

GRIDFREE

Off-Grid Solar with a DIY Attitude

2022-23 PRODUCT CATALOGUE

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About Us

When GridFree founder, Craig Simpson, purchased his ex-farm block on the Tinopai peninsula in 2018, he knew he had a few challenges ahead to make it a comfortable place to live. What he didn't expect was a \$90k quote to get mains power connected to the cabin he was planning to build. After receiving similarly large quotes from solar power companies, and facing unhelpful and unresponsive customer service when he asked about smaller systems, he decided to do it himself.

With the help of his son Ethan, an electrical engineer, and Zed, the soon-to-be logistics manager, he managed to build his own off-grid solar solution for a fraction of everyone else's quote. That was when GridFree was born, run out of Craig's garage and front room, offering New Zealand's first DIY off grid solar kits. Zed, Ethan, and Craig are now all shareholders in a successful business that has doubled in size every year.

“ Empowering Kiwis to go off-grid with a simple, DIY solution has always been our driving force. –Craig, GridFree Founder.



Get in Touch:



(09) 218 5533
info@gridfree.store
www.gridfree.store



C4/27 Smales Road
East Tāmaki, Auckland, 2013
Mon-Fri, 9am-5pm (by appointment)

Why GridFree?

Over the course of the last few years, the GridFree team has helped hundreds of customers across New Zealand build a better life off-grid. These have ranged from people in the exact same position as Craig, trying to build a homestead on rural land, to people building tiny homes and renovating caravans.

We've designed a range of DIY off-grid solar kits for any application, and will happily customise a kit to suit your needs. And, if you're not comfortable with DIY, we've partnered with electricians around the country who can do the install! Our goal is to keep innovating in the off-grid solar market, so we can help customers have the luxury of electricity in even the most remote places, with the most cost-effective energy solution.

Solar made easy.



Easy DIY Installation

With detailed instruction manuals, videos, and phone support, our kits are easy to install yourself (or hand to a sparky).



Any Location

We deliver our DIY kits nationwide, so you can have the luxury of power in even the most remote locations.



Top Quality

We've spent years testing our gear to ensure it's as efficient and reliable as an off-grid set up requires.



Transparency

No hidden costs, no over-engineered solutions. All the information you need is on our website.



Excellent Support

It's easy to choose the right kit with our expert guidance, and we're happy to help with any issues, questions, or upgrades!



Community

Join our community of 140k+ off-gridders for knowledge-sharing, inspiration and support to live off-grid in NZ.

Pick the Perfect Kit.

Check out our range of off-grid solar kits. We have a kit for every situation, whether it's for your next weekend adventure, or a move to full-time offgrid living. Our complete DIY kits include everything you need to get up and running on solar power.

Please note, these kits are not designed for powering cooking, space/water heating, or life-supporting systems. Usage estimates are based on getting 3 hours of clear sunlight everyday, not accounting for prolonged periods of insufficient sun.



The Weekend Warrior Kit

gridfree.store/weekend-kit

Standard Kit:
\$4,200

Ideal for:
Caravans, campervans, and weekend cabins

This kit can run:



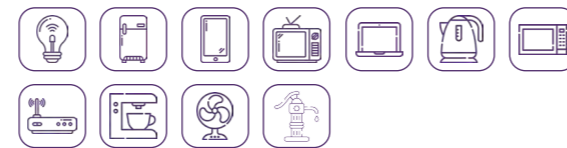
The Tiny House Kit

gridfree.store/tinyhouse-kit

Standard Kit:
\$6,000

Ideal for:
Tiny homes, weekend retreats, part-time living

This kit can run:



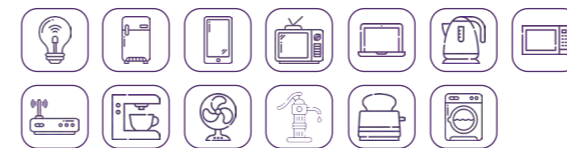
The Bach Kit

gridfree.store/bach-kit

Standard Kit:
\$7,500

Ideal for:
Baches, housebuses, small cabins

This kit can run:



The Freedom Kit

gridfree.store/freedom-kit

Standard Kit:
\$13,000

Ideal for:
Small family homes and baches

This kit can run:



The Lifestyle Kit

gridfree.store/lifestyle-kit

Standard Kit:
\$19,800

Ideal for:
Lifestyle blocks and larger family homes

This kit can run:



The Weekend Warrior Kit

The Weekend Warrior Kit is designed to power your weekends away from the city. It comes with everything you need to easily run a fridge and some lights for a few days, and is super simple to install and use.

Ideal For:








Caravans, campervans, and weekend cabins.

Kit Contents (Standard Kit)

- 2x Trina 385W+ PERC Monocrystalline Half-Cell Solar Panels
- 2x 12V 200Ah Deep Cycle Gel Batteries
- EPEVER 2000W 24V Pure Sine Wave Smart Inverter
- EPEVER 30A MPPT Charge Controller
- DC MCBs, MCCBs, MCB Enclosures, and Fuses
- DC Cables for PV & Battery Connections
- 2x Z-Bracket Solar Panel Mounting Set
- Instruction Manual

What can this kit run?

If you generated 2300Wh (3 sunhours) per day, these example items could all be powered over the course of the day.

- | | | |
|--|---|---|
|  25W Lighting
6 hours a day (150Wh) |  Efficient Fridge/Freezer
24 hours a day (700Wh) |  25W Phone Charger
6 hours a day (150Wh) |
|  100W Television
2 hours a day (200Wh) |  60W Laptop Charging
2 hours a day (120Wh) |  1800W Kettle
15 Minutes (300Wh) |
|  2000W Microwave
10 Minutes (340Wh) | | |



Standard: **\$4,200**
Hybrid Upgrade: **\$5,000**

*Hybrid Inverter upgrade replaces Charge Controller & Inverter with 2kW unit.

*Prices as at 1/11/22.

Learn more at:
gridfree.store/weekend-kit

“
Our experience with GridFree has been great. To be fair, we haven't needed them because their product has been so good!
–Stacey, Whangaparoa.

Stacey and Maureen

Stacey and Maureen were one of our earliest customers - they bought a decommissioned ambulance, and went holidaying in it with just a mattress and chilly bin. They then converted it into an awesome little holiday camper, and added a Weekend Warrior Kit to power their trips. 5 years on, the kit is still going strong, and they've taken it on trips all around New Zealand. They can run a fridge, lights, water pump, and even an electric blanket to take the chill off during the coldest nights!

Read the full article: gridfree.store/stacey



The Tiny House Kit

The Tiny House kit is designed for tiny house owners with space and weight restraints needing to optimise power. With more panels than batteries, it favours daytime power use, and provides plenty of power for all the tiny house necessities and home comforts.

Ideal For:












Tiny homes, weekend retreats, part-time living.

Kit Contents (Standard Kit)

- 4x Trina 385W+ PERC Monocrystalline Half-Cell Solar Panels
- 2x 12V 200Ah Deep Cycle Gel Batteries
- EPEVER 2000W 24V Pure Sine Wave Smart Inverter
- EPEVER 60A MPPT Charge Controller
- DC MCBs, MCCBs, MCB Enclosures, and Fuses
- DC Cables for PV & Battery Connections
- Choice Between Chiko Ground or Roof Solar Panel Mounts
- Instruction Manual

What can this kit run?

If you generated 4500Wh (3 sunhours) per day, these example items could all be powered over the course of the day.

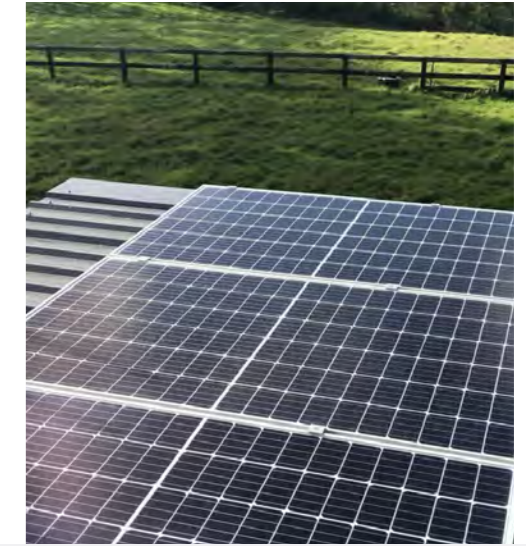
 25W Lighting 6 hours a day (150Wh)	 Efficient Fridge/Freezer 24 hours a day (700Wh)	 25W Phone Charger 6 hours a day (150Wh)
 100W Television 2 hours a day (200Wh)	 60W Laptop Charger 2 hours a day (120Wh)	 1800W Kettle 15 Minutes (300Wh)
 2000W Microwave 10 Minutes (340Wh)	 20W Wireless Router 24 hours a day (480Wh)	 2000W Coffee Maker 4 Minutes (140Wh)
 50W Fan 2 hours a day (100Wh)	 600W Water Pump 1 hours a day (600Wh)	



Standard: \$6,000
Hybrid Upgrade: \$7,200

*Hybrid Inverter upgrade replaces Charge Controller & Inverter with 2kW unit.
*Prices as at 1/11/22.

Learn more at:
gridfree.store/tinyhouse-kit



“
Their kits are DIY, which is really empowering. You can just do it yourself.
–Marie.

Marie

After years of dreaming about it, Marie began building her own tiny house in early 2019, with a view to eventually become completely self-sufficient. We set her up with a Tiny House Kit 3 years ago, and it's been amazing to watch her build her dream life off-grid.

Read the full article: gridfree.store/marie

The Bach Kit

With only a minimal amount of conscious energy saving needed, the Bach Kit is our most popular kit for good reason. It can easily be upgraded from the get go or a few months down the track, making it a great starting point for a move to full-time off-grid living.

Ideal For:














Baches, housebuses, small cabins.

Kit Contents (Standard Kit)

- 4x Trina 385W+ PERC Monocrystalline Half-Cell Solar Panels
- 4x 12V 200Ah Deep Cycle Gel Batteries
- EPEVER 3000W 48V Pure Sine Wave Smart Inverter
- EPEVER 60A MPPT Charge Controller
- DC MCBs, MCCBs, MCB Enclosures, and Fuses
- DC Cables for PV & Battery Connections
- Choice Between Chiko Ground or Roof Solar Panel Mounts
- Instruction Manual

What can this kit run?

If you generated 4600Wh (3 sunhours) per day, these example items could all be powered over the course of the day.

 100W Lighting 4 hours a day (400Wh)	 Efficient Fridge/Freezer 24 hours a day (1000Wh)	 25W Phone Charger 6 hours a day (150Wh)
 100W Television 2 hours a day (200Wh)	 60W Laptop Charger 4 hours a day (240Wh)	 1800W Kettle 10 Minutes (300Wh)
 2000W Microwave 5 Minutes (170Wh)	 20W Wireless Router 24 hours a day (480Wh)	 2000W Coffee Maker 4 Minutes (140Wh)
 50W Fan 2 hours a day (100Wh)	 600W Water Pump 1 hours a day (600Wh)	 2000W 4 Slice Toaster 3 Minutes (100Wh)
 500W Washing Machine Twice a Week Average (125Wh)		



Standard:	\$7,500
Hybrid Upgrade:	\$8,600
Lithium Upgrade:	\$12,500

*Hybrid Inverter upgrade replaces Charge Controller & Inverter with 5kW unit.
*Lithium upgrade includes hybrid upgrade, also replaces Gel batteries with Lithium.
*Prices as at 1/11/22.

Learn more at:
gridfree.store/bach-kit

Peter

With a property only accessible by boat, mains power was never an option for Peter. With only a small hydro unit to provide power, the Bach Kit was a great improvement that allowed them to power some more home comforts. Peter says our detailed instruction made the installation a breeze!

Read the full article: gridfree.store/peter



“

I would have no hesitation in recommending your kit to other interested people, it is very well thought out, easy to install and great value for money.

–Peter, Pelorus Sound.

The Freedom Kit

The Freedom Kit is our second most popular kit, and a substantial step up from the Bach Kit. You'll have enough power to easily accommodate the comforts of home, making full time off-grid life a breeze, even for a family.

Ideal For:

Small family homes and baches.

Kit Contents (Standard Kit)

- 8x Trina 385W+ PERC Monocrystalline Half-Cell Solar Panels
- 8x 12V 200Ah Deep Cycle Gel Batteries
- EPEVER 3000W 48V Pure Sine Wave Smart Inverter
- EPEVER 100A MPPT Charge Controller
- DC MCBs, MCCBs, MCB Enclosures, and Fuses
- DC Cables for PV & Battery Connections
- Choice Between Chiko Ground or Roof Solar Panel Mounts
- Instruction Manual



What can this kit run?

If you generated 9200Wh (3 sunhours) per day, these example items could all be powered over the course of the day.

240W Lighting 6 hours a day (1440Wh)	Efficient Fridge/Freezer 24 hours a day (1000Wh)	25W Phone Charger 12 hours a day (300Wh)
100W Television 4 hours a day (400Wh)	60W Laptop Charger 12 hours a day (720Wh)	1800W Kettle 10 Minutes (300Wh)
2000W Microwave 20 Minutes (600Wh)	20W Wireless Router 24 hours a day (480Wh)	2000W Coffee Maker 10 Minutes (300Wh)
50W Fan 4 hours a day (200Wh)	600W Water Pump 2 hours a day (1200Wh)	2000W 4 Slice Toaster 12 Minutes (200Wh)
500W Washing Machine 4x per week average (125Wh)	375L Chest Freezer 24 Hours a day (460Wh)	60W Cordless Tool Charger 12 hours a day (720Wh)

Standard: \$13,000
Hybrid Upgrade: \$13,500
Lithium Upgrade: \$19,700

*Hybrid Inverter upgrade replaces Charge Controller & Inverter with 5kW unit.
 *Lithium upgrade includes hybrid upgrade, also replaces Gel batteries with Lithium.
 *Prices as at 1/11/22.

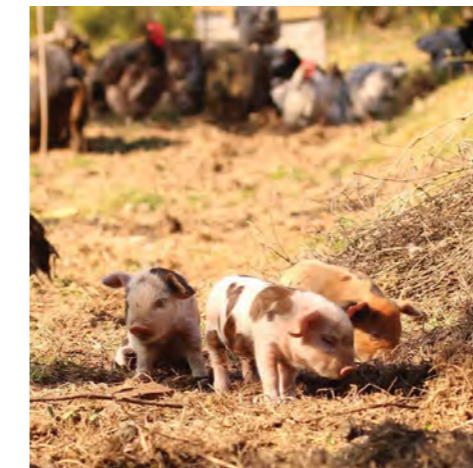
Learn more at:
gridfree.store/freedom-kit

“
It is a great feeling to know it is our resource, just another way we have become self-reliant.”

Rebecca and David

What began as a wish for a healthier lifestyle led Rebecca and David to homesteading on the aptly named Fodder Farm – raising animals, growing food, and being more aware of what they ate and used. In addition to being much cheaper than a grid connection, their Freedom Kit helped them achieve the independence and self-reliance they desired, knowing they could cope on their little farm if a disaster happened.

Read the full article: gridfree.store/fodderfarm



“
They were also quick to answer any questions and having been in business ourselves, good customer service is something we really appreciate.”
 –Rebecca, Ōwhango.

The Lifestyle Kit

This is our ultimate off-grid solar kit, designed to power a full time, easy-going off-grid lifestyle. With a hybrid inverter as standard, this kit can cope with much greater usage, and will be an integral part of your self-sufficient lifestyle.

Ideal For:



















Lifestyle blocks and larger family homes.

Kit Contents (Standard Kit)

- 12x Trina 385W+ PERC Monocrystalline Half-Cell Solar Panels
- 12x 12V 200Ah Deep Cycle Gel Batteries
- Growatt 5000W 48V ES Hybrid Inverter/Charger
- DC MCBs, MCCBs, MCB Enclosures, and Fuses
- DC Cables for PV & Battery Connections
- Choice Between Chiko Ground or Roof Solar Panel Mounts
- Instruction Manual

What can this kit run?

If you generated 14,000Wh (3 sunhours) per day, these example items could all be powered over the course of the day.

- | | | |
|---|--|--|
|  240W Lighting
8 hours a day (1920Wh) |  Efficient Fridge/Freezer
24 hours a day (1000Wh) |  25W Phone Charger
12 hours a day (300Wh) |
|  100W Television
6 hours a day (600Wh) |  60W Laptop Charger
12 hours a day (720Wh) |  1800W Kettle
10 Minutes (300Wh) |
|  2000W Microwave
20 Minutes (600Wh) |  20W Wireless Router
24 hours a day (480Wh) |  2000W Coffee Maker
10 Minutes (300Wh) |
|  50W Fan
8 hours a day (400Wh) |  600W Water Pump
2 hours a day (1200Wh) |  2000W 4 Slice Toaster
12 Minutes (200Wh) |
|  500W Washing Machine
4x per week average (250Wh) |  375L Chest Freezer
24 Hours a day (460Wh) |  1800W Dishwasher
1 hours a day (1800Wh) |
|  200W Cordless Vacuum
30 Minutes (100Wh) |  1500W Hair Dryer
15 minutes a day (375Wh) |  60W Cordless Tool Charger
12 hours a day (720Wh) |



Standard: \$19,800
Lithium Upgrade: \$26,800

*Lithium upgrade includes hybrid upgrade, also replaces Gel batteries with Lithium.
*Prices as at 1/11/22.

Learn more at:
gridfree.store/lifestyle-kit

Need a Bigger Kit?

If you need more power than any of our existing kits can provide, we're happy to create a custom solar power solution for you. All of our larger custom kits come with hybrid inverters and lithium batteries for greater efficiency and longevity.

Each 5Kwh hybrid inverter can control up to 16 solar panels, and up to 10 lithium batteries in a stack. Up to 6 of these units can be connected in parallel, so no matter how large your off-grid power needs are, we can help you find the right power solution.



Choosing your Kit Upgrades

Standalone or Hybrid Inverter?

If you have access to mains power, or a generator, you may choose to upgrade to a hybrid inverter. This is an all-in-one unit that replaces the charge controller and inverter in the standard kit, as well as the optional battery charger component. Other than the Lifestyle Kit, all of our kits come with a standalone inverter, and can be upgraded to use the hybrid unit instead.

A charge controller controls the power from the solar panels to charge the battery bank at an optimal rate. An inverter changes the lower voltage DC power stored in the battery bank into 240V AC power - the kind all your normal household appliances use. A battery charger works like a charge controller to charge batteries from an outside source, such as mains power or a generator.

Solar batteries last longer when they're recharged to full each day, so many off-gridders will purchase a generator to give them the safety net of extra power, so they can still recharge their batteries during prolonged periods of poor weather, or very heavy power usage. The frequency with which the generator will be used plays into the choice of inverter.



Standalone

The standalone inverter acts only as an inverter, requiring a separate charge controller and optional battery charger to work in an off-grid system. This battery charger will need to be manually started each time it's needed. The standalone inverter comes with a standard 3-pin outlet for immediate power use, and only requires an electrician if it will be wired into a switchboard - otherwise it's DIY-friendly.

Key Takeaways

- Lower in price
- Complete DIY installation
- No mains or generator backup

Hybrid

The hybrid inverter is a more expensive unit. It combines the 3 components in one, and this allows you to connect an auto-start generator or mains connection that will kick in when your batteries hit a specified percentage. However, it lacks a 3-pin outlet and must be wired into a switchboard, so an electrician is required, resulting in a higher installation cost. To work with a hybrid unit, The Weekend and Tiny Kits require a 3kVA generator, and the larger kits require a 7kVA generator. A hybrid unit is required for Lithium batteries.

Key Takeaways

- Higher in price
- Electrician required
- Mains or generator backup

Gel or Lithium Batteries?

In an off-grid solar power system, all power from the panels is directed into the batteries first, and all energy usage is drawn from the batteries. This also allows you to have power when the sun isn't shining.

All of our kits come with Lead Acid batteries as standard, with the option to upgrade these to Lithium batteries in the Bach and larger kits. Your choice of battery in an off-grid system is based on how you weigh a few different factors: weight, depth of discharge, resilience, longevity, and cost. These two battery options are on very different ends of the spectrum in each of these categories.

Some customers will choose to start with Lead Acid batteries, and upgrade to Lithium when they reach the end of their lifespan, as Lithium battery technology is rapidly improving and dropping in price.



Gel

Lead acid batteries weigh 60kg each, and should only be regularly discharged to 50% of their total capacity. They have an expected lifespan of 3-5 years depending on how well they are treated, and can easily become damaged from regularly being over-discharged or left partially charged. They work with either a standalone or hybrid inverter. Their relative weaknesses are balanced by their lower price point.

Key Takeaways

- Heavier
- Shorter lifespan
- 50% DoD
- Less resilient
- Cheaper

Lithium

Lithium batteries weigh 30kg each, replace Lead Acid batteries at a 1:2 ratio, and can be discharged up to 80% of their total capacity so you can use more of your generated energy. They have an expected lifespan of 15 years with normal usage, and are more resistant to damage from over-discharging and being left partially charged. They require a hybrid inverter to work. Their relative strengths are balanced by a substantially higher price point.

Key Takeaways

- Lighter
- Longer lifespan
- 80% DoD
- More resilient
- More expensive

Still have questions?



(09) 218 5533
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 www.gridfree.store



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Components

Building your own off-grid system, or just want to learn more about what's in our kits? We have hand selected top-of-the-range individual components to ensure that our customers receive quality products that last.

Solar Panels

At GridFree, we use the latest PERC mono solar panels with half-cells to ensure the highest power output, even in low-light conditions. Trina Vertex S are our panels of choice.

What is a half-cell PERC mono panel?

The cells in a monocrystalline (mono) panel are made from pure single silicon crystals, unlike cheaper polycrystalline cells which are made of fragments melted together. PERC cells means adding an extra layer to each cell which helps reflect sunlight back into the panel to capture more photons. Using half-cells reduces electrical resistance and energy loss. These three technologies combined make for a highly efficient solar panel with greater power output.

Why Trina Vertex Panels?

The Trina VERTEX S Series is a high quality, reliable mono solar panel, making them our pick for each of our solar kits. These modules offer a great balance of power for their size and weight, ideal for off-grid applications. Trina Solar is a highly reliable Tier 1 manufacturer with a tightly controlled manufacturing process, and they guarantee the quality of their products with an industry-leading 25-year lifetime performance warranty.



Specifications

- Dimensions:** 1754mm x 1096mm x 30mm
- Weight:** 21kg
- Warranty:** 15 year Product Workmanship Warranty
25 year Performance Warranty
- Wattage:** 385W-395W

Price:
\$500 per panel

*Prices as at 1/11/22.

Learn more at: gridfree.store/solar-panels

Batteries

GridFree offers two battery types for off-grid energy storage - Gel and Lithium.

Gel Batteries

The signature GridFree 12v200ah Gel VRLA Solar battery is an ideal deep-cycle battery for use in small-scale off-grid applications. These batteries are built to withstand harsh conditions with a broad operating temperature range, and use high capacity gel suitable for deeper discharging. These sealed batteries require no maintenance, and have an expected lifespan of 3-5 years, but if treated well the battery can last up to 8 years for float use. This is a very affordable option to use while waiting for other battery options to develop and drop in price.

Growatt Lithium Batteries

The Growatt ARK LIFEPO4 modular battery system offers incredibly easy installation by simply stacking the batteries. Each Growatt ARK battery has a capacity of 2.56kWh and a maximum charge current of 25A, with each stack expandable up to 25.6kWh with 10 batteries. Operating voltage is between 47.2V - 56.8V, nominal Voltage is 51.2V. With an expected lifespan of 10-15 years, this battery has a cycle life of over 6000 and can be discharged to 80%. It's also IP65 rated and can be mounted to a wall or the floor.



Brand	Product	Battery Voltage	Amp Power Rating	Total Capacity	Usable Capacity	Price
GridFree	Gel	12V	200Ah	2.4KWh	1.2KWh	\$750
Growatt	Lithium Iron Ark Modular Battery (expandable up to 10)	48V	53Ah	2.56KWh	2.048KWh	\$3,000
Narada	Lead Carbon Battery Bank	48V	1000Ah	48KWh	24KWh	\$21,120

Learn more at: gridfree.store/batteries

Inverters

An inverter converts the lower voltage DC electricity stored in your battery bank into 240V AC electricity, which your household appliances run. We offer a range of EPEVER Pure Sine Wave inverters.

How do you choose the right size?

If you're building your own system, you'll need to match your energy consumption with the inverter's ability to supply Continuous power and Peak power. Be careful, as over-sizing your inverter will allow you to use your battery power quicker without noticing.

Continuous power

This is what the inverter must supply on a steady basis, and this consumption is usually much lower than peak power. For example, if you're watching TV for an hour the usual power needed would be roughly 300W, supplied continuously.

Peak (Surge) power

Peak power means the maximum power your inverter can supply for a short amount of time. This is typically to double an inverter's continuous load, for anywhere from a few seconds to a few minutes. It is important to keep this number in mind when selecting/sizing for your appliances as some appliances (such as pumps and power tools) can have a peak power draw more than 5-6x the appliances power rating.



So which inverter do you need?

The size of the inverter you'll need is dependent on what appliances you are going to be running on it. Adding the respective wattages of the devices you'll be using will give you a good idea of what size of inverter will best suit your system. For example, if you're going to be running a TV (200W), fridge (500W), hair dryer (1000W) simultaneously, you'll need an inverter that supports 1700W (unless you want to constantly be switching things off and on), so

Model	Continuous Output Power	Surge Power	Input Voltage	Dimensions (L x W x H mm)	Price
EPEVER IPOWER PLUS	2000W	4000W	24V	421 x 228 x 118	\$1,000
EPEVER IPOWER PLUS	3000W	6000W	48V	491 x 231.5 x 125	\$1,150

we would recommend getting a 2000W inverter.

If you have access to mains power, or a diesel generator, you may choose to instead get a hybrid inverter. A hybrid inverter is a charge controller, inverter, and battery charger all in one, as it comes with an AC input allowing you to charge the batteries from mains power or your generator when they're low, due to a lack of sunlight or heavy usage.

Learn more at: gridfree.store/inverters

Hybrid Inverters

Hybrid inverters make it easy to supplement your solar power from the mains or a generator, as they combine a charge controller, inverter, and battery charger into one unit. We offer a range of Growatt Hybrid Inverters, and these are all compatible with our Growatt batteries.

Growatt SPF 6kW + 12kW HVM

These models have a higher continuous and surge rating (6kW, 18kW, and 12kW, 36kW) than the others as they use a low frequency inverter. Keep in mind that this can mean you use more power in less time, so you'll want to be mindful not to drain your batteries too deep. These inverters support up to 5kW and 7kW of solar panels respectively. These inverters cannot be installed in parallel, which limits the maximum size of the system, unless you replace it with a larger model.

Growatt 5kW ES

This model has a slightly lower continuous and surge rating than the HVMs (5kW and 10kW). This inverter allows for a higher wattage solar array than the others (6kW), but requires a higher *voltage* solar array, and an electrician to install the solar wiring. This inverter can be installed in parallel with additional inverters of the same model, allowing you to expand the system.

Growatt 2kW + 5kW TL - Low Voltage

These models have a slightly lower continuous and surge rating than the HVM (2kW, 4kW and 5kW, 10kW). These inverters allow for a solar array of 1.5kW and 4.5kW respectively, though it is designed for lower voltage solar panel strings, which means it stays under 120V DC, so the wiring for the array is DIY safe. These inverters can be installed in parallel with additional inverters of the same model, allowing you to expand the system.



Brand	Model	MPPT Range	Battery Bank	Solar Charge	Inverter Output	Dimensions (L x W x H mm)	Price
GROWATT	SPF 5000ES	120V-430V	48V	100A	5KW	485 x 330 x 135	\$2,550
GROWATT	SPF 12000TL HVM	60V~145V	48V	120A	12KW	650 x 380 x 255	\$4,200
GROWATT	SFP 2000TL HVM	30V~80V	24V	50A	2KVA	400 x 315 x 130	\$1,750
GROWATT	SPF 6000TL HVM	60~145V	48V	80A	5KW	540 x 360 x 218	\$2,800
GROWATT	SFP 5000TL HVM	30V~115V	48V	80A	5KW	455 x 350 x 130	\$2,550

Learn more at: gridfree.store/hybrid-inverters



Charge Controllers

A charge controller is an essential component in every off-grid solar system, as it optimises the energy coming from the solar panels and protects the battery from overcharging. We offer a range of Epever MPPT charge controllers.

What are MPPT charge controllers?

Short for maximum power point tracking, they are a more efficient type of charge controller, as they are able to operate at the Maximum Power Voltage (Vmp) of the solar panel. It's more cost effective with bigger PV arrays to run a MPPT solar charge controller than PWM.

How do you choose the right size?

Charge controllers are sized depending on the voltage and current of your solar array. You need to make sure it's big enough to handle the current produced by your panels, by calculating the amps (A) of your array, and matching them with a controller with slightly higher current rating, to allow you to fully utilise all power you generate. Then, make sure the max PV input voltage and battery bank voltage are compatible.

Model	Charge Current	Max PV Input	MPPT Voltage Range	Battery Voltage	Dimensions (L x W x H mm)	Price
3210AN	30A	390W @ 12V 780W @ 24V	20-100V	12/24V	228 x 164 x 55	\$200
5415AN	50A	625W @ 12V 1250W @ 24V 2500W @ 48V	20-150V	12/24/36/48V	261 x 216 x 119	\$500
6415AN	60A	750W @ 12V 1500W @ 24V 3000W @ 48V	20-150V	12/24/36/48V	340 x 236 x 119	\$600
10415AN	100A	1250W @ 12V 2500W @ 24V 5000W @ 48V	20-150V	12/24/36/48V	374 x 242 x 143	\$950

Learn more at: gridfree.store/charge-controllers



Mounts

We offer a number of different mounting options with our kits to suit different applications. Supplied by Chiko Solar, all mounts are manufactured from premium aluminium to create a strong, sturdy base for your solar array. Z-Brackets are included in the Weekend Warrior Kit, while the Tiny House, Bach, Freedom and Lifestyle Kits come with either a Universal Roof or Corrugated Iron Roof Mount, with an option to upgrade to the Ground or Tilt Mount.

Product	No. Panels Supported	Adjustable	Price
Z-Bracket Mount	1 panel	Fixed	\$20
Universal Roof Mount	4 panels	Fixed	\$600
Corrugated Iron Roof Mount	4 panels	Fixed	\$600
Ground Mount	4 panels	15°- 25°	\$800
Tilt Mount	4 panels	30°- 45°	\$800

Learn more at: gridfree.store/mounts



Heating

One of the first incremental changes when going off-grid that pays off in power conservation is rethinking heating and cooking. A woodburner is a great way to keep warm and cook food without power.

Our "Ruby" Outdoor Wood Burner Camping Stove is a small outdoor cooker that's easy to move with a sizable cooking area. You'll find this portable woodburner convenient for camping and the early stages of off-grid life.

Product	Price
'Ruby' Outdoor Woodburner Stove	\$495

Learn more at: gridfree.store/heating

Additional Products

Cables

Product	Price
16mm ² Cable - BLACK (per m)	\$12.50
16mm ² Cable - RED (per m)	\$12.50
50mm ² Battery link Cable - 30CM	\$20
25mm ² Cable - BLACK (per m)	\$20
25mm ² Cable - RED (per m)	\$20
35mm ² Cable - Black (per m)	\$30
35mm ² Cable - Red (per m)	\$30
50mm ² Cable - Black (per m)	\$45
50mm ² Cable - Red (per m)	\$45
35mm ² Pre-Crimped Cable Red&Black 1M - M8 + M6	\$70
10mm ² Pre-Crimped Cable Red&Black - 3m - M8 one end	\$80
16mm ² Pre-Crimped Cable Red&Black - 3m - Default	\$90
50mm ² Battery to Battery Connection Cable x 2m (Crimped both-side) - Blue	\$108
25mm ² Pre-Crimped Cable Red&Black - 3m - Default	\$142
35mm ² Pre-Crimped Cable Red&Black 3m - M8 Both Ends	\$240
35mm ² Pre-Crimped Cable Red&Black - 3m - M8 One end	\$220
MC4 Solar Connector (Pair)	\$5
4mm ² Solar PV cable - Red (per m)	\$5
4mm ² Solar PV cable - Black (per m)	\$5
MC4 Solar Adapter Y Branch Connector Set	\$15
Y-Branch Connector - 1 Meter	\$30
Y-Branch connectors - 2 Meter	\$35
6mm Cable Red&Black - 10m with MC4	\$185
10mm ² PV cable x 20m (Red & Black) - MC4 Included	\$440

Accessories

Product	Type	Price
Caravan Plug (Male) 16A - 32A - 16A	Accessories	\$58
48V to 12V DC Converter - 20A	Accessories	\$65
24V to 12V DC Converter - 20A	Accessories	\$65
Caravan Plug (Male) 16A - 32A - 32A	Accessories	\$72
Battery Equaliser - 24V - Default	Accessories	\$75
Battery Equaliser - 48V - Default	Accessories	\$135
MeanWell 1000W Battery Charger - 12V	Battery Charger	\$895
MeanWell 1000W Battery Charger - 24V	Battery Charger	\$895
MeanWell 1000W Battery Charger - 48V	Battery Charger	\$895
ANL Fuse & Fuse Holder	Breakers/Fuses	\$40
Langir DC Circuit Breakers - 63A	Breakers/Fuses	\$100
Langir DC Circuit Breakers - 25A	Breakers/Fuses	\$100
Langir DC Circuit Breakers - 32A	Breakers/Fuses	\$100
Langir DC Circuit Breakers - 15A	Breakers/Fuses	\$100
Tomzn 125A DC Circuit Breaker	Breakers/Fuses	\$165
Tomzn MCCB - 125A MCCB	Breakers/Fuses	\$275
Tomzn MCCB - 200A MCCB	Breakers/Fuses	\$325
ZBeny 200A MCCB & Enclosure	Breakers/Fuses	\$399
Lockable Cabinet - Build-It-Yourself	Cabinet	\$600
Lockable Cabinet - Pre-Built	Cabinet	\$1,050
MCB Enclosure 2-Way	Enclosures	\$25
HT MCB electrical distribution box - 5 Way	Enclosures	\$35
HT MCB electrical distribution box - 8 Way	Enclosures	\$55
8-Way Customised Fuse Box (With combiners)	Enclosures	\$109

Bootlace Ferrule - Packs of 10's - 10 x 25mm ²	Ferrules	\$10
Bootlace Ferrule - Packs of 10's - 10 x 16mm ²	Ferrules	\$10
Bootlace Ferrule - Packs of 10's - 10 x 10mm ²	Ferrules	\$10
Bootlace Ferrule - Packs of 10's - 10 x 6mm ²	Ferrules	\$10
Battery Terminal Crimps - 10mm ² M6	Lugs	\$5
Battery Terminal Crimps - 16mm ² M8	Lugs	\$6
Battery Terminal Crimps - 16mm ² M6	Lugs	\$6
Battery Terminal Crimps - 25mm ² M6	Lugs	\$7
Battery Terminal Crimps - 25mm ² M8	Lugs	\$7
Battery Terminal Crimps - 35mm ² M8	Lugs	\$8.50
Battery Terminal Crimps - 35mm ² M6	Lugs	\$8.50
Battery Terminal Crimps - 50mm ² M8	Lugs	\$9.50
USB to RS485 PC Communication Cable - Default	Monitoring Accessories	\$15
MT50 Remote Controller	Monitoring Accessories	\$50
Epever Remote Monitor - MT75	Monitoring Accessories	\$68
Epever Wifi	Monitoring Accessories	\$75
Growatt Wifi-F	Monitoring Accessories	\$150
Leader Solar - Fuse Holder 32A + Fuse 15A	PV Accessories	\$15
Solar PV Warning label kit	PV Accessories	\$25
20A In-line Fuse	PV Accessories	\$34
Solar Panel MC4 Crimping tool set	PV Accessories	\$95
DC Isolation Switch	PV Accessories	\$190

The GridFree Customer Experience

“
I'm really glad I did choose GridFree because it was pretty straightforward to do and saved us money.”

–Morgan, Waipu.

Morgan and Jessica

Having moved onto their land in a caravan just two days before the 2020 lockdown, Morgan and Jessica were totally thrown in the deep end of off-grid living - no power, no water, and a portaloos that couldn't be serviced. Two years later, they've built a cosy yurt, raised a sheep that thinks it's a dog, and settled into the slower, happier life they were dreaming of for themselves and their kids.

Their Freedom Kit powers sewing machines, a high-spec computer, lights, and all their other household appliances.

Read the full article: gridfree.store/morgan



Cheryl and Te Taki

Cheryl and Te Taki dreamed of a life where they could be more self-sufficient and spend more quality time with their four children. So, they quit their jobs, packed up their belongings and moved back to the little town where they both grew up- Otorohanga. After purchasing some land from Te Taki's family, the next challenge they faced was deciding how to make an income that would support their dream lifestyle. That's when Orchard Valley Glamping was born.

With a goal of keeping the business environmentally sustainable, whilst also wanting to avoid power cuts when they have visitors, Cheryl and Te Taki decided that the GridFree Tiny House Kit was the perfect solution.

Read the full article: gridfree.store/orchardvalley



“
It works well- it does everything we want.”

–Te Taki, Otorohanga.

**Looking for a weekend retreat?
Contact Orchard Valley:**



(+64) 0 273 864 402
hello@orchardvalley.co.nz
www.orchardvalleyglamping.co.nz





“ GridFree is definitely that company that we're recommending because it's so easy.”

–Paulette.

Rory and Paulette

Rory and Paulette built a tiny house and moved to a bare block in the Waikato with an aim to be mortgage-free and more sustainable. Inspired by their escape from the rat race, Rory's mum and brother each decided to buy their own tiny houses and join them for a much simpler life surrounded by family.

Rory and Paulette installed a Freedom Kit with extra panels to power the household, and even an electric vehicle on occasion! The rest of the family soon found a Freedom Kit was the perfect solution for their tiny homes too. Now, this 2.5 acre block of paradise has a total of 28 solar panels on it!

Read the full article: gridfree.store/rory



“ It's awesome to be able to park up anywhere, get the best views, and still have power and internet! Even when it's cold and raining you can still be warm inside and make yourself a cappuccino.”

–Rachel.

Rachel and Marius' Orca Bus

After returning from overseas, Rachel and Marius wanted the freedom to live however and wherever they wanted, without the responsibilities of owning or renting a house. After many long hours of renovations, a 1968 Bedford bus, 'Orca', became their new home on wheels, allowing them to explore the gorgeous scenery of New Zealand full time. Powered by the Bach Kit, this bus also made for a popular AirBNB at Uretiti Bay while Rachel and Marius were onsite camp managers. After some additional renovations, they returned to life on the road with their growing family.

Read the full article: gridfree.store/orca



The GridFree Community

In addition to maintaining the country's largest off-gridding Facebook group, we love to get involved in the community and support the off-gridders that helped us grow. We run a yearly giveaway of one of our solar kits so we can help people who can't afford solar to have power, we visit local tradeshows to help people learn about solar, and we absolutely love visiting our customers to see how they're going on their off-grid journeys.

Tom and Craig joke about the importance of inverter placement.



Karen excited to install her new Bach Kit.



Tom and Maudi pictured with their brand new Freedom Kit.



Sales Director, Zed, talks solar to some visitors at Fieldays.





“

Love this group! I always look forward to reading and watching everyone's DIYs whilst living off grid! It's such a great platform to share ideas and reviews.

-Barb, GridFree NZ member

It's our goal to make off-gridding accessible to everyone who wants to start that journey. You can find lots of helpful information on our website and social media, as well as NZ's largest off-grid Facebook group, GridFree NZ. With over 140k members, there's plenty of inspiration and knowledge-sharing for everyone!

Join our Community:

-  [gridfreenz](#)
-  [@gridfree.store](#)
-  [gridfree.store](#)
-  [@gridfreestore](#)

Marie and her Tiny House powered by GridFree.



Craig meets our solar giveaway winner, Leah, for the first time.



Morgan, Jessica and Orion giggle during their "GridFree Living" episode.

Get in Touch.



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