

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004548772

Certificate Date: 30 Jan 2020

★ Star rating: 5.1



Assessor details

Accreditation number: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.4.0.0 (3.21)**

AAO: **BDAV**

Overview

Dwelling details

Street: **33 Kirkwood Street**
Suburb: **Seaforth**
State: **NSW** Postcode: **2092**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **318/11162** Exposure: **Exposed**

Key construction and insulation materials

(see following pages for details)

Construction: **AAC cavity panel on battens**
Roof Tiles
Suspended Timber Floor
Insulation: **R2.5 wall insulation**
R5.0 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

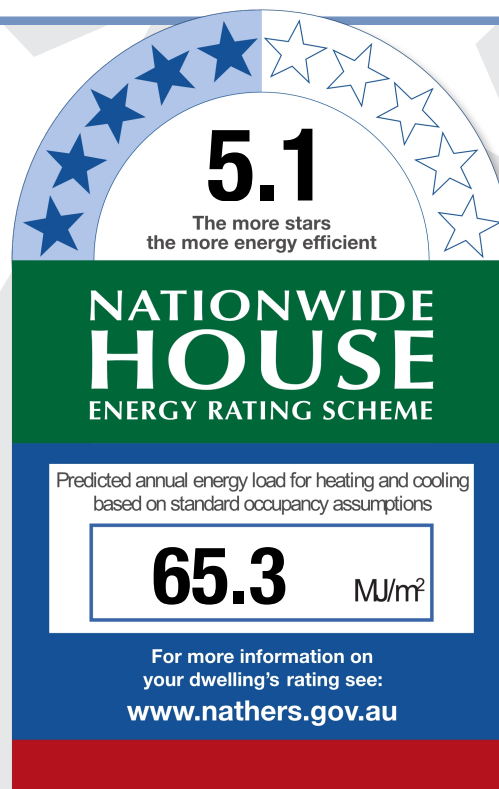
Conditioned: **180.0**
Unconditioned: **50.0**
Garage: **38.0**
TOTAL: **230.0**

Annual thermal performance loads (MJ/m²)

Heating: **39.9**
Cooling: **25.4**
TOTAL: **65.3**

Plan documents

Plan ref/date: **15227**
Prepared by: **Willoughby Homes**



Ceiling penetrations

(see following pages for details)

Sealed: **5**
Unsealed: **0**
TOTAL:** **5**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **Unknown**

Window selection - default windows only

Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004548772**

Certificate Date:

30 Jan 2020

★ Star rating:

5.1



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
TIM-001-01 W	TIM-001-01 W Timber A SG Clear	5.4	0.56
BRD-033-01 A	BRD-033-01 A ESS Sliding Door (80mm) SG 4Clr	6.2	0.74
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-033-13 A	BRD-033-13 A ESS Sliding Door (80mm) SG 4SP10	4.3	0.63
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Study	TIM-001-01 W	n/a	2100	1640	W	No Shading
Study	BRD-033-01 A	n/a	2100	2400	N	No Shading
Kitchen Living	BRD-063-01 A	n/a	700	2100	N	No Shading
Kitchen Living	BRD-063-01 A	n/a	700	1200	E	No Shading
Kitchen Living	BRD-033-01 A	n/a	2100	2400	N	No Shading
Kitchen Living	BRD-033-13 A	n/a	2100	2400	E	No Shading
Kitchen Living	BRD-033-13 A	n/a	2100	2400	E	No Shading
Kitchen Living	TIM-001-01 W	n/a	2100	1640	W	No Shading
Kitchen Living	TIM-001-01 W	n/a	2100	1640	W	No Shading
Pantry	BRD-001-01 A	n/a	1200	2400	E	No Shading
PDR	BRD-112-01 A	n/a	1000	900	W	No Shading
Garage	TIM-001-01 W	n/a	1000	820	E	No Shading
Bed 4	BRD-001-01 A	n/a	1200	1500	E	No Shading
Bath	BRD-001-01 A	n/a	1200	1500	E	No Shading
Bed 3	BRD-001-01 A	n/a	600	2400	E	No Shading
Bed 2	BRD-001-01 A	n/a	1200	1500	E	No Shading
Sitting Stairs	BRD-063-01 A	n/a	1200	1800	W	No Shading
Sitting Stairs	BRD-112-01 A	n/a	1500	1800	W	No Shading
Sitting Stairs	BRD-001-01 A	n/a	600	2100	N	No Shading
Sitting Stairs	BRD-063-01 A	n/a	1700	2100	N	No Shading
Sitting Stairs	BRD-063-01 A	n/a	1700	1200	E	No Shading
Master Bed	BRD-112-01 A	n/a	1500	1800	W	No Shading
Robe	BRD-112-01 A	n/a	1200	900	W	No Shading
Ensuite	BRD-112-01 A	n/a	1200	1500	S	No Shading
Ensuite	BRD-112-01 A	n/a	1200	1500	W	No Shading
Ensuite	BRD-112-01 A	n/a	1200	1500	W	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004548772**

Certificate Date:

30 Jan 2020

★ Star rating:

5.1



Building features continued

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	AAC cavity panel on battens	Bulk Insulation R2.5	No
EW-2	Fibro Cavity Panel Direct Fix	Bulk Insulation R2.5	No
EW-3	AAC cavity panel on battens	No insulation	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Study	EW-1	600	2600	W	No	100
Study	EW-2	300	2600	S	No	100
Study	EW-2	2100	2600	W	No	100
Study	EW-2	300	2600	N	No	100
Study	EW-1	600	2600	W	No	100
Study	EW-1	3295	2600	N	No	100
Study	EW-1	1600	2600	S	No	14000
Kitchen Living	EW-1	2295	2600	N	No	100
Kitchen Living	EW-1	1700	2600	E	No	100
Kitchen Living	EW-1	2900	2600	N	No	100
Kitchen Living	EW-1	7595	2600	E	No	4000
Kitchen Living	EW-1	400	2600	S	No	100
Kitchen Living	EW-1	600	2600	W	No	100
Kitchen Living	EW-2	300	2600	S	No	100
Kitchen Living	EW-2	2100	2600	W	No	100
Kitchen Living	EW-2	300	2600	N	No	100
Kitchen Living	EW-1	600	2600	W	No	100
Kitchen Living	EW-1	1600	2600	N	No	5800
Kitchen Living	EW-1	2395	2600	W	No	2700
Pantry	EW-1	600	2600	N	No	4600
Pantry	EW-1	3295	2600	E	No	3400
PDR	EW-1	500	2600	S	No	6200
PDR	EW-1	2095	2600	W	No	100
Garage	EW-3	2395	2686	E	No	100
Garage	EW-3	2500	2686	S	No	100
Garage	EW-3	1700	2686	E	No	600
Garage	EW-3	5700	2686	S	No	600
Garage	EW-3	5595	2686	W	No	600
Bed 4	EW-1	2500	800	S	No	0
Bed 4	EW-2	2500	1640	S	No	600
Bed 4	EW-2	1895	2441	S	No	600
Bed 4	EW-1	2995	800	E	No	0
Bed 4	EW-2	2995	1640	E	No	600
Bath	EW-1	600	800	N	No	0
Bath	EW-2	600	1640	N	No	8200
Bath	EW-1	2695	800	E	No	0
Bath	EW-2	2695	1640	E	No	600
Bed 3	EW-1	3890	800	E	No	0
Bed 3	EW-2	3890	1640	E	No	600
Bed 2	EW-1	2900	800	N	No	0

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004548772**

Certificate Date:

30 Jan 2020

★ Star rating:

5.1



Building features continued

Bed 2	EW-2	2900	1640	N	No	600
Bed 2	EW-1	3695	800	E	No	0
Bed 2	EW-2	3695	1640	E	No	600
Sitting Stairs	EW-2	2395	2440	W	No	600
Sitting Stairs	EW-1	1600	800	S	No	0
Sitting Stairs	EW-2	1600	1640	S	No	600
Sitting Stairs	EW-1	600	800	W	No	0
Sitting Stairs	EW-2	600	1640	W	No	500
Sitting Stairs	EW-2	300	2440	S	No	1200
Sitting Stairs	EW-2	2100	2440	W	No	200
Sitting Stairs	EW-2	300	2440	N	No	1200
Sitting Stairs	EW-1	600	800	W	No	0
Sitting Stairs	EW-2	600	1640	W	No	500
Sitting Stairs	EW-1	5600	800	N	No	0
Sitting Stairs	EW-2	5600	1640	N	No	600
Sitting Stairs	EW-1	1695	800	E	No	0
Sitting Stairs	EW-2	1695	1640	E	No	600
Master Bed	EW-1	400	800	S	No	0
Master Bed	EW-2	400	1640	S	No	2700
Master Bed	EW-1	600	800	W	No	0
Master Bed	EW-2	600	1640	W	No	500
Master Bed	EW-2	300	2440	S	No	3300
Master Bed	EW-2	2100	2440	W	No	200
Master Bed	EW-2	300	2440	N	No	1200
Master Bed	EW-1	600	800	W	No	0
Master Bed	EW-2	600	1640	W	No	500
Master Bed	EW-1	1600	800	N	No	0
Master Bed	EW-2	1600	1640	N	No	600
Robe	EW-1	1200	800	S	No	0
Robe	EW-2	1200	1640	S	No	600
Robe	EW-1	2095	800	W	No	0
Robe	EW-2	2095	1640	W	No	600
Ensuite	EW-2	3095	2440	S	No	600
Ensuite	EW-2	3895	2440	W	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	122.0	No insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	37.0	Bulk Insulation, No Air Gap R2.5	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	24.0	Bulk Insulation, No Air Gap R2	No

Floors

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004548772**

Certificate Date:

30 Jan 2020

★ Star rating:

5.1



Building features continued

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Study	Waffle pod slab 225 mm 100mm	11.3	None	Waffle Pod 225mm	Carpet 10mm
Kitchen Living	Waffle pod slab 225 mm 100mm	60.0	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Pantry	Waffle pod slab 225 mm 100mm	7.6	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Laundry	Waffle pod slab 225 mm 100mm	4.8	None	Waffle Pod 225mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 225 mm 100mm	5.0	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Garage	Waffle pod slab 175 mm 100mm	37.6	None	Waffle Pod 175mm	Bare
Bed 4/Pantry	Timber Above Plasterboard 19mm	1.4		No Insulation	Carpet 10mm
Bed 4/Garage	Timber Above Plasterboard 19mm	10.7		Bulk Insulation R2.5	Carpet 10mm
Bath/Pantry	Timber Above Plasterboard 19mm	5.7		No Insulation	Ceramic Tiles 8mm
Bath/Laundry	Timber Above Plasterboard 19mm	0.9		No Insulation	Ceramic Tiles 8mm
Bath/Garage	Timber Above Plasterboard 19mm	1.2		Bulk Insulation R2.5	Ceramic Tiles 8mm
WC/Laundry	Timber Above Plasterboard 19mm	1.3		No Insulation	Ceramic Tiles 8mm
Bed 3/Kitchen Living	Timber Above Plasterboard 19mm	11.7		No Insulation	Carpet 10mm
Bed 2/Kitchen Living	Timber Above Plasterboard 19mm	11.5		No Insulation	Carpet 10mm
Sitting Stairs/Study	Timber Above Plasterboard 19mm	11.4		No Insulation	Carpet 10mm
Sitting Stairs/Kitchen Living	Timber Above Plasterboard 19mm	15.8		No Insulation	Carpet 10mm
Master Bed/Kitchen Living	Timber Above Plasterboard 19mm	14.1		No Insulation	Carpet 10mm
Robe/Kitchen Living	Timber Above Plasterboard 19mm	1.2		No Insulation	Carpet 10mm
Robe/PDR	Timber Above Plasterboard 19mm	5.0		No Insulation	Carpet 10mm
Ensuite/Garage	Timber Above Plasterboard 19mm	10.7		Bulk Insulation R2.5	Ceramic Tiles 8mm
Hall/Kitchen Living	Timber Above Plasterboard 19mm	4.6		No Insulation	Carpet 10mm
Hall/Laundry	Timber Above Plasterboard 19mm	2.2		No Insulation	Carpet 10mm
Hall/Garage	Timber Above Plasterboard 19mm	2.2		Bulk Insulation R2.5	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
----------	--------------	------------------	------------------

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004548772**

Certificate Date:

30 Jan 2020

★ Star rating:

5.1



Building features continued

Study	Timber Above Plasterboard	No Insulation	No
Kitchen Living	Timber Above Plasterboard	No Insulation	No
Pantry	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Garage	Plasterboard	No insulation	Yes
Garage	Timber Above Plasterboard	Bulk Insulation R2.5	No
Bed 4	Plasterboard	Bulk Insulation R5	Yes
Bath	Plasterboard	Bulk Insulation R5	Yes
WC	Plasterboard	Bulk Insulation R5	Yes
Bed 3	Plasterboard	Bulk Insulation R5	Yes
Bed 2	Plasterboard	Bulk Insulation R5	Yes
Sitting Stairs	Plasterboard	Bulk Insulation R5	Yes
Master Bed	Plasterboard	Bulk Insulation R5	Yes
Robe	Plasterboard	Bulk Insulation R5	Yes
Ensuite	Plasterboard	Bulk Insulation R5	Yes
Hall	Plasterboard	Bulk Insulation R5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Laundry	1	Exhaust Fans	300	Sealed
PDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004548772

Certificate Date: 30 Jan 2020

★ Star rating: 5.1



Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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 on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au