Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. 0011558053

Generated on 14 Nov 2024 using BERS Pro v5.2.2 (3.23)

Property

Address	204 Bantry Bay Road, FRENCHS FOREST , NSW , 2086
Lot/DP	Lot 13 DP 270902
NCC class*	1a
Floor/all Floors	G of 2 floors
Type	New Home

Plans

Main plan	Megereditchian 2019348
Prepared by	MS

Construction and environment

Assessed floor area [m2]*	
Conditioned*	304.1
Unconditioned*	12.2
Total	350.4
Garage	34.1

Exposure type
Suburban

NatHERS climate zone
56 Mascot (Sydney Airport)

Accredited assessor

Name	Ian Fry
Business name	Frys Energywise
Email	comply@frysenergywise.com.au
Phone	02 9899 2825
Accreditation No.	DMN/12/1441
Assessor Accrediting Organisation	
Design Matters National	
Declaration of interest	Declaration completed: no conflicts

NCC Requirements

NCC provisions	Volume Two
Strate/Territory variation	Yes

National Construction Code (NCC) requirements

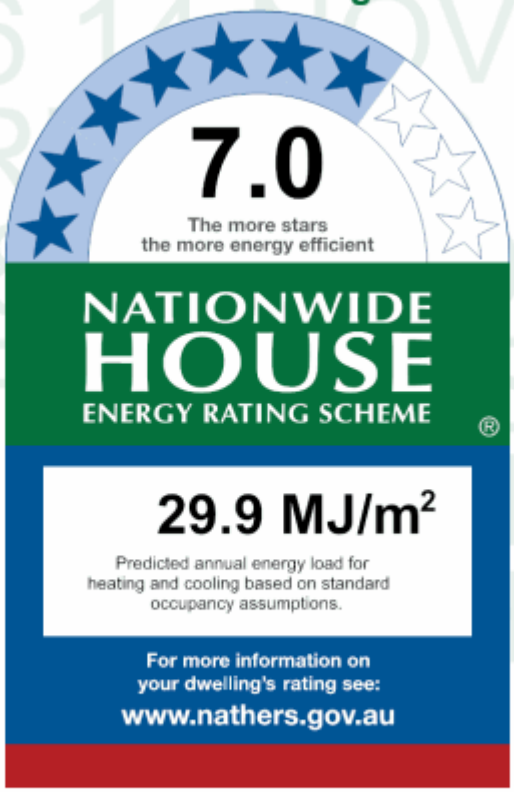
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance Star rating



Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	15.3	14.5
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=BxFfYTJem . When using either link, ensure you are visiting hstar.com.au

* Refer to glossary

About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard 2022: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting Options:

Floor Type:

CSOG – Concrete Slab on Ground
SF – Suspended Floor (or a mixture of CSOG and SF)
NA – Not Applicable

NCC Climate Zone 1 or 2:

Yes
No
NA – Not Applicable

Outdoor Living Area:

Yes
No
NA – Not Applicable

Outdoor Living Area Ceiling Fan:

Yes
No
NA – Not Applicable

Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use

Greenhouse gas emissions

Cost

* Refer to glossary.

Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.	☐	☐		☐	☐
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown	☐	☐	☐	☐	☐

* Refer to glossary.

Certificate check

Continued

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)					
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?	☐	☐	☐	☐	☐
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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

* Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m^2]
Garage 1	Garage	34.1
Entry	Daytime	28.05
Ldry	Unconditioned	6.27
Pdr	Unconditioned	5.95
Guest	Bedroom	15.36
Theatre	Living	18.09
Kitchen/Living1	Kitchen/Living	86.52
Butlers	Daytime	9.28
Bedroom 2	Bedroom	17.61
Wir	Nighttime	4.72
Ens 2	Nighttime	6.01
Wir	Nighttime	4.72
Ens 3	Nighttime	6.01
Bedroom 3	Bedroom	18.19
Lounge	Living	45.47
Bedroom 4	Bedroom	16.86
Ens 4	Nighttime	4.85
Master Suite	Bedroom	26.15
Ensuite	Nighttime	7.44
Wir	Nighttime	13.95

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	Timber A SG Clear	5.4	0.56	0.53	0.59

Custom windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
DOW-005-002	Aluminium Awning Window DG 4Clr/12/4EA	3.4	0.52	0.50	0.55

* Refer to glossary.

Custom windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
DOW-001-001	Aluminium Sliding Window SG 3Clr	6.4	0.75	0.71	0.79
DOW-002-001	Aluminium Awning Window SG 3Clr	6.4	0.65	0.62	0.68
DOW-002-015	Aluminium Awning Window SG 4ETClr	4.8	0.55	0.52	0.57
DOW-018-002	Aluminium Sliding Window DG 4Clr/8/4ET	3.7	0.58	0.55	0.61
DOW-015-002	Aluminium Fixed Window DG 4Clr/12/4EA	2.9	0.62	0.59	0.65
DOW-007-005	Aluminium Sliding Door DG 4Clr/8/4ET	3.6	0.56	0.54	0.59
DOW-009-014	Aluminium Double Hung Window SG 4ETClr	4.4	0.62	0.59	0.65
DOW-001-015	Aluminium Sliding Window SG 4ETClr	4.5	0.63	0.60	0.66
DOW-006-017	Aluminium Sliding Door SG 4ETClr	4.4	0.61	0.58	0.64
DOW-014-015	Aluminium Fixed Window SG 4ETClr	4.3	0.64	0.60	0.67

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Entry	DOW-005-002-001	W32	558	1210	Fixed	00	N	No
Ldry	DOW-001-001-001	W4	857	610	Sliding	45	S	No
Pdr	DOW-002-001-001	W19	1800	610	Awning	60	N	No
Guest	DOW-002-015-001	W1	2057	1210	Awning	60	E	No
Guest	DOW-002-015-001	W2	2057	1210	Awning	60	E	No
Theatre	DOW-018-002-001	W18	600	3010	Sliding	45	N	No
Kitchen/Living1	DOW-015-002-001	W8	600	4000	Fixed	00	S	No
Kitchen/Living1	DOW-007-005-001	AD09	2400	4000	Sliding	60	S	No
Kitchen/Living1	DOW-015-002-001	W10	600	4000	Fixed	00	W	No
Kitchen/Living1	DOW-015-002-001	W12	600	4000	Fixed	00	W	No
Kitchen/Living1	DOW-005-002-001	W13	2400	4000	Awning	30	W	No
Kitchen/Living1	DOW-007-005-001	AD11	2400	4000	Sliding	60	W	No

* Refer to glossary.

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living1	DOW-005-002-001	W14	1457	850	Awning	90	N	No
Kitchen/Living1	DOW-015-002-001	W15	600	850	Fixed	00	N	No
Kitchen/Living1	DOW-005-002-001	W16	1457	850	Awning	90	N	No
Kitchen/Living1	DOW-015-002-001	W17	600	850	Fixed	00	N	No
Butlers	DOW-005-002-001	W5	1200	1210	Awning	60	S	No
Butlers	DOW-015-002-001	W6	514	2050	Fixed	00	S	No
Butlers	DOW-009-014-001	W7	1200	850	Double Hung	45	W	No
Butlers	TIM-001-01 W	D07	2340	820	Casement	90	W	No
Bedroom 2	DOW-001-015-001	W25	1029	2050	Sliding	10	S	No
Ens 2	DOW-001-001-001	W36	1029	1450	Sliding	10	S	No
Ens 3	DOW-001-001-001	W23	1029	1450	Sliding	10	S	No
Bedroom 3	DOW-009-014-001	W21	1457	850	Double Hung	10	E	No
Bedroom 3	DOW-009-014-001	W35	1457	850	Double Hung	10	E	No
Bedroom 3	DOW-009-014-001	W22	1457	850	Double Hung	10	E	No
Lounge	DOW-005-002-001	W32	2143	1210	Fixed	00	N	No
Lounge	DOW-018-002-001	W33	600	3010	Sliding	10	N	No
Lounge	DOW-006-017-001	SD20	2100	3084	Sliding	45	E	No
Lounge	DOW-014-015-001	W34	600	610	Fixed	00	E	No
Bedroom 4	DOW-001-015-001	W38	1029	2050	Sliding	10	N	No
Ens 4	DOW-001-001-001	W37	1029	850	Sliding	10	N	No
Master Suite	DOW-018-002-001	W28	1029	3010	Sliding	10	W	No
Master Suite	DOW-018-002-001	W29	600	3010	Sliding	10	N	No
Ensuite	DOW-001-001-001	W27	1029	1450	Sliding	10	W	No
Wir	DOW-002-001-001	W26	1029	850	Awning	10	W	No

Roof window* *type and performance value*

Default roof windows*

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

* Refer to glossary.

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	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m^2]	Orientation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage 1	2400	5530	90	E
Entry	2040	1200	90	E
Ldry	2340	820	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		No insulation	No
EW-2	Timber Stud Frame Brick Veneer	0.50		No insulation	No
EW-3	Timber Stud Frame Brick Veneer	0.50		Anti-glare foil with bulk no gap R2.5	No

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage 1	EW-1	2675	5995	E	1400	No
Garage 1	EW-2	2675	5800	S	600	No
Garage 1	EW-2	2675	1000	W	15800	No
Entry	EW-3	2600	2390	N	0	No
Entry	EW-3	2600	1890	E	1400	No
Ldry	EW-3	2600	2490	S	1600	No
Pdr	EW-3	2600	300	W	2400	No
Pdr	EW-3	2600	2095	N	0	No
Guest	EW-3	2600	3995	N	0	No
Guest	EW-3	2600	4000	E	100	Yes
Guest	EW-3	2600	1100	S	8500	No
Theatre	EW-3	3629	4495	N	0	No
Theatre	EW-3	3629	500	E	2400	No
Kitchen/Living1	EW-3	3629	595	W	8800	No
Kitchen/Living1	EW-3	3629	5200	S	3300	No
Kitchen/Living1	EW-3	3629	9900	W	3600	No
Kitchen/Living1	EW-3	3629	6095	N	0	No
Butlers	EW-3	3629	1500	E	9700	No
Butlers	EW-3	3629	4500	S	600	No
Butlers	EW-3	3629	2095	W	8800	No
Bedroom 2	EW-3	2600	3990	S	600	No
Ens 2	EW-3	2600	2490	S	600	No
Ens 3	EW-3	2600	2490	S	600	No
Bedroom 3	EW-3	2600	4495	E	600	No
Bedroom 3	EW-3	2600	4095	S	600	No
Lounge	EW-3	2600	2395	N	400	No
Lounge	EW-3	2600	300	W	13600	No
Lounge	EW-3	2600	5000	N	500	No
Lounge	EW-3	2600	5195	E	2100	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 4	EW-3	2600	4195	N	500	No
Bedroom 4	EW-3	2600	500	E	9500	No
Ens 4	EW-3	2600	1490	N	500	No
Master Suite	EW-3	2600	5395	W	600	No
Master Suite	EW-3	2600	4895	N	500	No
Ensuite	EW-3	2600	2090	W	600	No
Wir	EW-3	2600	4895	S	600	No
Wir	EW-3	2600	2395	W	600	No

Internal wall *type*

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	56.42	Bulk Insulation, No Air Gap R2.5
IW-002	Timber Stud Frame, Direct Fix Plasterboard	248.00	No insulation

Floor *type*

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage 1	Waffle pod slab 225 mm 100mm	34.04	None	Waffle Pod 300mm	Bare
Entry	Waffle pod slab 300 mm 100mm	28.05	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Ldry	Waffle pod slab 300 mm 100mm	6.27	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Pdr	Waffle pod slab 300 mm 100mm	5.95	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Guest	Waffle pod slab 300 mm 100mm	15.36	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Theatre	Waffle pod slab 300 mm 100mm	18.09	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Living1	Waffle pod slab 300 mm 100mm	86.52	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Butlers	Waffle pod slab 300 mm 100mm	9.28	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 2 / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	17.61		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Wir / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	1.63		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm

* Refer to glossary.

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Wir / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.80		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Ens 2 / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.96		Bulk Insulation R3.1	Ceramic Tiles 8mm
Ens 2 / Ldry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.20		Bulk Insulation R3.1	Ceramic Tiles 8mm
Ens 2 / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.37		Bulk Insulation R3.1	Ceramic Tiles 8mm
Wir / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.09		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Wir / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.35		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Ens 3 / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.85		Bulk Insulation R3.1	Ceramic Tiles 8mm
Ens 3 / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.56		Bulk Insulation R3.1	Ceramic Tiles 8mm
Ens 3 / Ldry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	1.12		Bulk Insulation R3.1	Ceramic Tiles 8mm
Bedroom 3 / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	15.32		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Bedroom 3 / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.61		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Lounge / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	12.67		Bulk Insulation R3.1	Cork Tiles or Parquetry 8mm
Lounge / Pdr	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.00		Bulk Insulation R3.1	Cork Tiles or Parquetry 8mm
Lounge / Guest	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.95		Bulk Insulation R3.1	Cork Tiles or Parquetry 8mm
Lounge / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.93		Bulk Insulation R3.1	Cork Tiles or Parquetry 8mm
Bedroom 4 / Theatre	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	16.86		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm

* Refer to glossary.

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Ens 4 / Theatre	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.77		Bulk Insulation R3.1	Ceramic Tiles 8mm
Ens 4 / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.83		Bulk Insulation R3.1	Ceramic Tiles 8mm
Master Suite / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	26.16		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm
Ensuite / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	7.44		Bulk Insulation R3.1	Ceramic Tiles 8mm
Wir / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	13.94		Bulk Insulation R3.1	Carpet+Rubber Underlay 18mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Garage 1	Plasterboard on Timber	No insulation	
Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Ldry	Plasterboard on Timber	Bulk Insulation R6	
Ldry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Pdr	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Guest	Plasterboard on Timber	Bulk Insulation R6	
Guest	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Theatre	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Kitchen/Living1	Plasterboard on Timber	Bulk Insulation R6	
Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R3.1	
Butlers	Plasterboard on Timber	Bulk Insulation R6	
Butlers	Plasterboard on Timber	Bulk Insulation R2.5	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R2.5	

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Wir	Plasterboard on Timber	Bulk Insulation R6	
Ens 2	Plasterboard on Timber	Bulk Insulation R6	
Ens 2	Plasterboard on Timber	Bulk Insulation R2.5	
Wir	Plasterboard on Timber	Bulk Insulation R6	
Ens 3	Plasterboard on Timber	Bulk Insulation R6	
Ens 3	Plasterboard on Timber	Bulk Insulation R2.5	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R2.5	
Lounge	Plasterboard on Timber	Bulk Insulation R6	
Lounge	Plasterboard on Timber	Bulk Insulation R2.5	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R2.5	
Ens 4	Plasterboard on Timber	Bulk Insulation R6	
Ens 4	Plasterboard on Timber	Bulk Insulation R2.5	
Master Suite	Plasterboard on Timber	Bulk Insulation R6	
Master Suite	Plasterboard on Timber	Bulk Insulation R2.5	
Ensuite	Plasterboard on Timber	Bulk Insulation R6	
Wir	Plasterboard on Timber	Bulk Insulation R6	
Wir	Plasterboard on Timber	Bulk Insulation R2.5	

Ceiling *penetrations**

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Pdr	1	Exhaust Fans	300	Sealed
Kitchen/Living1	1	Exhaust Fans	300	Sealed
Ens 2	1	Exhaust Fans	300	Sealed
Ens 3	1	Exhaust Fans	300	Sealed
Ens 4	1	Exhaust Fans	300	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

* Refer to glossary.

Ceiling *fans*

Location	Quantity	Diameter [mm]
Bedroom 2	1	1200
Bedroom 3	1	1200
Lounge	1	1200
Bedroom 4	1	1200

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Roof Tiles Timber Frame	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark
Roof Tiles Timber Frame	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark

Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
No Data Available				

Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m^2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Hot water system

Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC	Zone 3 Substitution tolerance ranges		Assessed daily load [litres]
					lower limit	upper limit	
No Data Available							

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

Onsite Renewable Energy *Schedule*

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery *Schedule*

System Type	Size [Battery Storage Capacity]
No Data Available	

Explanatory notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

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

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

Glossary

AFRC	Australian Fenestration Rating Council
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, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
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.
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.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)