

INTERIM* HOME ENERGY RATING REPORT

CERTIFICATION NUMBER:

4 8 6 5 5 3 7 6

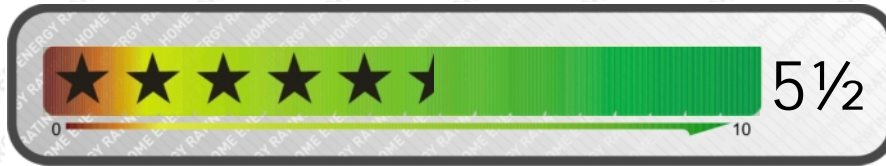
ASSESSOR NUMBER:

9 0 0 1 2

DATE OF CERTIFICATION:

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BUILDING RATING



The building rating is a measure of how well a home's design, materials and solar orientation enable it to maintain a healthy and comfortable indoor temperature throughout the year.

The running costs to heat this home and provide hot water depend on how efficient its room heating and water heating systems are. This is indicated below.

CLIENT DETAILS

Name: ECCA HERS

ADDRESS

Address: Ford Road

Suburb/City: Rotorua

Postcode:

Council: Rotorua Cuty

ROOM HEATING RATING

The room heating rating is a measure of how energy efficient a home's heating system is, and how well it meets the heating requirements for that home.

NOT CURRENTLY AVAILABLE

INDICATIVE RUNNING COSTS: \$ *-\$ ** PER YEAR
* based on highly efficient heat pump ** based on plug-in electric heaters

WATER HEATING RATING

The water heating rating is a measure of how energy efficient a home's water heating system is.



INDICATIVE RUNNING COSTS: \$ PER YEAR

* This report is an interim report pending ratification of rating band settings and availability of the room heating rating. A final report will be issued to you automatically and free of charge once these elements are finalised. Please note that your ratings may change slightly in the final report.

KEY RECOMMENDATIONS FOR IMPROVEMENTS

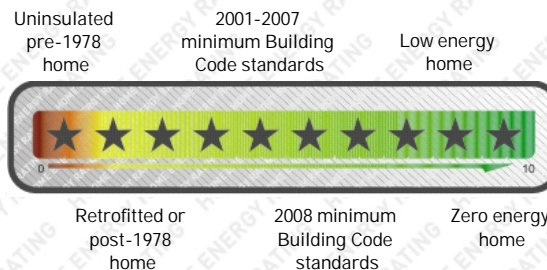
RECOMMENDATIONS

Description: These are the key ways in which this home's energy efficiency can be improved. For more recommendations and further details see pages 3, 4 and 5 of this report.

1. Thermally broken, aluminium, double glazed windows
2. Remove motorised pergola
3. Increase ceiling insulation to R4.0
- 4.

HOW DOES MY HOME'S BUILDING RATING COMPARE?

This scale shows where average homes of different types may sit on the building rating scale. Look at how your home compares to homes of a similar type. For example, a 1960s bungalow with a rating of 4 stars is well above average and will be warmer, healthier and more efficient to run than most other homes of its type.



ASSESSOR VERIFICATION

STAMP:



EXPIRY DATE

The ratings given in this report are valid for 7 years from the date of assessment unless changes are made to the home that impact on the rating. If this occurs a re-rating is required. Please contact your assessor for more details.

DECLARATION OF ASSESSOR INTEREST:

None

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ASSESSOR DETAILS

NAME	Paul Probett
COMPANY NAME	Incodo Limited
ADDRESS	Box 8202 CHERRYWOOD 3145
PHONE NUMBER	07 5767883
FAX NUMBER	
EMAIL	mail2us@xtra.co.nz

ASSESSMENT DETAILS

SOFTWARE TYPE & VERSION	AccuRate NZ v1.2
CLIMATE ZONE	RO-Rotorua
FILE NAME	ID
PLAN ID	Fordlands Research House
PLANS PREPARED BY	APR Architects
DATE PLANS ISSUED	17.03.06
ASSESSMENT TYPE	<input checked="" type="checkbox"/> Design stage (assessments based on plans identified above; no site inspection undertaken) <input type="checkbox"/> Existing home (site inspection undertaken) <input type="checkbox"/> For New Zealand Building Code H1 compliance

ABOUT THIS REPORT

A Home Energy Rating is an evaluation of the energy efficiency performance of a home and includes the building itself, plus the home's two biggest energy users - the room heating and water heating systems.

Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country. Your own energy use may not be the same as the standard assumptions so your actual energy use, costs and savings might be quite different from figures in this report – just use these figures as an indicative guide.

Homes that are energy efficient use less energy, are warmer and healthier, cost less to run, and have less impact on the environment. This report will show you where your home's energy efficiency performance is at now, and what you can do to bring it up to the next level.

For more information about Home Energy Ratings, visit www.energywise.govt.nz

QUESTIONS ABOUT THIS REPORT

To ensure you get a high-quality, professional Home Energy Rating report, assessors are all specifically trained and accredited by the Association of Building Sustainability Assessors (ABSA). ABSA also has auditing and quality assurance processes in place to maintain a high and consistent standard of assessments across the country.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance. If your assessor is unable to address your questions or concerns, please contact ABSA on 0800 ABSA NZ (0800 227 269) or email to admin@absa.net.nz

You can also find a range of information about ABSA's assessors at www.absa.net.nz

DISCLAIMER

This Home Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling of your home and its space and water heating systems using software developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy consumption and costs presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes. The standard assumptions include figures for occupancy indoor air temperature, climate and energy costs.

The actual energy consumption of your home may vary significantly from the figures in this report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating. Similarly, energy costs can fluctuate significantly which means that the cost figures in this report may not reflect current energy prices.

The recommendations in this report are provided without warranty. The energy or cost savings listed for the recommendations are, again, based on a range of assumptions and therefore indicative only. Actual savings will depend on, among other things, the size of your household, your personal preferences, actual product specifications and quality of installation.

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New Zealand Government

sustainability



Brought to you by EECA, the Energy Efficiency and Conservation Authority

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ABOUT YOUR BUILDING RATING

CURRENT BUILDING RATING: 5½

The building itself is the most important aspect of a home's energy performance as it determines how well a home's construction allows it to maintain a healthy and comfortable indoor temperature. This should be the first area to tackle to improve energy efficiency and create a warmer, healthier home that is more cost effective to run. The building rating has the greatest impact in a home's overall energy efficiency. A home with a 10-star rating would need no active space heating or cooling to maintain a healthy and comfortable indoor temperature range.

TECHNICAL INFORMATION

Current calculated energy requirements*
(MJ per m² per year):

Heating: 154

Cooling: 1

Total: 155

Conditioned floor area: 112 m²

*These energy requirements do not include the efficiency of the room heating and cooling systems installed. They should not be used to infer actual energy consumption or running costs.

HOW TO IMPROVE YOUR BUILDING RATING

Recommendations for improving this home's building rating are below

Number	Recommendation	Reduction in heating/cooling load (%)	Typical savings (\$ per year)	Potential building rating
1	Thermal break in aluminium joinery	8%	\$20-80	6
2	+ Remove motorised pergola	14%	\$30-140	6.5
3	+ R4.0 bulk insulation in ceilings	19%	\$40-200	6.5
4				
5				

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ROOM HEATING AND WATER HEATING RECOMMENDATIONS

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ABOUT YOUR ROOM HEATING RATING

CURRENT ROOM HEATING RATING: N/A

On average, room heating accounts for around a third of a home's total energy use. An energy efficient heating system will put out much more heat for the same energy input - that is, it will give you much more for your energy dollar. It is also important that a heating system is correctly sized for the home it is heating. Recommendations for improving this home's room heating rating are below.

NOT CURRENTLY AVAILABLE

HOW TO IMPROVE YOUR ROOM HEATING RATING

Number	Recommendation	Efficiency improvement (%)	Typical savings (\$ per year)	Potential rating
1				
2				
3				

ABOUT YOUR WATER HEATING RATING

CURRENT WATER HEATING RATING: 0

Water heating accounts for around one third of an average home's total energy use. As with space heating systems, a more efficient water heating system will give you more for your energy dollar. Recommendations for improving this home's water heating rating are below.

HOW TO IMPROVE YOUR WATER HEATING RATING

Number	Recommendation	Efficiency improvement (%)	Typical savings (\$ per year)	Potential rating
1				
2				
3				

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OTHER RECOMMENDATIONS

There are a number of things that can be done to improve a home's warmth, comfort and running costs that don't impact directly on its home energy rating - for example, the appliances you use or the way you choose to use energy in your home. Recommendations are provided below.

Recommendation	Impact
Ensure insulation is not placed below bearing points (ie thickenings in floor)	Cracking risk
Use dark colour on floor	More solar gain and better use of mass

SPECIFICATIONS FOR THIS HOME

The final page of this report details the specifications on which this home's energy rating is based. The specifications include (but are not limited to) information about the home's area, windows, external and internal walls, floors, ceilings, roof, shading, orientation, exposure, ventilation, infiltration, space heating systems and water heating systems.

FOR MORE INFORMATION

Visit www.energywise.govt.nz to:

- Find out whether you're eligible for Government assistance to make energy efficiency improvements to your home
- Find out more about Home Energy Ratings
- Get great information on making better energy choices at home, at work and on the road

Visit www.absa.net.nz to:

- Find out more about Home Energy Rating assessors
- Find out how to confirm the authenticity of a Home Energy Rating report

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These are the specifications upon which this Home Energy Rating report is based. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

WATER HEATING *Appliance Specifications*

ROOM HEATING *Appliance Specifications*

WINDOWS	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
		IGU Clear	Aluminium			33.3	As per plans

SKYLIGHTS	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail

Window and skylight U and SHGC values, if specified, are according to NFRC standard. Alternate products or specifications may be used if their U value is lower, and the SHGC value is less than 10% higher or lower, than the U and SHGC values of the product specified above.

EXTERNAL WALLS	Construction	Insulation	Colour - Solar absorptancy	Detail
	Weatherboard	R2.8	Not Specified	As per plans
	Metal Cladding	R2.8	Not Specified	As per plans

INTERNAL WALLS	Construction	Insulation	Detail
	Plasterboard	None	As per plans
	Plasterboard	R2.8	As per plans

FLOORS	Construction	Insulation	Covering	Detail
	Concrete	40mm	Carpet	As per plans
	Concrete	40mm	Ceramic Tile	As per plans
	Concrete	40mm	None	As per plans

CEILINGS	Construction	Insulation	Detail
	Plasterboard	3.0	
	Plasterboard	None	

ROOF	Construction	Insulation	Colour - Solar absorptancy	Detail
	Skillion Roof - Profiled Metal	None	Not Specified	As per plans

WINDOW COVER	Internal (curtains)	External (awnings, shutters, etc)
	None	As per plans
		None

FIXED SHADING	Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
	600' 600	As per plans
	0 0	Motorized
		As per plans

OVERSHADOWING	Overshadowing structures	Overshadowing trees

ORIENTATION, EXPOSURE, VENTILATION AND INFILTRATION

Building Description:	Post 1960.Complex design,generally >200m2	Open fireplace:	
Orientation of nominal north elevation (degrees):	North	Metal Flues:	0
Site Exposure	Medium Sheltered	Passive Window Vents:	0
Roof Space Openness:	Standard	Specific Leakage Openings:	0

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