

With the advancement in camping product technology over the years, you may have found more and more of a need for power in the bush. Fridges, battery lanterns, tent fans, laptops, GPS devices, cameras, and phones are all common items we like to take away camping. So how do we keep these items running in the outback... where there are no electricity plugs?

Let's explore a few of the ways we can acquire electricity in the bush.

 *How do we keep our electronic items running in the outback? Image: BioLite*

Car Battery

If you're exploring this great country by vehicle, you'll have power on board in the form of your car battery. This is charged by the alternator while you drive, and your driving is powered by the engine. Most cars put out 12 volts of power, and you will find that a large range of products designed to work in the bush will either run or charge from the car. Most will plug into the car through the cigarette lighter plug.

Pros:

- Reliable while you're driving, and you will always have it when touring by vehicle
- No need to carry extra componentry, as it's all built in to your vehicle

Cons:

- Most of the time, we like to use our electrical items when we've stopped the car somewhere. Once the car is turned off though, the battery ceases charging.
- This battery needs a lot of power to start the vehicle again, so if we use it all for our electrical items we will flatten the battery
- Once the car battery drops below approximately 10.5 volts, it will be too flat to start the car or run most appliances
- This means that this power source will not last long without using the car's engine to recharge the battery
- The more appliances that the car is operating, the harder the alternator has to work. This means the engine has to work harder, increasing your fuel consumption.



Most cars put out 12 volts of power.

Dual Battery System

As your car's battery doesn't last long and is required to start the vehicle again, the popular decision is to fit a larger second battery. Both batteries are charged by the car when it's running, but are isolated when the ignition is turned off.

This allows the second battery to run your appliances, leaving the main battery fully charged to start your vehicle again.

Pros:

- The second battery allows you to run appliances for much longer after the vehicle has

been turned off

- Most batteries used in a dual battery system can be completely flattened without damaging the battery
- These types of batteries are designed to store a lot of power, so can provide for longer than your main battery – even if you allow it to run flat

Cons:

- Dual battery systems can be complicated in their installation and usually require an auto-electrician to install
- They can be quite expensive to purchase and install
- The second battery will still need to be charged periodically. If being charged by the car, this will slightly increase your fuel consumption.
- You will also need to find space for the dual battery, which means adding more weight to your vehicle

For more on battery chemistry, Ben and Lauren chat with Hardkorr in an earlier season of the [Snowys Camping Show](#):

Solar Panels

With the progression of solar power technology, we have access to a great source of environmentally-friendly power. Free-to-run solar panels can be used to recharge your main or second battery, rather than using the car.

Some systems are even powerful enough to run certain appliances directly, and come in all shapes and sizes for use in a variety of activities and appliances.

Pros:

- Free to run and can be used almost anywhere
- Environmentally friendly, and no need to carry fuel or start your vehicle to use
- Great for charging your batteries when staying in one spot for an extended period of time, or when using high-consumption appliances that require more regular recharging of your batteries.
- Available in a range of sizes – so hikers to carry smaller models for charging mobile phones and GPS systems, and 4WD explorers can carry larger panels to recharge lanterns, or run fridges and laptops

Cons:

- Solar panels are often extremely expensive and awkward to carry
- Solar panels only operate during the day when the sun is present
- Most solar panels require a good supply of sun to ensure they can produce a sufficient amount of power. Some panels may only charge at a decent rate for 3-4 hours a day.
- Most solar panels need to sit in direct sunlight and do not produce a huge volume of power

- Solar panels are often quite fragile and need to be well looked after
- Despite smaller and more efficient models available, solar panels can still be very expensive
- It's recommended to check consumption rates when deciding on an appropriate system for your needs

 *Solar panels are available in a range of sizes to suit various needs. Image: Hardkorr*

Generators

Generators provide a good, strong supply of power almost anywhere you go. They will operate at all hours of the day (or night) and deliver 240 volts of power to run normal household appliances. Generators can be used to both power appliances directly or charge batteries.

Pros:

- Provide a constant power source that is strong and reliable while running
- Deliver the most power to run household appliances directly, or charge batteries quickly
- Generators are portable and available in smaller, more user-friendly sizes

Cons:

- Generators are noisy. Even the quiet models can often still be heard by the neighbours!
- They are relatively expensive and require fuel, which means you'll need to carry an extra supply.
- Generators occupy a substantial amount of space, as does the Jerry holding the fuel
- They cannot be used during Total Fire Ban (TFB) days, and can only be used in a restricted manner in most caravan and National Parks (if at all)
- Some places require generator users to only stay in allocated camp areas. This means everyone around you will have their generators purring away, which will be quite noisy!

Ben and Lauren also tap into recreational generators on the [Snowys Camping](#)

Show:

Plus, check out our product demonstration on the [Engel 3500 Pure Sinewave Inverter Generator R3000IE](#):

Gas and Other Liquid Fuels

Of course, not all of us take electrical items with us when we go camping. Some of us don't even take our phones, or only use them for emergencies. For most small appliances like phones, UHF radios, lanterns, and camera batteries, the car's power supply is sufficient. However, gas and other liquid fuels are popular for stoves and lighting.

Pros:

- [Gas and liquid fuel stoves](#) are much more efficient than electrical items, and cheaper to

run

- Gas and liquid fuel lanterns often provide a much brighter light, and are both cheap and efficient to run
- Liquid fuel canisters and gas bottles are often cheaper and smaller to carry than some battery systems, solar panels and generators

Cons:

- Like all fuels, they need to be carried and refilled as they are used
- Gas refills can be difficult to find in remote areas
- Gas and liquid fuel appliances cannot be used on total fire ban days
- With the development in electrical item technology, gas and liquid fuel appliances may be more expensive to run than some electrical items (such as fridges and LED lanterns)



Gas and other liquid fuels are popular for stoves and lighting.

One Final Note

If you're taking electrical appliances, you may need to consider a power source that will keep your appliances both running or charging.

Whatever appliance you're using, it is extremely important to ensure your vehicle's starting battery is protected. A good, reliable power source also allows the use of items that will make your experience less stressful and more enjoyable.

When choosing a power source, consider the power needs and the volume of power required of all appliances. Take into consideration where you are taking them, and how long you will need them to run for.

 If you're taking electrical appliances, consider a power source that will keep your appliances both running or charging. Image: BioLite

If in doubt, give us a call on 1300 914 007 or email us at service@snowys.com.au. Let us know where you are going, how long you plan to stay, and what appliances you plan to run for some sound advice on which power source may be best for you. Once you've got the off-grid power source that's right for you and your troop, check out our online store for all the gear you'll need to go with it! If you're already a few steps ahead, what are your recommendations for powering up in the bush? Let us know in the comments below!