Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0006820229-02

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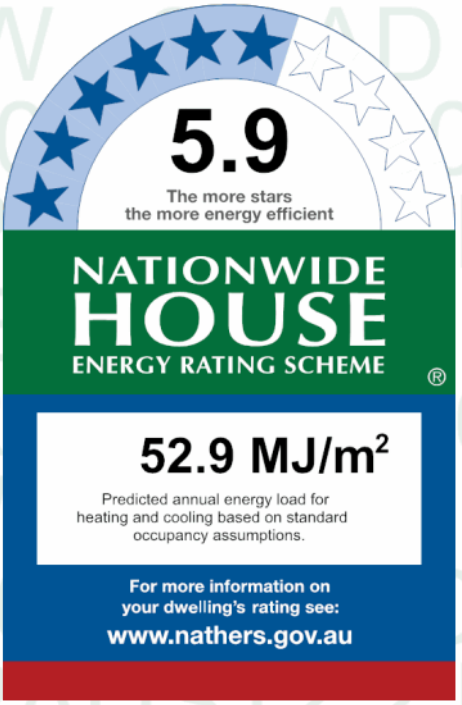

Property

Address	2 Burley Road , Padstow , NSW , 2211
Lot/DP	2/804039
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Erceg Sarmast 2017055
Prepared by	WA

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**	
Conditioned*	259.0	Suburban	
Unconditioned*	34.0	**NatHERS climate zone**	
Total	293.0	56	
Garage	29.0		

Thermal performance

Heating	**Cooling**
28.3 MJ/m^2	**24.5** MJ/m^2

Accredited assessor

Name	Ian Fry
Business name	Frys Energywise
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Phone	02 9899 2825
Accreditation No.	DMN/12/1441

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts

About the rating

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

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=XUoWBqqnv.
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

Where not noted on plans, default selections to floor coverings and external colours have been used in this assessment, as noted in the NatHERS Technical Notes. Alternative selections past this point can be made to floor coverings and external colours, without requiring an amended certificate.

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-001-01 W	TIM-001-01 W Timber A SG Clear	5.4	0.56	0.53	0.59
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	0.66	0.73

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
DOW-014-01 A	DOW-014-01 A Aluminium Fixed Light Window SG 4Clr	6.2	0.75	0.71	0.79
DOW-014-05 A	DOW-014-05 A Aluminium Fixed Light Window SG 6.38CPClr	4.2	0.60	0.57	0.63

* Refer to glossary.

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
DOW-006-03 A	DOW-006-03 A Al Sliding Door SG 6.38CP	4.3	0.44	0.42	0.46
DOW-001-04 A	DOW-001-04 A Al Sliding Window SG 6.38CP	4.5	0.46	0.44	0.48
DOW-002-04 A	DOW-002-04 A Elite Al Awning Window SG 6.38CP	4.8	0.40	0.38	0.42
DOW-001-01 A	DOW-001-01 A Al Sliding Window SG 3Clr	6.4	0.75	0.71	0.79

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Laundry	TIM-001-01 W	n/a	1000	820	n/a	90	W	No
Kitchen/Family	DOW-014-01 A	n/a	500	2650	n/a	00	W	No
Kitchen/Family	DOW-014-01 A	n/a	500	2650	n/a	00	W	No
Kitchen/Family	ALM-002-01 A	n/a	2400	850	n/a	90	N	No
Kitchen/Family	DOW-014-05 A	n/a	2400	850	n/a	00	N	No
Kitchen/Family	ALM-002-01 A	n/a	2400	850	n/a	90	N	No
Kitchen/Family	DOW-014-05 A	n/a	2400	2050	n/a	00	N	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	N	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	N	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	N	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	E	No
Kitchen/Family	DOW-006-03 A	n/a	2400	3588	n/a	60	E	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	E	No
Kitchen/Family	ALM-002-01 A	n/a	600	850	n/a	90	E	No
Retreat	ALM-002-01 A	n/a	2400	610	n/a	90	E	No
Retreat	ALM-002-01 A	n/a	2400	610	n/a	90	E	No
Retreat	ALM-002-01 A	n/a	2400	610	n/a	90	E	No
Sitting/Entry	DOW-014-05 A	n/a	800	610	n/a	00	E	No
Sitting/Entry	DOW-014-05 A	n/a	800	610	n/a	00	E	No
Sitting/Entry	DOW-001-04 A	n/a	1800	2650	n/a	33	S	No
Guest Room	DOW-001-04 A	n/a	1800	2050	n/a	33	N	No
Guest Room	DOW-014-05 A	n/a	600	2050	n/a	00	S	No
Bed 2	DOW-001-04 A	n/a	600	2050	n/a	10	E	No
Rumpus	DOW-014-05 A	n/a	2200	610	n/a	00	E	No
Rumpus	DOW-014-05 A	n/a	2200	610	n/a	00	E	No
Rumpus	DOW-006-03 A	n/a	2400	2688	n/a	60	S	No
Master Suite	DOW-002-04 A	n/a	1050	1210	n/a	10	S	No

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Master Suite	DOW-014-05 A	n/a	1050	3010	n/a	00	S	No
Ensuite	DOW-001-01 A	n/a	1200	850	n/a	45	W	No
Bath	DOW-001-01 A	n/a	1200	1810	n/a	45	W	No
Bed 4	DOW-001-04 A	n/a	1029	2050	n/a	10	N	No
Bed 3	DOW-001-04 A	n/a	1029	2050	n/a	10	N	No
Ensuite 2	DOW-001-01 A	n/a	600	850	n/a	45	N	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
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
Kitchen/Family	VEL-011-01 W	n/a	0	650	1500	N	No	No
Kitchen/Family	VEL-011-01 W	n/a	0	650	1500	N	No	No
Kitchen/Family	VEL-011-01 W	n/a	0	650	1500	N	No	No
WIR	VEL-011-01 W	n/a	0	665	1885	N	No	No
Ensuite	VEL-011-01 W	n/a	0	870	1275	N	No	No

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

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

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2400	4880	90	S
Laundry	1340	820	90	W
Sitting/Entry	2340	1200	90	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Single Skin Brick	0.50	Medium	No insulation	No
EW-2	Brick Veneer	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	Bulk Insulation R2.5	No
EW-4	Brick Veneer	0.50	Medium	Bulk Insulation R2.5	No
EW-5	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)
Garage	EW-1	2775	5395	S	200	NO
Garage	EW-2	2775	5495	W	75	NO
Laundry	EW-3	2700	1790	W	50	NO
Kitchen/Family	EW-3	2700	6395	W	25	NO
Kitchen/Family	EW-3	2700	6000	N	400	NO
Kitchen/Family	EW-3	3500	5300	N	100	NO
Kitchen/Family	EW-3	3500	3900	E	100	NO
Kitchen/Family	EW-3	2700	295	E	100	NO
Retreat	EW-3	2700	3895	E	100	NO
Retreat	EW-3	2700	600	S	100	YES
Sitting/Entry	EW-3	3000	2890	E	100	YES
Sitting/Entry	EW-3	2700	595	E	100	YES
Sitting/Entry	EW-3	2700	3500	S	1300	NO
Sitting/Entry	EW-3	2700	1500	W	2500	YES
Sitting/Entry	EW-3	2700	2095	S	2500	YES
Guest Room	EW-3	2700	3300	N	100	YES
Guest Room	EW-3	2700	3600	E	100	NO
Guest Room	EW-3	2700	3000	S	100	YES
Bed 2	EW-4	1200	4800	E	0	NO
Bed 2	EW-5	1500	4800	E	100	NO
Bed 2	EW-4	1200	600	S	0	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bed 2	EW-5	1500	600	S	100	YES
Bed 2	EW-5	2700	3595	N	100	NO
Rumpus	EW-5	2700	2895	E	100	YES
Rumpus	EW-4	700	300	N	0	YES
Rumpus	EW-5	2000	300	N	100	YES
Rumpus	EW-5	2700	4200	E	100	NO
Rumpus	EW-5	2700	3500	S	1500	NO
Rumpus	EW-3	2700	300	S	1500	NO
Rumpus	EW-4	700	895	S	0	NO
Rumpus	EW-5	2001	895	S	100	NO
WIR	EW-4	700	1095	S	0	NO
WIR	EW-5	2000	1095	S	100	NO
WIR	EW-4	700	1500	W	0	YES
WIR	EW-5	2000	1500	W	100	YES
WIR	EW-4	700	995	S	0	YES
WIR	EW-5	2000	995	S	100	YES
Master Suite	EW-4	700	4195	S	0	NO
Master Suite	EW-5	2000	4195	S	100	NO
Master Suite	EW-5	2700	4995	W	100	NO
Ensuite	EW-5	2700	1690	W	100	NO
Bath	EW-5	2700	2890	W	100	NO
Bed 4	EW-5	2700	3695	W	100	NO
Bed 4	EW-5	2700	2995	N	100	NO
Bed 3	EW-5	2700	2995	N	100	NO
Bed 3	EW-5	2700	2900	E	100	YES
Ensuite 2	EW-5	2700	1690	N	100	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		48.00	Bulk Insulation, No Air Gap R2.5
IW-2 - Cavity wall, direct fix plasterboard, single gap		213.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 225 mm 100mm	29.20	None	Waffle Pod 225mm	Bare
Laundry	Waffle pod slab 300 mm 100mm	9.20	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Family	Waffle pod slab 300 mm 100mm	56.80	None	Waffle Pod 300mm	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Retreat	Waffle pod slab 300 mm 100mm	14.70	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Sitting/Entry	Waffle pod slab 300 mm 100mm	37.90	None	Waffle Pod 300mm	20/80 Carpet 10mm/Ceramic
Guest Room	Waffle pod slab 300 mm 100mm	13.50	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Powder	Waffle pod slab 300 mm 100mm	3.40	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bed 2/Kitchen/Family	Timber Above Plasterboard 19mm	3.20		No Insulation	Carpet+Rubber Underlay 18mm
Bed 2/Retreat	Timber Above Plasterboard 19mm	14.20		No Insulation	Carpet+Rubber Underlay 18mm
Bed 2/Sitting/Entry	Timber Above Plasterboard 19mm	2.30		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Garage	Timber Above Plasterboard 19mm	1.50		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Sitting/Entry	Timber Above Plasterboard 19mm	29.60		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Guest Room	Timber Above Plasterboard 19mm	2.80		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus	Suspended Timber Floor 19mm	1.80	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
WIR/Garage	Timber Above Plasterboard 19mm	3.40		No Insulation	Carpet+Rubber Underlay 18mm
WIR/Sitting/Entry	Timber Above Plasterboard 19mm	2.60		No Insulation	Carpet+Rubber Underlay 18mm
WIR	Suspended Timber Floor 19mm	1.60	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Master Suite/Garage	Timber Above Plasterboard 19mm	21.70		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite/Garage	Timber Above Plasterboard 19mm	1.40		No Insulation	Ceramic Tiles 8mm
Ensuite/Laundry	Timber Above Plasterboard 19mm	3.40		No Insulation	Ceramic Tiles 8mm
Bath/Laundry	Timber Above Plasterboard 19mm	1.10		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Family	Timber Above Plasterboard 19mm	4.10		No Insulation	Ceramic Tiles 8mm
Bed 4/Kitchen/Family	Timber Above Plasterboard 19mm	11.30		No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/Kitchen/Family	Timber Above Plasterboard 19mm	12.20		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 2/Kitchen/Family	Timber Above Plasterboard 19mm	2.60		No Insulation	Ceramic Tiles 8mm
Ensuite 2/Retreat	Timber Above Plasterboard 19mm	0.60		No Insulation	Ceramic Tiles 8mm
Ensuite 2/Sitting/Entry	Timber Above Plasterboard 19mm	1.70		No Insulation	Ceramic Tiles 8mm
Rumpus/Laundry	Timber Above Plasterboard 19mm	2.90		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Kitchen/Family	Timber Above Plasterboard 19mm	2.60		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Sitting/Entry	Timber Above Plasterboard 19mm	1.70		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Powder	Timber Above Plasterboard 19mm	3.50		No Insulation	Carpet+Rubber Underlay 18mm
WC/Garage	Timber Above Plasterboard 19mm	0.50		No Insulation	Ceramic Tiles 8mm
WC/Laundry	Timber Above Plasterboard 19mm	1.50		No Insulation	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
Kitchen/Family	Plasterboard	Bulk Insulation R4.1	No
Kitchen/Family	Timber Above Plasterboard	No Insulation	No
Retreat	Timber Above Plasterboard	No Insulation	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Sitting/Entry	Timber Above Plasterboard	No Insulation	No
Guest Room	Plasterboard	Bulk Insulation R4.1	No
Guest Room	Timber Above Plasterboard	No Insulation	No
Powder	Timber Above Plasterboard	No Insulation	No
Bed 2	Plasterboard	Bulk Insulation R4.1	No
Rumpus	Plasterboard	Bulk Insulation R4.1	No
WIR	Plasterboard	Bulk Insulation R4.1	No
Master Suite	Plasterboard	Bulk Insulation R4.1	No
Ensuite	Plasterboard	Bulk Insulation R4.1	No
Bath	Plasterboard	Bulk Insulation R4.1	No
Bed 4	Plasterboard	Bulk Insulation R4.1	No
Bed 3	Plasterboard	Bulk Insulation R4.1	No
Ensuite 2	Plasterboard	Bulk Insulation R4.1	No
Rumpus	Plasterboard	Bulk Insulation R4.1	No
WC	Plasterboard	Bulk Insulation R4.1	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Powder	1	Exhaust Fans	0	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Guest Room	1	1200
Bed 2	1	1200
Master Suite	1	1200
Bed 4	1	1200
Bed 3	1	1200

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

* Refer to glossary.

Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).