



## **Grid Neutrality**

Our aim is to import and export as little energy as possible (grid neutral) by smartly managing onsite renewables such as solar PV so that you are paying less for your electricity.

Your system will be configured initially to be grid neutral, with further options available to set via the GivEnergy App or Monitoring Portal.

#### **Save Money**

Your GivEnergy system is also capable of charging your batteries by utilising an off peak or flexible energy tariff to provide additional savings through load shifting, this is where we store energy in your battery at a cheaper rate (usually at night) and discharge through the day where it would be expensive to import from the grid.

## **Maximising Your Self-Consumption**

Self-consumption is the process of using energy generated at home to meet your electrical demand from renewable sources such as solar PV.

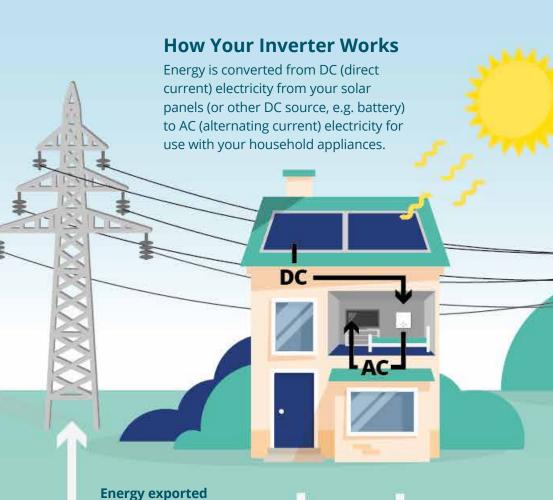
As an example, if you have a self-consumption rate of 50%, this will mean that you consume half of the green electricity you produce through your system.

#### **Example:**

Solar = 2kW Home Demand = 1kW Grid (Export) = 1kW This means that your self-consumption will be 50%

The other 50% would be ordinarily exported back to the electricity grid, as you have a battery storage system, it can be saved for later use, maximising your self-consumption.

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**Your Solar PV System** 

**Giv**Energy

A Solar PV System generates electricity from the sun via your solar panels. This energy is then converted to usable electricity in your house. The amount of energy that is generated is dependant on the time of year and weather conditions, so managing your energy consumption is very important.

back to the grid

## **Energy Import/Export**

Without a battery, if your energy demands are lower than the amount being generated, the excess energy will be returned to the grid.

Alternatively, if your demand is higher than the amount generated, you will be purchasing energy from the grid.

**Energy stored** in a GivEnergy battery

## **GivEnergy Storage**

With a battery, GivEnergy's **Smart Home Energy** Management System will always try and store any excess energy.

If you need more energy than you are generating, the battery will discharge to try and meet your demand so you are not purchasing energy from the grid.

## **Understanding your Hybrid Inverter**

Solar and Battery Inverter in one unit

#### Grid

When energy is being **imported** from the grid, the arrows pointing towards the centre will be lit. When energy is being **exported** to the grid, the arrows pointing towards the grid will be lit.

#### **Inverter Status**

Green (Solid) - Normal **Green (Flashing)** - The system is in waiting

Yellow - Communications issue **Red** - Fault (contact GivEnergy)

This is a calculation made by our Smart Energy Management System and is lit up when a load is detected, within the property.

**Home Demand** 



#### **Solar PV**

When solar PV generation is detected, the inverter will indicate the energy is being converted from **DC** to **AC** energy and can be used within the property.

#### **Battery**

When the battery is being **charged**, the arrows will point towards the battery pack. When the battery is discharging, the arrows will point towards the inverter.

## **Understanding your AC Coupled Inverter**

Standalone Battery Inverter

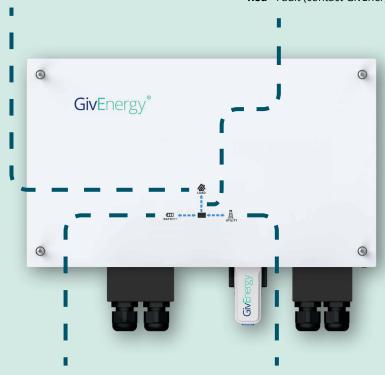
#### **Home Demand**

This is a calculation made by our smart energy management system and is lit up when a load is detected, within the property.

#### **Inverter Status**

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#### **Battery**

When the battery is being charged, the arrows will point towards the battery pack. When the battery is discharging, the arrows will point towards the inverter.

#### Grid

When energy is being imported from the grid, the arrows pointing towards the centre will be lit. When energy is being exported to the grid, the arrows pointing towards the grid will be lit.

## **Getting to know your online portal**

The GivEnergy Monitoring Portal gives you full control over your energy.

Featuring a customisable interface, your dashboard is unique to you. Display your energy data exactly how you want on your phone, tablet or computer.



#### **Power Flow**

A visualisation of the power produced and the direction of flow to and from your home.



#### **Home Flow**

Display your home flows, including additional products such as EV chargers, hot water diverters, etc.



#### **Power Graph**

Display your solar, home, battery and grid usage in an easy to read format.



#### My Inverter

View and control your Smart Home Storage System.



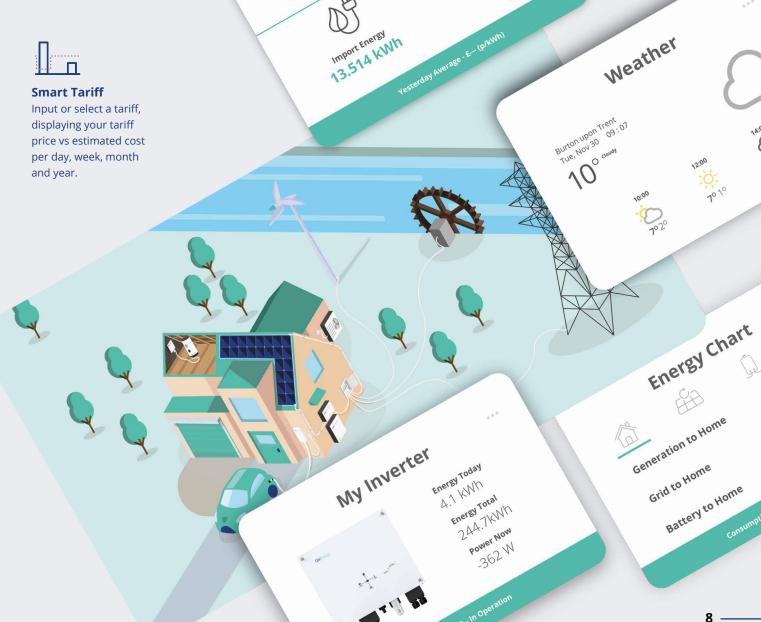
#### **Solar Power Forecast**

Predict your solar generation for the next 7 days with SOLCAST compatible integrated solar forecasting.



#### **Weather Integration**

Receive real time weather forecasts to plan your future energy usage.



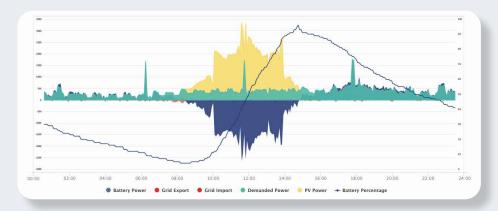
Smart Tariff

## **Understanding your data**

The daily power graph shows your property demand, solar PV generation and battery usage, monitored via the GivEnergy Portal.

#### **Power graph with battery**

The property demand is being met with the stored energy from the battery in the morning and evening.





### **Battery Power**

The amount of power in (below 0W), or out (above 0W) to the battery.



#### **Grid Export**

The amount of power exported back to the grid.



#### **Grid Import**

The amount of power imported from the grid.



#### **Demanded Power**

The amount of power your property is using.



#### **PV Power**

The amount of power being generated in your property.



#### **Battery Percentage**

The level of charge in your battery.

## How your system will operate

Your system will store excess generation in the battery. This energy will be discharged to meet demand when required. This prevents you having to import energy from the grid, thus saving you money.

If your demand is higher than the power available from the battery and generation, the system will begin to import from the grid and charge you at your energy providers rate.

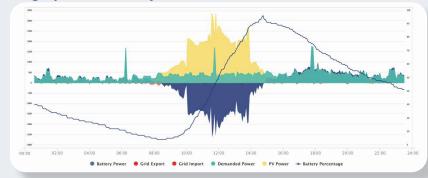
This is the standard logic for all GivEnergy battery systems, whether you have an AC Coupled or Hybrid Inverter installed in your home. If you want to make any changes to this logic, this can be done through the GivEnergy Monitoring Portal.

The top graph shows how your battery discharges when demand is at its peak. The bottom graph shows the energy that is being imported from the grid.

#### Power graph without battery



#### Power graph with battery



# Your GivEnergy

## **App Monitoring Portal**

### Monitor your energy on the go with our Mobile Monitoring Portal.

Enjoy the key features of your GivEnergy Storage System at the power of your fingertips.

Key operational features are available in this cut-down version of our Monitoring Portal, allowing you to monitor and control your system remotely.

#### **APP FEATURES**

- Energy and Power Graphs
- Energy Flow
- Home Flow
- Historic Energy Data

- Generation and Consumption Monitoring
- Battery Usage
- Smart Tariff
- Settings Page



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## Getting the most out of your system

## Set your system to ECO

Your system will be set to ECO by default. This will ensure that the system works dynamically to maximise your self-consumption.





## **Maximise your tariff**

If you have an off-peak, Economy 7 or similar tariff, you can utilise this to the best of its capability. You can charge at cheap rate. It will discharge when energy is more expensive, minimising your import from the grid. This is known as load shifting.

## Keep your battery topped up

Keep the battery topped up from the grid during the early hours of the morning.

This will help to maintain the battery's efficiency. The energy can be used later on when prices are more expensive.



## Warranty

Your GivEnergy battery system will come **supplied** with a **full manufacturers warranty**.

Our dedicated UK support team are on hand to help you should any issues arise.



#### **GivEnergy Inverter**

**5 Year Standard Warranty** (This can be extended to 10 years upon request from your installer within 60 days of commission)

GivEnergy Battery Pack
10 Year Standard Warranty
(please see specific battery
warranty document)



## **Giv**Energy®

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