

# SOLINTEG SMART CONTROL

## Energy Storage System

INTEGRATE SOLAR INTELLIGENTLY



## Introduction

Solinteg provides a smart control solution for storage system. Includes auto-switching, intelligent monitoring, 110% unbalance output, black start, smart load control, etc.

# 01 UPS Level Auto Switching

Solinteg hybrid inverters can switch your system to off-grid mode when power blackouts.

The whole switching process is managed automatically and can be activated within **10ms**. Secure your energy safety at anytime.





# Intelligent Monitoring 02

Except for the UPS level auto switching function, Solinteg also provides an intelligent and convenient remote control platform-- Solinteg Cloud.

You can check the status of your system anytime and anywhere, including power generation status, battery status, load consumption information, etc. Also, multiple settings can be remotely configured through Solinteg Cloud and its portable version Solinteg App, such as turning on/off the inverter, firmware upgrading, parameters setting, operation mode setting, etc.

Our platform makes it possible for operators to monitor and control their system in a timely manner on PC and mobile phone.

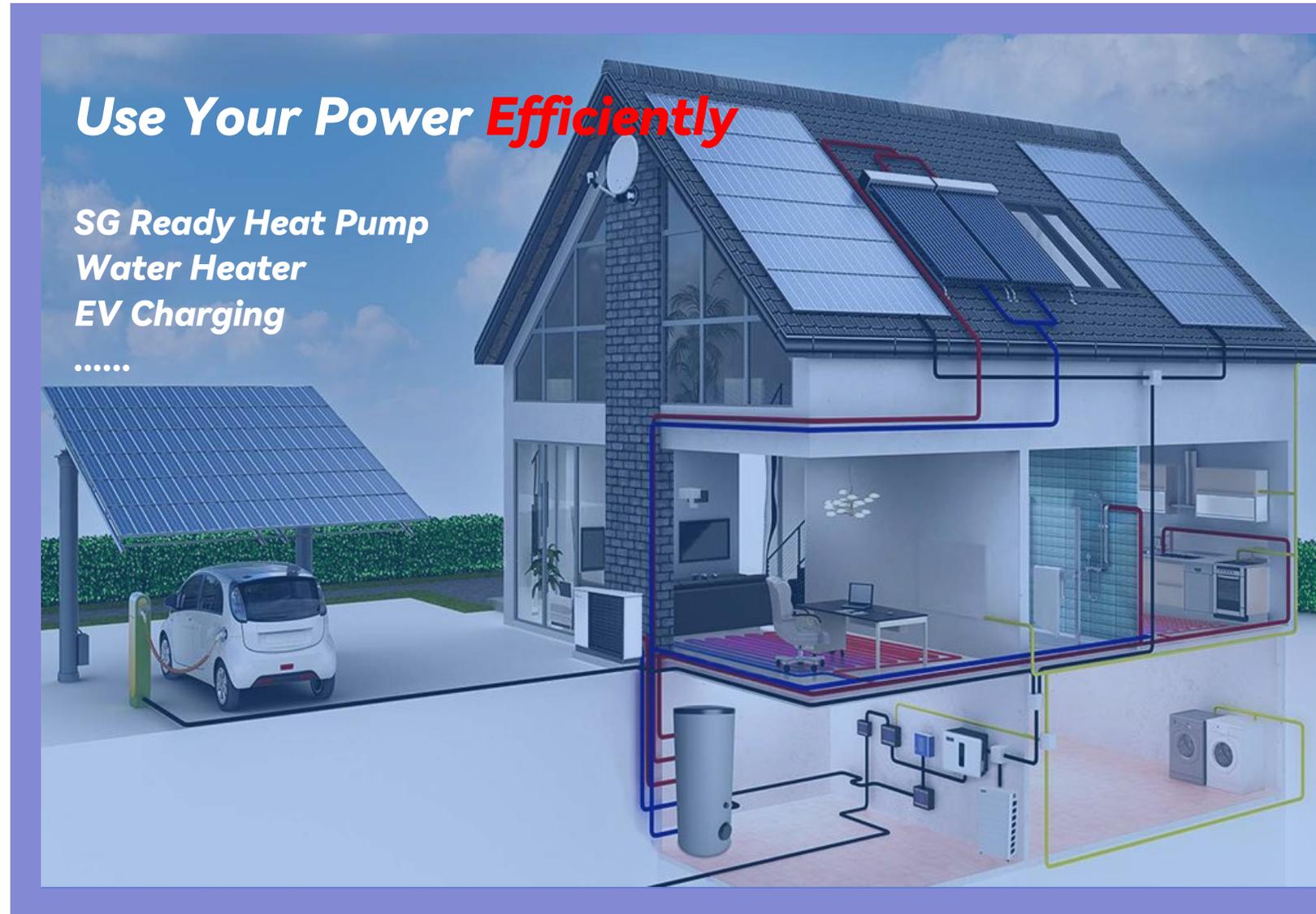
# 03 Smart Load Control

Have you ever been troubled by the following **PROBLEMS?**

- Excess solar energy being wasted
- EV was not charged in time
- Expensive electricity used by heat pump or water heater in non-emergency time
- Excess power exporting to the power grid without any payback or even being punished.
- ...

Solinteg smart load control function can provide you with solutions in these scenarios.

You can enable the Smart load management function on the Solinteg Cloud or App and manually control these high-consumption loads on and off. Or you can intelligently control these loads on and off or work mode switching according to the threshold of battery SOC or excess power that you set up on the App.



# Black Start 04

## Black Start Automatic Restart



*During the use of a residential solar system, you may encounter a situation:*

*Your system shuts down due to the loss of all energy sources (battery depletion, grid blackouts, PV panels unable to generate electricity at night or in extreme weather).*

*Can your system automatically resume operation once the energy source is restored?*

The answer is: Many inverters are unable to restart automatically, and they need manual operation to restart the inverter.

Solinteg black start function allows your system to get back to work automatically if the PV power or the grid recovers. It doesn't need manual operation, which saves your time and cost and avoids energy loss.

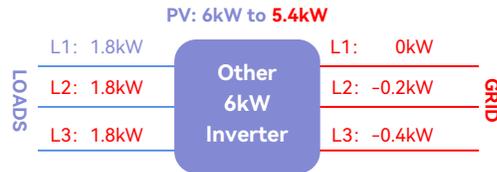
# 05 Unbalanced Output

In a three-phase system, it is common that different power loads will be used at the same time on different phase, which will cause the power consumption of the whole three-phase grid to be unbalanced.

*Imagine a scene (as shown in the pic):*

**PV generation is 6kW; Three working loads of different phase in home, L1: 1.8kW fridge; L2: 2kW AC; L3: 2.2kW Dryer**

*What will happen when you are using a 6kW inverter without unbalanced output function?*

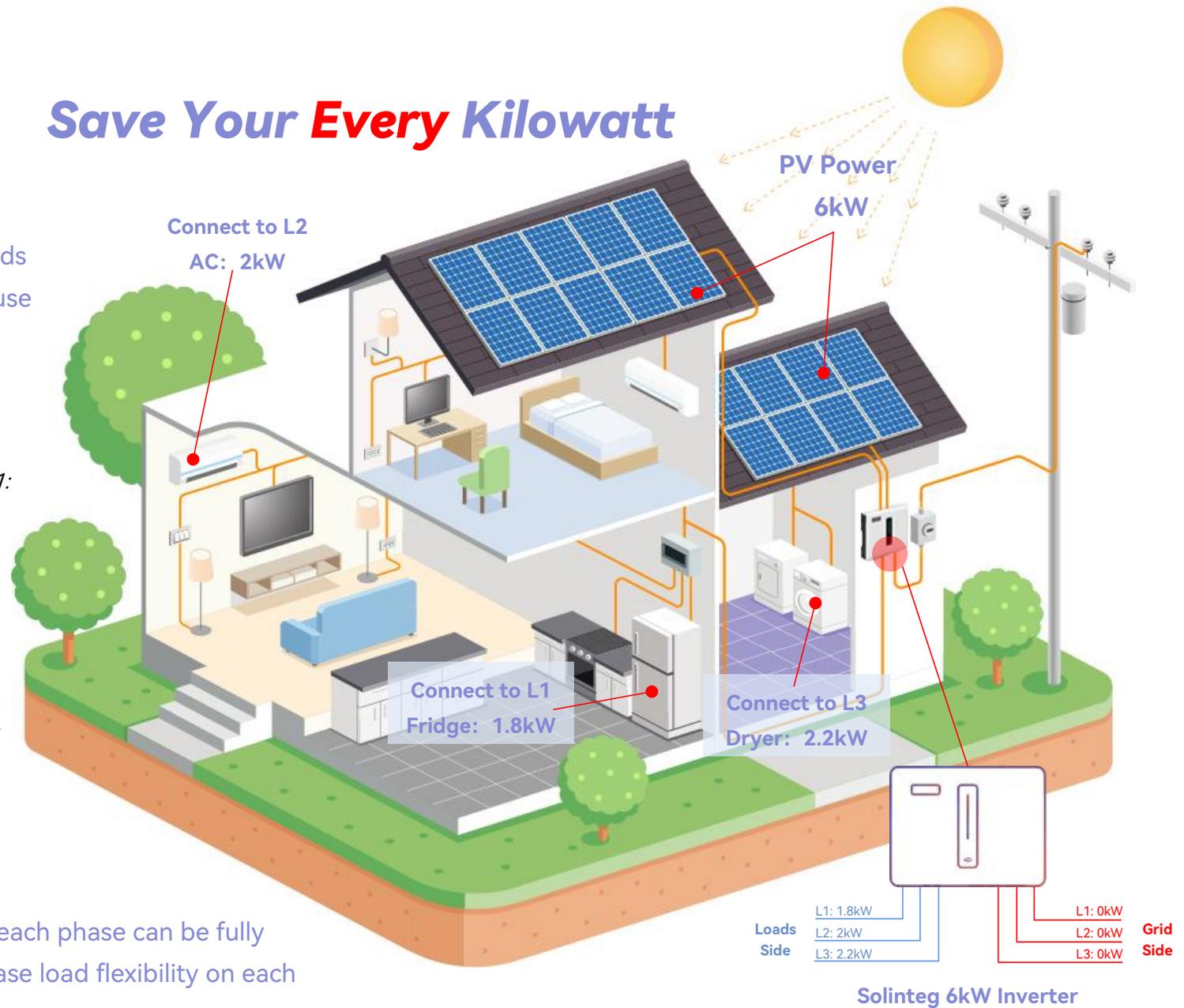


Due to the lack of unbalanced output function, and to ensure there's no power exporting to the grid, the inverter each phase output will be limited to 1.8kW. Therefore, the total power of the inverter is forced to decrease from 6kW to 5.4kW, and L2 and L3 phases require additional power purchase from the grid to supplement the power.

Solinteg inverters support **110% unbalanced output**.

So, the output upper limit of each phase is 2.2kW. In this case, each phase can be fully supplied by the inverter, which can save energy bills and increase load flexibility on each phase.

## Save Your *Every* Kilowatt



## Adapt to Different Regions **Friendly**

DRED  
RRCR

N-PE Check



## Smart Grid **06**

There are different requirements for inverters in different regions. Some are related to safety, while others are related to the grid.

For example, RRCR in Germany. If the grid is overloaded, the utility company will send a command to the inverter through RRCR to ask the inverter to reduce its feed-in power to 0%, 30%, 60% of its rated power according to the command. If the grid is not overloaded, the inverter will be allowed to feed 100% of the power.

Solinteg has the integral solution to adapt to the different region's requirements. Such as DRED, RRCR, N-PE check, and so on.

# 07 Diesel Generator Control

It is possible that we may encounter extreme situations where the grid blackouts, the battery reaches SOC protection value, and the solar panels don't work due to bad weather. Don't worry! Solinteg hybrid inverters support the use of a diesel generator as an AC source to supply loads and charge batteries in this situation.

Solinteg hybrid inverter can control the diesel generator through a dry contact terminal, which can manually or intelligently start the diesel generator remotely to respond to emergencies.

**Power Your Home *ALL The Time***

**Start the Diesel Generator Remotely**

\*Note: The intelligent control of the diesel generator will be available in 2023 Q3.

**END**

Contact us at

[Academy@solinteg.com](mailto:Academy@solinteg.com)

if you want to know more



INTEGRATE SOLAR INTELLIGENTLY