Jamberoo FutureCare
Solar power consumer guide

Jamberoo FutureCare is a volunteer-run, non-political, not-for-profit community group.
Our aim is to address the very real issues of global warming and sustainable living.
Our goal is to empower people to make changes in their lives to reduce our community's ecological footprint.

jamberoofuturecare@gmail.com
www.jamberoofuturecare.org
P.O Box 97 Jamberoo NSW 2533 - Tel: 4236 0286 or 4236 0225

Finding a solar power system to suit your home can be a daunting task. So the team at Jamberoo FutureCare have put together the following points based on our personal experience and research, to help you in your selection. There are a number of things you need consider:

What is your current power consumption?

You can find a daily average on your electricity account. The usage is shown in kilo watt hours (kWh). You need to decide how much electricity you would like to produce from a solar power system, as the amount of electricity you want to produce will determine the size of the solar panel array and the cost. It is worth looking closely at your current level of electricity use and aim to reduce the number of kWh's per day before determining the size of solar system you need. The Federal Government is offering a free sustainable home audit which gives ideas on where you can make reductions in electricity use.

To arrange a home audit call **1800 895 076** (9.00am-5.00pm Mon to Friday AEST).

What aspect is your roof?

A north facing roof space is ideal for solar power. If you are considering east or west facing roof space, be aware that production on this aspect can be down by up to 40% compared to a northern aspect. (ATA 6.10.10)

Do you have good uninterrupted sun coverage on your roof?

Good sun coverage throughout the day is essential for solar panels to produce power. Some shading at intervals is manageable but production will be less as a result. Trees near the system which drop leaves and twigs will also affect solar production.

What pitch is the roof?

A very low pitch or flat roof may require the panels to be mounted on frames. Most suppliers will charge extra for pitched mounting frames.

What happens to the power produced by the solar panels?

The electricity produced is DC or direct current but the mains grid and most homes run on AC or alternating current. The power needs to be converted via an inverter before it feeds through the meter box and into the grid. The power does not feed directly into the home. In the event of a mains power cut a safety switch in the meter box will trip and no power will feed into the grid. This is a safety measure to protect the electricians working on the mains system. The inverter is a vital piece of any solar power system so it is worth checking the warranty offered. The warranty should be valid for at least 5 years.

Do you have space for an extra meter in your meter box?

A solar array requires an additional meter to be installed in your meter box. If insufficient room is available an extra meter box will be required. When the usage meter is read as normal, the meter recording power production is also read. These two figures will appear on your electricity account. The value of the electricity produced will appear as a credit.

What panel technology should you choose?
There are three main types of panel technology, mono crystalline, polycrystalline and thin film (amorphous). For an explanation of these technologies go to the Clean Energy Council and look for the PV consumer guide **www.cleanenergycouncil.org.au/cec/home.html.** With a choice of options there are going to be pros and cons for each. Solar panels should have a minimum 25 year guarantee. The size of a system is measured in kW (kilo watts). The power produced from a solar array is measured in kWh (kilo watt hours). A solar power system quotation should include a forecast for the average daily production you can expect. The number of kWh produced will decline as the days shorten in winter and increase in the summer months.

What is the Australian Government Solar Credits scheme?
The solar credit scheme, that began in June 09, goes a long way to making solar more affordable. Solar Credits are also referred to as renewable energy certificates (REC). These are similar in many ways to shares because they fluctuate in value. Most solar power system suppliers will quote you a price after deducting the REC's. You should ask your supplier if you would like to know the price they are paying for REC's.

From June 9th, 2009, the Australian Government introduced the solar credit scheme. This increased the number of REC'S previously awarded by 5 times for the first 1.5kw of a solar power system. Any system larger than this would then receive the standard credit for any remaining capacity. The 5 times REC's only applies where a solar rebate has not already been received.

As an example; prior to June 2009 a 1.5kw solar system would be valued at 31 REC's. The same system would now qualify for 155 REC's. The average value of RECs trading as at 10th October was $32. The total value of REC's would be approximately $4960.

Please note from 1st Jan 2011, REC's will become known as small-scale technology certificates (STCs) under this new scheme suppliers should be paying a minimum of $40 per certificate.
For further information go to **www.orer.gov.au** or call 02 6159 7700.

Getting a quote.
As with any large purchase it is advisable to get at least three quotes. These quotes need to be for a solar power system of much the same size to make a comparison. When getting a quote enquire how long the company has been in the solar power business. Longer established businesses are more likely to provide a good service, have a better back up service and be able to honour the warranty of the product. Do not pay a deposit until you are entirely happy with what you have been quoted and there are no hidden extras.

What will a system cost?
The price will be determined by the kilo watt size of the system, quality of the parts and the REC's discount offered by your supplier. An indicative price for a 1.5kW system with standard install would be between $3000 and $7000 net (as at 14.10.10).

What happens once your solar power system is up and running?
The NSW Government brought in a mandatory 60 cents payment or feed-in-tariff from 1st January 2010 for the next 7 years. This means that your electricity provider is required to credit you a minimum 60 cents for every kWh produced by your home solar systems. It is worth checking the price being paid by your current electricity retailer and other retailers.

Please be advised that the 60 cent payment is currently under review and may be reduced. If you install a solar power system before the change you will be eligible for the 60c tariff.