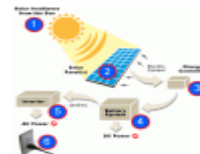
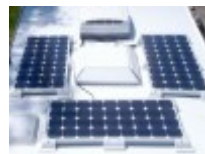


## Is your caravan or RV running solar?



### Description

If you haven't invested in solar energy for your rig, you seriously need to take a closer look at the benefits. In fact, running solar on your caravan or RV can not only save you lots of money, but can also take your lifestyle to a whole new level. Investing in the right solar gear for your RV can take care of all your energy needs while on the road. So what are the benefits of installing solar panels on your caravan or RV? Well here's just a few...

**1. You won't be reliant on external power sources anymore.** If you've been traveling for a while you probably would have experienced the hassle of pulling up at a site only to find a faulty power hook-up, or a source that is prone to power surges. With a decent solar power system, you won't have to worry about paying for powered sites anymore. You'll be free to travel as far as your batteries will let you go before topping up at a campsite. By running a solar/battery system, you'll also be able to use all of your electrical appliances on the road or at unpowered sites.

**2. You won't be reliant on generators.** While they are handy to have as a backup, generators emit fumes that are dangerous to inhale and the noise can disturb other campers. Solar panels are clean, safe, and efficient.

**3. Free power!** Obviously, your power is generated from the sun. Although there is the initial expense of buying and installing solar for your RV, you can easily recover the cost in a few years and anything after that is 100% free. Not only will you be saving money by not having to resupply your generator, but you'll also be saving a heap of money by not having to pay for powered camp sites.

**4. Maintenance Free.** Once your solar panels and equipment has been installed, there's virtually no maintenance apart from the odd dust off or clean every so often. Because the system is fully sealed and there are no working parts, you won't have to worry about any other maintenance issues.

**5. Generating your electricity through solar panels can even extend the life of your RV batteries.** Your batteries will be getting trickle charged throughout the day keeping them in optimum operating condition. You should never let your batteries get below 25% of their capacity and this is why the gradual recharging through your panels is so important. It also prevents sulphur build-up and water loss which is another added bonus.

So as you can see from the above mentioned points, solar panels for your caravan or RV has many advantages. But before you go running off to buy a solar panel kit for your RV, it's important to note that not all solar panels are the same. Selecting the right type of solar setup for your RV requires a little bit of thinking. The following steps are things you should consider when choosing solar panels for your caravan or RV to ensure it accommodates for your RV's energy consumption.

**1. What is your daily power consumption?** You need to know this so you can get the right size and quantity for your rig. so your scratching your head thinking "how on earth am I supposed to work that out?" Well here's how;

**a.** Make note of the amp ratings for all appliances in your caravan or RV that run on DC power. You can find this information on the label on the back of the appliance. Then, multiply each of the amp ratings per appliance by the amount of time (in hours) you think you would use it for each day. E.g. You may use a Waeco 65L fridge for 24hrs each day. You may use your 180W LED TV for 3 hours each day, and so on. Add up all the amp ratings and hours

and this will give you a total amp-hour figure. So in the example above, your amp-hour value for the 65L fridge would be 1560Ah, and the TV would be 540Ah, bringing a total amp-hour value of 2100Ah.

**b.** Make note of the Wattage for all of your AC powered appliances and devices. Similar to your workings in the point above, however your result will be in watt-hours. So multiply the appliance or devices Watt rating by the time you plan on using it each day (in hours). Add each wattage to give a total watt-hour value.

Still with me? Yes, it can be a bit of a mission to work out your RV or caravan's power consumption but it will be well worth your investment, knowing that you've got the right solar setup to suit your lifestyle. Ok so the next step...

**c.** You need to convert the total watt-hours to amp-hours by dividing the watt-hours by 12. Then, add this figure to the total amp-hours from all of your DC devices. The total from your DC and AC appliances/devices will give you your daily energy consumption. It's a good idea to give yourself a bit of a buffer to your total daily power consumption which will allow for phantom loads or extra devices. Phantom loads can be described as small amounts of power drain from devices that aren't in use. E.g. your TV in standby mode.

**2. Battery Bank Capacity.** Once you have worked out your total daily power consumption you need to determine the capacity of the battery bank. To prolong the life of your batteries you should never let them discharge below 25% of their capacity. That being said, your battery bank needs to be 4 times the amount of your daily power consumption, including the buffer for phantom loads or additional devices.

**3. Calculate the wattage of your solar panel.** Your solar panel wattage will determine what output power is required from your panels to continuously charge your batteries. Obviously, the sun isn't going to be shining over your solar panels 24hrs a day and you won't always have nice sunny days either. Cloud cover and rainy days need to be taken into consideration as these conditions will greatly reduce your solar power generation.

**4. Check the solar panel specs before purchasing your panels.** Important information such as; the solar panel's watt output rating, peak power and tolerance should be considered.

**a.** The solar panel's watt rating should be higher than your daily energy consumption.

**b.** Peak power (in amps) specifies the total amount of current that your solar panels are capable of generating in full sun.

**c.** Peak power (in volts) specifies the total amount of voltage that your solar panels are capable of producing in full sun.

**d.** The power loss in your solar panels can be referred to as *tolerance*. E.g. if you have a 180W solar panel with a tolerance of 10%, you should only expect to generate 162W of power per panel ( $180W - 18W = 162W$ ).

As you can see, the benefits of having solar panels on your caravan or RV are truly amazing considering how they can affect your lifestyle (for the better) while you're on the road. Some of the most beautiful scenery can be found in the great Australian outback, where you won't find any power hook-up points for hundreds of kilometres. For this reason, solar panels are a must! Not to mention the savings by not having to pay for powered sites every day. Don't forget to share this article with your friends by using the Facebook button above :)

## Comments