# Nationwide House Energy Rating Scheme® NatHERS® Certificate No. #000000000-00

## Generated on [date] using [software and version]

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# **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NCC class\* [number]

Floor/all Floors [dwelling entrance floor] of [total no. of floors] floors

Type [new/renovation/existing]

## **Plans**

Main plan [plan number, version & date]

Prepared by [name of preparer of plans]

## **Construction and environment**

Assessed floor area (m²)\* Exp Conditioned\* 000.0 [ex Unconditioned\* 0.0 Nat Total 0.0 [nu

Exposure type
[exposure]
NatHERS climate zone
[number, town/suburb]



Garage

## **Accredited assessor**

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Accreditation No.[0000 000 000]

Assessor Accrediting Organisation
[name of Assessor Accrediting Organisation]

Declaration of interest [declaration]

# **NCC** Requirements

BCA provisions [Volume 1/Volume 2]

State/Territory variation [Yes/No]

## **National Construction Code (NCC) requirements**

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

# Thermal performance star rating



# NATIONWIDE HOUSE ENERGY RATING SCHEME

107.9 MJ/m<sup>2</sup>

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see: www.nathers.gov.au

## Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022.1

 Heating
 Cooling

 Modelled
 0000.0
 0000.0

 Load limits
 0000.0
 0000.0

### Features determining load limits

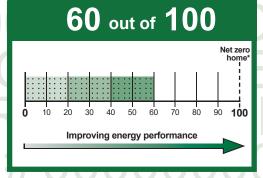
Floor type [Type]
(lowest conditioned area)

NCC climate zone 1 or 2 [Y/N/NA]

Outdoor living area [Y/N/NA]

Outdoor living area ceiling fan [Y/N/NA]

# Whole of Home performance rating



## Verification

To verify this certificate, scan the QR code or visit [Hstar-dev. azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



0.0 Star rating and 00 Whole of Home rating as of [Date]



# About the ratings

### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

#### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

# **Heating & Cooling Load Limits**

#### **Additional information**

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022.1 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

### **Setting options:**

Floor type:

CSOG - Concrete Slab on Ground

SF – Suspended Floor (or a mixture of CSOG and SF)

NA - Not Applicable

NCC climate Zone 1 or 2:

Yes

No

NA - not applicable

Outdoor living area:

Yes

No

NA - not applicable

Outdoor living area ceiling fan:

Yes

No

NA - not applicable

# Predicted onsite renewable energy impact

Your Whole of Home energy use\* rating excluding onsite renewable energy generation is **[00] out of 100**.

This home's annual greenhouse gas emissions: [0000]kg CO2e (with solar) [0000]kg CO2e (without solar)

Predicted annual electricity use: [0000] kWh

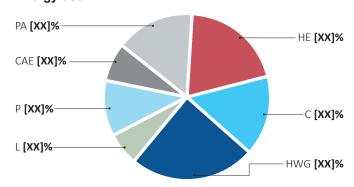
Exported to the grid: [00]%

Used by the home: [00]%

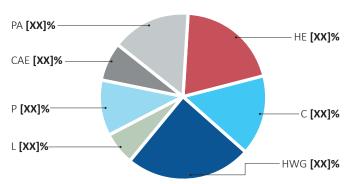
# Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

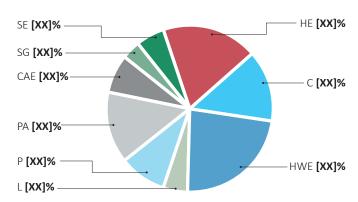
#### **Energy use:**



### Greenhouse gas emissions:



#### Cost:



### **Graph Key:**

Colour:	Code:	Name:	Fuel type:
	HE HG HW C HWE HWG L	Heating Heating Cooling Hot water Hot water Lights	electric gas wood electric electric gas electric
	P PA CAE CAG SG SE	Pool/Spa equipment Plug-in appliances Cooking appliances Cooking appliances Supply charge Supply charge	electric electric electric gas gas electric

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Certificate check	Approval	stage	Construc stage	tion	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.  Note: The boxes indicate when and who should check each item.	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
It is not mandatory to complete this checklist.	Asse	Cons	Builc	Cons	000
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?					
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?					
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?					
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.					
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?					



	Approval	stage	Construc stage	tion		
Certificate check Continued	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other	
Additional NCC requirements for thermal performance (not included	in the Na	tHERS a	ssessme	nt)		
Thermal bridging						
Does the dwelling meet the NCC requirement for thermal bridging?						
Insulation installation method						
Has the insulation been installed according to the NCC requirements?						
Building sealing	<u>'</u>	<u> </u>	<u>'</u>	<u> </u>		
Does the dwelling meet the NCC requirements for Building Sealing?						
Whole of Home performance check (not applicable if a Whole of Home perf	ormance a	ssessmen	t is not con	ducted)		
Appliances						
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?						
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?						
Additional NCC Requirements for Services (not included in the NatH	ERS asse	essment)				
Does the lighting meet the artificial lighting requirements specified in the NCC?						
Does the hot water system meet the additional requirements specified in the NCC?						
Provisional values* check						
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?						
Other NCC requirements						
Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.						
Additional notes						



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Room		Zone Type			Area (m²)				
Vindow	and glaz	ed door	type and	performan	ce				
Default wind	lows*								
	Wind	014/	Maximum			Substi	tution tole	erance	ranges
Window ID		ription	U-value*	SHGC*		SHGC lowe	er limit 🤾	SHGC	upper limit
Custom wind						Substi	tution tole	erance	ranges
Window ID	Wind desci	ow ription	Maximum U-value*	SHGC*		SHGC lowe			upper limit
Vindov	v and gla	nzed do	or schedu	ule					
	v and gla Window ID	Window no.	or schedu Height (mm)	Width V	Vindow ype	Opening %	Orienta		Window shading device*
ocation	Window ID	Window no.	Height	Width V (mm) t		%		tion	shading device*
Coof will Default* roof	Window ID  ndow* typ	Window no.	Height (mm)	Width V (mm) t	уре	%	tution tole	erance	shading device*
Location	Window ID  ndow* typ f windows  Wind descri	Window no.	Height (mm)	Width V (mm) t	уре	Substi	tution tole	erance SHGC	shading device* ranges upper limi

0.0 Star rating and 00 Whole of Home rating as of [Date]



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Window Window Opening Height Width Outdoor Indoor Location ID No. % (mm) Orientation shade shade

# Skylight\* type and performance

Skylight ID Skylight description Skylight shaft reflectance

# Skylight\* schedule

Skylight Skylight Shaft length Area Outdoor
Location ID No. (mm) (m²) Orientation shade Diffuser

## External door schedule

Location Height (mm) Width (mm) Opening % Orientation

# External wall type

Wall Solar Wall shade Bulk insulation Reflective ID type absorptance (colour) (R-value) wall wrap\*

## External wall schedule

Wall Height Width Feature\* maximum feature\*

Location ID (mm) Orientation Projection (mm) Vertical shading feature\*

projection (mm) (yes/no)

# 2022 Certificate examples (September 2022)

[#000000000-00] NatHERS Certificate

0.0 Star rating and 00 Whole of Home rating as of [Date]



Internal	l wall	type
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Wall ID Wall type Area (m2) Bulk insulation

# Floor type

Area Sub-floor Added insulation
Location Construction (m²) ventilation (R-value) Covering

# Ceiling type

Construction Bulk insulation R-value Reflective
Location material/type (may include edge batt values) wrap\*

# Ceiling penetrations\*

Location Quantity Type Diameter (mm²) Sealed/unsealed

# **Ceiling** fans

Location Quantity Diameter (mm)

# Roof type

Construction Added insulation (R-value) Solar absorptance Roof shade (colour)

# Thermal bridging schedule for steel frame elements

Steel section dimensions
Building element (height x width, mm)

Steel section dimensions
(height x width, mm)

Frame spacing (mm)

Steel thickness
(BMT,mm)

(yes/no)

0.0 Star rating and 00 Whole of Home rating as of [Date]



# **Appliance** schedule

## (not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m<sup>2</sup> is used for lighting, therefore lighting is not included in the appliance schedule.

### Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Ducted refrigerative air conditioning (heat pump)	Kitchen/Dining/Living	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 1	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 2	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 3	Electric	00	00

## Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Ducted reverse cycle air-conditioner (heat pump)	Kitchen/Dining/Living	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 1	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 2	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 3	Electric	00	00

## Hot water system

		Minimum	Substitution to	Assessed daily load	
Appliance/ system type	Fuel type	efficiency/ performance	Zone 3 STC Zone 3 STC lower limit upper limit		
Gas instantaneous	Gas	0 star	N/A		120L
Gas boosted solar thermal	Solar-gas	30 STCs Zone 4	22	31 (Medium)	120L

## Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
Single speed pressure cleaner with main filtration pump	Electric	00	00

0.0 Star rating and 00 Whole of Home rating as of [Date]



# Onsite renewable energy schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
Solar PV	NW	0 kW

# **Battery** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size (battery storage capacity)
Lithium-ion	0 kWh

#### 0.0 Star rating and 00 Whole of Home rating as of [Date]



## **Explanatory notes**

#### About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value\*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

## **Accredited assessors**

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and

are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

#### **Disclaimer**

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

# **Glossary**

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

# Nationwide House Energy Rating Scheme® NatHERS® Certificate No. #000000000-00

## Generated on [date] using [software and version]

[other boilerplate text other boilerplate text other boilerplate text other boilerplate text]

## **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NCC class\* [number]

Floor/all Floors [dwelling entrance floor] of [total no. of floors] floors

Type [new/renovation/existing]

## **Plans**

Main plan [plan number, version & date]

Prepared by [name of preparer of plans]

## **Construction and environment**

Assessed floor area (m²)\*

Conditioned\* 000.0 [exposure]

Unconditioned\* 0.0 NatHERS climate zone

Total 0.0 [number, town/suburb]

Garage 0.0



## **Accredited assessor**

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Accreditation No.[0000 000 000]

Assessor Accrediting Organisation
[name of Assessor Accrediting Organisation]

Declaration of interest [declaration]

**NCC** Requirements

BCA provisions [Volume 1/Volume 2]

State/Territory variation [Yes/No]

## **National Construction Code (NCC) requirements**

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

# Thermal performance star rating



# NATIONWIDE HOUSE ENERGY RATING SCHEME

# YYYY,Y MJ/m<sup>2</sup>

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see: www.nathers.gov.au

## Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022.1

 Heating
 Cooling

 Modelled
 0000.0
 0000.0

 Load limits
 0000.0
 0000.0

### Features determining load limits

Floor type [Type]
(lowest conditioned area)

NCC climate zone 1 or 2 [Y/N/NA]

Outdoor living area [Y/N/NA]

Outdoor living area ceiling fan [Y/N/NA]

# Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

## Verification

To verify this certificate, scan the QR code or visit [Hstar-dev. azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



0.0 Star rating and 00 Whole of Home rating as of [Date]



## About the ratings

### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

#### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

## **Heating & Cooling Load Limits**

#### **Additional information**

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022.1 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

## **Setting options:**

Floor type:

CSOG - Concrete Slab on Ground

SF – Suspended Floor (or a mixture of CSOG and SF)

NA - Not Applicable

NCC climate Zone 1 or 2:

Yes

Nο

NA - not applicable

Outdoor living area:

Yes

No

NA - not applicable

Outdoor living area ceiling fan:

Yes

No

NA - not applicable



# Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

# Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

#### Energy use:

No Whole of Home performance assessment conducted for this certificate.

### Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

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Certificate check	Approval	stage	Construc stage	tion	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.  Note: The boxes indicate when and who should check each item.	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
It is not mandatory to complete this checklist.	Asse	Cons	Builc	Cons	000
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?					
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?					
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?					
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.					
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?					



	Approval	stage	Construc stage	tion		
Certificate check Continued	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other	
Additional NCC requirements for thermal performance (not included	in the Na	tHERS a	ssessme	nt)		
Thermal bridging						
Does the dwelling meet the NCC requirement for thermal bridging?						
Insulation installation method						
Has the insulation been installed according to the NCC requirements?						
Building sealing	<u>'</u>	<u> </u>	<u>'</u>	<u>'</u>		
Does the dwelling meet the NCC requirements for Building Sealing?						
Whole of Home performance check (not applicable if a Whole of Home perf	ormance a	ssessmen	t is not con	ducted)		
Appliances						
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?						
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?						
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?						
Additional NCC Requirements for Services (not included in the NatH	ERS asse	essment)				
Does the lighting meet the artificial lighting requirements specified in the NCC?						
Does the hot water system meet the additional requirements specified in the NCC?						
Provisional values* check						
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?						
Other NCC requirements						
Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.						
Additional notes						



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Location ID Nindow Nindow (mm) (mm) type % Orientation device  Roof window* type and performance value  Default* roof windows Window Window description U-value* SHGC*  Custom* roof windows  Window Window Maximum U-value* SHGC*  Substitution tolerance range SHGC lower limit SHGC upper	Room			Zone Type				Area (m	1²)	
Window ID Window description U-value* SHGC* SHGC lower limit SHGC upper SHGC lower limit SHGC lower limit SHGC upper SHGC lower limit	Vindow	and glaz	zed dooi	r type and	performa	ance				
Window ID  Window description  Window Maximum Window Window Maximum Window ID  Window Maximum Window ID  Window Maximum Window Maximum Window ID  Window Mindow Height Window Mindow Mindow Mindow Mindow Maximum ID  Window Window Maximum Window Window Height Window Mindow Mindow Maximum ID  Window Window Maximum Window Mindow Maximum Window Window Maximum  Substitution tolerance range	Default wind	ows*								
Custom windows*  Window Maximum Substitution tolerance range Window ID description U-value* SHGC*  SHGC lower limit SHGC upper  Window and glazed door schedule  Location ID No. (mm) (mm) type % Orientation device  Roof window* type and performance value  Default* roof windows Window Maximum SHGC*  Substitution tolerance range  SHGC lower limit SHGC upper  SUBSTITUTION OF SHGC upper  SUBSTITUTION OF SHGC upper  SUBSTITUTION OF SHGC upper  Substitution tolerance range  Substitution tolerance range  SUBSTITUTION UPPER  SHGC lower limit SHGC upper  SUBSTITUTION TOLERANCE range  SUBSTITUTION TOLERANCE range  SUBSTITUTION TOLERANCE range  SUBSTITUTION TOLERANCE range	Window ID				SHO	GC*				
Window ID  Window description  Window and glazed door schedule  Window Window Height (mm) type % Orientation  Roof windows  Window Window Maximum U-value*  Substitution tolerance range  Window Opening orientation  Window Window (mm) type % Orientation  Substitution tolerance range			•							
Window ID  Window and glazed door schedule  Window Window Height Width Window Opening Shadi devic  Cocation ID  Window* type and performance value  Default* roof windows  Window Window Maximum U-value*  Substitution tolerance range	Custom wind	dows*								
Vindow and glazed door schedule  Window Window Height Width Window Opening Shadi shadi device  Roof window* type and performance value  Default* roof windows Window Maximum ShGC lower limit ShGC upper  Custom* roof windows  Window Window Maximum  D Window Maximum ShGC value  Substitution tolerance range  ShGC lower limit ShGC upper  Substitution tolerance range  Substitution tolerance range										
Window Window Height Width Window Opening Shadii Adviced Shadii No. (mm) Window Window Shadii No. (mm) Window Shad										
Roof window* type and performance value  Default* roof windows Window Window Maximum DD description U-value* SHGC*  Custom* roof windows Window Window  Maximum SHGC lower limit SHGC upper										
Default* roof windows  Nindow Window Maximum D description U-value* SHGC*  Custom* roof windows  Nindow Window Maximum  Custom* roof windows  Nindow Window Maximum  Substitution tolerance range  SHGC lower limit SHGC upper  SHGC lower limit SHGC upper  Substitution tolerance range  Substitution tolerance range	Vindow					Window	Opening			Window
Nindow Window Maximum D description U-value* SHGC*  SHGC lower limit SHGC upper  Custom* roof windows  Nindow Window Maximum  Substitution tolerance range		Window	Window	Height	Width			Orienta	ation	Window shading device*
Custom* roof windows  Substitution tolerance range Window  Maximum	ocation	Window ID	Window no.	Height (mm)	Width (mm)			Orienta	ation	shading
Window Window Maximum Substitution tolerance range	Location  Roof wir	Window ID  ndow* ty/	Window no.	Height (mm)	Width (mm)		% Substit	tution tole		shading device*
Window Window Maximum ———————————————————————————————————	Location  Roof wir  Default* roof  Window	Window ID  ndow* ty/	Window no.	Height (mm)	Width (mm)	type	% Substit	tution tole	erance	shading device*
ID description U-value* SHGC* SHGC lower limit SHGC upper	Roof wir Default* roof Window	Window ID  ndow* ty/	Window no.	Height (mm)	Width (mm)	type	Substit	tution tole r limit	<b>erance</b> SHG0	shading device*

0.0 Star rating and 00 Whole of Home rating as of [Date]



Roof	winc	low*	schea	lule
11001	AAIIIC		301104	uic

Opening Window Window Height Width Outdoor Indoor Location ID No. % (mm) (mm) Orientation shade shade

# Skylight\* type and performance

Skylight ID Skylight description Skylight shaft reflectance

# Skylight\* schedule

Skylight
Skylight Skylight shaft length Area Outdoor
Location ID No. (mm) (m²) Orientation shade Diffuser

## External door schedule

Location Height (mm) Width (mm) Opening % Orientation

# External wall type

Wall Solar Wall shade Bulk insulation Reflective ID type absorptance (colour) (R-value) wall wrap\*

## External wall schedule

Wall Height Width Feature\* maximum Vertical shading
Location ID (mm) Orientation projection (mm) feature (yes/no)

# 2022 Certificate examples (September 2022)

[#000000000-00] NatHERS Certificate

0.0 Star rating and 00 Whole of Home rating as of [Date]



Internal	l wall	type
----------	--------	------

Wall ID Wall type Area (m2) Bulk insulation

# Floor type

Area Sub-floor Added insulation
Location Construction (m²) ventilation (R-value) Covering

# Ceiling type

Construction Bulk insulation R-value Reflective
Location material/type (may include edge batt values) wrap\*

# Ceiling penetrations\*

Location Quantity Type Diameter (mm²) Sealed/unsealed

# **Ceiling** fans

Location Quantity Diameter (mm)

# Roof type

Construction Added insulation (R-value) Solar absorptance Roof shade (colour)

# Thermal bridging schedule for steel frame elements

Steel section dimensions
Building element (height x width, mm)

Steel section dimensions
(height x width, mm)

Frame spacing (mm)

Steel thickness
(BMT,mm)

(yes/no)

0.0 Star rating and 00 Whole of Home rating as of [Date]



# **Appliance** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m<sup>2</sup> is used for lighting, therefore lighting is not included in the appliance schedule.

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Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance	e assessment conducte	ed for this certificate.		

## Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performand	ce assessment conduct	ed for this certificate.		

#### Hot water system

		Minimum	Substitution to	olerance ranges	
Appliance/ system type	Fuel type	efficiency/ performance	Zone 3 STC lower limit	Zone 3 STC upper limit	Assessed daily load
, appliance, eyetem type		portormanoo	10 W OF INTINC	аррог штис	

No Whole of Home performance assessment conducted for this certificate.

## Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessme	nt conducted for this certificate.		

0.0 Star rating and 00 Whole of Home rating as of [Date]



# Onsite renewable energy schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance asses	ssment conducted for this certificate.	

# **Battery** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size (battery storage capacity)
No Whole of Home performance assessment conducted for this certificate.	

#### 0.0 Star rating and 00 Whole of Home rating as of [Date]



# **Explanatory notes**

### About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value\*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

### **Accredited assessors**

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and

are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

#### Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

# **Glossary**

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling wit small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NathERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed a a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
U-value Unconditioned	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.  a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.

# 2022 Certificate examples (September 2022)

# Residential energy rating report Non-accredited No. #000000000-00

Generated on [date] using [software and version]

This report was created using NatHERS accredited software but the non-accredited assessor (rater) is not accredited under NatHERS and this report is not accredited as being compliant with NatHERS.

Reliance on this report is accordingly at your own risk.

## **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NCC class\* [number]

Floor/all Floors [dwelling entrance floor] of [total no. of floors] floors

**Type** [new/renovation/existing]

## **Plans**

Main plan [plan number, version & date]

Prepared by [name of preparer of plans]

## **Construction and environment**

Assessed floor area (m²)\*
Conditioned\* 000.0

Unconditioned\* 0.0

Total 0.0

Garage 0.0

**Exposure type** 

[exposure]

NatHERS climate zone

[number, town/suburb]

# Rater\*\*

Name [assessor name]
Business name [business name]
Email [email address]

Phone [00 0000 0000]

Declaration of interest [declaration]

**NCC** Requirements

BCA provisions [Volume 1/Volume 2]

State/Territory variation [Yes/No]

# Thermal performance Star rating



star rating

[XX.X] MJ/m<sup>2</sup>

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

## Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022.1

 Heating
 Cooling

 Modelled
 0000.0
 0000.0

 Load limits
 0000.0
 0000.0

## Features determining load limits

Floor type [Type] (lowest conditioned area)

NCC climate zone 1 or 2 [Y/N/NA]
Outdoor living area [Y/N/NA]
Outdoor living area ceiling fan [Y/N/NA]

Whole of Home performance rating

## National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="https://www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

\* Refer to glossary. \*\* Refer explanatory notes.
Generated on [date] using [software] for [address]

50 out of 100

## Verification

To verify this report, scan the QR code or visit [Hstar-dev. azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



0.0 Star rating and 00 Whole of Home rating as of [Date]

# About the ratings

### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a written rating on this Report) does not take into account appliances, apart from the airflow impacts from ceiling fans.

#### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Report.

## **Heating & Cooling Load Limits**

#### **Additional information**

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022.1 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

### **Setting options:**

Floor type:

CSOG - Concrete Slab on Ground

SF - Suspended Floor (or a mixture of CSOG and SF)

NA - Not Applicable

NCC climate Zone 1 or 2:

Yes

Nο

NA - not applicable

Outdoor living area:

Yes

No

NA - not applicable

Outdoor living area ceiling fan:

Yes

No

NA – not applicable

# Predicted onsite renewable energy impact

Your Whole of Home energy use\* rating excluding onsite renewable energy generation is **[00] out of 100**.

This home's annual greenhouse gas emissions: [0000]kg CO2e (with solar) [0000]kg CO2e (without solar)

Predicted annual electricity use: [0000] kWh

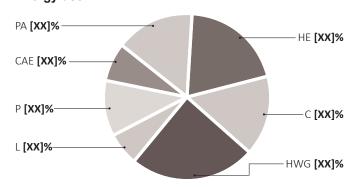
Exported to the grid: [00]% Used by the home: [00]%

### \* Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

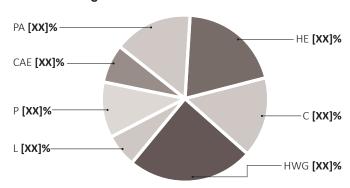
# Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

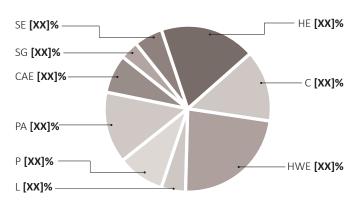
#### **Energy use:**



#### Greenhouse gas emissions:



#### Cost:



### **Graph Key:**

Colour:	Code:	Name:	Fuel type:
	HE	Heating	electric
	HG	Heating	gas
	HW	Heating	wood
	C	Cooling	electric
	HWE	Hot water	electric
	HWG	Hot water	gas
	L	Lights	electric
	Р	Pool/Spa equipment	electric
	PA	Plug-in appliances	electric
	CAE	Cooking appliances	electric
	CAG	Cooking appliances	gas
	SG	Supply charge	gas
	SE	Supply charge	electric

Report check	Approval	stage	Construct stage	tion	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole report is checked.	Rater checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.	Ratero	Consel	Builder	Consel	Occupa
Genuine report check					
Does this report match the one available at the web address or QR code verification link on the front page?					
Does the report number on the stamped plans match the number on this Report?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Report?					
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Report?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the <i>'Floor type'</i> table on this Report?					
Ceiling penetrations*	I	I	I	I	
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Report?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Report?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the <i>'Roof type'</i> table on this Report?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Report.					
Exposure*	I			I	
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?					

<sup>\*</sup> Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

	Approval	stage	Construc stage	tion	
Report check Continued	Rater checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Additional NCC requirements for thermal performance (not included	in the Na	tHERS a	ssessme	nt)	
Thermal bridging	1	ı	1	I	
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					
Has the insulation been installed according to the NCC requirements?					
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?					
Whole of Home performance check (not applicable if a Whole of Home perf	ormance a	ssessmen	t is not con	ducted)	
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Report?					
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Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Report?					
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Report?					
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Report?					
Additional NCC Requirements for Services (not included in the NatH	ERS asse	essment)			
Does the lighting meet the artificial lighting requirements specified in the NCC?					
Does the hot water system meet the additional requirements specified in the NCC?					
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?					
Other NCC requirements					
Note: This Report only covers the energy efficiency requirements in the NCC. Addit include, but are not limited to: condensation, structural and fire safety requirements energy efficiency requirements.					
Additional notes					

<sup>\*</sup> Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

Room			Zone Type				Area (m	1²)	
Mindow	, and ala		e turno and	n a wfa waa a	200				
Default wind		zea aooi	r type and	periorma	rice				
Delault Willo		<b>.</b>	Marringues			Substit	tution tol	lerance	e ranges
Window ID	Wind desc	ription	Maximum U-value*	SHG	C*	SHGC lowe	er limit	SHGC	upper limit
Custom wind	dows*								
Window ID	Wind	dow ription	Maximum U-value*	SHG	C*	Substit SHGC lowe	tution tol		e ranges Cupper limit
<b>W</b> indov	v and gla	azed do	<b>or</b> schedi	ule					
	v and gla	window no.	or schedu Height (mm)	ule Width (mm)	Window type	Opening %	Orienta	ation	Window shading device*
Location  Roof will  Default* room	Window ID  ndow* ty/	Window no.	Height	Width (mm)	type	%	tution tol	lerance	shading device*
Location	Window ID  ndow* ty/	Window no.	Height (mm)	Width (mm)	type	Substit	tution tol	l <b>eranc</b> (	shading device*

[#000000000	0-00] Non-accre	edited report		(	0.0 Star ra	ting and 00 Wh	ole of Home	e rating as of [
Roof wi	ndow* scl	hedule						
Location	Window ID	Window No.	Opening %	Height (mm)	Width (mm)	Orientatio	Outdo on shade	
Skylight	t* type and	d performa	ANCE Skylight desc	crintion		Skylight	shaft reflect	anco
Skylight	t* schedul	e	Skyliab	•				
Skylight Location	t* schedul Skylight ID	e Skylight No.	Skylight shaft lei (mm)			Orientation	Outdoor shade	Diffuser
Location	Skylight	Skylight No.	shaft lei	ngth Area		Orientation		Diffuser
Location	Skylight ID	Skylight No.	shaft lei	ngth Area (m²)	ning %	Orientation		
Location  Externa  Location	Skylight ID	Skylight No.	shaft lei (mm)	ngth Area (m²)		Orientation	shade	
Location  Externa  Location	Skylight ID  I door Sch	Skylight No.	shaft lei (mm)	mgth Area (m²)  m) Oper	ning %	Orientation  Bulk inst (R-value)	Shade  Orientation	
Externa Location  Externa Wall	Skylight ID  I door sch Heigh  I wall type Wall	Skylight No.	shaft lei (mm)  Width (mr	mgth Area (m²)  m) Oper	ning %	Bulk inst	Shade  Orientation	n Reflective

Location

Wall

ID

Height (mm)

Width

(mm)

Orientation

Vertical shading feature (yes/no)

Horizontal shading

feature\* maximum

projection (mm)

0.0 Star rating and 00 Whole of Home rating as of [Date]

Inte	rnal	wall	type
11110	HILL	wan	LYNC

Wall ID	Wall type	Area (m2)	Bulk insulation

# Floor type

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	on Covering	

# Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*

# Ceiling penetrations\*

Location	Quantity	Туре	Diameter (mm²)	Sealed/unsealed

# Ceiling fans

Location	Quantity	Diameter (mm)

# Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade (colour)

# Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions (height x width, mm)	Frame spacing (mm)	Steel thickness (BMT,mm)	Thermal break (yes/no)

0.0 Star rating and 00 Whole of Home rating as of [Date]

# **Appliance** schedule

## (not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m<sup>2</sup> is used for lighting, therefore lighting is not included in the appliance schedule.

## Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Ducted refrigerative air conditioning (heat pump)	Kitchen/Dining/Living	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 1	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 2	Electric	00	00
Ducted refrigerative air conditioning (heat pump)	Bedroom 3	Electric	00	00

## Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Ducted reverse cycle air-conditioner (heat pump)	Kitchen/Dining/Living	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 1	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 2	Electric	00	00
Ducted reverse cycle air-conditioner (heat pump)	Bedroom 3	Electric	00	00

## Hot water system

	Minimum		Substitution to		
Appliance/ system type	Fuel type	efficiency/ performance	Zone 3 STC lower limit	Zone 3 STC upper limit	Assessed daily load
Gas instantaneous	Gas	0 star	N/A		120L
Gas boosted solar thermal	Solar-gas	30 STCs Zone 4	22	31 (Medium)	120L

## Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
Single speed pressure cleaner with main filtration pump	Electric	00	00

0.0 Star rating and 00 Whole of Home rating as of [Date]

# Onsite renewable energy schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
Solar PV	NW	0 kW

# **Battery** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size (battery storage capacity)
Lithium-ion	0 kWh

#### 0.0 Star rating and 00 Whole of Home rating as of [Date]

## **Explanatory notes**

#### About this report

This report is non-accredited and has been prepared by a non-accredited assessor (Rater\*\*). This is distinct from a NatHERS Certificate.

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value\* .

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

#### Rater

Non-accredited assessors (Raters) are not required to have any formal qualifications, insurance, ongoing professional development or quality assurance checks on their ratings. This is distinct from NatHERS accredited assessors who are required to have qualifications, ongoing professional development and have

quality assurance checks on their ratings.

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Any questions or concerns about this report should be directed to the rater in the first instance. If the rater is unable to address these questions or concerns, the state or territory building code authority should be contacted.

#### **Disclaimer**

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the rater. It is the rater's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce this report.

The predicted annual energy load, cost and greenhouse gas emissions are not part of a non-accredited report. In a NatHERS Certificate these are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the rater who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the rater using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the rater.

# **Glossary**

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

# 2022 Certificate examples (September 2022)

# Residential energy rating report Non-accredited No. #000000000-00

Generated on [date] using [software and version]

This report was created using NatHERS accredited software but the non-accredited assessor (rater) is not accredited under NatHERS and this report is not accredited as being compliant with NatHERS.

Reliance on this report is accordingly at your own risk.

## **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NCC class\* [number]

Floor/all Floors [dwelling entrance floor] of [total no. of floors] floors

Type [new/renovation/existing]

## **Plans**

Main plan [plan number, version & date]

Prepared by [name of preparer of plans]

## **Construction and environment**

Assessed floor area (m²)\*
Conditioned\* 000.0

Unconditioned\* 0.0

Total 0.0 Garage 0.0

0.0

**Exposure type** 

[exposure]

NatHERS climate zone

[number, town/suburb]

# Rater\*\*

Name[assessor name]Business name[business name]Email[email address]

Phone [00 0000 0000]

Declaration of interest [declaration]

# **NCC Requirements**

BCA provisions [Volume 1/Volume 2]

State/Territory variation [Yes/No]

## National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="https://www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

# \* Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

# Thermal performance Star rating



## star rating

# [XX.X] MJ/m<sup>2</sup>

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

## Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022.1

 Heating
 Cooling

 Modelled
 0000.0
 0000.0

 Load limits
 0000.0
 0000.0

## Features determining load limits

Floor type [Type]

(lowest conditioned area)

NCC climate zone 1 or 2 [Y/N/NA]

Outdoor living area [Y/N/NA]

Outdoor living area ceiling fan [Y/N/NA]

# Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

## Verification

To verify this report, scan the QR code or visit [Hstar-dev. azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



0.0 Star rating and 00 Whole of Home rating as of [Date]

## About the ratings

### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a written rating on this Report) does not take into account appliances, apart from the airflow impacts from ceiling fans.

#### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Report.

## **Heating & Cooling Load Limits**

#### **Additional information**

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022.1 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

## **Setting options:**

Floor type:

CSOG - Concrete Slab on Ground

SF – Suspended Floor (or a mixture of CSOG and SF)

NA - Not Applicable

NCC climate Zone 1 or 2:

Yes

No

NA - not applicable

Outdoor living area:

Yes

No

NA - not applicable

Outdoor living area ceiling fan:

Yes

No

NA - not applicable



# Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

# Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

### Energy use:

No Whole of Home performance assessment conducted for this certificate.

### Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole
of Home
performance
assessment
conducted for this
certificate.

Report check	Approval	stage	Construct stage	tion	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole report is checked.	Rater checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.	Ratero	Consel	Builder	Consel	Occupa
Genuine report check					
Does this report match the one available at the web address or QR code verification link on the front page?					
Does the report number on the stamped plans match the number on this Report?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Report?					
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Report?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the <i>'Floor type'</i> table on this Report?					
Ceiling penetrations*	I	I	I	I	
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Report?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Report?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the <i>'Roof type'</i> table on this Report?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Report.					
Exposure*	I			I	
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?					

<sup>\*</sup> Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

	Approval	stage	Construc stage	tion	
Report check Continued	Rater checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Additional NCC requirements for thermal performance (not included	in the Na	tHERS a	ssessme	nt)	
Thermal bridging	1	ı	1	I	
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					
Has the insulation been installed according to the NCC requirements?					
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?					
Whole of Home performance check (not applicable if a Whole of Home perf	ormance a	ssessmen	t is not con	ducted)	
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Report?					
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Report?					
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Report?					
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Report?					
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Report?					
Additional NCC Requirements for Services (not included in the NatH	ERS asse	essment)			
Does the lighting meet the artificial lighting requirements specified in the NCC?					
Does the hot water system meet the additional requirements specified in the NCC?					
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?					
Other NCC requirements					
Note: This Report only covers the energy efficiency requirements in the NCC. Addit include, but are not limited to: condensation, structural and fire safety requirements energy efficiency requirements.					
Additional notes					

<sup>\*</sup> Refer to glossary. \*\* Refer explanatory notes. Generated on [date] using [software] for [address]

Room		Zone Type					Area (m²	*)	
Mindow			e turno and						
VINGOW Default wind		zea aooi	r type and	periorma	nce				
Delault Willo						Substit	ution tole	rance	ranges
Window ID	Wind desc	ription	Maximum U-value*	SHG	C*	SHGC lower	r limit S	SHGC	upper limit
Custom wine	dows*								
Window ID		Window description		SHG	C*	Substitution tolerance ranges  SHGC lower limit SHGC upper lim			
Vindow	v and gla	azed do	<b>or</b> schedu	ule					
	v and gla	window no.	or schedi Height (mm)	ule Width (mm)	Window type	Opening %	Orientat	tion	Window shading device*
Roof will Default* room	Window ID  ndow* ty/	Window no.	Height	Width (mm)	type	%	tution tole	erance	shading device*
Location	Window ID  ndow* ty/	Window no.	Height (mm)	Width (mm)	type	Substit	tution tole	e <b>rance</b> SHGC	shading device*  e ranges  c upper limi

#00000000	000000000-00] Non-accredited report				0.0 Star rating and 00 Whole of Home rating				
Roof wi	ndow* sc/	hedule							
Location	Window ID	Window No.	Opening %	Height (mm)	Width (mm)	Orientatio	Outdo on shade		
Skylight	t* type and	d performa	ANCE Skylight desc	crintion		Skylight	shaft reflect	ance	
Skyliah	t* schedul	9							
Location	t* schedule Skylight ID	Skylight No.	Skylight shaft lei (mm)			Orientation	Outdoor shade	Diffuser	
Externa	l door sch	nedule							
Location	ocation Height (mm)		Width (mr	Width (mm) Opening %			Orientation	1	
Externa	l wall type	)							
Wall	Wall type		Solar absorptan		shade our)	Bulk insu (R-value)		Reflective wall wrap*	
ID									

Location

Wall

ID

Height (mm)

Width

(mm)

Orientation

Vertical shading feature (yes/no)

Horizontal shading

feature\* maximum

projection (mm)

0.0 Star rating and 00 Whole of Home rating as of [Date]

Inte	rnal	wall	type
11110	HILL	wan	LYNC

Wall ID	Wall type	Area (m2)	Bulk insulation

# Floor type

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	on Covering	

# Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*

# Ceiling penetrations\*

Location	Quantity	Туре	Diameter (mm²)	Sealed/unsealed

# Ceiling fans

Location	Quantity	Diameter (mm)

# Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade (colour)

# Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions (height x width, mm)	Frame spacing (mm)	Steel thickness (BMT,mm)	Thermal break (yes/no)

0.0 Star rating and 00 Whole of Home rating as of [Date]

### **Appliance** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m<sup>2</sup> is used for lighting, therefore lighting is not included in the appliance schedule.

Coo	lina	system
$\sim$	шч	3 7 3 6 6 1 1 1

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performan	ce assessment conducte	ed for this certificate.		
Heating system				

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performand	ce assessment conduct	ed for this certificate.		

#### Hot water system

	Minimum	Substitution to	lerance ranges		
Appliance/ system type	Fuel type	efficiency/ performance	Zone 3 STC lower limit	Zone 3 STC upper limit	Assessed daily load
No Whole of Home perfor	mance assessm	ent conducted for thi	s certificate		

No Whole of Home performance assessment conducted for this certificate.

#### Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessmen	nt conducted for this certificate.		

0.0 Star rating and 00 Whole of Home rating as of [Date]

### Onsite renewable energy schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performa	No Whole of Home performance assessment conducted for this certificate.	

### **Battery** schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type Size (battery storage capacity)

No Whole of Home performance assessment conducted for this certificate.

#### 0.0 Star rating and 00 Whole of Home rating as of [Date]

#### **Explanatory notes**

#### About this report

This report is non-accredited and has been prepared by a non-accredited assessor (Rater\*\*). This is distinct from a NatHERS Certificate.

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value\* .

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

#### Rater

Non-accredited assessors (Raters) are not required to have any formal qualifications, insurance, ongoing professional development or quality assurance checks on their ratings. This is distinct from NatHERS accredited assessors who are required to have qualifications, ongoing professional development and have

quality assurance checks on their ratings.

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

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The predicted annual energy load, cost and greenhouse gas emissions are not part of a non-accredited report. In a NatHERS Certificate these are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the rater who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the rater using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the rater.

### **Glossary**

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

# Nationwide House Energy Rating Scheme<sup>®</sup> Class 2 Summary NatHERS<sup>®</sup> Certificate No. [#000000000-00]

Generated on [date] using [software and version]

[other boilerplate text other boilerplate text other boilerplate text other boilerplate text other boilerplate text]

### **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NatHERS Climate Zone [number]



### **Accredited assessor**

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Accreditation No.[0000 000 000]

Assessor Accrediting Organisation
[name of Assessor Accrediting Organisation]

#### Verification

To verify this certificate, scan the QR code or visit [Hstar-dev.azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



#### National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

### Summary of all dwellings

#### **Unit Number Cooling load Total load Star Rating** Whole of Home Certificate **Heating load** number and link (MJ/m2/p.a.) (MJ/m2/p.a.) (MJ/m2/p.a.) Rating Modelled average 0.000 0.000 0.000.0 0.0 n/a 000000000 A1 0.0000 0.0000 0.000 0.0 000 000000000 A2 0.0000 0.0000 0.000 0.0 000

# Thermal performance Star rating



# HOUSE ENERGY RATING SCHEME

The rating above is the average of all dwellings in this summary

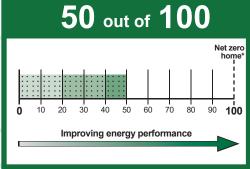
For more information on your dwelling's rating see: www.nathers.gov.au

# NCC heating and cooling maximum loads MJ/m²/p.a.

Limits taken from ABCB Standard 2022.1

Modelled
block average 0000.0 0000.0
Maximum
allowable limit 0000.0 0000.0

# Whole of Home performance rating



# The rating above is the lowest of all the dwellings in this summary

[#000000000-00] NatHERS Certificate

0.0 Star Rating and 00 Whole of Home Rating as of [Date]



#### **Summary of all dwellings (continued)**

Certificate number and link	Unit Number	Heating load (MJ/m²/p.a.)	Cooling load (MJ/m²/p.a.)	Total load (MJ/m²/p.a.)	Star Rating	Whole of Home Rating
000000000	A1	0.000.0	0.000.0	0.000.0	0.0	000
000000000	A2	0.000.0	0.000.0	0.000.0	0.0	000
000000000	A3	0.000.0	0.000.0	0.000.0	0.0	000
000000000	A4	0000.0	0000.0	0.000.0	0.0	000
000000000	A5	0.000.0	0000.0	0.000.0	0.0	000
000000000	A6	0.000.0	0000.0	0.000.0	0.0	000
0000000000	A7	0.000.0	0.000.0	0.000.0	0.0	000
000000000	A8	0000.0	0000.0	0.000.0	0.0	000
000000000	A9	0.000.0	0000.0	0.000.0	0.0	000
000000000	A10	0000.0	0000.0	0.000.0	0.0	000
000000000	A11	0000.0	0000.0	0.000.0	0.0	000
000000000	A12	0000.0	0000.0	0.000	0.0	000

#### **Explanatory notes**

#### About the ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Certificate is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Certificate.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost .

For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

#### **Accredited Assessors**

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Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

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# Nationwide House Energy Rating Scheme<sup>®</sup> Class 2 Summary NatHERS<sup>®</sup> Certificate No. [#000000000-00]

Generated on [date] using [software and version]

[other boilerplate text other boilerplate text other boilerplate text other boilerplate text other boilerplate text]

### **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NatHERS Climate Zone [number]



#### Accredited assessor

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Accreditation No.[0000 000 000]

Assessor Accrediting Organisation
[name of Assessor Accrediting Organisation]

#### Verification

To verify this certificate, scan the QR code or visit [Hstar-dev.azurewebsites.net/QR/Generate?p=MlalcPjqJ.]

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Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

### Summary of all dwellings

#### Whole of Home **Unit Number Cooling load Total load Star Rating** Certificate **Heating load** number and link (MJ/m2/p.a.) (MJ/m2/p.a.) (MJ/m2/p.a.) Rating 0.000.0 Modelled average 0.000 0.000 0.0 n/a 000000000 A1 0.0000 0.0000 0.000 0.0 n/a 000000000 A2 0.0000 0.0000 0.000 0.0 n/a

Thermal performance Star rating



# NATIONWIDE HOUSE ENERGY RATING SCHEME

(R)

The rating above is the average of all dwellings in this summary

For more information on your dwelling's rating see: www.nathers.gov.au

# NCC heating and cooling maximum loads MJ/m²/p.a.

Limits taken from ABCB Standard 2022.1

Modelled block average 0000.0 0000.0 Maximum allowable limit 0000.0 0000.0

# Whole of Home performance rating

No Whole of Home performance rating conducted for this summary certificate or

not completed for all dwellings

#### The rating above is the lowest of all dwellings in this summary

[#000000000-00] NatHERS Certificate

0.0 Star Rating and 00 Whole of Home Rating as of [Date]



#### **Summary of all dwellings (continued)**

Certificate number and link	Unit Number	Heating load (MJ/m²/p.a.)	Cooling load (MJ/m²/p.a.)	Total load (MJ/m²/p.a.)	Star Rating	Whole of Home Rating
000000000	A1	0.000.0	0.000.0	0.000.0	0.0	n/a
000000000	A2	0.000.0	0000.0	0.000.0	0.0	n/a
000000000	A3	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A4	0.000.0	0000.0	0.000.0	0.0	n/a
000000000	A5	0.000.0	0000.0	0.000.0	0.0	n/a
000000000	A6	0.000.0	0000.0	0.000	0.0	n/a
000000000	A7	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A8	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A9	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A10	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A11	0000.0	0000.0	0.000.0	0.0	n/a
000000000	A12	0000.0	0000.0	0.000	0.0	n/a

#### **Explanatory notes**

#### About the ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Certificate is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Certificate.

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# Residential energy rating report - Non-accredited No. [#000000000-00]

# Class 2 summary

Generated on [date] using [software and version]

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#### **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NatHERS Climate Zone [number]

#### Rater\*

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Declaration of interest[yes-managed]

#### Verification

To verify this certificate, scan the QR code or visit [Hstar-dev.azurewebsites.net/QR/Generate?p=MlalcPjqJ.] When using either link, ensure you are visiting hstar-dev.azurewebsites.net



# Thermal performance Star rating



### Average star rating

The rating above is the average of all dwellings in this summary

# NCC heating and cooling maximum loads MJ/m²/p.a.

Limits taken from ABCB Standard 2022.1

	Heating	Cooling
Modelled	2000.0	2222.2
block average Maximum	0000.0	0.000
allowable limit	0.000	0.000

#### **National Construction Code (NCC) requirements**

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NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="https://www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

# Whole of Home performance rating

50 out of 100

# The rating above is the lowest of all dwellings in this summary

### Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m2/p.a.)	Cooling load (MJ/m2/p.a.)	Total load (MJ/m2/p.a.)	Star Rating	Whole of Home Rating
Modelled averag	e	0000.0	0000.0	0.0000	0.0	n/a
000000000	A1	0000.0	0000.0	0000.0	0.0	000
0000000000	A2	0000.0	0000.0	0000.0	0.0	000

Non-accredited document number [#000000000-00]

0.0 Star Rating and 00 Whole of Home Rating as of [Date]

### **Summary of all dwellings (continued)**

Certificate number and link	Unit Number	Heating load (MJ/m²/p.a.)	Cooling load (MJ/m²/p.a.)	Total load (MJ/m²/p.a.)	Star Rating	Whole of Home Rating
000000000	A1	0.0000	0.000	0.000	0.0	000
000000000	A2	0.0000	0.000	0.000	0.0	000
000000000	A3	0.0000	0.000	0.000	0.0	000
000000000	A4	0.000	0.000	0.000	0.0	000
000000000	A5	0.000	0.000	0.000	0.0	000
000000000	A6	0.0000	0.000	0.000	0.0	000
000000000	A7	0.0000	0.000	0.000	0.0	000
000000000	A8	0.000	0.000	0.000	0.0	000
000000000	A9	0.000	0.000	0.000	0.0	000
000000000	A10	0.0000	0.000	0.000	0.0	000
000000000	A11	0.000	0.000	0.000	0.0	000
000000000	A12	0.000	0.000	0.000	0.0	000

#### **Explanatory notes**

#### About this report

The thermal performance star rating in this Report is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Report is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Report.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost .

For more details about an individual dwelling's assessment, refer to the individual dwelling's Rating Report (accessible via link).

#### Raters

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Not all assumptions made by the rater using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the rater.

# Residential energy rating report - Non-accredited No. [#00000000-00] Class 2 summary

Generated on [date] using [software and version]

This report was created using NatHERS accredited software but the non-accredited assessor (rater) is not accredited under NatHERS and this report is not accredited as being compliant with NatHERS. Reliance on this report is accordingly at your own risk.

#### **Property**

Address [00 Street,

Suburb, State/Territory, Postcode]

Lot/DP [number]
NatHERS Climate Zone [number]

#### Rater\*

Name[assessor name]Business name[business name]Email[email address]Phone[00 0000 0000]Declaration of interest[yes-managed]

#### Verification

To verify this certificate, scan the QR code or visit [Hstar-dev.azurewebsites.net/QR/Generate?p=MlalcPjqJ.] When using either link, ensure you are visiting hstar-dev.azurewebsites.net



#### National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at <a href="www.abcb.gov.au">www.abcb.gov.au</a>.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

### Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m2/p.a.)	Cooling load (MJ/m2/p.a.)	Total load (MJ/m2/p.a.)	Star Rating	Whole of Home Rating
Modelled average	9	0000.0	0000.0	0.0000	0.0	n/a
0000000000	A1	0000.0	0000.0	0000.0	0.0	n/a
0000000000	A2	0000.0	0000.0	0000.0	0.0	n/a

### Thermal performance Star rating



### Average star rating

The rating above is the average of all dwellings in this summary

# NCC heating and cooling maximum loads MJ/m²/p.a.

Limits taken from ABCB Standard 2022.1

	Heating	Cooling
Modelled block average	0000.0	0.000
Maximum allowable limit	0.000	0.000

# Whole of Home performance rating

No Whole of Home performance rating conducted for this summary report or not completed for all dwellings

The rating above is the lowest of all dwellings in this summary Non-accredited document number [#000000000-00]

0.0 Star Rating and 00 Whole of Home Rating as of [Date]

### **Summary of all dwellings (continued)**

Certificate number and link	Unit Number	Heating load (MJ/m²/p.a.)	Cooling load (MJ/m²/p.a.)	Total load (MJ/m²/p.a.)	Star Rating	Whole of Home Rating
000000000	A1	0.000.0	0.000	0.000	0.0	n/a
000000000	A2	0.000.0	0.000	0.000	0.0	n/a
000000000	A3	0.000.0	0.000	0.000	0.0	n/a
000000000	A4	0.000.0	0.000.0	0.000	0.0	n/a
000000000	A5	0.000	0.000	0.000	0.0	n/a
000000000	A6	0.000.0	0.000	0.000	0.0	n/a
000000000	A7	0.000.0	0.000	0.000	0.0	n/a
000000000	A8	0.000.0	0.000	0.000	0.0	n/a
000000000	A9	0.000.0	0.000	0.000	0.0	n/a
000000000	A10	0.000.0	0.000	0.000	0.0	n/a
000000000	A11	0.000.0	0.000	0.000	0.0	n/a
000000000	A12	0.000.0	0.000	0.000	0.0	n/a

#### **Explanatory notes**

#### About this report

The thermal performance star rating in this Report is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Report is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Report.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost .

For more details about an individual dwelling's assessment, refer to the individual dwelling's Rating Report (accessible via link).

#### Raters

Non-accredited assessors (Raters) are not required to have any formal qualifications, insurance, ongoing professional development or quality assurance checks on their ratings. This is distinct from NatHERS accredited assessors who are required to have qualifications, ongoing professional development and have quality assurance checks on their ratings.

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Any questions or concerns about this report should be directed to the rater in the first instance. If the rater is unable to address these questions or concerns, the state or territory building code authority should be contacted.

#### **Disclaimer**

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the rater. It is the rater's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce this report.

The predicted annual energy load, cost and greenhouse gas emissions are not part of a non-accredited report. In a NatHERS Certificate these are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the rater who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the rater using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the rater.

2022 Certificate examples (September 2022)



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