

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0003717634**

Certificate Date: **25 Mar 2019**

★ Star rating: **5.3**

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/16/1742**
Name: **Joseph Lorriman**
Organisation: **Evergreen Energy Consultants Pty Ltd**
Email: **enquiries@evergreenec.com.au**
Phone: **02 4975 5350**
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: **141 Powderworks Road**
Suburb: **Elanora Heights**
State: **NSW** Postcode: **2101**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **842992** 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**
R4.0 ceiling insulation
R1.0 floor insulation
Glazing: **ATB-004-01 B AI Thermally Broken B**
DG Air Fill Clear-Clear

Net floor area (m²)

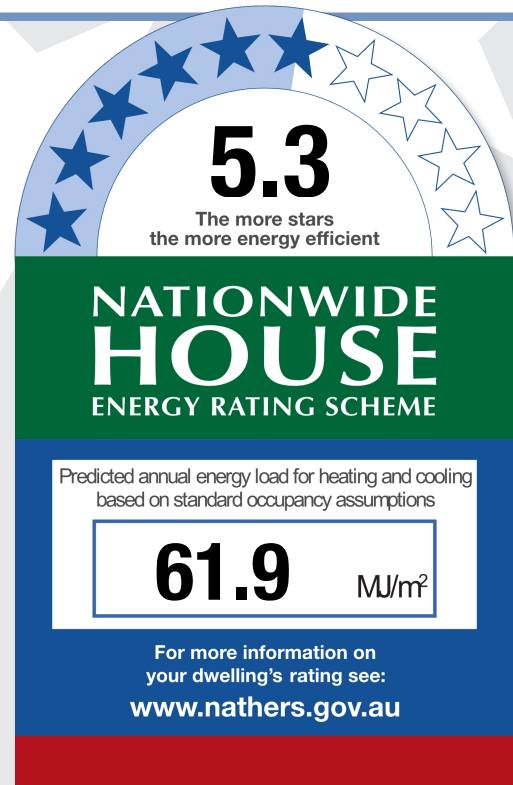
Conditioned: **152.0**
Unconditioned: **17.0**
Garage: **0.0**
TOTAL: **169.0**

Annual thermal performance loads (MJ/m²)

Heating: **37.2**
Cooling: **24.7**
TOTAL: **61.9**

Plan documents

Plan ref/date: **DA-00**
Prepared by: **ALM**



Ceiling penetrations

(see following pages for details)

Sealed: **6**
Unsealed: **0**
TOTAL:** **6**

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

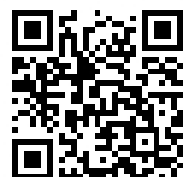
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ATB-004-01 B	ATB-004-01 B AI Thermally Broken B DG Air Fill Clear-Clear	3.6	0.54
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ATB-003-01 B	ATB-003-01 B AI Thermally Broken A DG Air Fill Clear-Clear	3.6	0.47

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ATB-004-01 B	n/a	600	1800	N	No Shading
Bedroom 1	ATB-004-01 B	n/a	1500	2400	S	No Shading
Living	ATB-004-01 B	n/a	600	2400	W	No Shading
Living	ALM-002-01 A	n/a	2040	680	E	No Shading
Living	ATB-004-01 B	n/a	360	1600	E	No Shading
Living	ALM-002-01 A	n/a	2300	800	W	No Shading
Living	ALM-002-01 A	n/a	2300	800	W	No Shading
Living	ALM-002-01 A	n/a	2300	800	W	No Shading
Living	ALM-002-01 A	n/a	2300	800	W	No Shading
Laundry	ALM-002-01 A	n/a	900	600	W	No Shading
Bedroom 3	ATB-004-01 B	n/a	600	1500	E	No Shading
Bedroom 3	ATB-004-01 B	n/a	600	1500	E	No Shading
Bedroom 3	ATB-004-01 B	n/a	2400	1600	S	No Shading
Bedroom 2	ATB-003-01 B	n/a	1800	600	E	No Shading
Bedroom 2	ATB-003-01 B	n/a	1800	600	E	No Shading
Ensuite 1	ATB-003-01 B	n/a	1800	600	E	No Shading
Ensuite 1	ATB-004-01 B	n/a	600	1800	S	No Shading
Kitchen/Living	ATB-004-01 B	n/a	600	2400	N	No Shading
Kitchen/Living	ATB-004-01 B	n/a	2400	4420	E	No Shading
Kitchen/Living	ATB-004-01 B	n/a	600	1750	S	No Shading
Kitchen/Living	ATB-004-01 B	n/a	600	3800	S	No Shading
Upstairs W/C	ALM-002-01 A	n/a	600	1200	E	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 (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves
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Certificate number: **0003717634**

Certificate Date:

25 Mar 2019

★ Star rating:

5.3



Building features continued

						(mm)
Bedroom 1	EW-1	5000	2400	W	No	600
Bedroom 1	EW-1	2400	2400	N	No	9500
Bedroom 1	EW-1	4095	2400	S	No	100
Living	EW-1	1000	2400	S	No	8400
Living	EW-1	4295	2400	W	No	500
Living	EW-1	2695	2700	E	No	4400
Living	EW-1	3295	2400	W	No	1500
Laundry	EW-1	1795	2400	W	No	500
Bedroom 3	EW-1	5000	2700	E	No	100
Bedroom 3	EW-1	4295	2700	S	No	1600
Bedroom 2	EW-1	3990	2700	E	No	2000
Ensuite 1	EW-1	2695	2700	E	No	2000
Ensuite 1	EW-1	3995	2400	S	No	100
Kitchen/Living	EW-1	5900	2400	W	No	600
Kitchen/Living	EW-1	1500	2700	N	No	100
Kitchen/Living	EW-1	3600	2700	N	No	100
Kitchen/Living	EW-1	4600	3000	E	No	900
Kitchen/Living	EW-1	1900	2700	S	No	100
Kitchen/Living	EW-1	1300	2700	E	No	100
Kitchen/Living	EW-1	6700	2700	S	No	100
Upstairs W/C	EW-1	1595	2700	W	No	100
Upstairs W/C	EW-1	3500	2700	N	No	100
Upstairs W/C	EW-1	1595	2700	E	No	100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	87.0	No insulation	No
IW-2 - Double stud with plasterboard	26.0	No insulation one side, Bulk Insulation the other R2.5	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Suspended Timber Floor 19mm	20.2	Enclosed	Bulk Insulation in Contact with Floor R1	Cork Tiles or Parquetry 8mm
Living	Suspended Timber Floor 19mm	37.4	Enclosed	Bulk Insulation in Contact with Floor R1	Cork Tiles or Parquetry 8mm
Laundry	Suspended Timber Floor 19mm	11.5	Enclosed	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Ensuite 2	Suspended Timber Floor 19mm	3.5	Enclosed	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 3	Suspended Timber Floor 19mm	20.2	Enclosed		

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Certificate number: **0003717634**

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5.3



Building features continued

					Bulk Insulation in Contact with Floor R1	Cork Tiles or Parquetry 8mm
Bedroom 2	Suspended Timber Floor 19mm	15.5	Enclosed		Bulk Insulation in Contact with Floor R1	Cork Tiles or Parquetry 8mm
Ensuite 1	Suspended Timber Floor 19mm	10.5	Enclosed		Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Kitchen/Living/Living	Timber Above Plasterboard 19mm	35.2			Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Kitchen/Living/Ensuite 2	Timber Above Plasterboard 19mm	3.8			No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living/Bedroom 3	Timber Above Plasterboard 19mm	4.9			No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended Timber Floor 19mm	4.2	Totally Open		Bulk Insulation in Contact with Floor R1	Cork Tiles or Parquetry 8mm
Upstairs W/C/Laundry	Timber Above Plasterboard 100mm	5.4			No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Plasterboard	Bulk Insulation R4	Yes
Living	Plasterboard	Bulk Insulation R4	Yes
Living	Timber Above Plasterboard	Bulk Insulation R2.5	No
Laundry	Plasterboard	Bulk Insulation R4	Yes
Laundry	Timber Above Plasterboard	No Insulation	No
Ensuite 2	Timber Above Plasterboard	No Insulation	No
Bedroom 3	Plasterboard	Bulk Insulation R4	Yes
Bedroom 3	Timber Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R4	Yes
Ensuite 1	Plasterboard	Bulk Insulation R4	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Upstairs W/C	Plasterboard	Bulk Insulation R4	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Living	1	Exhaust Fans	200	Sealed
Laundry	1	Exhaust Fans	200	Sealed
Ensuite 2	1	Exhaust Fans	200	Sealed

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Ensuite 1	1	Exhaust Fans	200	Sealed
Kitchen/Living	1	Exhaust Fans	200	Sealed
Upstairs W/C	1	Exhaust Fans	200	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Light

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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

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