



Empower the Globe

赋能全球
共创绿色未来

2023

Co-Create a Green Future

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ABOUT US

About Us

Henan Rongkai Industry and Trade Co., Ltd

Since 2010, we have been committed to becoming a trusted clean energy solution partner for global customers. Leveraging profound technical accumulation and rich international project experience, our products and services have covered more than

55

countries and regions worldwide.



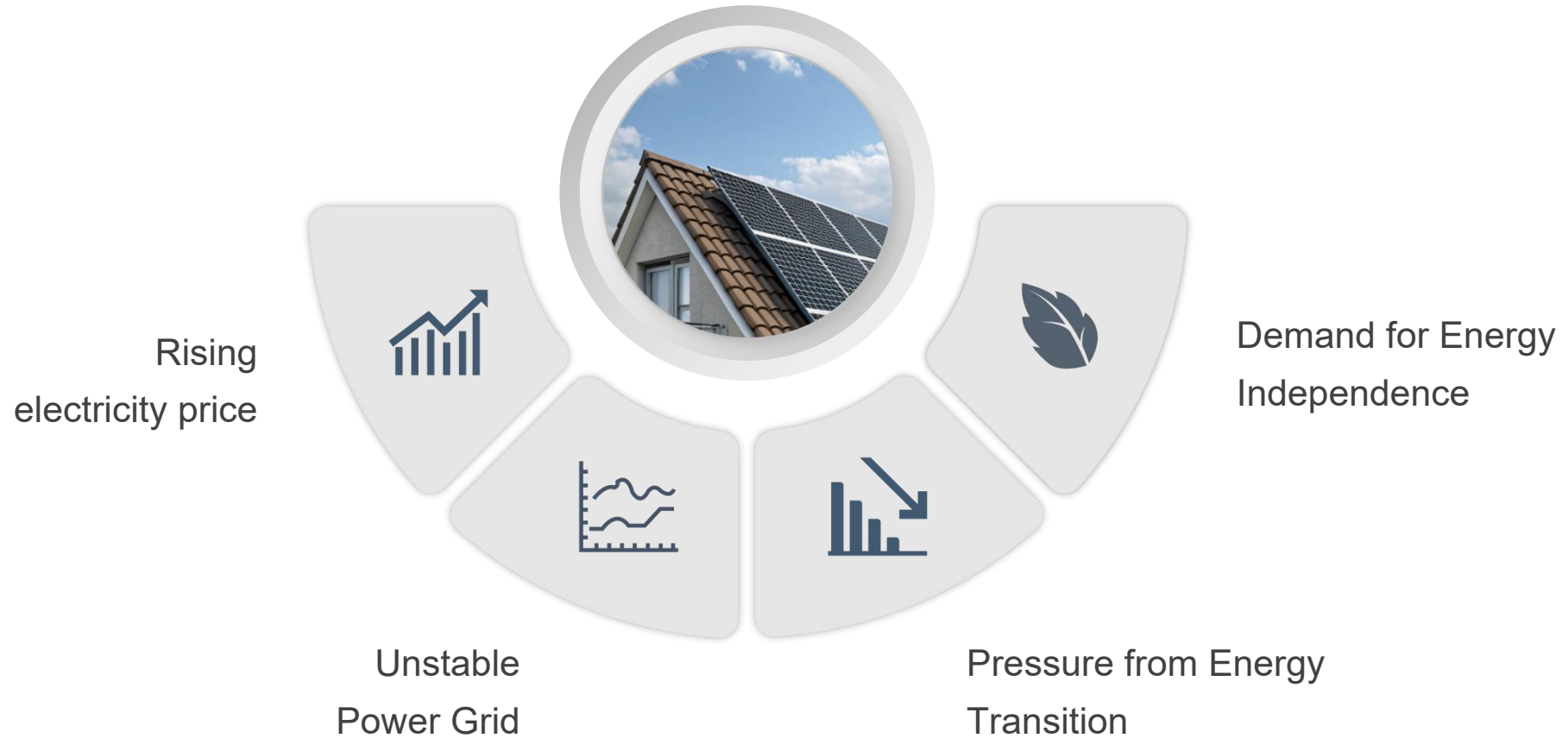
HenanRongkaiIndustryandTradeCo.,LTD

We deeply recognize the differences in energy challenges across various regions and scenarios. Therefore, we not only provide high-performance independent components but also excel at integrating resources to customize integrated solutions, so as to meet the diversified needs of global customers.



THE GLOBAL SHARED ENERGY CHALLENGES

Our Comprehensive Solution: A One-Stop Approach to Address All the Following Challenges



Our solution helps you save costs and ensure stable power supply, with two core highlights:



01

Cost reduction:

Peak shaving and valley filling optimize energy use, cutting unnecessary expenses at the source.

02

Independent power supply:

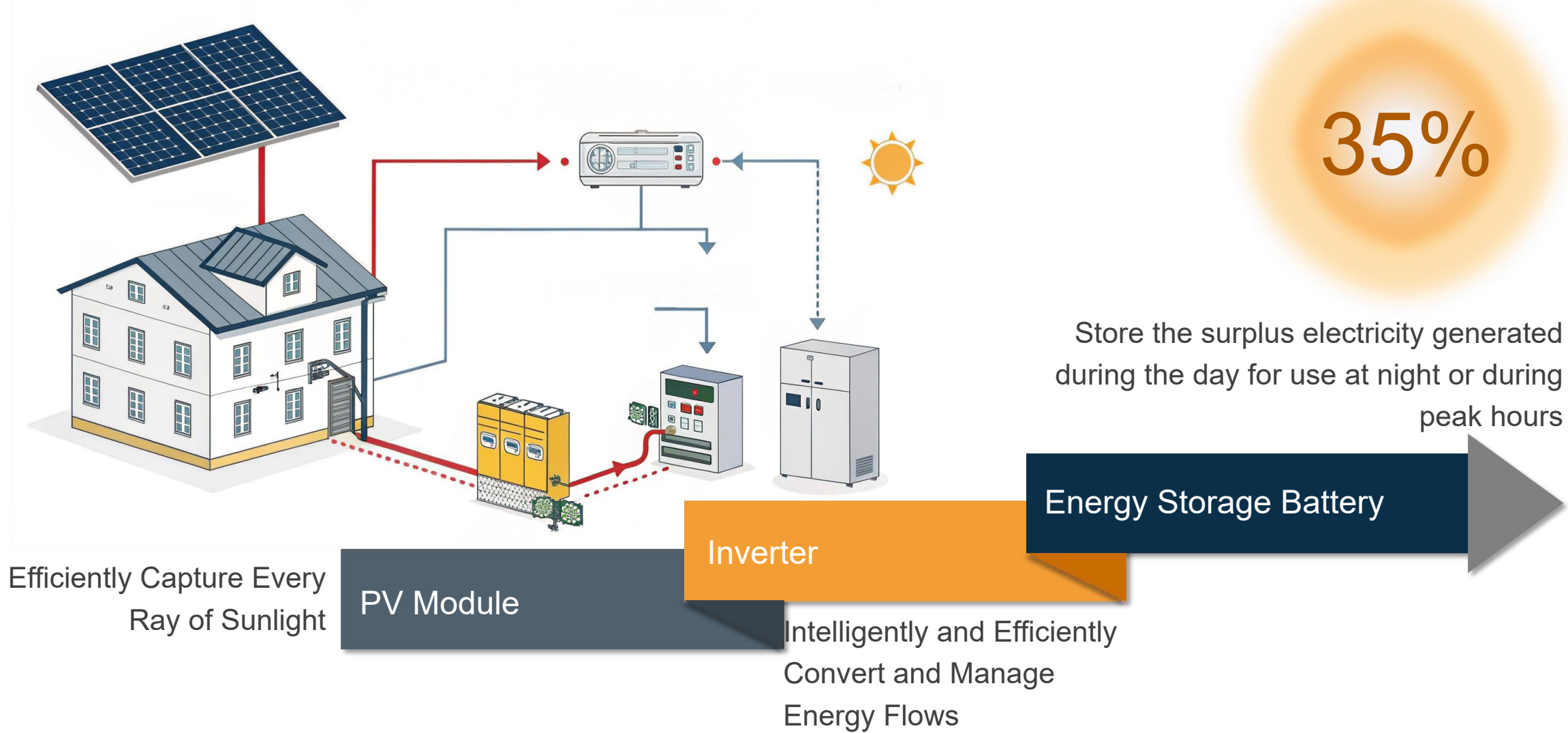
No reliance on external grids, avoiding frequency/voltage fluctuations and instability, while providing stable voltage for equipment operation.



3

**OUR ONE-STOP
SOLUTIONS AND PRODUCTS**

Turnkey Solution



Panels



N-TOPCon Bifacial power generation

N-type cell adopts cutting-edge and high-efficiency passivation contact technology. The module adopts double-sided technology, with a local aluminum grid wire structure that allows the backside to absorb scattered sunlight, which can achieve a power generation gain of 10-30%, significantly reducing the cost of kilowatt hours.



Excellent low-light response

In low-irradiance scenarios (e.g., rainy days, dawn/dusk), TOPCon modules deliver superior power performance with an increased power generation of up to 2.26-2.49%.



Half cell technology

Reduce the impact of occlusion on power generation environments.

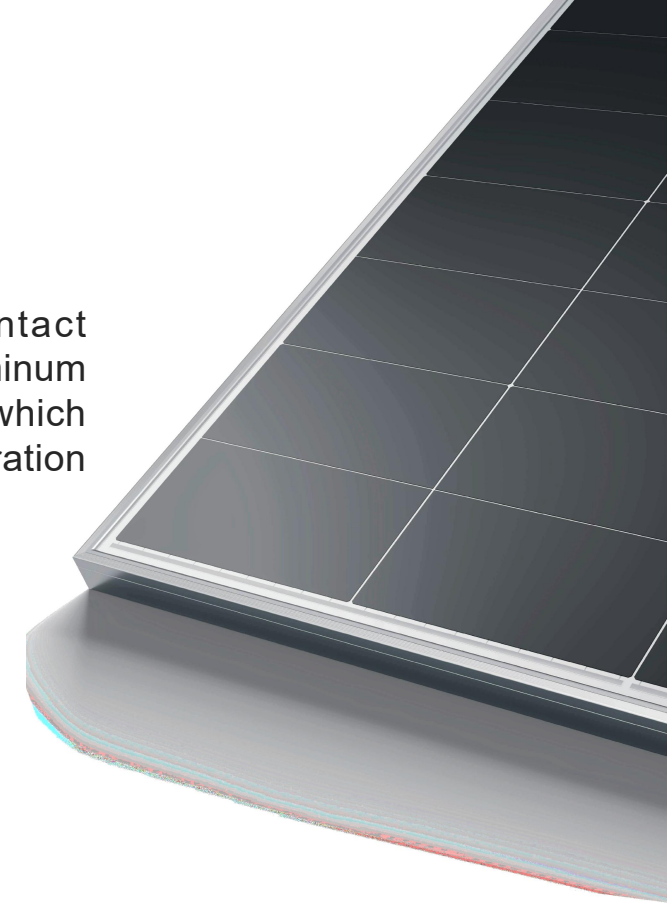
Less current loss

In half a cell, the current through each busbar is reduced to 1/2 of the original. The internal power loss of the half-cell module is reduced to 1/4 of the entire module.



More Excellent Warranty

Compared to traditional PERC modules, the N-type module has a power warranty of up to 30 years, with a first year attenuation of less than 1%, and a guaranteed output power of no less than 87.40% of the original output power after 30 years.



Our Partners



Inverters

System's Intelligent Hub

Real-Time Energy Management and
Optimization Enabling Synergistic System Operation



Grid-Tied Inverter

High-Efficiency Grid Connection, Maximized Returns



Hybrid Inverter

PV-Energy Storage Integration, Intelligent Dispatching



Off-Grid Inverter

Independent Power Supply, Reliable Guarantee



Our Partners



Deye

GROWATT

solis

HUAWEI

COLASOLAR

GOODWE

SUNGROW
Clean power for all

SAKO Techfine

阿特斯

TBEA 特变电工



Battery



>6000 Cycles
One-Time Investment Delivers
Stable Service for Over 10 Years
With Low Degradation Rate

Highest Safety Factor

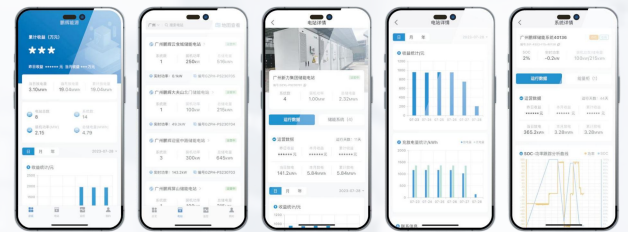
Ultra-Long Service Life

Scalable on Demand

Solid-State Battery Technology,
High-Density Battery
Battery Management System (BMS)
Rapid Charging/Discharging
Technology

Modular Design
From 1KW to MW Scale
Energy Capacity Can Be Upgraded
Anytime as Needed

Our Products

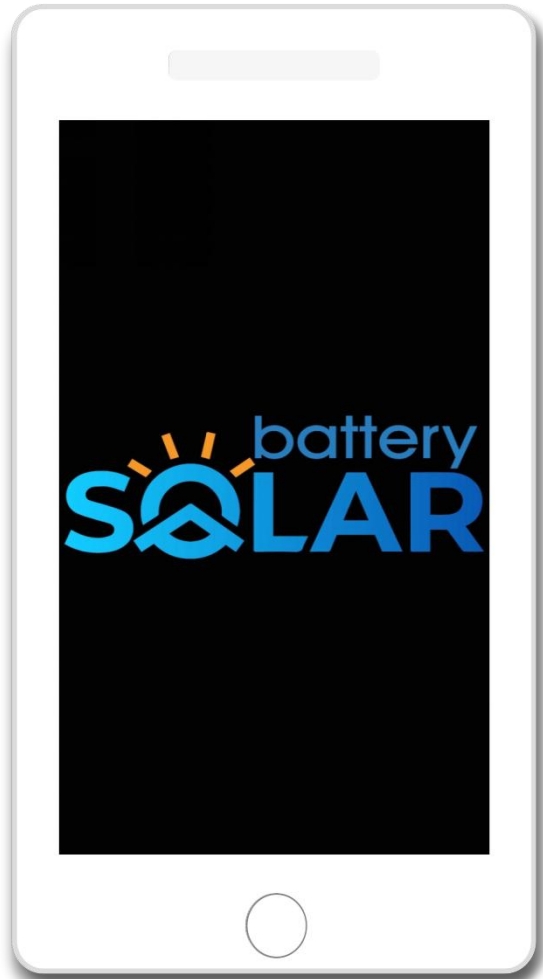


Our Products



Our Products





We are committed to delivering high-efficiency lithium battery solutions and building integrated systems that deeply integrate lithium batteries with smart living.

By combining advanced technologies and eco-friendly materials, we not only ensure superior performance and high energy density, but also practice the concepts of sustainable development and environmental protection, creating a smarter and greener lifestyle for users.



4

**COOPERATION MODES AND
CUSTOMIZED SERVICES**



Discovery

Listen to and analyze your electricity consumption data, goals, and pain points. Instead of offering one-size-fits-all solutions, we tailor configurations based on your specific needs.

Design

Our engineers tailor the optimal system configuration and investment return model for you, ensuring the solution maximizes your benefits.

Delivery

Provide high-quality full-system products, covering core components, accessories, and cables, with a one-stop supply service.

After-Sales Service

Provide installation guidance, technical support, and long-term after-sales service, serving as your reliable partner throughout the entire energy lifecycle.

So, We are not just a supplier, but your growth partner



Complete Product Ecosystem
A Seamless Closed Loop from Power Generation, Conversion to Storage



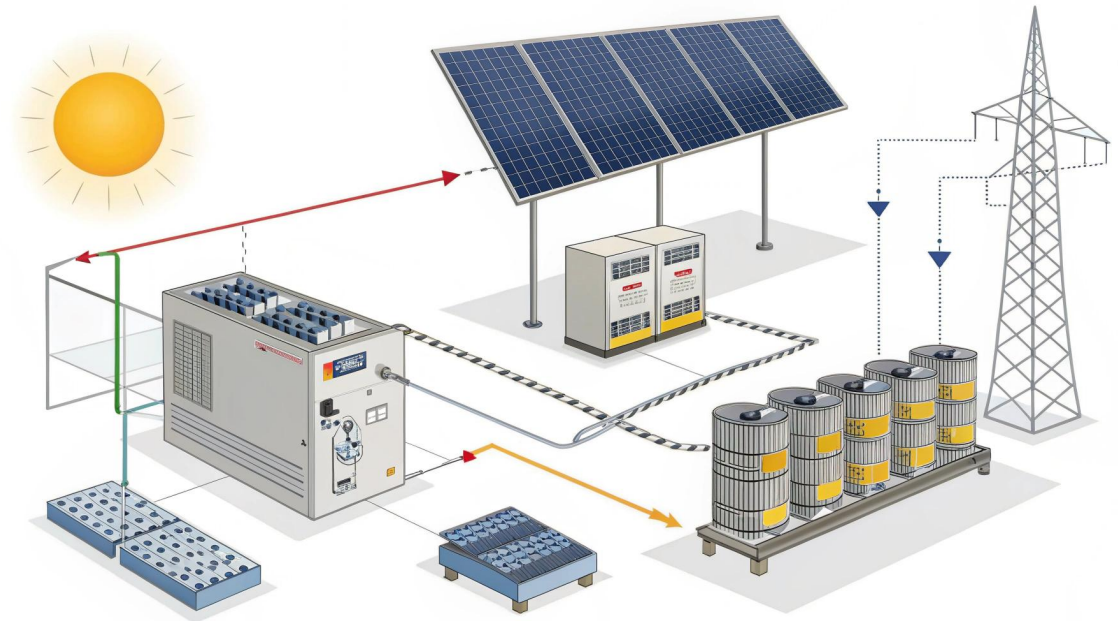
Genuine Customization Capability
Tailored to Your Needs, Not a Stack of Standard Products



Globally Certified Quality
Rigorous Testing and International Certifications Ensure Long-Term Stability



Global Experience
Extensive cross-border project experience helps you mitigate risks





5

SOLUTION CASE

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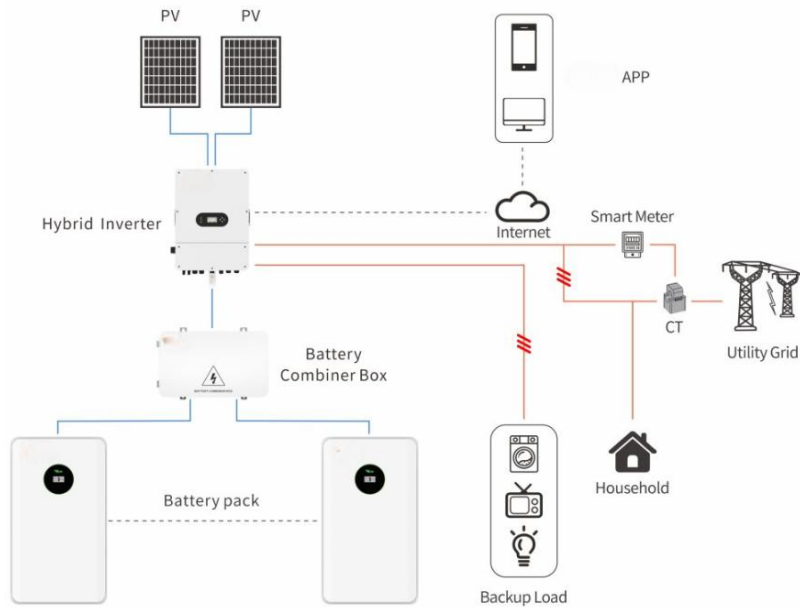
Case 1: Nigeria Hybrid Grid Residential Project (10KW)

Project Background: The coverage of the public power grid is unstable with frequent power outages; electricity prices keep rising, leading to high power consumption costs. In some areas, power supply is insufficient during nighttime or peak hours. The client hoped to achieve stable power supply and reduce electricity expenses by adopting a solar energy system.

Our Solution: To address this situation, we designed and installed a household PV + energy storage system for the client. The system consists of **high-efficiency 710W solar modules, an 11KW hybrid inverter and a 10KWh lithium battery**. During the daytime, solar power is prioritized to meet the daily electricity needs of the household, and the excess power is stored in the battery for use during nighttime or power outages. Meanwhile, the system can automatically switch to energy storage power supply when the grid is unstable.

Project Outcomes and Benefits:

- ◆ Self-consumption rate $\geq 70\%$, significantly reducing household electricity expenses
- ◆ Reduced reliance on the public power grid and diesel generators
- ◆ Reliable power supply for critical loads such as lighting, refrigerators and televisions during power outages
- ◆ Short system investment payback period and low long-term operating costs





Case 2: Residential Solar Project in Los Angeles, USA (15KW)

◆ Project Background:

The homeowner aimed to reduce reliance on the traditional power grid, improve energy self-sufficiency, lower monthly electricity bills, and supply the household with clean, eco-friendly energy by installing a high-efficiency photovoltaic system.

◆ Our Solution:

We customized a grid-tied solar photovoltaic system for the client, equipped with high-efficiency 710W solar modules and a 15KW grid-tied inverter. Excess electricity generated by the system can be fed back to the grid to earn electricity bill credits.

◆ Project Outcomes & Benefits:

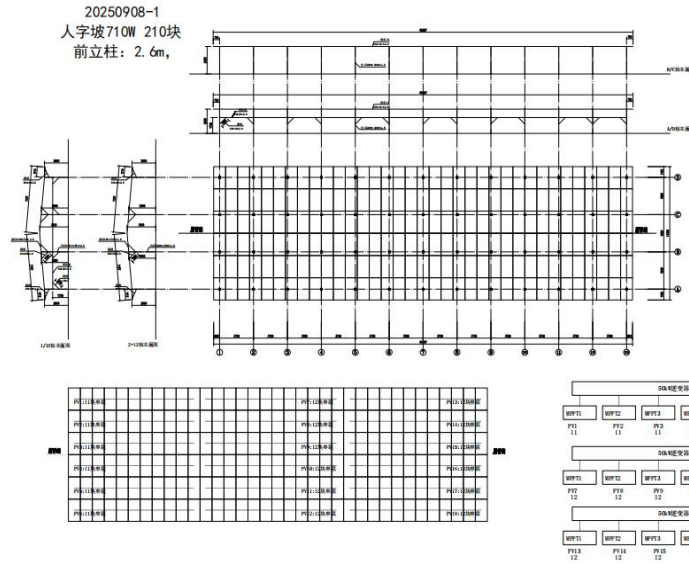
Energy Output: The system produces approximately 60–75 kWh of electricity per day, with higher yields in summer and stable output maintained in winter.

Cost Savings: An estimated \$3,000–\$4,500 in annual electricity costs can be saved (based on California's electricity price of around \$0.25–\$0.30 per kWh).

Environmental Impact: The system reduces carbon dioxide emissions by 15 tons annually, equivalent to planting 3,000 trees.

Return on Investment: The initial investment is expected to be recovered within 4–5 years. Beyond this period, the photovoltaic power generated will be completely "free," and the system will start generating net profits.

On-site Installation Drawing



Case 3: Hydroponic Organic Vegetable Cultivation Project in Mauritius (150KW)

◆ Project Background:

Located in the southern region of Mauritius, this project leverages clean energy to support operations, reduce energy costs throughout the cultivation process, and drive the sustainable development of agriculture.

◆ Our Solution:

We customized a hybrid-grid solar photovoltaic and energy storage system for the client, which integrates high-efficiency 710W solar modules, three 50KW Growatt inverters, and a 60KWh energy storage battery. The system stores surplus electricity generated during the daytime for power supply at night or on cloudy days, ensuring the 24/7 uninterrupted operation of the hydroponic system. Core processes of the hydroponic vegetable cultivation, including greenhouse lighting, automatic irrigation, and water circulation systems, are fully powered by solar energy. This guarantees the stable operation of the entire system and boosts crop yields.

◆ Client Feedback:

The project owner stated that the solar PV system not only helped them cut production costs but also enhanced the sustainability of agricultural operations, fulfilling the farm's environmental social responsibilities. They expressed great satisfaction with the system's stability and economic benefits.



Case 2: Brisbane Rooftop Solar Project (1MW) - Australia

◆ Project Background

Brisbane boasts abundant solar resources and excellent sunlight conditions all year round. Electricity prices for commercial and industrial users have remained high, putting significant pressure on energy costs. The client aimed to fully leverage its rooftop space to achieve on-site power generation for self-consumption, cut electricity expenses, and at the same time, meet the enterprise's demand for clean energy and sustainable development.

◆ Our Solution

We deployed a system combining high-efficiency monocrystalline solar modules, multiple string grid-tied inverters, and energy storage batteries.

Distributed rooftop installation with optimized layout to maximize power generation efficiency

Grid-tied operation mode: prioritizing self-consumption of on-site generated power, with excess electricity fed into the grid

◆ Operational Performance

The system primarily powers the enterprise's production loads during daytime hours

High self-consumption rate, effectively reducing electricity purchases from the public grid

Stable system operation with low maintenance costs

Excellent grid connection performance, meeting the requirements for long-term reliable operation



◆ Project Value

Significantly cuts the enterprise's electricity costs and hedges against the risk of future electricity price hikes

Enhances energy autonomy and optimizes the energy consumption structure

Reduces carbon emissions and elevates the enterprise's green and sustainable brand image

Reserves space for future expansion of the energy storage system, with great upgrade potential

This project boasts the comprehensive advantages of stable investment returns, significant electricity cost savings, and prominent long-term value.



Built for Australia and Value

SOLAR
baf
LA