

Off-grid: the dream, the reality, the plan



Many of us dream of an idyllic lifestyle, far away from the hustle and bustle of city life. A place where your nearest neighbour could be miles away and you awaken each morning with clear skies and an awe-inspiring vista. Fully self-sufficient, you live off the earth, fully aware of the delicate balance of mother nature. Your ode to a healthier, naturalistic way of life, with little waste or negative impact on the planet.

Whilst the former may be a little far-fetched for some, living off-grid is becoming very popular, especially so for those who want to lower their carbon footprint and lead a much more sustainable

existence. Using less resource and having full control of your home, lifestyle, energy and of course, no ties to corporates such as power and energy companies.

Another reason is stress. Modern day

lifestyles are notoriously hectic and stressful. Throw in social media and the constant daily workload or consumer pressures and suddenly the need to step out of the rat race sounds like the perfect escape.



different way and this lends itself to reduced waste. The fast pace of modern life and the over consumption of resources must be scaled down to meet the supply of self-generation and precious commodities if you live in an inaccessible or remote location.

Enabling yourself to learn new skills and adopting a 'repair' rather than 'replace' mentality, alongside renewable sources for electricity and heating. Every aspect of the environment benefits, from less landfill to the very air we breathe.

Wellbeing

Mental health and wellbeing are well supported and discussed, with huge advancements in the everyday struggles that so many of us have. Busy schedules, pressures of social media and juggling that all important work/life balance. Even dealing with the isolation and stress of Covid-19 and the subsequent pandemic lockdowns has taken its toll in recent years.

By re-connecting with nature and enjoying the great outdoors, you'll reap the rewards for your mind, body and soul. Living off-grid brings health benefits through diet too. Organic, fresh produce that you've grown yourself is a truly wonderful way to sustain your family and eating alfresco takes on a whole new meaning.

Community

Of course, living off-grid doesn't have to mean you are completely isolated. It's a personal choice about where and how you live. Close neighbours and sustainable thriving communities can make off-grid living a joy, with deep friendships created. Bonds formed through a collective ethos and way of life, supporting your family and that of the community around you by working together.

Money

A major benefit is cost. If you live in a rural or remote location, it may simply be more cost effective to live off-grid as the financial outlay of connecting to the grid, can be so high. With off-grid, once you've made your initial investment and set up, it's free energy with no bills or ties to the power grid.

For most, 'energy independence' is something to aspire to. Of course, living in a rural or remote location often comes with fabulous scenery or views and the 'clean air' that we all crave so much.

Around 1 million homes lived off-grid in 2010. This has risen to over 99 million in 2020. Forbes magazine has predicted over half of new electricity connections will be off-grid or mini grid by 2030.

What about the basics?

Location

Choosing the right location is such an important part of grid planning. Consider the

Such is the drive to lessen these ties and get more connected to nature. Generating your own electricity, pumping water, gathering wood, and even foraging. Of course, in this modern age of going off-grid, there are no set rules. You can choose how you want to live and which modern luxuries you want to incorporate into your new life.

The challenge of going off-grid, and it is a challenge, often leaves newcomers a little overwhelmed with the reality of their situation. There is serious need to research and plan before ever taking a step into the wilderness. Getting into the right headspace is essential as the change can simply be too much if you haven't got the right knowledge or plan.

Of course, for many who have always lived in remote or rural spots, it's merely a way of life that they have adapted to over decades. Living life, utilising the best in nature and combining it with modern day technology to further enhance the experience.

The key benefits of going off the grid

Sustainability

The amount of waste we generate, from coffee cups and packaging through to energy, are seriously excessive for so many of us. Being off-grid encourages a natural way to reduce our carbon footprint and air pollution, supporting a much healthier lifestyle.

By learning to become more self-sufficient, we appreciate consumables in a completely



proximity to a natural water source you can tap into, or woodland if you are planning to have a wood burner. The acreage or fertility of the land can be crucial if you want to plant and grow your own vegetables or raise animals.

Insulation

Often overlooked, insulation is so important. Plan your home so that you make the most of southern facing windows to let natural light and heat in, whilst minimising colder, north facing windows.

Heat loss and planning your property to maximise heat retention is key. The more heat you can retain, the less you need to generate.

Power

Powering an off-grid home, depending on where you live in the world, can vary. Renewable options such as solar and wind are the front runners, with other popular choices such as generators, geothermal or even micro hydro.

Consider how much energy you are likely to need for everyday life. What about when friends stay? What devices do you need to operate the fundamentals such as heating, lighting, water pumps etc.

Once you've worked out how much energy you need, you'll then need to plan how to generate it. Location is a factor, as weather and climate can make a big difference to the type of energy generation methods you choose.

Often, a combination of energy sources such as solar and a small wind turbine is a good balance. If you are completely off-grid, you're on your own. Any maintenance or repairs may mean you're without power, so a backup is a truly sensible consideration.

Solar PV is a very popular choice. But what happens when the sun stops shining? Long, dark winter days may see your electric needs fall short. As solar only provides energy on a 'use it or lose it' platform, your generated power stops when the sun goes in.

Solar PV with the addition of a storage battery is a very efficient method. With the right solar and battery storage option you can power an off-grid home comfortably.

The battery is fast becoming an essential part of your off-grid kit. Utilising it to store excess generated energy allows you the freedom to enjoy additional luxuries.

Adding a battery storage to your solar allows

you to store the excess daytime solar power. So when the sun is shining, you are powering your home, but you're also charging your battery. And when the sun goes in, the stored energy in your battery gets to work powering your home.

Soltaro's 'All In One' combined energy storage system, the AIO2 is perfect for on- or off-grid living. Batteries work harder when completely off-grid, and many manufacturers' systems simply aren't up to the task. The number, or size of batteries needed to power your home depends on factors like that of Solar PV.

Heating

Utilising electric heating certainly makes sense if you're going with Solar PV. However, many homes choose to also utilise biomass or wood burners.

Water & waste

Accessing water should be your first point of call. Is there a natural water source? Can you drill down and create a borehole? What about a rainwater collector? Whatever you choose, don't forget to calculate the extra power needed to pump the water around your home.



You will need to purify your water source through tablets or boiling. Dealing with wastewater may not be the most attractive of challenges, but it's an important one. If you aren't connected to mains services, it's an essential part of living off-grid.

Final thoughts

Generating and using power are one of the biggest challenges when living off-grid. Create a plan, and ensure you have the right equipment to make life comfortable. Battery storage with the Soltaro AIO2 is a flexible way to store your power, think of it as an isolated grid, and you can always expand it by adding another module if you need to.

Maybe you're not ready to take the plunge into off-grid completely?

Many like the idea and benefits, but choose to go halfway with partial self-reliance, utilising the grid as their back up. This can only be considered where mains services are available, but it does give that all important flexibility if you don't want to go the full way.

For more information about going off-grid with battery storage, please visit www.soltaro.com

