

# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0002285872

Certificate Date: 13 Dec 2017

★ Star rating: 5.4



## Assessor details

Accreditation number: **20945**  
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Declaration of interest: **No potential conflicts of interest to declare**  
Software: **AccuRate Sustainability V2.3.3.13 SP3**  
AAO: **ABSA**

## Overview

### Dwelling details

Street: **Unit A , 1132 Old Princes Highway**  
Suburb: **Engadine**  
State: **NSW** Postcode: **2233**  
Type: **New** NCC Class: **1a**  
NatHERS climate zone: **56**  
Lot/DP number: **20/1129728** Exposure: **Suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**  
**Metal roof**  
**Timber/Slab**  
Insulation: **R2.5 wall insulation**  
**R4.0 ceiling insulation**  
**Floor (uninsulated)**  
Glazing: **Aluminium B DG Argon Fill Low Solar Gain low-E**

### Net floor area (m<sup>2</sup>)

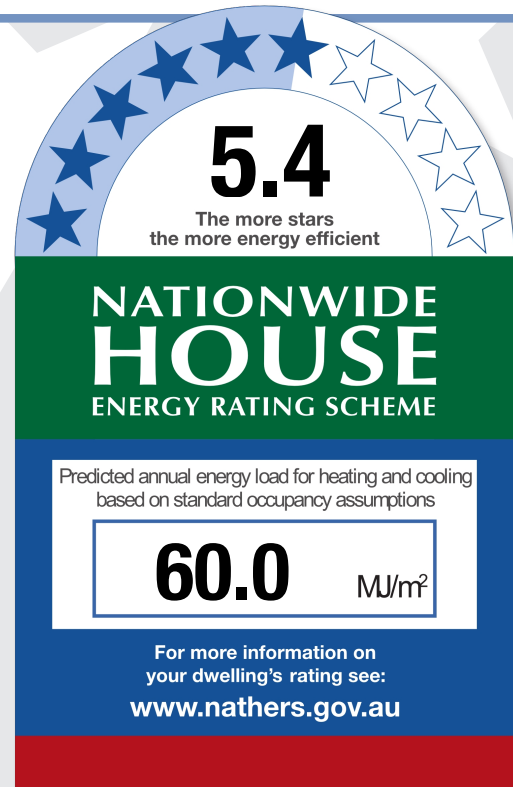
Conditioned: **122.0**  
Unconditioned: **25.0**  
Garage: **19.0**  
TOTAL: **147.0**

### Annual thermal performance loads (MJ/m<sup>2</sup>)

Heating: **36.0**  
Cooling: **24.0**  
TOTAL: **60.0**

### Plan documents

Plan ref/date: **1623/12.2017**  
Prepared by: **A.W F.T.**



### Ceiling penetrations (see following pages for details)

Sealed: **32**  
Unsealed: **0**  
TOTAL:\*\* **32**

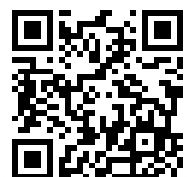
**\*\*NOTE:** This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required.** Loss of ceiling insulation for the penetrations listed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

Principle downlight type: **Light-emitting diode (LED)**

### Window selection - default windows only

This rating has been completed using custom windows, NO change to the type and brand of the windows listed on Page 2 of this certificate can be made.

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



**If any substitution is made then the certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.**

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## Building features

### Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-006-04 A	DEFAULTS: Aluminium B DG Argon Fill Low Solar Gain low-E -Clear	4.8	0.34
ALM-002-03 A	DEFAULTS: Aluminium B SG High Solar Gain Low-E	5.4	0.58
ALM-005-04 A	DEFAULTS: Aluminium A DG Argon Fill Low Solar Gain low-E -Clear	4.8	0.34

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
1KLD	ALM-006-04 A	W5	2750	2100	W	None
1KLD	ALM-006-04 A	W4	2750	1170	N	None
1KLD	ALM-006-04 A	WD	2400	500	W	None
1KLD	ALM-002-03 A	W3	2700	900	W	None
1KLD	ALM-006-04 A	W2	1450	2100	W	None
1KLD	ALM-006-04 A	W1a	1450	2100	S	None
1KLD	ALM-006-04 A	W1b	1450	900	S	None
1MBED	ALM-006-04 A	W6a	1200	2150	W	None
1MBED	ALM-005-04 A	W6b	1200	900	W	None
1BED2	ALM-005-04 A	W7	1450	2400	N	None
1BED3	ALM-005-04 A	W9	1600	1800	S	None
1BATH	ALM-006-04 A	W8	1450	800	N	None

### Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-004a	Double-glazed clear: norma	0.0	0.00

### Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
1STAIRS/COR-FF	GEN-04-004a	S1	1.0	W	None	Yes
1STAIRS/COR-FF	GEN-04-004a	S2	1.0	W	None	Yes

### External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-001	Brick Veneer	Glass fibre batt: R2.5	Yes
EW-002	Brick Veneer	Glass fibre batt: R2.5	Yes
EW-003	Plasterboard	Polystyrene extruded: R3.0	No
EW-004	Plasterboard	Polystyrene extruded: R3.0	No
EW-005	Timber (Radiata pine)/Plasterboard	Glass fibre batt: R2.0	No
EW-006	Brick Veneer		No

### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
1GARAGE	EW-001	820	2950	W	Yes	6065
1GARAGE	EW-001	3325	2950	S	Yes	400

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1GARAGE	EW-001	825	2950	E	No	
1GARAGE	EW-006	820	1700	W	No	
1GARAGE	EW-006	3325	1700	S	No	
1GARAGE	EW-006	825	1700	E	No	
1KLD	EW-002	385	2800	N	Yes	1475
1KLD	EW-002	1270	2800	E	No	
1KLD	EW-002	4255	2800	N	No	
1KLD	EW-002	3825	2800	W	Yes	1485
1KLD	EW-002	1170	2800	N	Yes	4035
1KLD	EW-002	1620	2800	W	Yes	1595
1KLD	EW-002	660	2800	N	Yes	4270
1KLD	EW-002	4225	2800	W	Yes	685
1KLD	EW-002	5130	2800	S	Yes	970
1STAIRS-GF	EW-002	1405	2800	N	Yes	1475
1MBED	EW-003	3130	2600	W	No	
1MBED	EW-003	1190	2600	N	No	
1MBED	EW-004	1435	2600	W	No	
1MBED	EW-004	6230	2600	S	No	
1MBED	EW-003	695	2600	E	Yes	3327
1BED2	EW-003	991	2600	W	No	
1BED2	EW-004	3670	2600	N	No	
1BED2	EW-003	2094	2600	W	No	
1BED3	EW-003	3070	2600	S	Yes	1315
1BED3	EW-003	2545	2600	E	Yes	2888
1STORE-FF	EW-004	1900	2600	N	No	
1BATH	EW-004	1700	2600	N	No	
1STAIRS/COR-FF	EW-004	925	2600	N	No	
1ENS-MB	EW-003	1504	2600	W	No	
1ROOFSPa	EW-003	991	433	W	No	
1ROOFSPa	EW-003	4824	409	W	No	
1ROOFSPa	EW-003	1190	453	N	No	
1ROOFSPa	EW-003	1435	457	W	No	
1ROOFSPa	EW-003	3960	382	S	No	
1ROOFSPa	EW-005	9615	300	E	No	
1ROOFSPa	EW-003	3045	365	N	No	
1ROOFSPa	EW-003	2094	423	W	No	
1ROOFSPb	EW-003	1405	355	S	No	
1ROOFSPb	EW-003	695	421	E	No	
1ROOFSPb	EW-003	3070	501	S	No	
1ROOFSPb	EW-003	2545	613	E	No	
1ROOFSPb	EW-003	4585	451	N	No	
1ROOFSPb	EW-005	9615	300	W	No	

## Internal wall type

ID	Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-001	Brick	42.2		No

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IW-002	Plasterboard	128.9	No
IW-003	Soil (average)	2.2	No

## Floors

Location	Construction	Area (m <sup>2</sup> )	Sub floor ventilation	Added insulation	Covering
1GARAGE/Ground	Concrete Slab 200 mm: bare/bare	18.7			
1KLD/Ground	Concrete Slab 200 mm: timber/bare	48.8			
1STORE-GF/Ground	Concrete Slab 200 mm: bare/bare	1.9			
1STAIRS-GF/Ground	Concrete Slab 200 mm: timber/bare	2.1			
1PWDR/LDRY/Ground	Concrete Slab 200 mm: ceramic tiles/bare	3.6			Ceramic tile
1MBED/Outdoor Air	Timber: timber/R2.0/fcboard	4.8		R2.0	
1MBED/1GARAGE	Timber: timber/air gap/plasterboard	0.7			
1MBED/1KLD	Timber: timber/air gap/plasterboard	17.0			
1MBED/Neighbour	Timber: timber/air gap/plasterboard	2.5			
1BED2/Outdoor Air	Timber: timber/R2.0/fcboard	4.3		R2.0	
1BED2/1KLD	Timber: timber/air gap/plasterboard	5.7			
1BED2/Neighbour	Timber: timber/air gap/plasterboard	1.3			
1BED3/1GARAGE	Timber: timber/air gap/plasterboard	11.1			
1STUDY/1KLD	Timber: timber/air gap/plasterboard	3.0			
1STORE-FF/1KLD	Timber: timber/air gap/plasterboard	3.7			
1BATH/1KLD	Timber: ceramic tile/air gap/plasterboard	2.2			Ceramic tile
1BATH/1STAIRS-GF	Timber: ceramic tile/air gap/plasterboard	0.4			Ceramic tile
1BATH/1PWDR/LDRY	Timber: ceramic tile/air gap/plasterboard	3.2			Ceramic tile
1BATH/Neighbour	Timber: ceramic tile/air gap/plasterboard	0.5			Ceramic tile
1STAIRS/COR-FF/1GARAGE	Timber: timber/air gap/plasterboard	3.3			
1STAIRS/COR-FF/1KLD	Timber: timber/air gap/plasterboard	1.4			
1STAIRS/COR-FF/1STORE-GF	Timber: timber/air gap/plasterboard	1.9			
1STAIRS/COR-FF/1STAIRS-GF	Timber: timber/air gap/plasterboard	1.6			
1STAIRS/COR-FF/1PWDR/LDRY	Timber: timber/air gap/plasterboard	0.2			

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1STAIRS/COR-FF/Neighbour	Timber: timber/air gap/plasterboard	0.7	
1ENS-MB/1KLD	Timber: ceramic tile/air gap/plasterboard	4.5	Ceramic tile
1ENS-MB/Neighbour	Timber: ceramic tile/air gap/plasterboard	0.3	Ceramic tile
1ROOFSPa/1MBED	Plasterboard + R4.0 bulk insulation	14.2	R4.0
1ROOFSPa/1BED2	Plasterboard + R4.0 bulk insulation	9.4	R4.0
1ROOFSPa/1ENS-MB	Plasterboard + R4.0 bulk insulation	3.9	R4.0
1ROOFSPa/Neighbour	Plasterboard + R4.0 bulk insulation	0.5	R4.0
1ROOFSPb/1MBED	Plasterboard + R4.0 bulk insulation	6.7	R4.0
1ROOFSPb/1BED3	Plasterboard + R4.0 bulk insulation	11.1	R4.0
1ROOFSPb/1STUDY	Plasterboard + R4.0 bulk insulation	2.8	R4.0
1ROOFSPb/1STORE-FF	Plasterboard + R4.0 bulk insulation	3.4	R4.0
1ROOFSPb/1BATH	Plasterboard + R4.0 bulk insulation	6.2	R4.0
1ROOFSPb/1STAIRS/COR-FF	Plasterboard + R4.0 bulk insulation	9.1	R4.0
1ROOFSPb/Neighbour	Plasterboard + R4.0 bulk insulation	2.1	R4.0

## Ceiling type

Location	Construction	Added insulation	Roof space above
1MBED/1GARAGE	Timber: timber/air gap/plasterboard		No
1BED3/1GARAGE	Timber: timber/air gap/plasterboard		No
1STAIRS/COR-FF/1GARAGE	Timber: timber/air gap/plasterboard		No
Neighbour/1GARAGE	Timber: timber/air gap/plasterboard		No
1MBED/1KLD	Timber: timber/air gap/plasterboard		No
1BED2/1KLD	Timber: timber/air gap/plasterboard		No
1STUDY/1KLD	Timber: timber/air gap/plasterboard		No
1STORE-FF/1KLD	Timber: timber/air gap/plasterboard		No
1BATH/1KLD	Timber: ceramic tile/air gap/plasterboard		No
1STAIRS/COR-FF/1KLD	Timber: timber/air gap/plasterboard		No
1ENS-MB/1KLD	Timber: ceramic tile/air gap/plasterboard		No
Neighbour/1KLD	Timber: ceramic tile/air gap/plasterboard		No
1STAIRS/COR-FF/1STORE-GF	Timber: timber/air gap/plasterboard		No
1BATH/1STAIRS-GF	Timber: ceramic tile/air gap/plasterboard		No

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1STAIRS/COR-FF/1STAIRS-GF	Timber: timber/air gap/plasterboard		No
Neighbour/1STAIR S-GF	Timber: timber/air gap/plasterboard		No
1BATH/1PWDR/LDRY	Timber: ceramic tile/air gap/plasterboard		No
1STAIRS/COR-FF/1PWDR/LDRY	Timber: timber/air gap/plasterboard		No
Neighbour/1PWDR/LDRY	Timber: timber/air gap/plasterboard		No
1ROOFSPa/1MBE D	Plasterboard + R4.0 bulk insulation	R4.0	Yes
1ROOFSPb/1MBE D	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1MBED	Plasterboard + R4.0 bulk insulation	R4.0	No
1ROOFSPa/1BED2	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1BED2	Plasterboard + R4.0 bulk insulation	R4.0	No
1ROOFSPb/1BED3	Plasterboard + R4.0 bulk insulation	R4.0	Yes
1ROOFSPb/1STUDY	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1STUDY	Plasterboard + R4.0 bulk insulation	R4.0	No
1ROOFSPb/1STORE-FF	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1STORE-FF	Plasterboard + R4.0 bulk insulation	R4.0	No
1ROOFSPb/1BATH	Plasterboard + R4.0 bulk insulation	R4.0	Yes
1ROOFSPb/1STAIRS/COR-FF	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1STAIRS/COR-FF	Plasterboard + R4.0 bulk insulation	R4.0	No
1ROOFSPa/1ENS-MB	Plasterboard + R4.0 bulk insulation	R4.0	Yes
Neighbour/1ENS-MB	Plasterboard + R4.0 bulk insulation	R4.0	No

## Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
1GARAGE	9	Downlight		Sealed
1KLD	24	Downlight		Sealed
1STAIRS-GF	1	Downlight		Sealed
1PWDR/LDRY	1	Downlight		Sealed
1MBED	12	Downlight		Sealed
1BED2	5	Downlight		Sealed
1BED3	5	Downlight		Sealed
1STUDY	1	Downlight		Sealed
1STORE-FF	1	Downlight		Sealed
1BATH	2	Downlight		Sealed
1STAIRS/COR-FF	3	Downlight		Sealed
1ENS-MB	2	Downlight		Sealed

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### Building features continued

#### Ceiling fans

Location	Number	Diameter (mm)
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None Present		
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#### Roof type

Construction	Added insulation	Roof colour
Timber - splay - R2.5	R2.5	Light
Metal roof system - medium	R4.0	Medium
Metal Roof - medium		Medium



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## 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](http://www.nathers.gov.au)

For more information on energy efficient design and insulation visit [www.yourhome.gov.au](http://www.yourhome.gov.au)