Sun Lizard
PO Box 276
Mt Evelyn
VIC 3796
Phone: (03) 9722 9596
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Your Solar Climate Control Solution

Sun Lizard Suitability Form

Whether you are already in your building or it is in the design, development or construction stage, the Sun Lizard Climate Control Systems can be easily integrated into the structure so you can enjoy the benefits of free solar heating and cooling.

To assess whether your building is suitable, please fill out the Suitability Form and send it to:

Address: PO BOX 276 Mt Evelyn, VIC 3796

Fax: (03) 9723 0253

We shall contact you upon receipt of the form to advise you on our product's suitability on your home or building. We strongly advise that you attach a building plan to the form so that we can provide you with accurate advice.

If you are unsure of a particular term or option, a detailed explanation is provided at the end of the Suitability Assessment.

Customer Details

Please fill in your details.

Full Name	
Company Name	
Telephone	
Mobile	
Fax	
Email	
Postal Address	

(1) I am interested in installing the Sun Lizard:

- [ ] Climate Control System (single or dual collectors)
- [ ] Heat Extractor
- [ ] Air Shifter
- [ ] Heat Collectors

in my building.

Energy Efficiency

(2) My building's insulation is:

- [ ] Good
- [ ] Reasonable
- [ ] Fair
- [ ] Poor

(3) My building's thermal mass is:

- [ ] Good
- [ ] Reasonable
- [ ] Poor

Solar Access

(4) The part of my roof that gets the most amount of sunlight is orientated towards the:

- [ ] North
- [ ] North East
- [ ] North West
- [ ] East
- [ ] West
- [ ] East & West
- [ ] South
- [ ] Flat

(5) In winter that part of my roof receives this much sunlight per day:

- [ ] 0-3 hrs
- [ ] 4-5 hrs
- [ ] 6 & above hrs

(6) The roof of my building has:

- [ ] Full access to sunlight
- [ ] Light shadows in the morning and full sunlight in the afternoon
- [ ] Heavy shadows in the morning and full sunlight in the afternoon
- [ ] Full sunlight in the morning and light shadows in the afternoon
- [ ] Full sunlight in the morning and heavy shadows in the afternoon
- [ ] Shadows light or heavy for most of the day

General

7. My building is:

- [ ] single level
- [ ] double level
- [ ] three levels
- [ ] multi-storey

8. The building is:

- [ ] in existence
- [ ] being designed
- [ ] under construction
- [ ] being renovated

9. The number of rooms heated/cooled are:

- [ ] 1-2 rooms
- [ ] 3 rooms
- [ ] 4+ rooms

10. The total areas of these rooms is:

- [ ] less than 120sqm
- [ ] between 120sqm and 170sqm
- [ ] over 170sqm

11. I use the building:

- [ ] Mainly during the day
- [ ] Mainly during the night
- [ ] All day and night

12. My building has a:

- ☐ Sub-floor space or basement
- ☐ Side shaded by a hill or a fernery
- ☐ Rainwater tank
- ☐ Nearby creek
- ☐ None of the above

13. My building has:

- ☐ A flat ceiling or a roof cavity
- ☐ A cathedral ceiling or no roof cavity
- ☐ A mixture of the above.

14. The part of my roof that has the most sunlight is pitched:

- ☐ less than 10°
- ☐ between 10° to 20°
- ☐ between 20° to 30°
- ☐ more than 30°

15. The latitude of my local area is between:

- ☐ 15° - 20°
- ☐ 20° - 25°
- ☐ 25° - 30°
- ☐ 30° - 35°
- ☐ 35° - 40°

(see end of this page for more details)

16. My building has:

- ☐ An existing heater
- ☐ An existing cooler
- ☐ All of the above
- ☐ None of the above

17. The humidity of the area during summer is:

- ☐ High
- ☐ Medium
- ☐ Low

If you have a :

(a) A copy of your building plans and/or

(b) Photos of the building from the north east and/or west,

Please attach it to this form.

Otherwise, please sketch a floor plan of the building's layout including its roof plan.

When you have completed the Suitability Form, please it send to:

Alternative Fuels and Energy Pty Ltd
Post: P.O. Box 276
Mt Evelyn
Vic 3796
Fax: (03) 9722 0253
Email: sales@sunlizard.com.au

Glossary

Energy Efficiency

The Sun Lizard gives its best performance to energy efficient buildings. The two most important aspects of energy efficiency for Sun Lizard operation are its levels of thermal insulation and thermal mass.

Insulation

Insulation is a material which reduces the amount of heat transferred or lost through the external walls of your building. In winter it keeps heat energy inside; in summer it keeps heat energy outside. The more insulation you have in your building the more the material acts as a 'protective blanket' to reduce this heat transfer. Often R-Value is mentioned in relation to insulation and it is a measure of how effective the insulation is. Numbers usually range between 1 to 6 and the higher the R-Value the greater the performance.

Good

Tick this option if you have Insulation in roof (R2.5+) and walls (R1.5+)

Reasonable

Tick this option if you have Insulation in roof only (R2.0+) and some insulation in walls

Fair

Tick this option if you have Insulation in roof only (R2.0+) and none in walls

Poor

Tick this option if you have no insulation

Thermal mass

Thermal mass is how well your building absorbs and retains heat energy. This can come from the sun, the Sun Lizard or other heating elements. As a general rule, the higher the density of the material making up your walls, the greater the thermal mass of your building. Common wall materials of high thermal mass are reinforced concrete, clay bricks, and rammed earth. A common example of low thermal mass is weatherboards. The key characteristic of high thermal mass materials is that it takes a lot of energy to change their temperature, so they moderate changes to the internal temperature.

In winter the Sun Lizard Climate Control System will provide heat to the thermal mass of the building, which will absorb it during the day and slowly release it at night helping the building to stay warmer. In summer the Sun Lizard Climate Control System or Heat Extractor will minimise the heat that is absorbed by the thermal mass of the building during the day, by extracting the hot air out of the building.

Good Tick this option if your building is double or solid brick, mud brick, Hebel brick, rammed earth, strawbale, reinforced concrete walls, stone, reverse brick veneer

Reasonable Tick this option if your building is brick veneer, concrete slab

Poor Tick this option if your building is weatherboard, timber, corrugated iron or metal cladding, high percentage of single glazed windows to walls.

Solar Access

Solar access is how well your building receives sunlight in order for the Sun Lizard to use the sun's energy to generate heat and power. Good solar access is determined by the number of hours the sun shines on the roof of the building, preferably facing north. If good solar access is on parts of the roofs that are not facing north, frames can be used to mount the Sun Lizard to face due north. Frames may create a visual impact on the building depending upon where it is located, but can be hidden to form a part of the roof.

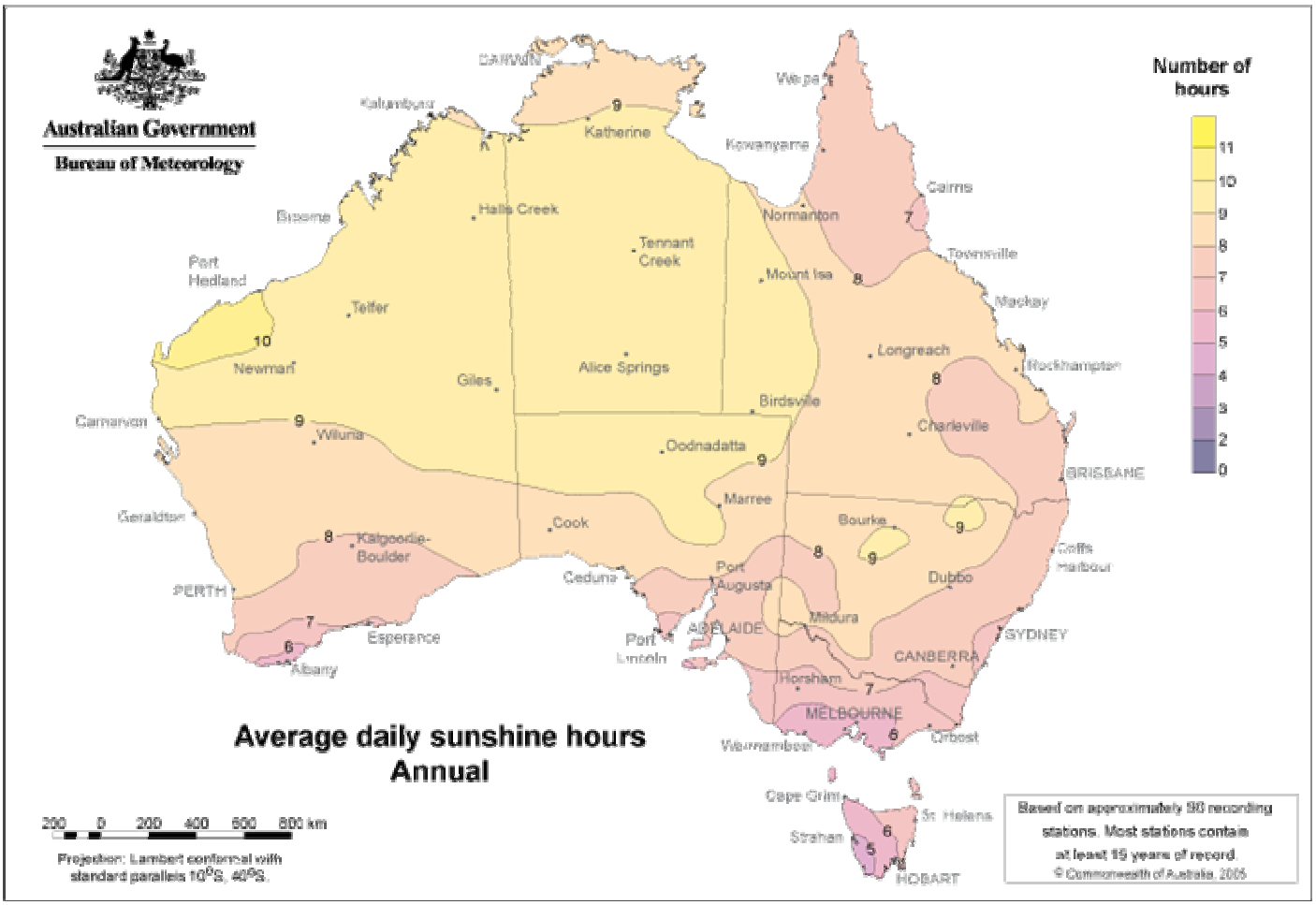
When a Sun Lizard is positioned at the recommended angles for good solar access, you can expect the system to start delivering heat to the home as early as 9am in winter, continuing until well into the late afternoon. In summer it will start 1-2 hours earlier and go 1-2 hours later in the afternoon.

Which Part of my roof that has the most amount of sunlight?

To find out which part on the roof of your building receives the most amount of sunlight, observe its orientation by use of a compass. Preferable roofs for good solar access in descending order are north, south, followed by west then east facing roofs.

My building receives sunlight per day

To find out how long your building receives sunlight during the day see the image below for the average daily sunshine hours your local area receives. Alternatively visit the Bureau of Meteorology http://www.bom.gov.au/climate/averages/climatology/sunshine_hours/IDCJCM0013_sunshine-hours.shtml



The roof of my building is shadowed by

You will need to check whether any surrounding objects cast shadows on the roof. If they do, determine which part of the day the shadows appear and how intense the shadows are on the roof. This is important as shadows can significantly reduce the amount of time a *Sun Lizard* works and the heating or cooling it can generate. The shadows may be from:

- tall trees
- adjoining buildings or houses
- chimneys
- parapet walls
- overhanging structures
- high hills, mountains and other landforms
- my roof is free of major shadowing and receives full, uninterrupted sunlight most of the day

How do I find out what is the latitude of my area?

To find out, locate your area on the map below and read its latitude (blue lines running horizontal) then tick the appropriate box on the question. The table below shows examples of various major centres of Australia and their latitudinal range.

Latitudinal Range	Examples of Major Centers
15°- 20°	Cairns
20° - 25°	Mackay, Rockhampton, Gladstone
25° - 30°	Brisbane, Gold Coast, Lismore, Geraldton
30° - 35°	Port Macquarie, Newcastle, Gosford, Sydney, Wollongong, Adelaide, Perth
35° - 40°	ACT, Melbourne, Ballarat, Bendigo, Geelong
40° - 45 °	Devonport, Launceston, Hobart