

# The SMA Energy Storage System

Your home energy management  
and backup power system

ENERGY  
THAT  
CHANGES



# CLEANER, CHEAPER AND MORE RELIABLE



We believe energy should be clean, affordable and reliable. For many of us, the electricity grid is simply not good enough. Whether you want to supply your own energy from a renewable resource, are fed up with rising energy costs, or want reliable backup power during blackouts - SMA has a flexible solution to suit you.

## Take Control with the SMA Energy Storage System

Over 2 million homes in Australia already have solar power installed, providing affordable and clean energy. However, if you don't use the solar energy you generate during the day, it may partly go to waste.

Adding battery storage to your solar system allows you to temporarily store your solar energy. The energy can be used at a later time when you need it most. As electricity prices can vary during a day, you can also save money by using your stored battery energy when the price is high.

## Save up to 80%<sup>1</sup> annually on energy consumption

<sup>1</sup> Calculation based on average daily electricity consumption of an Australian 5 person household, consuming up to 30 kWh per day and with a 5 kW PV system, 2.5 kW battery system with 10 kWh of usable storage.

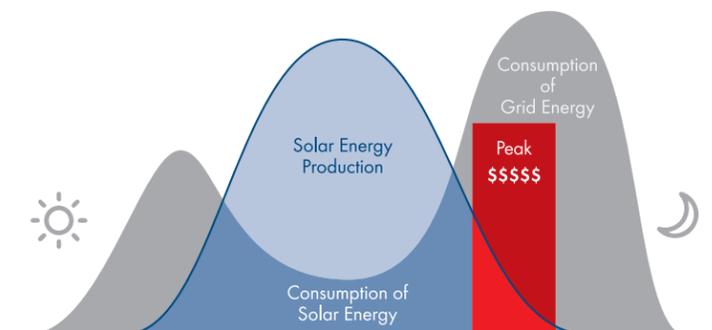
## Time-of-use Energy Price

Many electricity plans charge you more in the late afternoon/early evening. In general, your PV generation will not fully coincide with the peak energy price period.



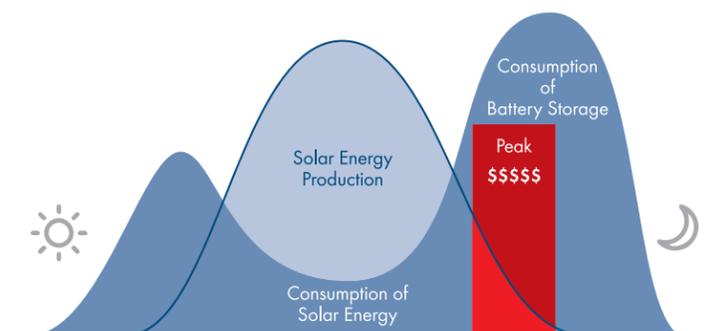
## Solar Power Only

Solar power can only be used as it's produced, otherwise, it is fed back into the grid. Although the energy company pays for the energy you feed back into the grid, the rate you are paid is typically much lower than the cost of electricity you buy - especially in the early evening when you need it most.



## Solar Power + Battery Storage

If you add battery storage, the excess energy your solar system generates will be stored in the battery. That way, you can use this energy in the early evening when electricity prices are high or at any other time you need it most.

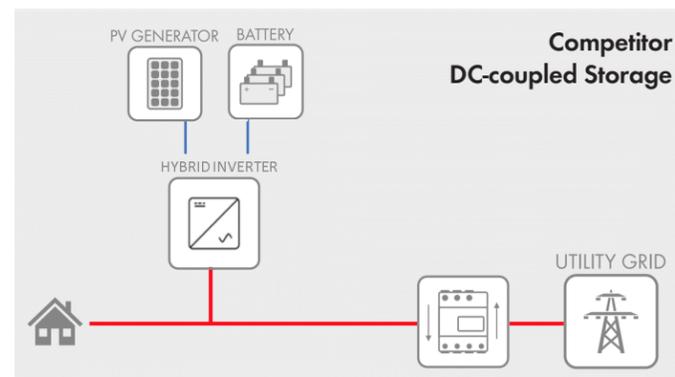
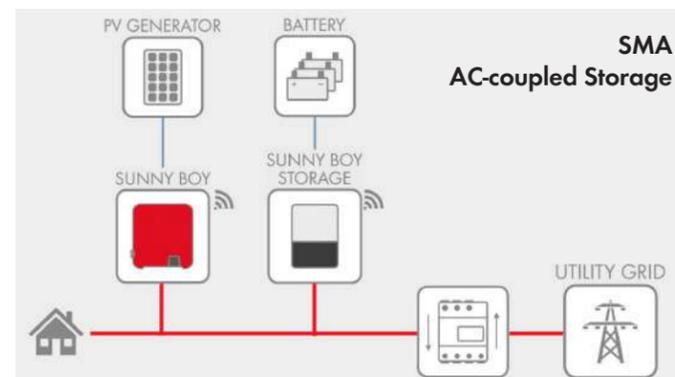


# Flexibility without compromise

## What 25 Years of Experience Tells Us

Whether you're thinking about solar or already have a system, SMA's AC-coupled Storage is the perfect solution for you. There is no one-size-fits-all battery system. That is why it needs to be flexible enough to be tailored to each home's usage without compromising reliability or quality. SMA has deployed over 100,000 battery systems across the globe. With this experience, SMA has designed the SUNNY BOY STORAGE inverter which allows you to flexibly add batteries to any home system.

Our technology is called "AC-coupled" storage, which has significant advantages over "DC-coupled" storage. There are 5 good reasons for this:



## 1) Add battery storage to any home

The SUNNY BOY STORAGE inverter makes any PV system "Battery Ready". That means you can add battery storage to virtually any existing PV system whether it be from SMA or any other supplier. If you are thinking about installing a new PV system, adding AC-coupled storage to it is easy!

Upper left: SMA's AC-coupled battery storage system using the SUNNY BOY STORAGE. The PV inverter may be from SMA or another manufacturer.  
Lower left: DC-coupled storage system offered by other manufacturers.

## 2) Most cost effective option that meets your needs

Our AC-coupled battery inverters gives you access to the best and most cost effective lithium batteries on the market. Adding our SUNNY BOY STORAGE battery inverter to an existing PV system is also more cost effective than other systems that use a hybrid inverter. Hybrid inverters are more expensive, and installing one causes your original PV inverter to go to waste.

## 3) Upgrade at any time

The beauty of the SUNNY BOY STORAGE inverter is that storage can be added to a PV system at any time. Additionally, it is designed to allow more batteries to be added to the system at any time. As a result, you can take advantage of falling battery prices or adjust to your home's changing needs.

## 4) Installation location is flexible

With AC-coupled storage, you have more flexibility in where you can install the battery system in your home. With other hybrid inverters, you must find a location mutually suitable for your batteries and your PV system, often leading to a compromise on cost, quality or performance.

## 5) Minimise your energy bills

The key reason to add a storage system is to reduce the electricity you buy from the grid! It is far cheaper to consume your PV-generated energy than purchasing more expensive energy from the grid. AC-coupled batteries allow you to better optimise the battery system for the loads in your house.



## SMA Smart Connected: your free, proactive service

For unprecedented reliability, SMA has introduced Smart Connected. This free and proactive service automatically detects any errors within your PV system and initiates the repair or replacement process before you even notice! Installers also benefit: less time is spent monitoring customer systems and fewer visits and truck rolls are needed. A service unlike any other inverter manufacturer's.

# POWER TO YOU, even when the grid is down

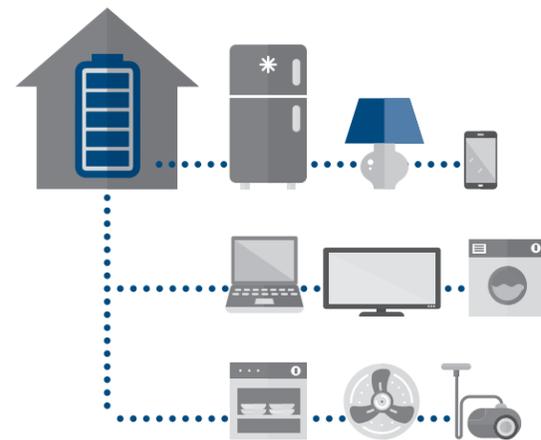
## Backup Power with The SUNNY BOY STORAGE

Whether blackouts are common in your area, or you want the ability to stay comfortable and connected during one, the SUNNY BOY STORAGE will provide you backup power from the batteries.

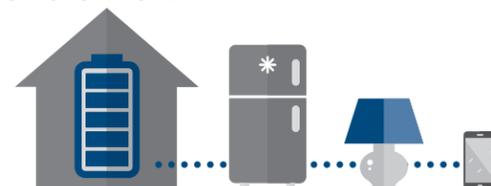
There are two types of backup power with the SUNNY BOY STORAGE inverter.

1. **Full home backup** transfers your home to solar and battery power automatically during a blackout.
2. **Backup Lite** powers selected appliances in your home from battery power. It is manually activated during a blackout and comes standard with the SUNNY BOY STORAGE 5.0.

**Full home automatic backup** for the ultimate peace of mind during power outages. Requires an additional Automatic Backup Unit.



Backup protected loads using the **Backup Lite** included integrated within the SUNNY BOY STORAGE.



## Simplified Energy Management

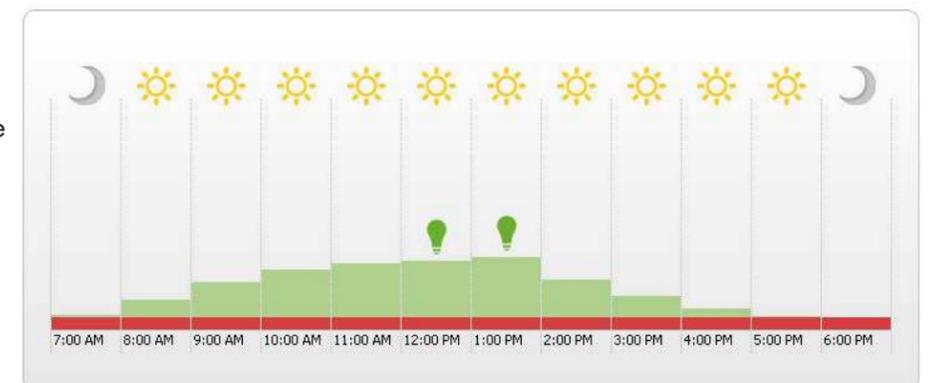
The SUNNY BOY STORAGE decides automatically when to charge and discharge the battery to make the best use of your solar energy. It does this using either a SMA ENERGY METER or a SUNNY HOME MANAGER 2.0. These products also give you additional benefits:

## Real-time Tracking on Your Phone

Rather than waiting for a quarterly energy bill, you can monitor your real-time energy consumption, solar power and battery power from any smart device at [SunnyPlaces.com](https://www.sunnyplaces.com).

## Energy Forecast

Most of us don't have time to analyse and optimise our energy usage. With the HOME MANAGER 2.0, the system automatically learns your energy usage behavior and uses weather forecasts to advise you when excess solar power will be available. In the graph on the right, the HOME MANAGER is recommending to schedule loads like your dishwasher between 12 - 2pm for maximum savings.



# SMA Energy Storage System Components

## PV System



SUNNY BOY  
3.0/4.0/5.0/6.0



SUNNY TRIPOWER  
3.0/4.0/5.0/6.0  
8.0/10.0



Module Level  
Power Electronics  
TS4-R

## Battery Storage System



SUNNY BOY  
STORAGE 5.0  
Battery Inverter



Compatible  
Battery



SMA Automatic  
Backup Unit

## Energy Management and Service



HOME MANAGER 2.0 /  
ENERGY METER



SMA Smart Connected

## Storage Solutions for Any Home



ENERGY  
THAT  
CHANGES

GERMAN  
ENGINEERING  
POWERING  
AUSTRALIA

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