

# Plug in: to living off-grid



Now that you're enjoying the benefits of living with off-grid power, this step-by-step guide outlines how to make the most of it, what your rights and responsibilities are, and what to do if something goes wrong.

## 1

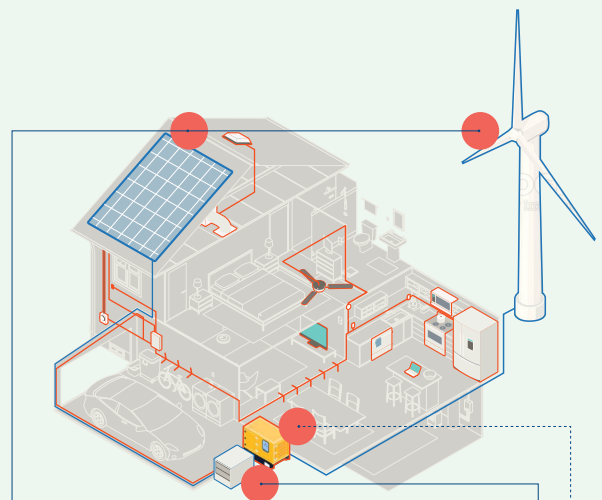
### Step 1: Using your off-grid system.

#### How do I use my off-grid system?

Your installer will have set your system up and shown you what you need to know. There may be checks that you need to make on certain components and things you need to switch on and off from time to time, but generally the system should be set up to manage itself with not too much involvement from you.

#### Your off-grid system in action

- The energy production part of your system makes electricity when it can – when the sun is shining (or the wind is blowing, if you have wind power).
- Any power produced that you don't immediately use charges up the batteries until they are full.
- When your system is not producing enough power (or none at all), electricity is taken from your batteries instead.
- If the batteries run out and you're still not producing energy, your backup generator will automatically switch on to provide what you need until your system starts to produce power again.



**The solar panels and wind turbine give power when it's sunny and windy.**

**The battery is powering the house when the solar and wind aren't.**

**The back-up generator comes on to provide energy when nothing else can.**



Interested in putting solar panels on your roof? Check out our step-by-step guides to installation and use at [energytechguide.com.au](http://energytechguide.com.au)

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## 1

### How do I make the most of my off-grid system?

The biggest difference between an off-grid system and a grid-connected energy supply is the total amount of electricity available to use at any one time.

On-grid, you can always draw a little more power from the grid, but off-grid, you can only use what your system is able to produce. To make off-grid work, you'll need to manage your electricity usage more carefully by:

- Ensuring your house is well insulated, so you need less heating and cooling.
- Making sure your major appliances are as energy efficient as possible, so they use less power.
- Being mindful of how you use your appliances:
  - Know which ones have high energy usage, like your heating and air conditioning.
  - Use them when your system is producing the most energy (e.g. middle of the day for solar), and avoid using them when your system is not producing power, when possible.
  - Try to avoid using more than one high demand appliance (washing machine, air conditioning etc.) at the same time.

This might sound daunting, but thousands of households live happily with off-grid systems and once they adjust, the limitations become second nature. Plus, they have the satisfaction of providing their own electricity at a reasonable and predictable cost.

### How can I tell that my off-grid system is working?



If your off-grid system is appropriately designed, sized and maintained, and you adjust your electricity usage to suit its limits, you should have the power you need, when you need it.

Using the energy monitoring system included with your off-grid set-up should allow you to monitor the system's performance and see if there are any problems that need attention. If your system does need attention, your installer should have given you the right information so you can have it inspected, maintained, and repaired.

The installer should have also given you information about the expected lifespan of its components so you can prepare for major work or replacement of parts when required.



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### Step 2: Off-grid system rights and responsibilities

#### Your basic rights.

Australian Consumer Law gives you rights and protections called consumer guarantees when buying products. These apply over and above the product warranties that come with your system components.

One of the consumer guarantees is that a product is 'fit for purpose'. Your specific requirements for system performance (for example, its daytime and night-time capacity at different times of year) should have been considered by your supplier when the system was designed and noted in your quote or contract, along with any energy usage measures you need to take and the expected performance of the system. If the system does not perform as promised, it may not be fit for purpose.

Warranties for the various components and the installation, as well as the procedures for making warranty claims, should be clearly spelled out in your system documentation, so you can make use of them if the need arises.

### Consumer guarantees

#### Products must:

- be of acceptable quality, that is:
  - safe, lasting, with no faults
  - look acceptable
  - do all the things someone would normally expect them to do.
- match descriptions made by the salesperson, on packaging and labels, and in promotions or advertising
- be fit for the purpose the business told you it would be fit for and for any purpose that you made known to the business before purchasing
- not carry any hidden debts or extra charges
- meet any extra promises made about performance, condition and quality, such as "lifetime guarantees" and "money back" offers
- have spare parts and repair facilities available for a reasonable time after purchase unless you were told otherwise.

#### Services must:

- be provided with acceptable care and skill or technical knowledge and taking all necessary steps to avoid loss and damage
- be fit for the purpose or give the results that you and the supplier had agreed to
- be delivered within a reasonable time or by the agreed end date



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### Your responsibilities

You may be required to get approval from your local council or electricity network to install and operate an off-grid system, and it may need to meet certain standards that they require.

Your installer may take care of this for you or will inform you of anything you are required to do as part of this process.



## 3

### Step 3: If something goes wrong

#### What do I do if there's a problem?

Sometimes off-grid systems don't perform as expected or completely malfunction. This could be due to faulty components or installation errors. But don't panic!

Good suppliers want happy customers and will do their best to sort out problems as quickly as possible. Those who are members of a best practice scheme such as the [Approved Solar Retailer program](#) are required to have good processes for dealing with faults, problems and complaints. And there are legal protections for customers if manufacturers or installers don't do the right thing.



If your off-grid system seems to have a problem, first contact your installer. A good one will promptly respond to you, figure out the problem and fix or replace it.

If your system is still under warranty and your installer won't help, your state or territory consumer protection agency will give you advice and maybe assistance. Use [this list](#) to find yours.



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### What if my installer isn't around anymore?

If your supplier is no longer in business, you may still be able to find a solution. Product manufacturers must honour warranties even if the retailer or installer of the product is no longer in business.

Find your product information – which will identify the specific model and have contact details for the manufacturer – and contact them. If they won't help, contact your state or territory consumer protection agency for advice.

Using your off-grid system is easy once you're used to it, and with a bit of effort you can also understand how to make the most of it. Use this as your step-by-step guide.

Wanting to install an off-grid system? Check out our guide 'Plug in: to going off grid' to find out about whether going off-grid is right for you and how to find a good installer.



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