463	NO
Kitchen/Living	EW-3	4350	4800	NW	4100	NO
WIR Master	EW-2	2700	3690	NE	100	NO
ENS Master	EW-2	2700	3295	NE	100	NO
ENS Master	EW-2	2700	3495	SE	2700	NO
Master	EW-2	4080	3995	SE	2700	NO
Master	EW-2	3900	6095	SW	600	NO
PDR FF	EW-2	3900	995	SW	600	YES
PDR FF	EW-3	2700	700	SE	7600	YES
PDR FF	EW-3	2700	995	SW	200	NO

* Refer to glossary.

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		132.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		67.00	Bulk Insulation, No Air Gap R2.5

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 2	Waffle pod slab 300 mm 100mm	15.00	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Bedroom 3	Waffle pod slab 300 mm 100mm	16.30	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Laundry	Waffle pod slab 300 mm 100mm	6.90	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	39.80	None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
PDR	Waffle pod slab 300 mm 100mm	2.00	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Lounge	Waffle pod slab 300 mm 100mm	25.80	None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Bath	Waffle pod slab 300 mm 100mm	9.90	None	Waffle Pod 300mm	Ceramic Tiles 8mm
ENS Bed 1	Waffle pod slab 300 mm 100mm	4.30	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1	Waffle pod slab 300 mm 100mm	13.40	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Kitchen/Living /Bedroom 2	Concrete Above Plasterboard 150mm	15.20		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 3	Concrete Above Plasterboard 150mm	16.70		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Lounge	Concrete Above Plasterboard 150mm	0.70		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Lounge	Concrete Above Plasterboard 150mm	26.70		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bath	Concrete Above Plasterboard 150mm	10.20		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /ENS Bed 1	Concrete Above Plasterboard 150mm	4.60		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 1	Concrete Above Plasterboard 150mm	13.70		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended Concrete Slab 150mm	7.10	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
WIR Master/Laundry	Concrete Above Plasterboard 19mm	7.10		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
WIR Master/Lounge	Concrete Above Plasterboard 19mm	5.40		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
ENS Master/Lounge	Concrete Above Plasterboard 19mm	11.20		Bulk Insulation R2	Ceramic Tiles 8mm
Master/Lounge	Concrete Above Plasterboard 19mm	21.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Master/PDR	Concrete Above Plasterboard 19mm	1.30		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
PDR FF/PDR	Concrete Above Plasterboard 150mm	0.70		Bulk Insulation R2	Ceramic Tiles 8mm
PDR FF	Suspended Concrete Slab 150mm	2.00	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 2	Concrete Above Plasterboard	Bulk Insulation R2	No
Bedroom 3	Concrete Above Plasterboard	Bulk Insulation R2	No
Laundry	Concrete Above Plasterboard	Bulk Insulation R2	No
Lounge	Concrete Above Plasterboard	Bulk Insulation R2	No
PDR	Concrete Above Plasterboard	Bulk Insulation R2	No
Lounge	Concrete Above Plasterboard	Bulk Insulation R2	No
Bath	Concrete Above Plasterboard	Bulk Insulation R2	No
ENS Bed 1	Concrete Above Plasterboard	Bulk Insulation R2	No
Bedroom 1	Concrete Above Plasterboard	Bulk Insulation R2	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
WIR Master	Plasterboard	Bulk Insulation R4	No
ENS Master	Plasterboard	Bulk Insulation R4	No
Master	Plasterboard	Bulk Insulation R4	No
PDR FF	Plasterboard	Bulk Insulation R4	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Lounge	9	Downlights - LED	150	Sealed
Lounge	1	Flues	300	
PDR	1	Downlights - LED	150	Sealed
PDR	1	Exhaust Fans	300	Sealed
Lounge	3	Downlights - LED	150	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
ENS Bed 1	2	Downlights - LED	150	Sealed
ENS Bed 1	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	12	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
WIR Master	2	Downlights - LED	150	Sealed
ENS Master	2	Downlights - LED	150	Sealed
ENS Master	1	Exhaust Fans	300	Sealed

* Refer to glossary.

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Master	4	Downlights - LED	150	Sealed
PDR FF	1	Downlights - LED	150	Sealed
PDR FF	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Bedroom 2	1	1400
Bedroom 3	1	1400
Lounge	2	1400
Bedroom 1	1	1400
Kitchen/Living	2	1400
Master	1	1400

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	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).