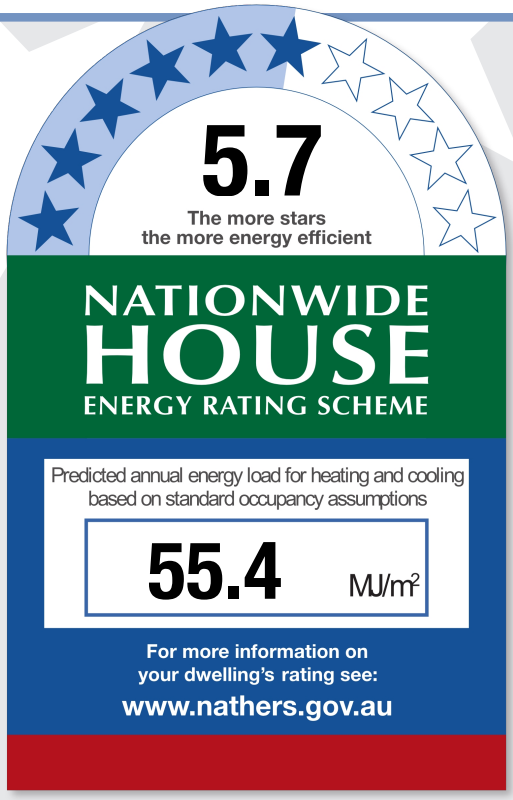
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003290749** Certificate Date: **26 Oct 2018** ★Star rating: **5.7**

Assessor details

Accreditation number:	**20945**
Name:	**Dimitrios Harakidas**
Organisation:	**AENEC**
Email:	**info@aenec.com.au**
Phone:	**0416 316 204**
Declaration of interest:	**No potential conflicts of interest to declare**
Software:	**AccuRate Sustainability V2.3.3.13 SP4**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2, 24 Aitken Avenue**		
Suburb:	**Queenscliff**		
State:	**NSW**	Postcode:	**2096**
Type:	**New**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**Lot SP30021**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Concrete wall/Fibre-cement sheet** Plaster (cement:sand 1:4)/Concrete roof/Plasterboard
Insulation:	**Slab/Timber** **R2.5 wall insulation** **R1.0 ceiling insulation** **R1.0 floor insulation**
Glazing:	**Aluminium B SG High Solar Gain Low-E**

Net floor area (m²)

Conditioned:	**146.0**
Unconditioned:	**4.7**
Garage:	
TOTAL:	**150.8**

Annual thermal performance loads (MJ/m²)

Heating:	**36.4**
Cooling:	**19.0**
TOTAL:	**55.4**

Plan documents

Plan ref/date:	**1801 / Issue D / 25.10.2018**
Prepared by:	**CA**

Ceiling penetrations

(see following pages for details)

Sealed:	**4**
Unsealed:	**0**
TOTAL:**	**4**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceded 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

Note on allowable window values: With a 10% tolerance to the nominated SHGC window values shown on page 2, the following ratings are achieved:

-10% SHGC **5.5**

+10% SHGC **5.8**

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 the rating listed above falls below 6.0 stars or the required rating, then the window with this tolerance can NOT be selected.

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

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-03 A	DEFAULTS: Aluminium B SG High Solar Gain Low-E	5.4	0.58

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
KLD	ALM-002-03 A	W21	2300	1800	NW	Outdoor venetians
KLD	ALM-002-03 A	W22	2700	6400	SW	None
KLD	ALM-002-03 A	W23	2300	2400	SE	Outdoor venetians
ES1	ALM-002-03 A	W20	2300	1200	NW	Outdoor venetians
B1	ALM-002-03 A	W19	2300	2400	NW	Outdoor venetians
B2	ALM-002-03 A	W18	2300	2400	NW	Outdoor venetians
B3	ALM-002-03 A	W02	2700	2400	NW	None
ENTRY - CORRIDOR	ALM-002-03 A	W26	2300	1200	SE	Outdoor venetians
STUDY	ALM-002-03 A	W25	2300	2400	SE	Outdoor venetians
WC	ALM-002-03 A	W24	2300	1200	SE	Outdoor venetians
ES3	ALM-002-03 A	W03	2300	1200	NW	Outdoor venetians
CORRIDOR GF	ALM-002-03 A	W01	2300	1000	NW	Outdoor venetians

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						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-001	Concrete wall/Fibre-cement sheet	Polystyrene extruded: R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
KLD	EW-001	5850	2700	NW	Yes	350
KLD	EW-001	6400	2700	SW	Yes	2160
KLD	EW-001	13050	2700	SE	Yes	350
ES1	EW-001	2400	2700	NW	Yes	350

Building features continued

B1	EW-001	5600	2700	NW	Yes	350
B2	EW-001	5800	2700	NW	Yes	350
B3	EW-001	3785	2700	NW	Yes	350
ENTRY - CORRIDOR	EW-001	1595	2700	SE	Yes	350
STUDY	EW-001	2400	2700	SE	Yes	350
WC	EW-001	2600	2700	SE	Yes	350
ES3	EW-001	1910	2700	NW	Yes	350
CORRIDOR GF	EW-001	1000	3250	NW	No	

Internal wall type

ID	Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-001	Concrete wall	27.0		No
IW-002	Plasterboard	109.4		No
IW-003	Concrete wall	67.7		No
IW-004	Retaining Bituminous roof membrane/Concrete wall	23.6		No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
KLD/Neighbour	TM-01 & CN-01	59.4		R1.0	
ES1/Neighbour	TM-01 & CN-01	7.7		R1.0	
B1/Neighbour	TM-01 & CN-01	17.9		R1.0	
B2/Neighbour	TM-01 & CN-01	18.6		R1.0	
B3/Outdoor Air	CN-01	11.6		R2.0	
ENTRY - CORRIDOR/Neighbour	TM-01 & CN-01	19.4		R1.0	
ENTRY - CORRIDOR/CORRIDOR GF	TM-01 & CN-01	3.2		R1.0	
STUDY/Neighbour	TM-01 & CN-01	4.4		R1.0	
WC/Neighbour	TM-01 & CN-01	4.7		R1.0	
ES3/Outdoor Air	CN-01	3.8		R2.0	
CORRIDOR GF/Outdoor Air	CN-01	3.2		R2.0	

Ceiling type

Location	Construction	Added insulation	Roof space above
Neighbour/KLD	TM-01 & CN-01	R1.0	No
Neighbour/ES1	TM-01 & CN-01	R1.0	No
Neighbour/B1	TM-01 & CN-01	R1.0	No
Neighbour/B2	TM-01 & CN-01	R1.0	No

Building features continued

Neighbour/B3	TM-01 & CN-01	R1.0	No
Neighbour/ENTRY - CORRIDOR	TM-01 & CN-01	R1.0	No
Neighbour/STUDY	TM-01 & CN-01	R1.0	No
Neighbour/WC	TM-01 & CN-01	R1.0	No
Neighbour/ES3	TM-01 & CN-01	R1.0	No
ENTRY - CORRIDOR/CORRIDOR GF	TM-01 & CN-01	R1.0	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
KLD	20	Downlight		Sealed
ES1	1	Downlight		Sealed
B1	6	Downlight		Sealed
B2	2	Downlight		Sealed
B3	2	Downlight		Sealed
ENTRY - CORRIDOR	6	Downlight		Sealed
STUDY	1	Downlight		Sealed
WC	1	Downlight		Sealed
ES3	1	Downlight		Sealed
CORRIDOR GF	1	Downlight		Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Terrace above - Concrete - plasterboard - R2.5	R2.5	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003290749 **Certificate Date:** 26 Oct 2018 ★Star rating: 5.7

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

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au