

# Nationwide House Energy Rating Scheme<sup>®</sup>

## NatHERS<sup>®</sup> Certificate No. 0011763505-01

Generated on 05 Mar 2025 using BERS Pro v5.2.4 (3.23)

### Property

**Address** 79 Gondola Road,  
NORTH NARRABEEN , NSW , 2101

**Lot/DP** Lot 226 DP 16212

**NCC class\*** 1a

**Floor/all Floors** G of 3 floors

**Type** New Home

### Plans

**Main plan** 0286/REV A

**Prepared by** ARCLAB PTY LTD

### Construction and environment

Assessed floor area [m2]*	Exposure type
Conditioned* 277.4	Suburban
Unconditioned* 27.9	
Total 358.7	<b>NatHERS climate zone</b>
Garage 53.3	56 Mascot (Sydney Airport)



### Accredited assessor

**Name** Joseph Lorriman

**Business name** Evergreen Energy Consultants Pty Ltd

**Email** enquiries@evergreenec.com.au

**Phone** 1300 584 010

**Accreditation No.** DMN/16/1742

**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](http://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



**NATIONWIDE  
HOUSE**  
ENERGY RATING SCHEME<sup>®</sup>

**29.5 MJ/m<sup>2</sup>**

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see:  
[www.nathers.gov.au](http://www.nathers.gov.au)

### Thermal performance [MJ/m<sup>2</sup>]

Limits taken from ABCB Standard 2022

	Heating	Cooling
<b>Modelled</b>	13.5	16.0
<b>Load limits</b>	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=COPOXltrD](http://hstar.com.au/QR/Generate?p=COPOXltrD). When using either link, ensure you are visiting [hstar.com.au](http://hstar.com.au)



## 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

No Whole of Home performance assessment conducted for this certificate

### Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

### Cost

No Whole of Home performance assessment conducted for this certificate



## 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		Occupancy/Other
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	
<b>Genuine certificate check</b>					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Thermal performance check</b>					
<b>Windows and glazed doors</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>External walls</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Floor</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling penetrations*</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Roof</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Apartment entrance doors (NCC Class 2 assessments only)</b>					
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.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Exposure*</b>					
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".	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and cooling load limits*</b>					
Do the load limits settings (shown on page 1) match what is shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Refer to glossary.



## Certificate check

Continued

	Approval Stage		Construction Stage		Occupancy/Other
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	

### 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

\* Refer to glossary.



## Room schedule

Room	Zone Type	Area [m <sup>2</sup> ]
Garage	Garage	53.32
Laundry	Unconditioned	7.2
Powder	Unconditioned	5.46
Bathroom	Unconditioned	5.73
Bed 1	Bedroom	11.86
Hall/Rumpus	Living	77.76
Master Bed	Bedroom	26.28
ENS	Nighttime	7.37
Bedroom 2	Bedroom	14.6
Bedroom 3	Bedroom	14.12
Bedroom 4	Bedroom	16.13
Bedroom 5	Bedroom	15.55
Bathroom 2	Unconditioned	6.58
WC	Unconditioned	2.92
Hallway	Living	26.01
Kitchen/Living	Kitchen/Living	75.57

## 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
ALS-003-012	Aluminium Sliding Window DG LB Clr 4/8/4	3.2	0.47	0.45	0.50
ALS-045-013	Aluminium Hinged Door DG LB Clr 5/14/5	3.1	0.41	0.39	0.43
ALS-086-012	Aluminium Sliding Door DG 10SoITNt/18Ar/10Clr	2.3	0.40	0.38	0.42
ALS-022-007	Aluminium Louvre Window SG 6LE	4.5	0.53	0.51	0.56
ALS-028-019	Aluminium Fixed Window DG LB Clr 4/10/4	2.2	0.53	0.51	0.56

\* Refer to glossary.



Custom windows\*

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

## Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Garage	ALS-003-012-001	W1	650	2300	Sliding	45	SE	No
Laundry	ALS-003-012-001	W17	900	1500	Sliding	45	NW	No
Powder	ALS-003-012-001	W18	900	1500	Sliding	45	NW	No
Bathroom	ALS-003-012-001	W20	800	1600	Sliding	45	NW	No
Bed 1	ALS-003-012-001	W21	800	1800	Sliding	45	NW	No
Hall/Rumpus	ALS-003-012-001	W2	1650	1920	Sliding	45	NE	No
Hall/Rumpus	ALS-003-012-001	W3	1650	1920	Sliding	45	NE	No
Hall/Rumpus	ALS-003-012-001	W4	1650	1920	Sliding	45	NE	No
Hall/Rumpus	ALS-003-012-001	W5	1650	1920	Sliding	45	NE	No
Hall/Rumpus	ALS-003-012-001	W8	1650	2365	Sliding	45	SE	No
Hall/Rumpus	ALS-003-012-001	W9	1650	2365	Sliding	45	SE	No
Hall/Rumpus	ALS-003-012-001	W10	1650	2365	Sliding	45	SE	No
Hall/Rumpus	ALS-045-013-001	W42	2400	900	Casement	90	SW	No
Master Bed	ALS-086-012-001	W22	2400	4560	Sliding	30	NE	No
Master Bed	ALS-045-013-001	W41	2400	1020	Casement	90	NE	No
Master Bed	ALS-022-007-001	W31	1800	750	Louvre	90	SW	No
ENS	ALS-003-012-001	W23	600	2600	Sliding	45	SE	No
Bedroom 2	ALS-003-012-001	W30	1800	2000	Sliding	10	NW	No
Bedroom 3	ALS-003-012-001	W29	1800	2000	Sliding	10	NW	No
Bedroom 4	ALS-003-012-001	W28	1800	2000	Sliding	10	SW	No
Bedroom 5	ALS-003-012-001	W27	1800	2000	Sliding	10	SW	No
Bathroom 2	ALS-003-012-001	W26	600	2000	Sliding	45	SE	No
WC	ALS-003-012-001	W24	600	1500	Sliding	45	SE	No
Hallway	ALS-028-019-001	W25	1900	2200	Fixed	00	SE	No
Kitchen/Living	ALS-086-012-001	W33	2400	2000	Sliding	45	NE	No
Kitchen/Living	ALS-086-012-001	W36	2400	3120	Sliding	60	SE	No

\* Refer to glossary.





Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALS-028-019-001	W37	2400	3980	Fixed	00	SE	No
Kitchen/Living	ALS-028-019-001	W43	700	3120	Fixed	00	SE	No
Kitchen/Living	ALS-045-013-001	W34	2670	1900	Casement	90	NE	No
Kitchen/Living	ALS-028-019-001	W35	2670	4850	Fixed	00	SE	No
Kitchen/Living	ALS-003-012-001	W39	1250	1450	Sliding	60	SW	No
Kitchen/Living	ALS-086-012-001	W40	2670	4453	Sliding	70	SW	No
Kitchen/Living	ALS-003-012-001	W38	900	1500	Sliding	45	NW	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					

### 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 <sup>2</sup> ]	Orientation	Outdoor shade	Diffuser
No Data Available							

## External door schedule

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage	2100	6000	90	NE
Laundry	2400	810	90	SW

## External wall type

Wall ID	Wall type	Solar absorptance [colour]	Wall shade	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Concrete Block, Lined Timber Stud Frame	0.50		Bulk Insulation, Air Gap R2.7	No
EW-2	Fibro Timber Stud Frame Panel Direct Fix	0.50		Bulk Insulation, Air Gap R2.7	No

## External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage	EW-1	2420	8600	NE	100	No
Garage	EW-1	2420	6200	SE	100	No
Garage	EW-1	1050	8600	SW	0	No
Garage	EW-1	1370	8600	SW	19500.0160256344	No
Garage	EW-1	2420	6200	NW	100	No
Laundry	EW-2	2920	3195	NW	100	No
Laundry	EW-2	2920	2295	SW	1500	No
Powder	EW-2	2920	1890	NW	100	No
Bathroom	EW-2	2400	2095	NW	100	No
Bathroom	EW-2	2400	2795	SW	100	No
Bed 1	EW-2	2400	3790	NW	100	No
Hall/Rumpus	EW-2	2400	4495	NW	100	No
Hall/Rumpus	EW-2	2400	8600	NE	800	No
Hall/Rumpus	EW-2	2400	11800	SE	100	No
Hall/Rumpus	EW-2	2400	2200	SW	100	No
Hall/Rumpus	EW-2	3120	1395	NW	100	No
Hall/Rumpus	EW-2	2400	995	SW	100	No
Master Bed	EW-2	2400	4000	NW	100	No
Master Bed	EW-2	2400	6600	NE	2700	Yes





Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Master Bed	EW-2	2400	3995	SE	300	No
Master Bed	EW-2	2400	2700	SW	100	No
ENS	EW-2	3220	3990	SE	300	No
Bedroom 2	EW-2	2500	895	NW	500	No
Bedroom 2	EW-2	2500	400	SW	9700	No
Bedroom 2	EW-2	2500	2200	NW	100	No
Bedroom 2	EW-2	2500	400	NE	1100	No
Bedroom 2	EW-2	2500	1000	NW	500	No
Bedroom 2	EW-2	2500	3395	NE	100	No
Bedroom 3	EW-2	2500	895	NW	500	No
Bedroom 3	EW-2	2500	400	SW	5700	No
Bedroom 3	EW-2	2500	2100	NW	100	No
Bedroom 3	EW-2	2500	400	NE	5200	No
Bedroom 3	EW-2	2500	995	NW	500	No
Bedroom 4	EW-2	2500	1095	SW	700	No
Bedroom 4	EW-2	2500	300	SE	5300	No
Bedroom 4	EW-2	2500	2100	SW	400	No
Bedroom 4	EW-2	2500	300	NW	1300	No
Bedroom 4	EW-2	2500	800	SW	700	No
Bedroom 4	EW-2	2500	4095	NW	500	No
Bedroom 5	EW-2	2500	3995	SE	100	No
Bedroom 5	EW-2	2500	1000	SW	800	No
Bedroom 5	EW-2	2500	400	SE	1100	No
Bedroom 5	EW-2	2500	2100	SW	400	No
Bedroom 5	EW-2	2500	300	NW	5500	No
Bedroom 5	EW-2	2500	995	SW	700	No
Bathroom 2	EW-2	2500	2100	NE	100	No
Bathroom 2	EW-2	2500	2495	SE	100	No
WC	EW-2	3220	1595	SE	300	No
WC	EW-2	3220	1300	SW	100	No
Hallway	EW-2	2500	3190	SE	100	No



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Hallway	EW-2	3220	3195	NW	100	No
Kitchen/Living	EW-2	3120	3800	NE	100	No
Kitchen/Living	EW-2	3120	1795	NW	100	No
Kitchen/Living	EW-2	3120	7395	SE	100	No
Kitchen/Living	EW-2	2920	2100	NE	100	No
Kitchen/Living	EW-2	2920	5700	SE	100	No
Kitchen/Living	EW-2	2920	6195	SW	1500	No
Kitchen/Living	EW-2	3120	6195	NW	100	No

## Internal wall type

Wall ID	Wall type	Area [m <sup>2</sup> ]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	166.22	No insulation

## Floor type

Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage	Concrete Slab on Ground 100mm	53.32	None	No Insulation	Bare
Laundry	Concrete Slab on Ground 100mm	7.20	None	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Powder	Concrete Slab on Ground 100mm	5.46	None	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Bathroom	Suspended Concrete Slab 150mm	5.73	Enclosed	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bed 1 / Garage	Concrete Timber Framed Above Plasterboard 150mm	2.90		Bulk Insulation R3	Cork Tiles or Parquetry 8mm
Bed 1	Suspended Concrete Slab 150mm	8.66	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm



Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Hall/Rumpus / Garage	Concrete Timber Framed Above Plasterboard 150mm	39.83		Bulk Insulation R3	Cork Tiles or Parquetry 8mm
Hall/Rumpus	Suspended Concrete Slab 150mm	33.66	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Master Bed / Bathroom	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	3.45		No Insulation	Cork Tiles or Parquetry 8mm
Master Bed / Bed 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	3.87		No Insulation	Cork Tiles or Parquetry 8mm
Master Bed / Hall/Rumpus	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	18.72		No Insulation	Cork Tiles or Parquetry 8mm
ENS / Hall/Rumpus	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	2.43		No Insulation	Ceramic Tiles 8mm
ENS / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	1.33		No Insulation	Ceramic Tiles 8mm
ENS	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	3.15	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bedroom 2 / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	14.59		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3 / Powder	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	5.01		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3 / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	8.77		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4 / Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	5.84		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4 / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	5.82		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	3.98	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm



Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 5 / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	11.33		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 5	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	3.97	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Bathroom 2 / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	6.58		No Insulation	Ceramic Tiles 8mm
WC / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	0.84		No Insulation	Ceramic Tiles 8mm
WC	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	1.96	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Hallway / Hall/Rumpus	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Hallway / Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 42mm	19.31		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living	Concrete Slab on Ground 100mm	75.57	None	Bulk Insulation in Contact with Floor R2.3	Bare

## Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Garage	Concrete, Plasterboard with Timber Frame	Bulk Insulation R3	
Garage	Concrete Timber Framed Above Plasterboard	Bulk Insulation R3	
Laundry	Plasterboard on Timber	Bulk Insulation R6	
Laundry	Plasterboard on Timber	Bulk Insulation R3	
Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	
Powder	Plasterboard on Timber	Bulk Insulation R3	
Powder	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Bathroom	Plasterboard on Timber	Bulk Insulation R6	
Bathroom	Plasterboard on Timber	Bulk Insulation R3	
Bathroom	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	
Bed 1	Plasterboard on Timber	Bulk Insulation R6	
Bed 1	Plasterboard on Timber	Bulk Insulation R3	
Bed 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	
Hall/Rumpus	Plasterboard on Timber	Bulk Insulation R6	
Hall/Rumpus	Plasterboard on Timber	Bulk Insulation R3	
Hall/Rumpus	Plasterboard on Timber	Bulk Insulation R3	
Hall/Rumpus	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	
Master Bed	Plasterboard on Timber	Bulk Insulation R6	
Master Bed	Plasterboard on Timber	Bulk Insulation R3	
ENS	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R3	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R3	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R3	
Bedroom 5	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 5	Plasterboard on Timber	Bulk Insulation R3	
Bathroom 2	Plasterboard on Timber	Bulk Insulation R6	
WC	Plasterboard on Timber	Bulk Insulation R6	
Hallway	Plasterboard on Timber	Bulk Insulation R6	
Hallway	Plasterboard on Timber	Bulk Insulation R3	
Kitchen/Living	Plasterboard on Timber	Bulk Insulation R6	
Kitchen/Living	Plasterboard on Timber	Bulk Insulation R3	
Kitchen/Living	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	No Insulation	



## Ceiling penetrations\*

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Garage	1	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Bathroom	1	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bed 1	2	Downlights - LED	150	Sealed
Hall/Rumpus	30	Downlights - LED	150	Sealed
Hall/Rumpus	1	Exhaust Fans	300	Sealed
Master Bed	5	Downlights - LED	150	Sealed
ENS	1	Downlights - LED	150	Sealed
ENS	1	Exhaust Fans	300	Sealed
Bedroom 2	2	Downlights - LED	150	Sealed
Bedroom 3	2	Downlights - LED	150	Sealed
Bedroom 4	3	Downlights - LED	150	Sealed
Bedroom 5	3	Downlights - LED	150	Sealed
Bathroom 2	1	Downlights - LED	150	Sealed
Bathroom 2	1	Exhaust Fans	300	Sealed
WC	1	Downlights - LED	150	Sealed
WC	1	Exhaust Fans	300	Sealed
Hallway	5	Downlights - LED	150	Sealed
Kitchen/Living	14	Downlights - LED	150	Sealed
Kitchen/Living	1	Ceiling Vents	300	

## Ceiling fans

Location	Quantity	Diameter [mm]
Bed 1	1	1400
Hall/Rumpus	1	2400
Master Bed	1	1400
Bedroom 2	1	1400





Location	Quantity	Diameter [mm]
Bedroom 3	1	1400
Bedroom 4	1	1400
Bedroom 5	1	1400
Kitchen/Living	1	2400

## Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Waterproofing Membrane	No Added Insulation, No air Gap	0.50	Medium
Corrugated Iron Timber Frame	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.50	Medium
Waterproofing Membrane	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.50	Medium

## 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<sup>2</sup> 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 home's 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

<b>AFRC</b>	Australian Fenestration Rating Council
<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	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.
<b>Ceiling penetrations</b>	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.
<b>COP</b>	Coefficient of performance
<b>Conditioned</b>	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.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>EER</b>	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
<b>Energy use</b>	This is your home's rating without solar or batteries.
<b>Energy value</b>	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).
<b>Entrance door</b>	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.
<b>Exposure</b>	see exposure categories below.
<b>Exposure category – exposed</b>	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category – open</b>	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).
<b>Exposure category – protected</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category – suburban</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	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 <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Net zero home</b>	a home that achieves a net zero energy value*.
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	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 <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Recommended capacity</b>	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.
<b>Reflective wrap</b> (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.
<b>Roof window</b>	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.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Skylight</b> (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.
<b>Solar heat gain coefficient (SHGC)</b>	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.
<b>STCs</b>	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)
<b>Thermal breaks</b>	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
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
<b>Vertical shading features</b>	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).
<b>Window shading device</b>	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

\* Refer to glossary.