ON GRID SOLAR SYSTEM

On-grid or grid-tie solar systems are by far the most common and widely used by homes and businesses.

These systems do not need batteries and use common solar inverters and are connected to the public electricity grid. Any excess solar power that you generate is exported to the electricity grid and you usually get paid a feed-in-tariff (FiT) or credits for the energy you export.

SYSTEM COMPONENTS

01 Solar Panel
Mono/poly/half cell/flexible/full black solar panel

02 Solar Inverter
On grid solar inverter

03 PV Cable
Has excellent acid resistance and heat resistance

04 MC4 Connector
Contact material is copperand tin plated

Configuration of PV System

- Solar Panel
- Roof/Ground Mounting System
- DC/AC Combiner Box
- On Grid Inverter
- DC/AC Cables
- PV Installation Tools

Main Advantages

- Reducing electricity bills
- Easy to installation and maintenance
- Effective utilization of generated power

PROJECT CASES

20KW in Vietnam

1MW in Brazil

50KW in Egypt

10KW in Thailand

80KW in Ghana

OFF GRID SOLAR SYSTEM

Off-grid solar systems operate from the stored energy in a battery bank. Solar panels are used to keep the battery bank charged. Your off-grid solar system has to be sized properly to meet your daily power needs and replace the stored energy pulled from the battery bank.

The high cost of batteries and inverters means off-grid systems are much more expensive than on-grid systems and so are usually only needed in more remote areas that are far from the electricity grid. However battery costs are reducing rapidly, so there is now a growing market for off-grid solar battery systems in both cities and towns.

Configuration of PV System

- Solar Panel
- Roof/Ground Mounting System
- DC/AC Combiner Box
- Off Grid Inverter Built in Controller
- Battery Bank, Cable & Rack
- DC/AC Cables
- PV Installation Tools

Main Advantages

- Reducing electricity bills
- Easy to installation and maintenance
- Effective utilization of generated power

SYSTEM COMPONENTS

01 Solar Panel
Mono/poly/half cell/flexible/full black solar panel

02 Solar Inverter
Off grid solar inverter

03 Battery Bank
Lithium Battery/GEL Battery

04 Solar Controller
MPPT/PWM Controller

05 PV Cable
Has excellent acid resistance and heat resistance

06 MC4 Connector
Contact material is copperand tin plated

PROJECT CASES

2MW in Netherlands

1MW in Panama

2MW in Saudi

10KW in Ethiopia

100KW in Turkey

HYBRID SOLAR SYATEM

Sunway Hybrid Solar Energy Kits combine the innovation of both on-grid(grid-tied) and off-grid technologies and are offered as on grid(grid-tie) solar with battery bank storage. Sunway Hybrid Solar Energy Kits generate electricity, not only can be used, also can be stored for night use .What is more, extra energy can be sold back to utility company. This is perfect for home owners. Although for the majority of businesses which operate during the daylight hours, a common hybrid solar system is still the most economical choice.

01 Solar Panel
Mono/poly/half cell/flexible/full black solar panel

02 Solar Inverter
Hybrid solar inverter

03 Battery Bank
Lithium Battery/GEL Battery

04 Solar Controller
MPPT/PWM Controller

05 PV Cable
Has excellent acid resistance and heat resistance

06 MC4 Connector
Contact material is copperand tin plated

COMPONENTS OF THE SYSTEM

Configuration of PV System

•Solar Panel
•Roof/Ground Mounting System
•DC/AC Combiner Box
•Hybrid Inverter/Charge Controller
•Battery Bank, Cable & Rack
•DC/AC Cables
•PV Installation Tools

Main Advantages

•Operate with on-grid and off grid mode at the same time
•Sell energy back to the utility company and store excess energy to night use
•Use on grid energy or solar energy to charge the battery bank

SYSTEM DISPLAY

Our Hybrid Solar systems can seamlessly adjust to fluctuations in energy from both the utility and the solar array maximizing the energy storage and consumption. Users can decide when and how many energy is be stored and sold back to the utility company.

SEVERAL DIFFERENT HYBRID SYSTEMS

3-6KW

3-6KW

5KW

5-10KW

8-12KW

8KW

PROJECT CASES

10KW in Netherlands

5KW in Turkey

20KW in Brazil

4KW in Bangladesh

5MW in Afghanistan

SOLAR ENERGY STORAGE SYSTEM

Hybrid solar energy storage system, the use of solar panels, power generation, storing electrical energy into the battery, through the inverter in the storage battery DC into household alternating current (AC), can according to the power demand of the average family configuration design, suitable for remote mountainous area electricity is not convenient, simple operation, plug and play, low failure rate, energy conservation, environmental protection, no pollution, no noise.

SOLAR ENERGY STORAGE SYSTEM WORKING DIAGRAM

Configuration of System

- Mono/Poly/Half Cell Solar Panel
- DC/AC Combiner Box
- Lithium Battery
- PV Installation Tools
- Roof/Ground Mounting System
- Hybrid Inverter/Charge Controller
- DC/AC Cables
- DC Switches

30-100KW

30-150KW

- Pure sine wave AC output
- MPPT solar charge controller to maximize the solar output
- WIFI/GPRS remote monitoring(optional)
- Compatible to mains voltage or generator power
- Parallel operation available
- Configurable AC solar input priority via LCD setting

INTEGRATED SYSTEM CABINET

- The integrated system cabinet design of on-grid and off-grid supports a maximum of eight parallel units on the power grid
- 10KW/30KW/60KW/120KW,1h to 3h energy storage capacity of the lithium iron phosphate for options
- PV DC networking,improve PV power generation efficiency by 5-8%
- Cabinet level and pack level fire protection,system thermal out of control detection and active fire protection
- Cabinet thermal insulation and hot and cold air conditioning thermal management,stable operation -20℃ to 50℃

INTEGRATED SYSTEM CABINET WORKING DIAGRAM

CABINET DETAILS DISPLAY

APPLICATIONS

CONTAINER ENERGY STORAGE SYSTEM

Sunway battery energy storage system (BESS) containers are based on a modular design. They can be configured to match the required power and capacity requirements of client' s application.Our containerised energy storage system (BESS) is the perfect solution for large-scale energy storage projects. The energy storage containers can be used in the integration of various storage technologies and for different purposes.

APPLICATION

ACCESSORIES

Mounting System

> Residential Roof(Pitched Roof)

> Commercial Roof(Flat roof&workshop roof)

> Ground Solar Mounting system

> Vertical wall solar mounting system

> All aluminum structure solar mounting system

> Car parking solar mounting system

PV Cable

> PV Cable 4mm2 6mm2

> AC Cable

> DC Switches

> AC Breaker

> AC/DC Combine box

DC/AC Combiner Box

> IP Rating: IP65

> Rated Voltage: 1000VDC

> Input cable terminal: 4-6mm2

Shine Wifi

> Easy to use

> Plug-and-play commissioning

> 100-meter wireless connection to inverter

> Remote firmware updating for inverter

>Free online monitoring via Shine Server

MC4 Connector

> PV Cable 4mm2 6mm2

> AC Cable

> DC Switches

> AC Breaker

> AC/DC Combine box

PV Tools

> Wire Cable Cutter & Stripper

> MC3 MC4 Crimper

> MC4 Connectors Assembly

> Disassembly Tool

DC/AC Breaker

> Provide Overcurrent Protection

> Direct Current Control Circuit Application

> Automatic Device Against Overload