

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0007743545-08

Generated on 01 May 2023 using BERS Pro v4.4.1.5d (3.21)

Property

Address Unit 2, 42 Shirley Street , Byron Bay , NSW , 2481
Lot/DP 8/758207
NCC Class* 1A
Type New Dwelling

Plans

Main plan 223051-REV Q-17/03/23
Prepared by FUTURE FLIP

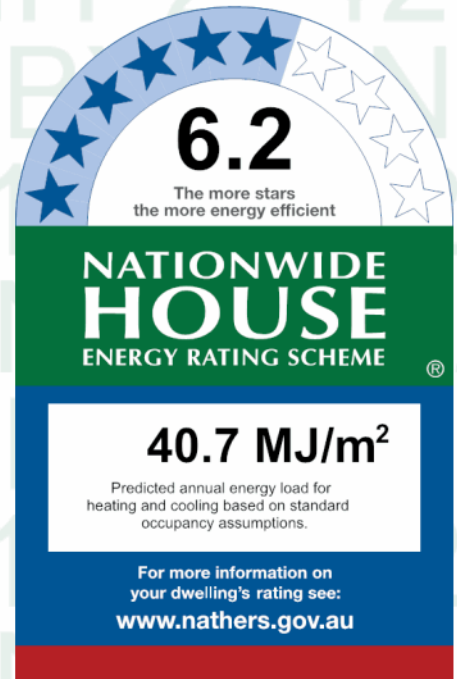
Construction and environment

Assessed floor area (m²)*	Exposure type
Conditioned* 267.0	Suburban
Unconditioned* 68.0	NatHERS climate zone
Total 335.0	10
Garage 36.0	



Accredited assessor

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Accreditation No. 101512
Assessor Accrediting Organisation ABSA
Declaration of interest Declaration completed: no conflicts



Thermal performance

Heating	Cooling
13.2	27.5
MJ/m²	MJ/m²

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=ITMUyVkNa. 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? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

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 garage door needs R0.5 insulation

The ground floor external walls insulation must be K17 Kingspan 60mm. Material R-Value = R2.35

Non Habitable plant room roof should have R3.5+Sarking insulation

I have modeled the shading in accordance with NatHERS principles

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
TIM-005-03 W	TIM-005-03 W Timber A				
	DG Argon Fill High	2.0	0.25	0.24	0.26
	Solar Gain low-E -Clear				
TIM-006-03 W	TIM-006-03 W Timber B				
	DG Argon Fill High	2.0	0.31	0.29	0.33
	Solar Gain low-E -Clear				

Custom* windows

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

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*
BED	TIM-005-03 W	n/a	900	3130	n/a	90	W	No
BED	TIM-006-03 W	n/a	2650	3300	n/a	66	S	Yes
ENS BED	TIM-005-03 W	n/a	900	1830	n/a	90	W	No
ENTRY	TIM-006-03 W	n/a	2750	5600	n/a	45	W	Yes
ENTRY	TIM-006-03 W	n/a	2750	4000	n/a	45	N	No
ENTRY	TIM-006-03 W	n/a	2750	1545	n/a	00	S	No
KIT/DIN/LIV	TIM-006-03 W	n/a	2600	2550	n/a	00	NW	No
KIT/DIN/LIV	TIM-006-03 W	n/a	2750	6900	n/a	45	W	No
KIT/DIN/LIV	TIM-006-03 W	n/a	2750	4290	n/a	45	E	No
KIT/DIN/LIV	TIM-005-03 W	n/a	1200	4245	n/a	90	E	No
BATH 1	TIM-005-03 W	n/a	600	1560	n/a	90	S	No
GARAGE	TIM-005-03 W	n/a	900	3175	n/a	90	E	No
HALL 1	TIM-006-03 W	n/a	2290	3875	n/a	66	W	No
BED 4	TIM-006-03 W	n/a	2290	3975	n/a	66	W	No
BED 4	TIM-005-03 W	n/a	500	3060	n/a	90	E	No
ENS BED 4	TIM-005-03 W	n/a	2290	1480	n/a	66	W	No
ENS BED 4	TIM-005-03 W	n/a	500	1700	n/a	90	E	No
BED 1	TIM-005-03 W	n/a	500	3165	n/a	90	E	No
ENS BED 2	TIM-005-03 W	n/a	500	2860	n/a	90	E	No
BED 2	TIM-005-03 W	n/a	500	2930	n/a	90	E	No
ENS BED 3	TIM-005-03 W	n/a	500	1715	n/a	90	E	No
WIR BED 3	TIM-006-03 W	n/a	2290	800	n/a	00	S	No
BED 3	TIM-006-03 W	n/a	2290	2900	n/a	66	S	Yes
VOID/STAIRS	TIM-005-03 W	n/a	2290	4205	n/a	11	W	No
VOID/STAIRS	TIM-006-03 W	n/a	2290	1545	n/a	00	S	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
VOID/STAIRS	TIM-006-03 W	n/a	2290	1695	n/a	00	S	No
VOID/STAIRS	TIM-006-03 W	n/a	944	1545	n/a	00	S	No Shading
NON HABITABLE P	TIM-005-03 W	n/a	1963	1640	n/a	50	N	No
NON HABITABLE P	TIM-005-03 W	n/a	1963	1640	n/a	50	S	No
HALLWAY2	TIM-005-03 W	n/a	2115	870	n/a	90	N	No
VOID/STAIRS	TIM-005-03 W	n/a	2290	3475	n/a	16	N	No
VOID/STAIRS	TIM-006-03 W	n/a	944	1545	n/a	00	N	No Shading

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
VEL-011-01 W	Glass	2.6	0.24	0.23	0.25

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
HALL 1	VEL-011-01 W	n/a	0	970	970	W	No	No
HALL 1	VEL-011-01 W	n/a	0	970	970	W	No	No
ENS BED 2	VEL-011-01 W	n/a	0	1275	1275	E	No	No
HALLWAY2	VEL-011-01 W	n/a	0	1885	665	E	No	No
VOID	VEL-011-01 W	n/a	0	970	970	E	No	No
VOID/STAIRS	VEL-011-01 W	n/a	0	970	970	W	No	No

Skylight type and performance

Skylight ID	Skylight description
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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
BED	2040	1400	90	E
ENTRY	2650	1600	90	S
GARAGE	2100	5560	90	S
POOL STORE	2040	1550	90	N

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Tilt up Concrete	0.34	Light	Bulk Insulation R2.3	No
EW-2	Tilt up Concrete	0.34	Light	Bulk Insulation R2.3	No
EW-3	Tilt up Concrete	0.34	Light	No insulation	No
EW-4	Tilt up Concrete	0.34	Light	No insulation	No
EW-5	Fibro Cavity Panel on Battens	0.50	Medium	Anti-glare foil with bulk no gap R3.5	No
EW-6	Fibro Cavity Panel on Battens	0.50	Medium	Anti-glare foil with bulk no gap R2	No
EW-7	Fibro Cavity Panel on Battens	0.50	Medium	Anti-glare foil with bulk no gap R3.5	No
EW-8	Fibro Cavity Panel on Battens	0.50	Medium	Anti-glare foil with bulk no gap R2	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
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Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
BED	EW-1	2750	3145	W	0	NO
BED	EW-1	2750	3145	E	12400	YES
BED	EW-1	2750	4200	S	1450	NO
ENS BED	EW-1	2750	1845	W	0	NO
ENS BED	EW-1	2750	2545	N	7800	NO
ENTRY	EW-1	2750	245	N	7800	YES
ENTRY	EW-1	2750	5700	W	4500	YES
ENTRY	EW-2	2750	4345	N	2100	YES
ENTRY	EW-1	2750	4590	S	3300	YES
KIT/DIN/LIV	EW-1	2750	2665	NW	2845	YES
KIT/DIN/LIV	EW-2	2750	7600	W	3100	YES
KIT/DIN/LIV	EW-1	2750	6100	N	0	NO
KIT/DIN/LIV	EW-1	2750	13945	E	0	NO
BATH 1	EW-2	2750	1645	S	500	NO
BATH 1	EW-1	2750	2700	W	8900	YES
GARAGE	EW-3	2750	6045	E	0	NO
GARAGE	EW-4	2750	5945	S	500	NO
HALL 1	EW-1	2440	3945	W	800	YES
BED 4	EW-1	2440	3990	W	800	NO
BED 4	EW-1	2440	3740	E	0	NO
ENS BED 4	EW-1	2440	1645	W	800	NO
ENS BED 4	EW-1	2440	6050	N	0	NO
ENS BED 4	EW-1	2440	1700	E	0	NO
BED 1	EW-1	2440	3090	E	0	NO
ENS BED 2	EW-1	2440	2790	E	0	NO
BED 2	EW-1	2440	2840	E	0	NO
ENS BED 3	EW-1	2440	1640	E	0	NO
WIR BED 3	EW-1	2440	1995	E	0	NO
WIR BED 3	EW-1	2440	2095	S	0	NO
BED 3	EW-1	2440	3795	S	900	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
BED 3	EW-1	2440	1000	W	3700	YES
POOL STORE	EW-4	2750	1490	N	7800	NO
VOID/STAIRS	EW-2	2441	1500	W	0	NO
VOID/STAIRS	EW-1	2440	5845	W	3100	NO
VOID/STAIRS	EW-1	2440	3645	S	1900	YES
NON HABITABLE P	EW-5	2000	7600	W	1700	NO
NON HABITABLE P	EW-6	2000	1945	N	1750	NO
NON HABITABLE P	EW-7	2000	3995	E	1950	YES
NON HABITABLE P	EW-6	2000	3900	S	1900	NO
HALLWAY2	EW-6	2115	1040	N	1750	YES
HALLWAY2	EW-7	2000	2995	E	1600	NO
HALLWAY2	EW-7	2000	350	S	5900	YES
VOID	EW-8	2000	900	W	4700	YES
VOID	EW-8	2000	1250	N	850	NO
VOID	EW-5	2000	1495	E	1600	NO
VOID/STAIRS	EW-2	2440	145	W	3100	NO
VOID/STAIRS	EW-2	2440	3595	N	1750	YES

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Single Skin Brick		234.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		20.00	No insulation

Floor type

Location	Construction	Area Sub-floor (m²)	Added insulation ventilation(R-value)	Covering	
BED	Concrete Slab on Ground 120mm	13.20	None	No Insulation	Carpet+Rubber Underlay 18mm
ENS BED	Concrete Slab on Ground 120mm	4.70	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Area Sub-floor (m ²)	Added ventilation	Insulation (R-value)	Covering
ENTRY	Concrete Slab on Ground 120mm	33.50	None	No Insulation	Carpet+Rubber Underlay 18mm
KIT/DIN/LIV	Concrete Slab on Ground 120mm	91.80	None	No Insulation	60/40 Carpet 10mm/Ceramic
LDY	Concrete Slab on Ground 120mm	5.80	None	No Insulation	Ceramic Tiles 8mm
BATH 1	Concrete Slab on Ground 120mm	5.20	None	No Insulation	Ceramic Tiles 8mm
GARAGE	Concrete Slab on Ground 120mm	35.90	None	No Insulation	Bare
HALL 1/ENTRY	Concrete Above Plasterboard 200mm	11.10		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	6.10		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1/LDY	Concrete Above Plasterboard 200mm	2.10		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1	Suspended Concrete Slab 200mm	4.40	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
BED 4/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	13.80		No Insulation	Carpet+Rubber Underlay 18mm
BED 4	Suspended Concrete Slab 200mm	9.10	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
ENS BED 4/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	6.10		No Insulation	Ceramic Tiles 8mm
ENS BED 4	Suspended Concrete Slab 200mm	3.90	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
BED 1/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	11.80		No Insulation	Carpet+Rubber Underlay 18mm
BED 1	Suspended Concrete Slab 200mm	3.20	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
ENS BED 2/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	4.50		No Insulation	Ceramic Tiles 8mm
BED 2/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	9.60		No Insulation	Carpet+Rubber Underlay 18mm
BED 2/GARAGE	Concrete Above Plasterboard 200mm	2.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
ENS BED 3/GARAGE	Concrete Above Plasterboard 200mm	3.40		Bulk Insulation R2	Ceramic Tiles 8mm
WIR BED 3/GARAGE	Concrete Above Plasterboard 200mm	4.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
BED 3/ENTRY	Concrete Above Plasterboard 200mm	1.90		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/LDY	Concrete Above Plasterboard 200mm	3.80		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/BATH 1	Concrete Above Plasterboard 200mm	2.50		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area Sub-floor (m ²)	Added insulation ventilation (R-value)	Covering
BED 3/GARAGE	Concrete Above Plasterboard 200mm	5.30	Bulk Insulation R2	Carpet+Rubber Underlay 18mm
BED 3	Suspended Concrete Slab 200mm	0.70	Totally Open Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
POOL STORE	Concrete Slab on Ground 200mm	2.80	None No Insulation	Bare
VOID/STAIRS/ENTRY	Concrete Above Plasterboard 200mm	14.10	No Insulation	Bare
NON HABITABLE P/HALL 1	Timber Above Plasterboard 100mm	9.30	No Insulation	Carpet 10mm
NON HABITABLE P/BED 3	Timber Above Plasterboard 100mm	5.30	No Insulation	Carpet 10mm
NON HABITABLE P/VOID/STAIRS	Timber Above Plasterboard 100mm	7.30	No Insulation	Carpet 10mm
NON HABITABLE P/VOID/STAIRS	Timber Above Plasterboard 100mm	2.80	No Insulation	Carpet 10mm
VOID DISPLAY/HALL 1	Timber Above Plasterboard 100mm	0.80	No Insulation	Bare
HALLWAY2/HALL 1	Timber Above Plasterboard 100mm	3.90	No Insulation	Carpet+Rubber Underlay 18mm
VOID/HALL 1	Timber Above Plasterboard 100mm	1.80	No Insulation	Bare
ENS BED 1/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	4.20	No Insulation	Ceramic Tiles 8mm
VOID/STAIRS/ENTRY	Concrete Above Plasterboard 200mm	4.80	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
BED	Concrete, Plasterboard	Bulk Insulation R3.5	No
ENS BED	Concrete, Plasterboard	Bulk Insulation R3.5	No
ENTRY	Concrete, Plasterboard	Bulk Insulation R3.5	No
ENTRY	Concrete Above Plasterboard	No Insulation	No
KIT/DIN/LIV	Concrete, Plasterboard	Bulk Insulation R3.5	No
KIT/DIN/LIV	Concrete Above Plasterboard	No Insulation	No
LDY	Concrete Above Plasterboard	No Insulation	No
BATH 1	Concrete, Plasterboard	Bulk Insulation R3.5	No
BATH 1	Concrete Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
GARAGE	Concrete, Plasterboard	Bulk Insulation R3.5	No
GARAGE	Concrete Above Plasterboard	Bulk Insulation R2	No
HALL 1	Plasterboard	Bulk Insulation R3.5	No
HALL 1	Timber Above Plasterboard	No Insulation	No
BED 4	Plasterboard	Bulk Insulation R3.5	No
ENS BED 4	Plasterboard	Bulk Insulation R3.5	No
BED 1	Plasterboard	Bulk Insulation R3.5	No
ENS BED 2	Plasterboard	Bulk Insulation R3.5	No
BED 2	Plasterboard	Bulk Insulation R3.5	No
ENS BED 3	Plasterboard	Bulk Insulation R3.5	No
WIR BED 3	Plasterboard	Bulk Insulation R3.5	No
BED 3	Plasterboard	Bulk Insulation R3.5	No
BED 3	Timber Above Plasterboard	No Insulation	No
POOL STORE	Concrete, Plasterboard	Bulk Insulation R3.5	No
VOID/STAIRS	Plasterboard	Bulk Insulation R3.5	No
VOID/STAIRS	Timber Above Plasterboard	No Insulation	No
NON HABITABLE P	Plasterboard	Bulk Insulation R3.5	No
VOID DISPLAY	Plasterboard	Bulk Insulation R3.5	No
HALLWAY2	Plasterboard	Bulk Insulation R3.5	No
VOID	Plasterboard	Bulk Insulation R3.5	No
ENS BED 1	Plasterboard	Bulk Insulation R3.5	No
VOID/STAIRS	Plasterboard	Bulk Insulation R3.5	No
VOID/STAIRS	Timber Above Plasterboard	No Insulation	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
KIT/DIN/LIV	1	Exhaust Fans	300	Sealed
LDY	1	Exhaust Fans	300	Sealed
ENS BED 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
BED	1	900
KIT/DIN/LIV	1	900
HALL 1	1	900
BED 4	2	900
BED 1	1	900
BED 2	1	900
BED 3	1	900

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Insulation, Only an Air Gap	0.50	Medium
Corrugated Iron	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.50	Medium
Corrugated Iron	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.50	Medium

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).