REDSOLAR

WHERE THERE IS LIGHT

THERE IS RED SOLAR

HUNAN RED SOLAR NEW ENERGY SCIENCE
AND TECHNOLOGY CO., LTD.

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Notes: The relevant data in this album are calculated under ideal conditions based on the engineering indicators, with the standard coal consumption for thermal power coal consumption set at 308 grams per kilowatt-hour.(2026.02)


MISSION
To benefit the world with clean energy.
VISION
To become a clean energy technology company deeply trusted by customers and employees.
VALUES
Customer first, contribution oriented, self-reflection and self-discipline, shared responsibility and creation.

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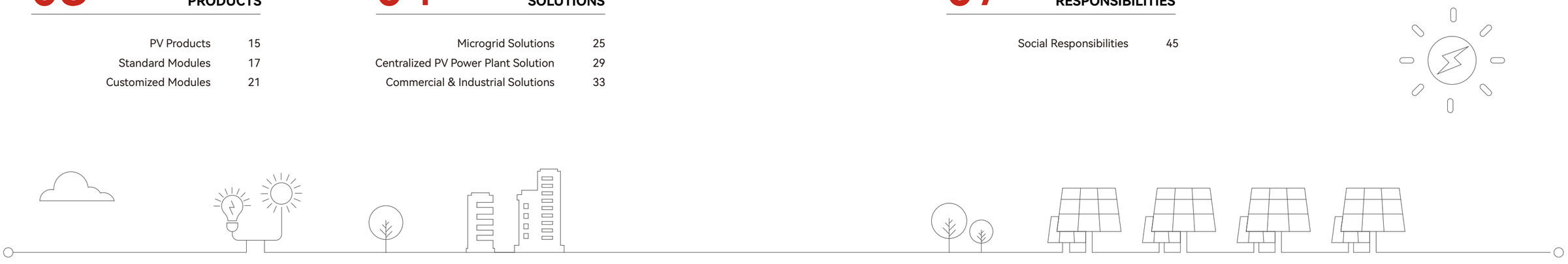




HUNAN RED SOLAR NEW ENERGY SCIENCE AND TECHNOLOGY CO., LTD.

Hunan Red Solar New Energy Science and Technology Co., Ltd., established in June 2008, **is a state-owned high-tech enterprise incubated by the 48th Research Institute of China Electronics Technology Group Corporation (CETC-48), originally founded in 1964 as Changsha Semiconductor Process Equipment Research Institute.** Building upon the 48th Research Institute's profound expertise in photovoltaic technology R&D, the company has been ranked among the Global Top 20 PV Enterprises, recognized as a National Torch Program Key High-Tech Enterprise, and designated as an MIIT Smart PV Pilot Demonstration Enterprise, demonstrating its industry leadership and technological innovation capabilities in the solar energy sector.

With advanced integrated circuit and semi-conductor technologies, electronics power technology and big data technology, Red Solar is committed to working with partners and providing clean energy products, solutions and one-stop services for customers globally. The "1+3+N" business matrix has been formed in Red Solar, which refers to high-efficiency PV products, solar power solutions as well as professional services for the whole PV industry chain. Our products and services are available in more than 50 countries and regions. The total accumulative shipment of PV products exceeds 40 GW, and that of PV production line is over 50 GW, of power station surpasses 10 GW. The brand of Red Solar is deeply trusted by customers.

With national key scientific research institutions such as National Engineering Research Center of Photovoltaic Equipment, China-Egypt Renewable Energy National Joint Laboratory, Red Solar not only processes many authoritative certificates such as TUV/CE, UL, MCS, CEC, CGC, but also completed many production line turnkey projects overseas like in Turkey, India and Korea, making it the only Chinese company in PV industry that successfully accomplished these kinds of projects.

In the future, Red Solar will continue to attach great importance to science and technology innovation, and work for energy transformation from high-carbon to low-carbon and even to zero-carbon with its "Chinese Wisdom" in a high-efficient and sustainable way.

Founded
2008

Registered Capital
USD 50 Million

Employee
1000+

Revenue
USD 275 Million

REDSOLAR

DEVELOPMENT HISTORY

2019
International Benchmark
World's first photovoltaic full industry chain turnkey project completed in turkey

2022
Global Breakthrough
Ranked among Top 20 global PV manufacturers Overseas business share exceeded 40%

2025
Renewal and Win-Win
Successful mixed-ownership reform of corporate strategy; launched overseas power plant investment to accelerate globalization layout

2017
Intelligent Manufacturing
National Engineering Research Center of Photovoltaic Equipment has been established

2013
Strategic Transformation
Starting power plant investment & 500MW power plant developed

2010
Leading in Scale
1.5GW vertically integrated PV full industry chain established

1964
Tech DNA
Previous holding company CETC 48th Institute was established

2008
Born to Meet the Trend
Establishment of Red Solar

PERFORMANCE GROWTH

40GW+
Delivery of PV products globally totals

10GW+
Delivery of PV power plants globally totals

50GW+
Delivery of PV production lines globally totals

30.8%
Average annual performance growth rate from the fiscal year 2021 to 2024



R&D CAPABILITY
TECHNOLOGICAL AUTHORITY



Possesses over 100 patents and 8 software copyrights

A national-level key R&D platform in the PV industry

National Engineering Research Center of Photovoltaic Equipment, China-Egyptian Renewable Energy Joint Laborator

R&D team

15 Research Fellow-level Senior Engineers, 68 Senior Engineers, and 288 Engineers

Talent structure

100+ staffs possess graduate or doctoral degrees, with a proportion of 91.2% having bachelor's degrees or higher

Honor

- Global Top 500 New Energy Enterprises
- The World's Premier Turnkey Service for Production Lines
- The Top 20 Global PV Enterprise
- Intelligent PV Pilot Demonstration Enterprise by the Ministry Of Industry and Information Technology
- A Key High-Tech Enterprise under the National Torch Plan
- A Leading Enterprise in the Photovoltaic Industry Chain Of Hunan Province
- National Green Factory

SOURCE: NATIONAL TORCH PROGRAM SELECTION, MINISTRY OF INDUSTRY AND INFORMATION TECHNOLOGY (MIIT)

FULLY QUALIFIED
UNWAVERING REPUTATION

Product

European TUV/CE certification

Korean KS certification

Japanese JPEA certification

British MCS certification

Australian CEC certification

Chinese CGC certification

Provides one-stop services covering products, design, construction, and electricity sales

- Production Safety License
- Grade II Power Engineering Construction General Contracting
- Electricity Sales Business Qualification
- Class B Qualification in New Energy Power Generation for the Electric Power Industry
- Power Facilities Installation, Repair, and Testing License



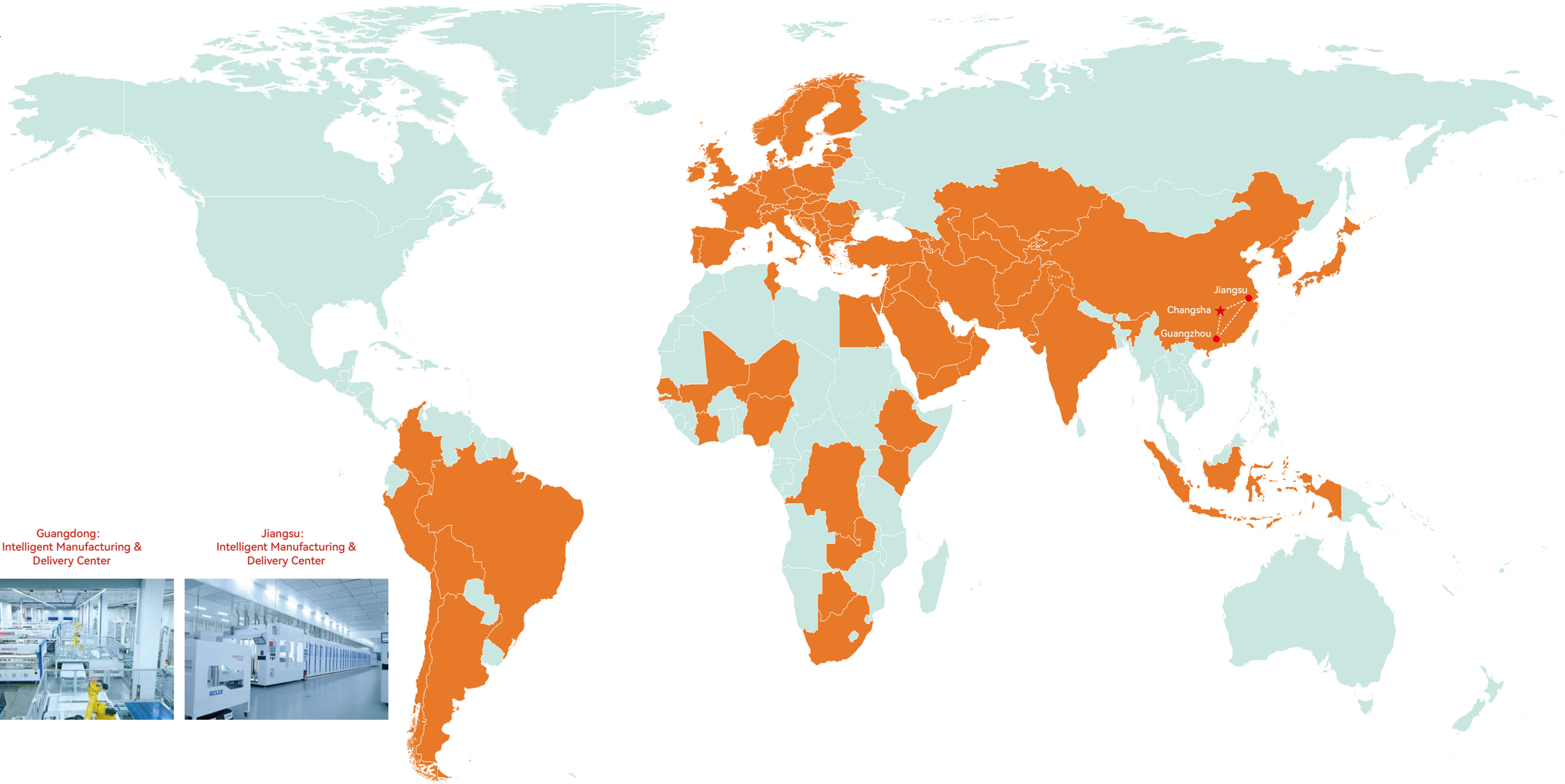
BASED IN CHINA EXPANDING GLOBALLY

A triangular industrial layout and global development strategic framework has been established, comprising the "Changsha Headquarters Operation and R&D Center, Guangdong Intelligent Manufacturing Delivery Center, and Jiangsu Intelligent Manufacturing Delivery Center".

R&D AND MANUFACTURING BASES
3+

COUNTRIES COVERED
50+

OVERSEAS CHANNELS
20+



Hunan (Changsha):
Headquarters, Operations & R&D Center



Guangdong:
Intelligent Manufacturing & Delivery Center

Jiangsu:
Intelligent Manufacturing & Delivery Center

STRATEGIC POSITIONING

Focused on delivering “PV+” services worldwide
from high-carbon to low-carbon, and to zero-carbon.

END-USE SCENARIOS

Centralized
Investment in development

Industry and Commerce
Industrial parks, public buildings transport-energy integration

Residential
Rooftop & Backyard applications

CORE CAPABILITIES

Investment
Investment & development production lines turnkey

Construction
System design product supply construction delivery

Operation
Integrated source-grid-load-storage VPP Smart PV-storage charging operation Smart microgrids services

Management
Full-lifecycle carbon asset management Carbon valorization PV power plant Repowering PV

CORE TECHNOLOGY

Integrated Circuits and Semiconductor Technology
Etching | Doping | Oxidation | Thin-Film Deposition | Metallization

Power Electronics Technology
Device Packaging | Power Generation | Transmission & Distribution | Energy Storage

Big Data Technology
Collection | Analysis | Mining | Artificia | Intelligence

1+3+N FULL-SCENARIO BUSINESS ECOSYSTEM







Products

General Scenario Photovoltaic Product Supply
Customized Scenario
Photovoltaic Product Supply

Programme

Microgrid Solutions
Centralized Ground Power Plant Solutions
Commercial & Industrial Distributed
Power Plant Solutions
Residential Household Power Station Solutions

Services

F: Investment, Financing & Asset Management
EPC: Design & Delivery
OM: Smart Operation,
Maintenance & Management
L: Manufacturing Line Turnkey

PV PRODUCTS

Red Solar New Energy's high-efficiency photovoltaic products have gained widespread market recognition due to their core strengths, including high energy conversion efficiency, customized solutions, outstanding stability and reliability, innovative R&D, strong intelligent manufacturing capabilities, and comprehensive after-sales services.

Solar cell

Advanced technology is applied for the cell series from G1 to G12, achieving efficiencies as high as 23.5% to 26%. The products offer excellent and reliable performance, ensuring long-term stable operation. The black cells are manufactured using innovative processes, enhancing yield while maintaining superior performance. Strict production uniformity control ensures high-standard color consistency, making each piece a premium product. Technological innovation reduces short-wave reflectance by 0.6%, further upgrading performance.



Standard Modules

Module Series, ranging from G1 to G12, have high-efficiency with a wide power span across models, showcasing peak performance. The M10R features high power and conversion efficiency, ideal for large-scale power plants, while the G12 sets an industry standard with outstanding and reliable performance, backed by multiple authoritative certifications. With leading PERC and TOPCon technologies, it meets customer needs while reducing costs.



Customized Modules

As China's leading R&D and mass production platform for customized products, we leverage modular production lines to achieve end-to-end customization. We develop tailored protection solutions for extreme environments such as Nordic blizzards and Middle Eastern sandstorms, and create specialized product solutions for unique applications like agricultural greenhouses and community streetlights. Our agile development system reduces customized design and prototyping time by more than 20% compared to the industry average, and allows for rapid switching of process parameters and production modes.



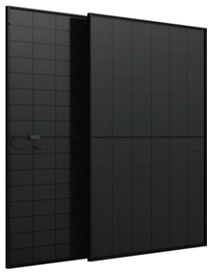
STANDARD PV MODULES

Residential

Power Range: 440-455W;
Peak Efficiency: 22.7%

PID Resistance Guarantee: Strictly selected encapsulation materials eliminate PID risks.
Long Service Life: 30-year linear warranty, no LID degradation, 1% first-year degradation, followed by 0.40% annual degradation over the remaining 30 years, enhancing investment returns.
High Return: N-type modules feature lower annual degradation, superior photoelectric conversion efficiency and temperature coefficient benefits, with bifaciality up to 80%.
Multi-Busbar Technology: Improved light utilization and current collection capacity effectively enhance product power output and reliability.

455W



Size: 1762*1134*30MM



Commercial & Industrial

Power Range: 570-645W;
Peak Efficiency: 23.1%

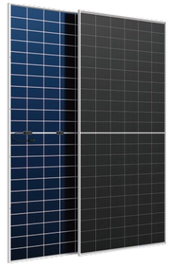
PID Resistance Guarantee: Strictly selected encapsulation materials eliminate PID risks.
Long Service Life: 30-year linear warranty, no LID degradation, 1% first-year degradation, followed by 0.40% annual degradation over the remaining 30 years, enhancing investment returns.
High Return: N-type modules feature lower annual degradation, superior photoelectric conversion efficiency and temperature coefficient benefits, with bacside power gain up to 80%.
Multi-Busbar Technology: Improved light utilization and current collection capacity effectively enhance product power output and reliability.

595W



Size: 2278*1134*30MM

625W



Size: 2382*1134*30MM

645W



Size: 2465*1134*30MM

Centralized Utility

Power Range: 700-720W;
Peak Efficiency: 23.2%

PID Resistance Guarantee: Strictly selected encapsulation materials eliminate PID risks.
Low BOS Cost: Rectangular cell technology with "low voltage, high current" characteristics reduces system BOS costs by over 3%.
High Return: N-type modules feature lower annual degradation, superior photoelectric conversion efficiency, and temperature coefficient benefits, with backside power gain reaching up to 80%.
Multi-Busbar Technology: Enhanced light utilization and current collection capacity effectively improve product power output and reliability.

720W



Size: 2384*1303*33MM







GLOBAL PV POWER PLANTS WE PARTICIPATED IN CONSTRUCTION: STANDARD MODULE CASES



Inner Mongolia, China 180 MW



Chongqing, China 82 MW



Hainan, China 89 MW



Gangwon-do, South Korea 5 MW



Miyazaki Prefecture, Japan 45 MW



Germany 8.9 KW



Yunnan, China 32 MW



Jeolla-do, South Korea 1 MW



Jeju Island, South Korea 1.9 MW



Italy 1 MW



Chile 9.4 MW



Morocco 36 MW

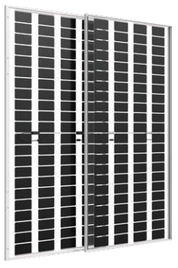
CUSTOMIZED MODULES

Agriculture

Recommended Power: 100-500W;

Power generation and crop growth at the same time;
Transparent encapsulation materials + wide-spacing design, optimized PV process cell layout, adjusted photoelectric output ratio, ensuring more light for the user.
Module Light Transmittance: 10%~60% customiz-able.

345W



Size：2278X1134X30MM



Villa Roof

Recommended Power: 320-330W;

Enhanced Appearance: All-black modules for superior visual appeal.
Easy Installation: Head lead cables for simpler installation.
Reliable Quality: Dual-glass structure with enhanced weather resistance, stronger anti-corrosion and anti-PID performance.

325W



Size：1640*877*30MM



Repowering

Recommended Power: 310-340W;

Old module type + new encapsulation technology, power generation gain exceeds 30%;
Electrical parameters and dimensions are compatible with existing products, directly reuse original mounting systems, ready for quick replacement;
Excellent Weather Resistance: premium materials and standardized production processes ensure high product reliability.

345W



Size：1690*996*35MM

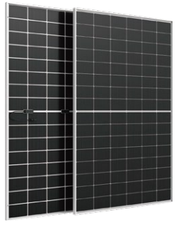


Low Load-bearing

Recommended Power: 430-450W;

Lightweight: Lightweight modules weigh 43.3% less than conventional modules;
High Reliability: Uses ultra-high-strength tempered glass for enhanced overall structural safety;
More Economical: Reduces reinforcement costs and simplifies construction.

450W



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GLOBAL PV POWER PLANTS WE PARTICIPATED IN CONSTRUCTION: CUSTOMIZED MODULE CASES



Agri-PV, China 20 MW



Repowering, Japan 2.4 MW



Low Load-baring, South Korea 3.2 MW



Villa Roof, UK 3 KW



Warehouses, China 6 MW



Repowering, Denmark 2 MW



Low Load-baring, China 3.5 MW



Villa Roof, Germany 10.9 KW

MICROGRID SOLUTIONS

A new generation of microgrid of Red Solar integrates PV, energy storage, and intelligent energy management, enabling modular multi-energy integration for stable, efficient, safe, and smart power supply.

BUSINESS MODEL

Flexible choices for a win-win future.

COOPERATION MODELS

Investment by the owner and EPC+M by Red Solar:
Red Solar offers a one-stop turnkey service, covering the project from initiation to post-construction operation and maintenance.

Red Solar leades project investment through BO/BOT:
Red Solar not only acts as the EPC contractor for the project but also serves as the primary investor and project company. It's responsible for financing, construction, and long-term operation, eventually transferring the project under the BOT model.

DELIVERY

- Microgrids for Transportation Terminals
- Data Center Solutions
- Solutions for Remote Villages and Island
- Microgrids for Mines
- Microgrids for Parks
- Household Photovoltaic Energy Storage Solutions

OPERATIONS

- Smart Operation and Maintenance
- PV Power Stations REPOWERING PV Service
- Carbon Assets Life Cycle Management

SOLUTION ADVANTAGES

High Intelligence

Unified control of generation, grid, load, and storage with real-time monitoring and accurate generation / load forecasting.

High Stability

The active networking technology of Red Solar's microgrid system enables black start, seamless transfer, and frequency regulation.

High Economy

Self-sufficient renewable energy reduces costs by 20%-50%.

High Safety

Multi-layer protection design ensures comprehensive system security.

MICROGRID SOLUTION APPLICATION CASES

Nigeria Public Building Project

Explosion-proof electrical equipment & multi-layer fire isolation system, ensuring safe and stable power supply for the park

Stable Power Supply: Ensures 24/7 uninterrupted power for the park even during continuous rainy weather, ensuring zero outages.
Fast Return on Investment: Saves clients USD 1.07 million annually.
Enhanced Safety: Ultimate fire, explosion, and lightning protection for the critical hub in Africa's largest economy.

Power station capacity	Number of modules	Energy storage capacity	Annual average energy output
7.66 MWp	**12164 units**	**40 MWh**	**12.5 million KWh**

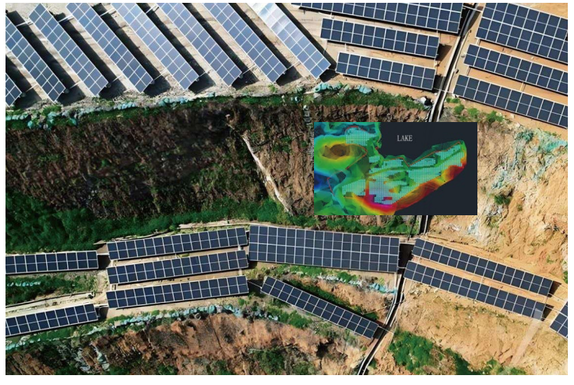


Zimbabwe Lithium Mine Project

Reduce emissions and save energy, advancing the clean energy transition for mining clients

Stable Power Supply: A customized design solution ensures clients use 100% renewable green power daily from 7:00 AM to 9:00 PM.
Fast Return on Investment: Saves USD 6 million electricity bills annually; static payback period of only 4.2 years.
Enhanced Safety: Optimize energy storage allocation to stabilize photovoltaic fluctuations and enhance power supply stability, while considering peak-valley arbitrage.

Power station capacity	Number of modules	Energy storage capacity	Annual average energy output
36MWp	**58072 units**	**45 MWh**	**66.57 million KWh**



Ethiopia Off-Grid PV System for Telecom Base Stations

Off-grid photovoltaics provides stable, economical, and secure green power for communication base stations

Stable Power Supply: Off-grid photovoltaic systems ensure continuous power for communication base stations in areas with unstable grids.
Fast Return on Investment: Solar energy replaces diesel, significantly reducing operational costs with a short investment return period.
Enhanced Safety: Intelligent charge-discharge management eliminates fuel storage risks and ensures long-term system stability.

Power station capacity	Number of modules	Energy storage capacity	Annual average energy output
240 kW	**640 units**	**384kWh**	**0.36 million KWh**



Distributed PV-Storage Integrated Project for Aquaculture Farm in Wenchang City, Hainan

Safe power supply, saves over ten thousand in annual electricity costs, rapid investment payback

Stable Power Supply: Optimizes the power supply structure, enhances the reliability of the original single-source power supply, and reduces blackout risks.
Low Cost: Increases electricity consumption utilization up to 100%, achieving efficient energy use.
Fast Return on Investment: Postpone transformer capacity expansion and save annual charges of 10,395 yuan.

Power station capacity	Number of modules	Energy storage capacity	Annual average energy output
18.3 MWp	**31684 units**	**2.5 MWh**	**23.2 million KWh**



CENTRALIZED PV POWER PLANT SOLUTION

Red Solar has achieved ecological benefits and multi-productivity efficiency integration by building centralized photovoltaic power stations, making full use of land and sunlight resources. This helps regional carbon neutrality and establishes industry demonstration benchmarks.

BUSINESS MODEL

Professional service, efficient delivery, acceleration of supply-side decarbonization, and facilitation of comprehensive carbon neutrality in the electricity sector.

DEVELOPMENT

- Cooperative development of PV power stations
- Financing support
- BT/BOT
- PV products + Turnkey production line

DELIVER

- PV power stations on desert
- PV power stations in mountain
- PV power stations integrated with agriculture
- PV power stations integrated with fisheries
- PV power stations on beaches
- Floated solar solutions

OPERATIONS

- Smart operation and maintenance
- PV Power stations REPOWERINGPV Service
- Carbon assets Life cycle management

SOLUTION ADVANTAGES

A robust team supports project development

Over 100 sales partners span across 17 provinces and municipal regions nationwide;
A robust network for local resource integration;
Over 20 domestic and international financing and investment collaboration distributors, offering diverse investment options, enabling rapid monetization of high-quality resources.

Powerful strength facilitate the groundbreaking of projects

A design team of 50 elite professionals, endowed with the capability to craft comprehensive scenario solutions encompassing agriculture, forestry, livestock farming, and fisheries, Average design cycle reduced by more than 10% compared to the industry benchmarks
Our professional technical support team for PV power plants possesses an average of over 15 years of experience, both domestically and internationally.

Exceptional contract fulfillment capability

An integrated supply chain with a stable annual supply capacity exceeding 5GW for PV products.
Close local government-enterprise relations, ensures the coordinated and timely delivery and grid-connection of projects. Robust financial backing capability, with a proprietary project funding capacity exceeding one billion to eliminate any concerns about contract fulfillment.

Intelligent service ensures long-term profitability

The integration of AI + digitalization + intelligentization, enhances the efficiency of power plant operation and maintenance by more than 10%, and increases the generating capacity by over 5%. The REPOWERINGPV technology for PV power plants enhances the generating capacity of old power stations by up to 35% or more. PV power plant Build-Transfer (BT) models in conjunction with carbon asset enhancement service assists clients in attaining superior profitability.

CENTRALIZED SOLUTION APPLICATION CASES

Inner Mongolia Hangjinqi PV project

A PV power station on desert. The innovative design, efficient delivery, smart o&m forges a photovoltaic giant in the desert

Innovative hybrid mounting system: inverters and other major components are configured according to local conditions.
N/P-type module comparative verification: bifacial double-glass modules boost efficiency by 10%.
8.54 million squre meters of super PV project in desert: Illuminating 5,500 acres of desert oasis.
Unmanned operation, minimal supervision, Integrated dispatch platform, supplemented by IV/CV precision fault detection.

Power station capacity **200 MW**
Number of modules **370,370 units**
Project area **5500 acres**
Annual average energy output **155.6 million kWh**

550W



Size: 2278*1133*30MM



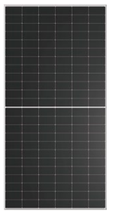
China Guangdong Nuclear Power Group Phase II PV Project of Chongqing

PV power plant integrated with mountains. a professional team reclaims 1047 acres of barren land

Located at high altitude and on a steep mountainside, with one side bordering a cliff, the project faced immense challenges. Overcoming difficulties such as construction in winter, large temperature and humidity differences between day and night, and difficulties in equipment transportation, the project was completed 15% faster than similar projects at the same altitude and terrain.

Power station capacity **82.22 MWp**
Number of modules **152,256 units**
Project area **1047 acres**
Annual average energy output **76.705 million kWh**

595W



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Guangdong Energy Group 100MWp PV Power Station in Chongren County

PV power station integrated with forest. A photovoltaic + forestry model project

Full-capacity grid connection in 11 months – speed demonstrates strength. Hassle-free procedures, supported by a central state-owned enterprise. Short approval process, rapid project progress! Multi-branch power collection efficiency enhancement technology improves system reliability by 20% and saves approximately 1.95% on investment.

Power station capacity **100 MWp**
Number of modules **181,844 units**
Project area **≈1,800 acres**
Annual average energy output **1,103,339,300 kWh**

550W



Size: 2278*1133*30MM



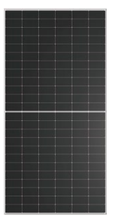
The Longhu power plant project in Ding'an, Hainan province

PV power plant integrated with fishery. Innovative support system + PV power plant integrated with fishery model enhances the efficiency of aquaculture for the client

The integrated design of four modes—fixed supports, fishpond plant supports, flexible supports, and BIPV—has successfully reduced pond temperature by 3–5 degrees Celsius in summer, resulting in a 50% increase in fish spawning and direct economic benefits exceeding 2 million yuan. Large-area flexible supports have also helped increase power plant capacity by 20%. The prestressed flexible suspension design can withstand typhoons up to category 16.

Power station capacity **89.89 MWp**
Number of modules **138,300 units**
Project area **1360 acres**
Annual average energy output **116.95 million kWh**

595W



Size: 2278*1134*30MM



COMMERCIAL & INDUSTRIAL SOLUTIONS

Red Solar innovatively developed distributed PV power plants utilize smart energy technologies to provide efficient and adaptable zero-carbon solutions for industrial enterprises, commercial complexes, and industrial parks. These solutions are precisely tailored to building characteristics and enterprise production/operational requirements.

BUSINESS MODEL

Turnkey industrial and commercial solution empower the integration of PV energy into different sectors, facilitating the green transformation of enterprises.

DEVELOPMENT

- Investment in development
- Finance & lease
- Jointed development
- EMC mode

DELIVERY

- PV roof solution
- Commercial architectural solutions
- Warehousing and logistics solutions
- Traffic energy autonomy solutions
- Data center solutions
- Public infrastructure solutions
- 5G base station solutions
- Zero-carbon park solution

OPERATIONS

- Smart operation and maintenance
- PV-storage-charging intelligent energy management
- Power station service REPOWERINGPV
- Source network load-storage Integrated virtual power station

SOLUTION ADVANTAGES

Easier development process

In-depth collaboration with international TOP5 financial institutions, Encompassing over 30 major distributors globally
Rapid investment decision-making, with the process approval completed as swiftly as within 7 days
More trustworthy with experience of over 5GW distributed PV project development.

Enhanced quality assurance

Independently developed modules, with full life cycle quality assurance. Integrated supply chains deeply engage with leading-edge brands, resulting in superior quality and reduced pricing for power generation equipment Customization and BIPV, coupled with the capability to offer comprehensive scenario-based solutions, enable superior adaptability.

Guaranteed returns

25 years of guaranteed power generation.
Drone modeling technology, self-developed software, and refined design enable a 2-5% reduction in the power plant's LCOE. Professional distribution network planning and integration capabilities ensure every possible project to become true.

Refined management

A 24/7 rapid response capability is ensured with malfunctions being rectified within 3 hours
The RS-FLAT Global Operations Center encompasses the integration of over 2GW of PV power plants, achieving a reduction in intelligent operational cost by more than 25%.
The adaptation and supply of replacement products continues the high yield levels of PV power station.

COMMERCIAL & INDUSTRIAL SOLUTION APPLICATION CASES

CGN Ziyun Railway Distributed PV Project

Customized design and construction achieve zero-interference and efficient grid connection for railway operations

Pioneered the deep integration model of railway hub photovoltaics, achieving zero operational interference through "construction during service windows".
A customized protection and full-equipment detection system ensures successful first-time power delivery and zero-fault operation.
Activating idle throat zone space saves RMB 2.37 million in annual electricity costs, creating a replicable "PV + high-energy-consumption industry" pathway.
Full-cycle integrated services achieve the dual goals of industrial decarbonization and cost reduction with efficiency improvement.

Power station capacity **7.099 MWp**
Number of modules **12792 units**
Roof type **Color Steel Tile, Concrete**
Annual average energy output **6.2299 million kWh**

555W



Size: 2278*1134*30MM



Zhuzhou BAIC Phase II Distributed PV Project

Strong financial support
Rapid project implementation for clients

Self-produced and self-consumed, with Red Solar providing over 100 million yuan in funding to support project construction.
As the largest photovoltaic carport in Zhuzhou City, Hunan Province, it shelters 5,000 vehicles from wind and rain while generating electricity.
Annual power generation: 11.6283 million kWh, with a stable return rate exceeding 9% and a payback period of 9 years.

Power station capacity **24 MWp**
Number of modules **27298 units**
Roof type **Carport**
Annual average energy output **11.63 million kWh**

665W



Size: 2383*1302*35MM



Lens Technology PV Project

BIPV Customized Solutions
Ensuring high returns during the power plant's 25-Year lifecycle

Central and South China's largest installed capacity and Hunan Province's largest single-roof BIPV project.
Customized color steel tile BIPV with continuous drainage channels up to 12 meters in length.
Power generation and waterproofing, ensuring a 25-year project lifespan.
Provides efficient financing services, product supply, and power plant maintenance services.

Power station capacity **76.12 MWp**
Number of modules **133559 units**
Roof type **Color Steel Tile, Concrete**
Annual average energy output **70.58 million kWh**

595W



Size: 2278*1134*30MM



Hunan University Science and Technology Industrial Park PV Project

Zero-Carbon park rooftop photovoltaics creating a deeply integrated demonstration project of “PV + Technology”

Facing the difficulties of multiple grid connection points, achieving full-capacity grid connection within 1 month with zero construction accidents and dual excellence in quality.
Reduces carbon dioxide emissions by 6,500 tons annually, building a clean energy internal circulation system for the park.
Rooftop photovoltaics helps the park with energy cost reduction and green development.
Creates an innovative "PV + Industry-University-Research" model, realizing technology implementation and scenario empowerment.

Power station capacity **6.189 MW**
Number of modules **10580 units**
Roof type **Concrete**
Annual average energy output **6 million kWh**

585W



Size: 2278*1134*30MM



PROFESSIONAL SERVICES

As a top 20 global photovoltaic enterprise, the company is committed to providing diversified professional services to meet the comprehensive needs of clients worldwide.

- **Turnkey Production Line Service** – Full-Chain Services, from Planning to Construction
- **Investment & Financing Services** – Flexible Financing, Secure and Efficient Capital
- **EPC Services** – End-to-End Delivery, Professional Oversight
- **EPC Design & Delivery Services** – Professional Design, Efficient Implementation
- **Smart Operation Management Services** – Efficient Low-Cost Operation, Strong Returns



TURNKEY PRODUCTION LINE SERVICES

Turnkey Production Line Services, providing design, equipment, engineering, and services covering the entire photovoltaic industry chain to deliver end-to-end power plant solutions for clients.

Design
Conceptual Design / Basic Design / Detailed Design

Products
Equipment Integration / Raw Material Supply / Spare Parts & Consumables Services

Construction
Peripheral Construction / Equipment Commissioning / Capacity Ramp-up

Operations & Maintenance
Production Management / Equipment Maintenance / Quality Control



Project Design: Comprehensive industrial chain park planning, factory design, and production line design services.



Equipment Integration: Stable all-round suppliers and partners with first-class integrated industry equipment.



Capacity Ramp-up: Specialized capacity ramp-up services, helping clients to rapidly realize industrial value.



Diverse Training: Diversified training system, combining video and practical instruction to shorten operators' training period.



Supply Chain Services: Mature supply chain system, shortening procurement cycles, enhancing product quality, and reducing procurement costs.



Production Line Operations: Full-process manufacturing line operation services, ensuring capacity and yield targets.

GLOBAL PRODUCTION LINE PROJECT CASES

China-Egypt Joint Research Laboratory

Cooperation Achievements

Egypt's First Photovoltaic Manufacturing Pilot Center

Egyptian Photovoltaic Product Standards Laboratory

Foundation for Egypt's Photovoltaic Industry

Future Planning

Laboratory Phase II Expansion

Egypt GW-Scale Photovoltaic Industrial Park Planning



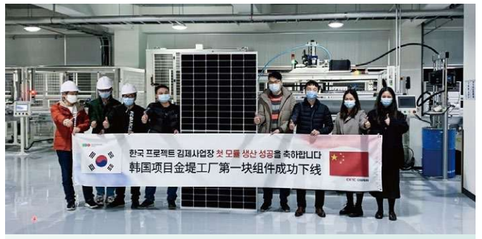
August 2015 : Contract Signed



March 2016 : Construction Commenced



Early 2017 : Project Completed



South Korea 600 MW Module Production Line EPC Turnkey Project



Turkey 500 MW Module + Peripheral EPC Turnkey Project



Turkey 500 MW Module EPC Turnkey Project



India 500 MW Cell Production Line Project



Nigeria 600 MW Module EPC Turnkey Project



Turkey 1 GWh Energy Storage Lithium Battery Pack Line EPC Turnkey Project

INVESTMENT & FINANCING SERVICES

We provide flexible and diverse investment and financing solutions while ensuring fund security and efficient utilization.

Wind-Solar-Storage Investment Model

Wind, solar, and energy storage are key pillars of the energy transition. Leveraging its product and solution advantages along with a strong marketing network, Red Solar New Energy entered the wind-solar-storage investment market early, introducing a portfolio of domestic and international projects with stable cash flow and solid qualifications. This initiative supports the green energy revolution and advances a low-carbon future.

Project Direct Investment

Direct investment in high-quality photovoltaic power stations, wind farms, and energy storage projects to obtain long-term, stable returns.

Fund Investment

By establishing a new energy industry fund, we pool capital from multiple sources, diversify investment risks, and share in the industry's growth dividends.

Cooperative Development

Partnering with industry leaders to jointly develop, construct, and operate new energy projects, achieving resource complementarity and mutual benefit.

Wind Power Project Investment

We focus on strategic deployment in resource-rich regions such as Inner Mongolia-Xinjiang, Shaanxi-Gansu-Ningxia, and coastal areas for both onshore and offshore wind power. Our engagement has evolved from initial EPC general contracting to deeper involvement in resource cooperative development and operation and maintenance services. We actively explore innovative cooperation models to better integrate government and corporate resources, while leveraging green financial instruments to reduce financing costs and enhance investment returns.

Photovoltaic Project Investment

Domestically, we focus on the South China region as our core base and expand nationwide. Internationally, we target mature new energy markets such as Japan, South Korea, and Europe, actively engaging in local PV power plant development and trading. We also collaborate with state-owned enterprises expanding overseas to explore PV projects in emerging regions like Southeast Asia, the Middle East, and Africa. By integrating products, engineering, and investment, we deliver competitive comprehensive solutions.

Investment Sector Advantages

Professional Team

Our experienced investment team covers fields such as new energy technology, financial investment, and legal risk control, manages investment risks throughout the entire process—from project screening and due diligence to post-investment management.

Resource Network

With years of deep expertise in the new energy industry, we have built a strong network of partners and accumulated extensive industry insights, enabling us to quickly identify high-quality investment opportunities.

Sustainable Development Philosophy

We consistently adhere to the green development philosophy, integrating environmental, social, and governance (ESG) factors into investment decisions, thereby creating long-term value for clients while promoting sustainable social development.

SMART O&M SERVICES

We can provide comprehensive photovoltaic energy management and operation and maintenance solutions for clients.

Customized Solutions

Covering all types of photovoltaic power station needs, ensuring both comprehensive applicability and personalized services.

High-Tech Smart O&M

Integrating digital cloud, power electronics, diversified energy storage, 5G communication, and IoT technologies to build an automated, minimally maintained smart management system.

Data Optimization and Cost Control

Responsible for peripheral construction, equipment commissioning, and production ramp-up, ensuring your production line can be quickly and efficiently put into operation.

Comprehensive Performance Enhancement

Integrating enhanced safety measures, efficiency optimization technologies, and smart O&M tools to ensure efficient and stable power plant operation.

SMART OPERATION MANAGEMENT SERVICE CASES

Changsha COFCO Coca-Cola 4MW Rooftop Project

Integrated photovoltaic-storage-charging + smart O&M; drone inspection + robotic cleaning; quarterly maintenance + emergency response.

Digital Control: APP monitors real-time power generation status and revenue, with automatic alerts for efficiency deviations.



Power station capacity	Roof type	Annual Maintenance Costs	Annual average energy output
4 MWp	**Concrete**	**RMB 180,000**	**4.352 million kWh**

PARTNERS

In collaboration with our partners, we endeavor to provide global clients with clean energy products, comprehensive solutions, and 'one-stop' service.



SOCIAL RESPONSIBILITY



Cumulative green electricity generation

31.17GWH

Mitigation of carbon dioxide emissions

37.156million tons

Achieved reduction of standard coal

11.936
million tons

Equivalent to the planting of approximately

761,395.8acres