

# Nationwide House Energy Rating Scheme\* Certificate



Certificate number: **0004007027**

Certificate Date: **09 Jul 2019**

★ Star rating: **5.1**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

## Assessor details

Accreditation number: **VIC/BDAV/12/1469**  
Name: **Craig Crowther**  
Organisation: **Insight Energy**  
Email: **info@insightenergy.com.au**  
Phone: **02 8188 6777**  
Declaration of interest: **The Assessor has provided design advice to the Applicant**  
Software: **BERS Pro v4.3.0.2d (3.13)**  
  
AAO: **BDAV**

## Overview

### Dwelling details

Street: **131 Thompson Street**  
Suburb: **SCOTLAND ISLAND**  
State: **NSW** Postcode: **2105**  
Type: **New Dwelling** NCC Class: **1A**  
NatHERS climate zone: **56**  
Lot/DP number: **166/12749** Exposure: **Suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: **Fibro Cavity Panel Direct Fix**  
**Corrugated Iron**  
**Suspended Timber Floor**  
Insulation: **R2.5 wall insulation**  
**R3.5 ceiling insulation**  
**R2.0 floor insulation**  
Glazing: **ALM-004-01 A Aluminium B DG Air Fill**  
**Clear-Clear**

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

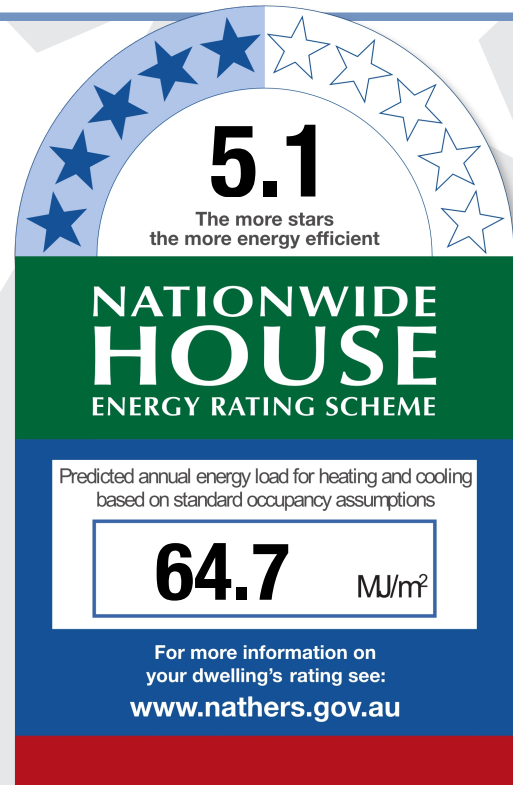
Conditioned: **224.0**  
Unconditioned: **10.0**  
Garage: **0.0**  
TOTAL: **234.0**

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

Heating: **39.6**  
Cooling: **25.2**  
TOTAL: **64.7**

### Plan documents

Plan ref/date: **Job 166Thmopson, daated 12.02.19**  
Prepared by: **EZY Homes Australia Pty Ltd, Drawn NS**



### Ceiling penetrations

(see following pages for details)

Sealed: **54**  
Unsealed: **0**  
TOTAL:\*\* **54**

\*\*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: **LED**

### Window selection - default windows only

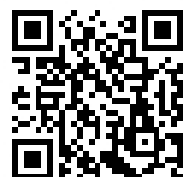
Note on allowable window values:  
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



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## Building features

### Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bed 2	ALM-004-01 A	n/a	900	1800	NW	No Shading
Bed 2	ALM-004-01 A	n/a	900	1800	NW	No Shading
Bed 2	ALM-004-01 A	n/a	600	1800	NE	No Shading
Bed 2	ALM-004-01 A	n/a	2100	2100	SW	No Shading
Rumpus	ALM-004-01 A	n/a	2100	2400	SW	No Shading
Rumpus	ALM-004-01 A	n/a	2100	2400	SW	No Shading
Bed 3	ALM-004-01 A	n/a	900	1800	SE	No Shading
Bed 3	ALM-004-01 A	n/a	2100	2100	SW	No Shading
Laundry	ALM-004-01 A	n/a	900	600	SE	No Shading
Kitchen/Living	ALM-004-01 A	n/a	900	1800	NW	No Shading
Kitchen/Living	ALM-004-01 A	n/a	600	1500	SE	No Shading
Kitchen/Living	ALM-004-01 A	n/a	600	1500	SE	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2100	2100	SW	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2100	2100	SW	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2100	2400	SW	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2100	2400	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	600	3600	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	600	3600	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	600	1500	NE	No Shading
Bed 1	ALM-004-01 A	n/a	900	1800	NW	No Shading
Bed 1	ALM-004-01 A	n/a	300	2400	NE	No Shading
Ensuite	ALM-004-01 A	n/a	900	1200	NE	No Shading
Entry	ALM-004-01 A	n/a	1800	600	NE	No Shading
Entry	ALM-004-01 A	n/a	1800	600	NE	No Shading
Entry	ALM-004-01 A	n/a	600	1800	SE	No Shading
WC SF	ALM-004-01 A	n/a	600	900	SE	No Shading

### Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-006a	Single-glazed clear, Timber and Aluminium Frame	0.0	0.00

### Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Indoor shade/diffuser
Bed 1	GEN-04-006a	1	1.1	N	None	No

### External wall type

ID	Wall type	Insulation	Wall wrap or foil
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## Building features continued

EW-1 Fibro Cavity Panel Direct Fix Reflective foil with bulk no gap R2.5 Yes

### External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bed 2	EW-1	6800	2435	NW	No	100
Bed 2	EW-1	3000	2435	NE	No	100
Bed 2	EW-1	1095	1435	NE	No	4000
Bed 2	EW-1	4095	2435	SW	No	3225
Rumpus	EW-1	6390	2435	SW	No	4500
Bed 3	EW-1	4095	2435	SE	No	100
Bed 3	EW-1	3995	2435	SW	No	3075
Laundry	EW-1	2195	1435	NE	No	5300
Laundry	EW-1	800	2435	NE	No	0
Laundry	EW-1	2695	2435	SE	No	100
Bath	EW-1	1895	1435	NW	No	4200
Bath	EW-1	5290	1435	NE	No	4000
Hallway FF	EW-1	1095	1435	NE	No	5300
Kitchen/Living	EW-1	5395	3000	NW	No	300
Kitchen/Living	EW-1	1000	3305	NE	No	300
Kitchen/Living	EW-1	6800	3000	SE	No	300
Kitchen/Living	EW-1	14500	2700	SW	No	1200
Bed 1	EW-1	3995	2700	NW	No	300
Bed 1	EW-1	4295	2700	NE	No	600
Ensuite	EW-1	3090	2700	NE	No	600
Entry	EW-1	2995	2700	NE	No	1200
Entry	EW-1	1995	2700	SE	No	300
WC SF	EW-1	1990	2700	SE	No	300
Pantry	EW-1	1395	3000	NW	No	300
Pantry	EW-1	3095	3305	NE	No	500

### Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, plasterboard	18.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	128.0	No insulation	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	22.0	Bulk Insulation, No Air Gap R2	No

### Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bed 2	Suspended Timber Floor 19mm	27.6	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Rumpus	Suspended Timber Floor 19mm	30.2	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm

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Bed 3	Suspended Timber Floor 19mm	16.0	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Laundry	Suspended Timber Floor 19mm	7.8	Very Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bath	Suspended Timber Floor 19mm	8.0	Very Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Hallway FF	Suspended Timber Floor 19mm	7.7	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bed	Timber Above Plasterboard 19mm	23.4		Bulk Insulation R2.5	Carpet 10mm
Kitchen/Living /Rumpus	Timber Above Plasterboard 19mm	30.7		Bulk Insulation R2.5	Carpet 10mm
Kitchen/Living /Bed	Timber Above Plasterboard 19mm	16.3		Bulk Insulation R2.5	Carpet 10mm
Kitchen/Living /Laundry	Timber Above Plasterboard 19mm	8.0		Bulk Insulation R2.5	Carpet 10mm
Kitchen/Living /Bath	Timber Above Plasterboard 19mm	8.3		Bulk Insulation R2.5	Carpet 10mm
Kitchen/Living /Hallway FF	Timber Above Plasterboard 19mm	6.8		Bulk Insulation R2.5	Carpet 10mm
Bed 1	Suspended Timber Floor 19mm	16.8	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Ensuite	Suspended Timber Floor 19mm	5.0	Very Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
WIR	Suspended Timber Floor 19mm	6.6	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Entry/Hallway FF	Timber Above Plasterboard 19mm	1.2		Bulk Insulation R2.5	Carpet 10mm
Entry	Suspended Timber Floor 19mm	8.4	Very Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
WC SF	Suspended Timber Floor 19mm	1.8	Very Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Pantry/Bed 2	Timber Above Plasterboard 19mm	4.1		Bulk Insulation R2.5	Carpet 10mm

## Ceiling type

Location	Construction	Added insulation	Roof space above
Bed 2	Timber Above Plasterboard	Bulk Insulation R2.5	No
Rumpus	Timber Above Plasterboard	Bulk Insulation R2.5	No
Bed 3	Timber Above Plasterboard	Bulk Insulation R2.5	No
Laundry	Timber Above Plasterboard	Bulk Insulation	No

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Bath	Timber Above Plasterboard	R2.5	Bulk Insulation R2.5	No
Hallway FF	Timber Above Plasterboard		Bulk Insulation R2.5	No
Kitchen/Living	Plasterboard		Bulk Insulation R3.5	No
Bed 1	Plasterboard		Bulk Insulation R3.5	No
Ensuite	Plasterboard		Bulk Insulation R3.5	No
WIR	Plasterboard		Bulk Insulation R3.5	No
Entry	Plasterboard		Bulk Insulation R3.5	No
WC SF	Plasterboard		Bulk Insulation R3.5	No
Pantry	Plasterboard		Bulk Insulation R3.5	No

## Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bed 2	8	Downlights - LED	150	Sealed
Rumpus	6	Downlights - LED	150	Sealed
Bed 3	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Hallway FF	2	Downlights - LED	150	Sealed
Kitchen/Living	17	Downlights - LED	150	Sealed
Bed 1	4	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
WIR	1	Downlights - LED	150	Sealed
Entry	4	Downlights - LED	150	Sealed
WC SF	1	Downlights - LED	150	Sealed
Pantry	2	Downlights - LED	150	Sealed

## Ceiling fans

Location	Number	Diameter (mm)
None Present		

## Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

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### Building features continued

Corrugated Iron

Bulk, Reflective Medium  
Side Down, Anti-  
glare Up R1.3

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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)

## **THERMAL PERFORMANCE REQUIREMENTS**

**131 Thompson Street, Scotland Island NSW 2105**

**See NatHERs Certificate for full information**

**Builder to confirm insulation and glazing requirements in NatHERs Certificate prior to construction**

**All insulation and glazing must meet BCA and Australian Standard requirements**

	<b>Construction</b>	<b>Added Insulation</b>
<b>External walls</b>	14mm fibre cement sheeting – medium colour	R2.5 bulk insulation + reflective sarking on external side to all external walls
<b>Internal walls</b>	Steel frame with plasterboard lining	R2.0 bulk insulation to common walls surrounding laundry and WC on second floor.
<b>External Flooring</b>	Suspended steel frame	R2.0 bulk insulation under suspended floor
<b>Ceilings between Floors</b>	Steel frame with plasterboard lining beneath	R2.5 bulk insulation between floors
<b>Ceiling to roof cavity</b>	Steel roof structure with plasterboard lining beneath	R3.5 bulk insulation to all ceilings
<b>Roof</b>	Metal roof sheeting @ 5 and 11 degrees – medium colour	R1.3 anticon blanket under roof sheeting
<b>Fixed floor coverings</b>	Tiles to wet areas Timber to all remaining zones	
<b>Glazing</b> - All glazing to be in accordance with BCA standards.	Aluminum frames (draft sealed)	Highlight windows - Single glazed clear, U-value 6.70 SHGC 0.70 Remainder of glazed doors and windows – Double glazed clear/air gap/clear, U-value 4.80 SHGC 0.59 Skylight – Single glazed
<b>Ceiling Penetration</b>		This assessment has been rated with LED downlights and exhaust fans Run 3 – 25/6/2019