



# TALESUN INTRODUCTION

*Sharing Value with the Sun / Oct. 2021*



**Our Vision :** To Create a World Famous Brand, to Build a Century Outstanding Talesun

**Our Purpose :** Customer Oriented, Sincere and Reliable, Striving for Excellence

**Our Spirit :** Endless Efforts, Scale New Heights, Never Give Up

**Our Values :** Cherish the Fate, Cooperate Sincerely, Share Benefits

**Our Strategy Target :** Be a Leading Global Operation and Service Provider of Clean Energy

# Content

01

About Talesun

03

Diversified Solutions

02

Product Advantages

04

Project References



## About Talesun

Talesun Solar, a wholly owned subsidiary of Zhongli Group, was founded in 2010. Through more than 10 years of innovation and development, it has become one of the global Top 10 photovoltaic manufacturers, Tier 1 module supplier in Bloomberg Ranking, one of China's largest photovoltaic power station developers, and a first-class leading enterprise among China's photovoltaic manufacturers. Our downstream business includes solar photovoltaic project development, design, EPC construction, operation & maintenance and one-stop system integration solutions for customers.

In 2015, the Company innovated and launched "Intelligent Photovoltaic + Sci-tech Agriculture and PV Farms in Poor Villages", thus becoming a leader in global solar power industry. Through constantly improving our conversion efficiencies and the quality of PV cells and modules, and optimizing project solution design, Talesun continues to push the decrease of solar energy cost, and makes contributions to the development of global clean and environment-friendly energy.







## About Talesun



To be the world's leading PV module manufacturer and smart energy solutions provider.

**4**

Global Production Base

**20 GW+**

Accumulative Shipment

**50+**

Shipped Countries

**TOP10**

Production Capacity Globally

**TOP 10**

Module Shipment Worldwide since 2018

**TIER 1**

Module Supplier in Bloomberg Ranking

**TOP 5**

PV + Agriculture Project Provider in China

**TOP 10**

PV Project Development & EPC Company in China

**TOP 50**

Global New Energy Enterprise

**\$300M**

R&D Investment

**350+**

R&D Team Members

**340+**

Patents Applied

# Core Competitiveness



## Global Network

- 50+ countries/regions for product shipment, 45+ branches and offices all over the world
- Talesun provides customers with localized service & support, backed by its global sales network
- Strong after-sales service network with rapid response
- Long-term partnership with China's state-owned enterprises and clean energy suppliers



## Solid Financial Strength

- Long-term cooperation with world's major banks and other financial institutions
- Considerable bank credit scale around the globe
- Diversified financial channels including finance lease, merger & acquisition fund



## Leading Manufacturing

- Top 10 PV manufacturer and supplier in the world
- China's tier-1 PV manufacturer, one of the largest PV power plant developers in China
- The reliable quality of solar modules ensures continuous power output for 25-30 years



## Smart Solar Energy Solutions

- Smart solar solutions covers the full lifecycle of the plant, maximizing the revenue and optimizing the LCOE
- With customized solutions, Talesun provides customers with safe, reliable and cost-effective green energy

## Milestones

### Pioneer / Innovator

#### 2009

- Zhongli Group listed on stock exchange

#### 2010

- Talesun Solar established

#### 2011 & 2012

- Project development & EPC activities
- China TOP 10 Solar EPC Enterprise
- Completed 100 MW PV power plant

#### 2015

- Thailand factory in operation
- China TOP10 Solar Cell / Module Enterprise

#### 2016 & 2017

- Tier 1 PV module supplier by BNEF
- China TOP 50 Most Innovative Solar Enterprise
- 3<sup>rd</sup> ranking in TOP 20 China PV Power Plant Investment Enterprise

#### 2018

- Cooperate with Argentina Government on 315 MW ONE BELT ONE ROAD project
- TOP 10 shipment module supplier by PVTECH and PVInfoLink

#### 2019

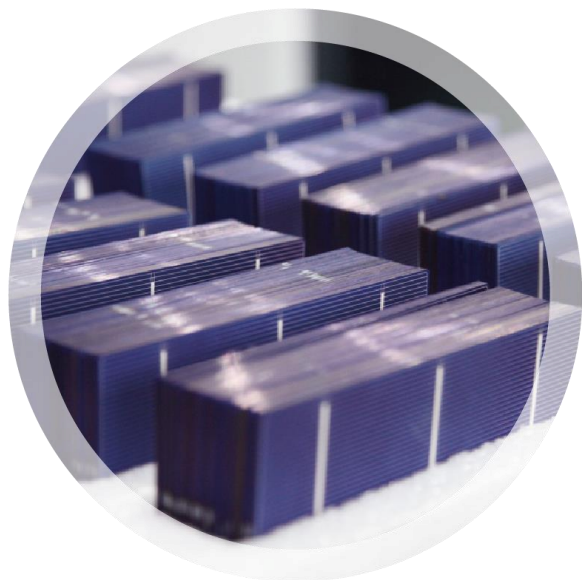
- TOP 10 shipment module supplier by PVInfoLink
- Provide modules to the largest PV project in western Europe

#### 2020 & 2021

- Establishing new 10 GW production capacity for high-efficiency PV modules







### Solar Module

As global leading PV module manufacturer, Talesun offers solar products with world-class quality and performance



### Diversified solutions

Talesun is dedicated to provide global customers with one-stop customized and smart solar energy solutions



### Solar Storage

Talesun offers high-efficiency, reliable and customized solar storage solutions

### Vertically & Horizontally Integrated Capabilities

Talesun's solar panel production capacity is vertically integrated in a creatively flexible way. From materials to cells and solar modules, Talesun has GW-capacity production facilities throughout global. Talesun dynamically stabilize our supply chain to mitigate risk and add value. Talesun supplies a wide variety of PV modules ideally suited for all types of installations: residential, commercial, industrial and utility. Since 2010, more than 20 GW+ modules have been installed in thousands of residential, commercial, and utility-scale solar applications worldwide.

Talesun smart energy solutions provide horizontally integrated one-stop solution services throughout entire lifecycle of a solar power plant, from project development, project financing and investment, project design and engineering, procurement and construction management, to project operation and maintenance services. Backed by a decade of knowledge and experience in solar module production, expertise and skills in EPC, Talesun smart energy solutions propose services enabling worldwide solar projects to be realized, and innovations throughout the entire project lifecycle optimizing each project's LCOE.

## Global Network



## Global Network & Local Service

With 45+ overseas sales offices around the world, Talesun always brings convenient service to every customer no matter where they are.



More Efficiency, Higher Capacity

## Talesun Production Flexible Module Production Capacity



**12GW** Cell



**15GW** Module



# The World-leading

## PV Module Manufacturer



## Product Portfolio



### Comprehensive Product Portfolio

Talesun offers a wide variety solar modules, enabling it to meet the diversified requirements of all categories of solar installations: residential, commercial and utility.

As a leading solar module supplier, Talesun has been developing state-of-the-art technologies and launched innovative solar products into the global PV market.





## Diversified Solar Modules

### A Rich Product Portfolio to Meet the Diversified Needs of Customers



**Product Type**

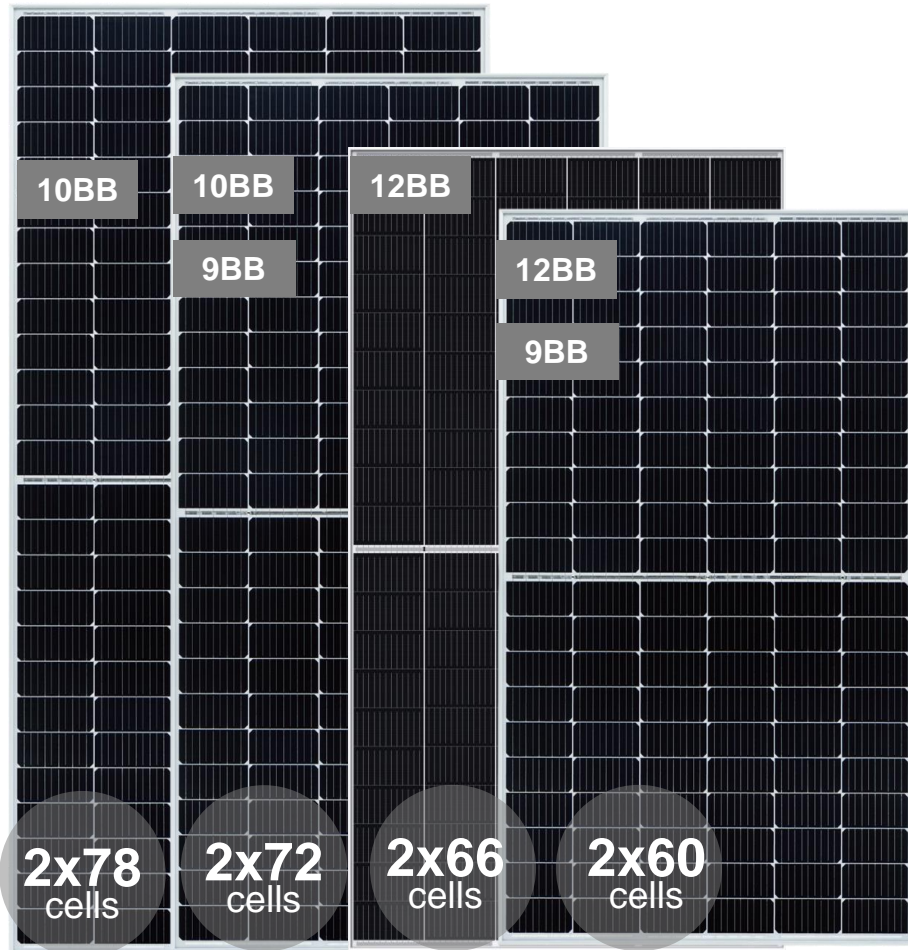
MBB 120 / 132 / 144 / 156 Cells  
M6 / M10 / G12



**Product Type**

MBB 120 / 132 / 144 / 156 Cells  
M6 / M10 / G12

# BIPRO Series



## Product Model

**320W-665W**

BIPRO TD8G66M 12BB / BIPRO TD8G60M 12BB  
 BIPRO TD7G78M 10BB / BIPRO TD7G72M 10BB  
 BIPRO TP6G72M & TP6G72M(H) 9BB  
 BIPRO TP6G60M & TP6G60M(H) 9BB  
 BIPRO TD6G72M 9BB / BIPRO TD6G60M 9BB  
 BIPRO TD6I72M 9BB / BIPRO TD6I60M 9BB



12BB / 10BB / 9BB  
 half-cut cell technology



Excellent Anti-PID  
 performance



IP68 junction box



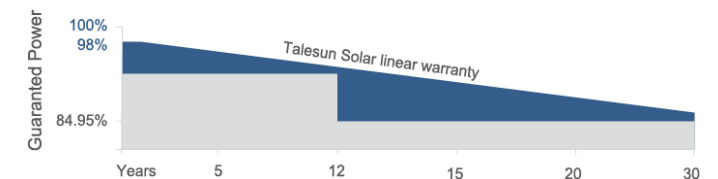
Industry leading high yield



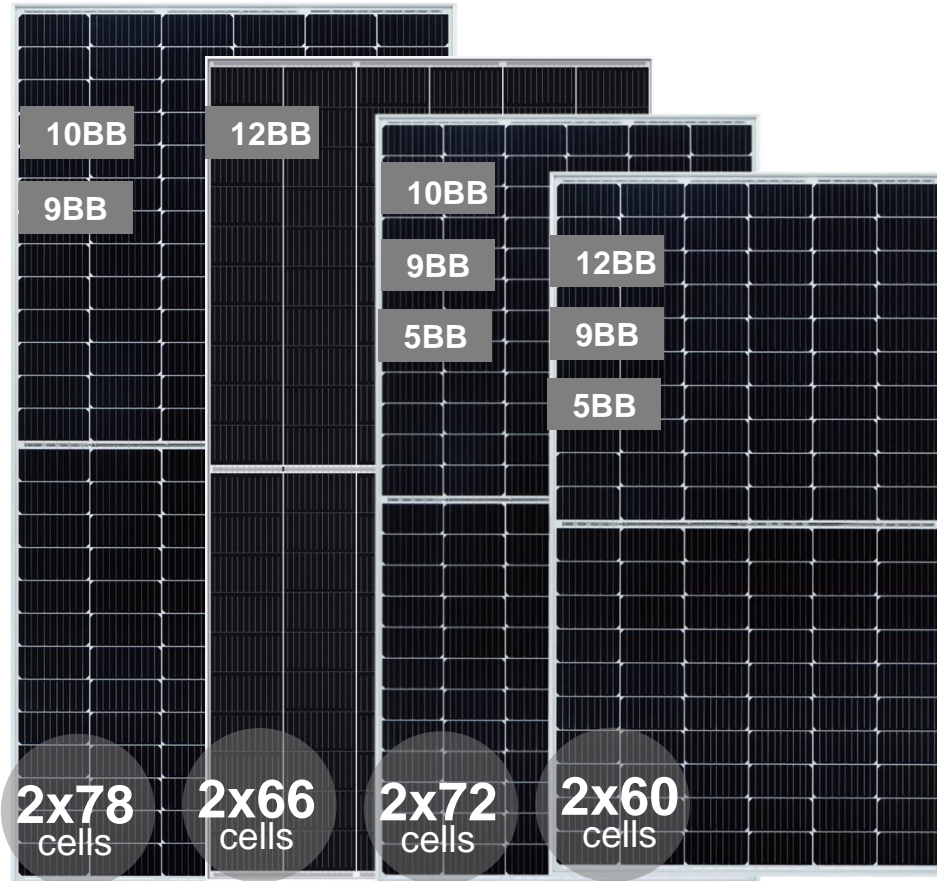
Wider application



Linear Performance Warranty  
 Standard Performance Warranty



# BISTAR Series



## Product Model

**280W-665W**

BISTAR TP8F66M & TP8F66M(H) 12BB / BISTAR TP8F60M & TP8F60M(H) 12BB  
 BISTAR TP7F78M & TP7F78M(H) 10BB / BISTAR TP7F72M & TP7F72M(H) 10BB  
 BISTAR TP6H72M & TP6H72M(H)\_full black / BISTAR TP6H72M & TP6H72M(H) black frame  
 BISTAR TP6H72M & TP6H72M(H)  
 BISTAR TP6H60M & TP6H60M(H) full black / BISTAR TP6H60M & TP6H60M(H) black frame  
 BISTAR TP6H60M & TP6H60M(H) / BISTAR TP6F78M & TP6F78M(H) 9BB  
 BISTAR TP6F72M & TP6F72M(H) 9BB / BISTAR TP6F60M & TP6F60M(H) 9BB  
 BISTAR TP6L72M & TP6L72M(H) 9BB / BISTAR TP6L60M & TP6L60M(H) 9BB



12BB / 10BB / 9BB  
half-cut cell technology



Excellent Anti-PID  
performance



IP68 junction box



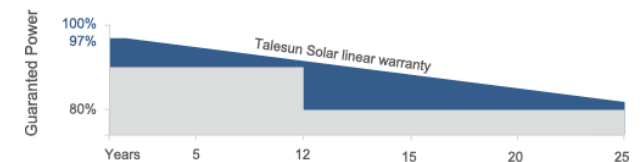
Significantly lower the  
risk of hot spot



Lower LCOE



Linear Performance Warranty  
Standard Performance Warranty

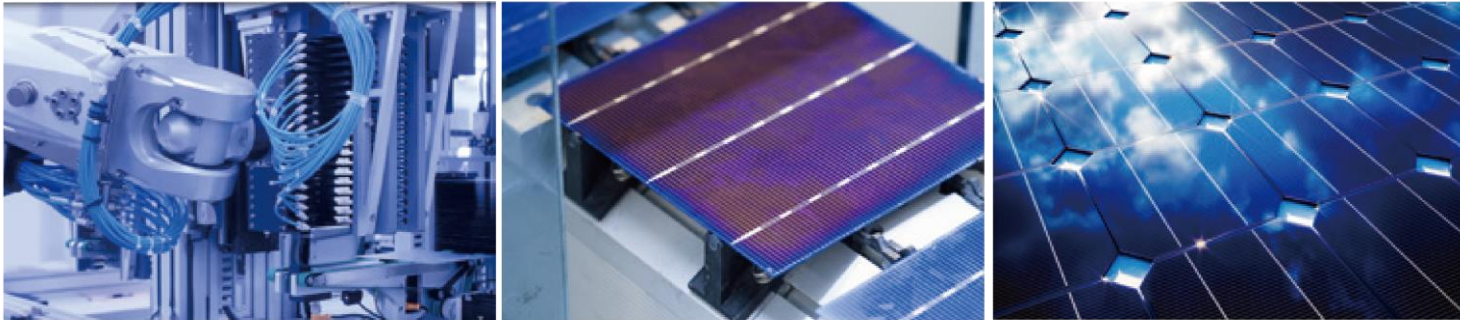




## PV Manufacturing Capabilities

Talesun applies world-class technology and high-reliability procedures in production operations. We consistently improve employee skills and quality control to ensure the highest-quality workmanship.

We utilize fully automatic equipment from leading suppliers to maximize reliability and control the entire manufacturing process via an advanced management and control process to ensure product stability and sustainability. Talesun vertically integrated production process is proven to systematically optimize costs and provide maximized value for customers.



Talesun R&D facilities and constant technological innovation guarantee every Talesun product's remarkable advantages and ensure that Talesun products always stand out from the rest of the competition.



# Product Manufacturing Competitiveness

## Unprecedented Quality Standards and Assurance



### **Vertical integration enables cost-saving and reliability**

With certificates of ISO 9001, ISO 14001 and OHSAS 18001, Talesun applies strict quality control measures in all stages of the manufacturing process.



### **Affiliated top quality manufacturing**

Talesun strict quality control ensures compliance with ISO and internationally recognized quality standards such as TÜV NORD、TÜV Rheinland, etc.



### **Failure Modes and Effects Analysis (FMEA)**

Talesun use the FMEA process to make improvements and improve reaction speed. Every process in product manufacturing is well monitored and recorded, and every potential risk is technically mitigated by preventive analysis and measures implemented. We strive to provide a perfect product to customers with a low failure rate.



### **Highly automated**

Talesun employ a highly automated manufacturing process supported by the most technologically advanced equipment that mitigates environmental effects and ensures the highest-quality products.



### **Constant innovations**

Talesun strives to implement continuous innovation in technology, products, and service based on customer needs. These innovative practices have provided customers with better products and energy solutions that enable better returns on investment.

## Cutting-edge R&D Constant Innovation

Talesun has been closely cooperating with accredited testing organizations and authoritative institutions in the industry. Currently, the R&D Center has established close cooperation relationship with global well-known research institutes and institutions of higher learning, including Chinese Academy of Sciences (CAS), Shanghai Jiao Tong University, Sichuan University, Energy Research Center of the Netherlands (ECN), SERIES, Southeast University, Nanjing University of Aeronautics and Astronautics.



### Experienced International R&D Team

- The international R&D team
- Outstanding teams of experienced experts
- Close cooperation with industry institutes and research organizations



### Enough Annual Revenue Invested in R&D

- R&D fund for new technology / product development
- Different R&D theme for every project
- Generous incentives for notable R&D achievements



### Patents, Creative Products, Innovative Technologies

- More than 340 patents and proprietary technologies developed
- 350+ R&D experts have published hundreds of solar papers in professional publications



## One-stop Solar Solutions

### Proven Global Leading Energy Solutions Provider

Talesun is dedicated to providing energy solutions to customers worldwide. With its approach to maximizing energy output and reducing the levelized cost of electricity (LCOE) by integrating all of our technology roadmaps and activities throughout whole lifecycle of the power plant, Talesun has been delivering leading reliable, dependable, and cost-effective solar power plants to partners around the world.

For project developers, commercial and industrial users, utilities, independent power producers, worldwide energy off takers and investors, we confidently believe that Talesun energy solutions are your smart choice.



Project  
Development



Engineering  
Design



Project  
Supply Chain



Engineering  
Construction



Operation and  
Maintenance

## Reliable Project Development

### An Experienced Partner Knows What You Need

With comprehensive know-how and rich experience, Talesun has developed a reasonable development process to ensure that every PV project is commenced and completed as scheduled.

#### Reliable Track Record

- 7.5 GW PV project development experience
- Global sales and project development network

#### Flexible and Professional Project Development

- Localized profession project development team in Europe and Southeast region
- High-efficiency management based on substantial experience in project development
- Flexible development models including project planning, independent development and cooperative development

#### High-quality Project Pipeline

- Close partnership with leading developers around the world
- High-quality project development team and rich project pipeline



# Excellent Project Engineering Design Capabilities

## Excellent Engineering Design Capabilities

### Rigorous Standards and Tailor-made Services

- High standards are implemented throughout the project engineering design to ensure project quality
- Project layout design is based on actual solar radiation, weather and site conditions, and other factors
- Tailor-made solar energy solutions based on the project characteristics
- The most optimized engineering design based on demands of customers



Experienced  
Engineering Team



Rich  
Solution Package



Professional  
Industrial Standards



Leading  
System Design

### Professional Engineering Design and High-efficiency Team

- Talesun adopts industry-leading PV project design tools
- Talesun provides customers with best solar energy solutions based on data from professional platforms
- Respond quickly and make adjustments timely through teamwork



# Global Supply Chain System

## Perfect Supply Chain System

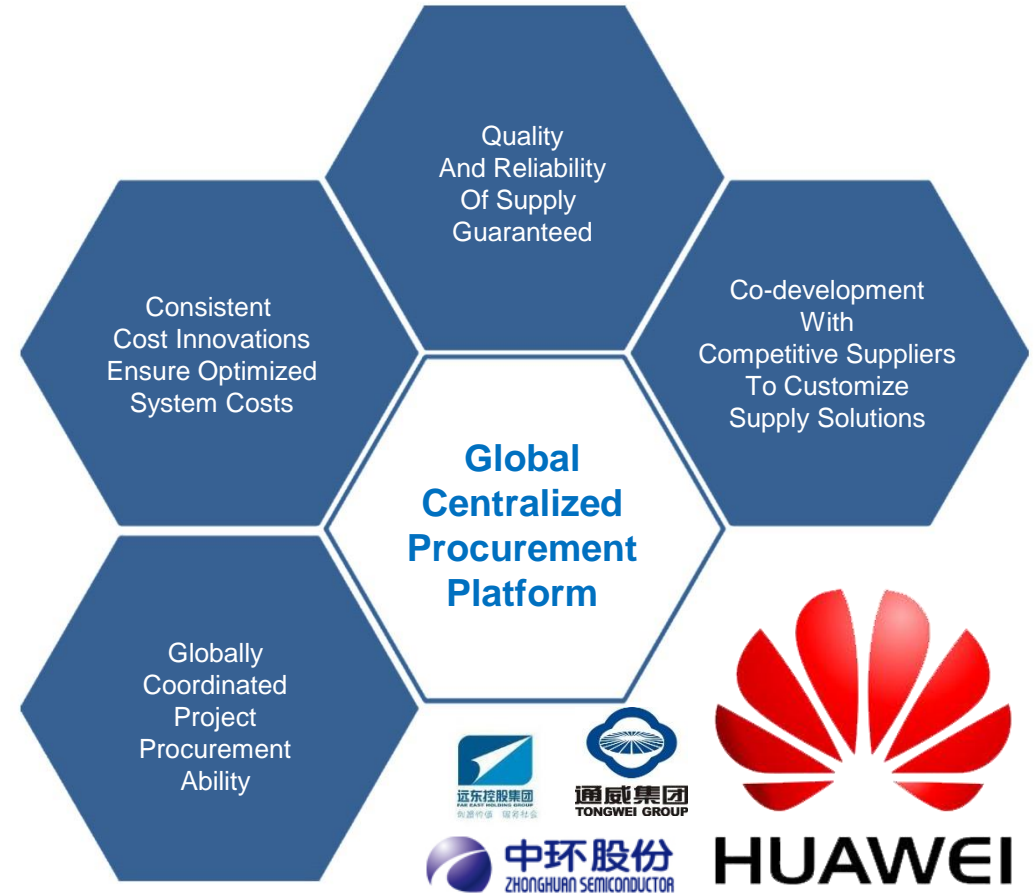
Talesun has a strict supplier management system and a complete qualified supplier base. Under the premise of ensuring the quality of PV plants, Talesun has long-term strategic partnerships with domestic first-tier suppliers such as Huawei, ZHONGHUAN, TONGWEI, Far East Etc., with good quality assurance and reliable after-sales services. Talesun conducts a comprehensive assessment of qualified supplier quarterly, forming a healthy cooperation with the supplier and win together while reducing costs and increasing efficiency, constantly introducing new materials to help company win opportunities in fierce market competition.

### Global Procurement System

- Centralized procurement, unified management
- Talesun has established partnerships with well-known equipment suppliers to ensure supply stability and cost optimization

### Complementary of Advantages

- In collaboration with supplier partners, Talesun keeps optimizing performance ratio of PV projects
- Talesun works with its key suppliers to jointly develop innovative products and solutions



## High-efficiency Construction Management

### Rich Experience of PV Project Construction

Talesun has an experienced construction management team with EPC qualification for power engineering. By improving project construction management process, Talesun has been building PV projects efficiently, and optimizing construction costs and LCOE.



#### Strict Execution Plan & Management

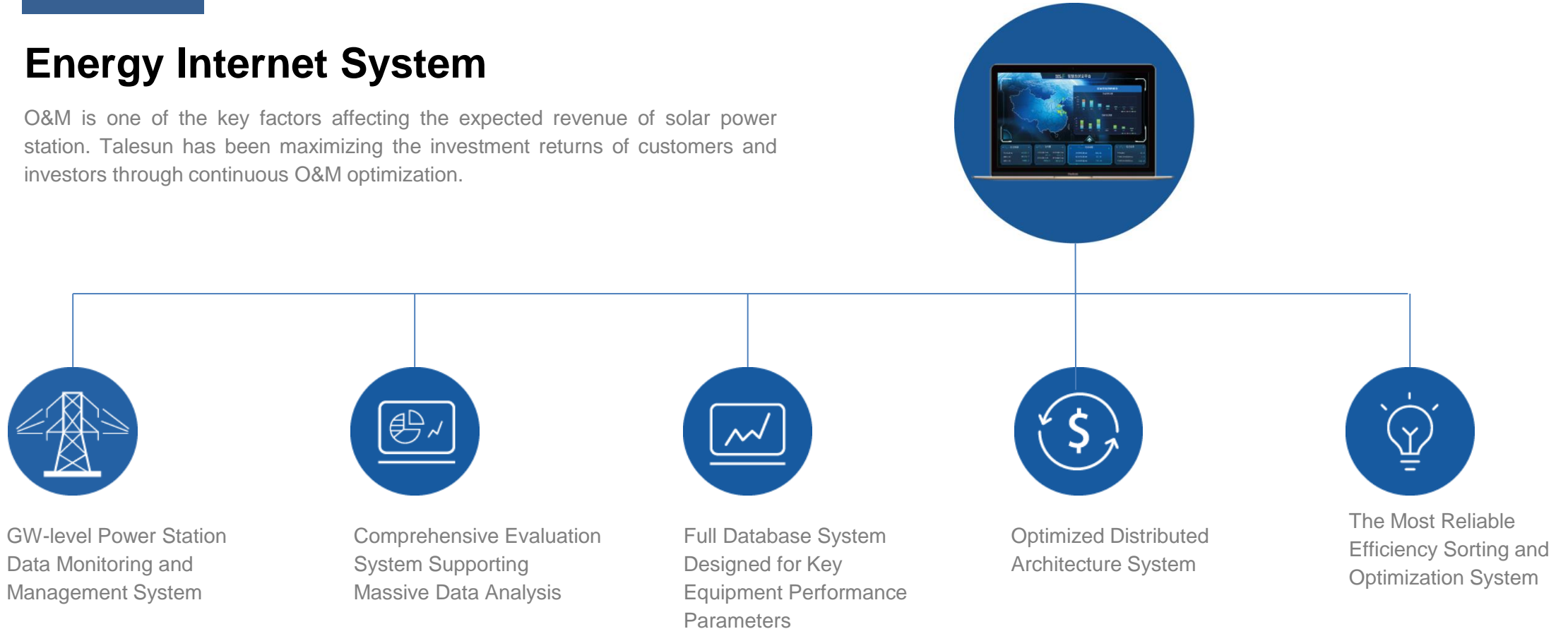
- With efficient team management, every Talesun's PV project is completed on time
- Accelerate installation and reduce labor costs by improving the construction process
- Maximize power output across the whole lifecycle of PV projects

#### Professional and experienced Team

- Rich PV project construction management experience, and know-how of PV industry
- World-class PV project construction capabilities and top-level project operation management team

## Energy Internet System

O&M is one of the key factors affecting the expected revenue of solar power station. Talesun has been maximizing the investment returns of customers and investors through continuous O&M optimization.







**TALESUN**

## **Global Leading PV Module Manufacturer**

Hands with Talesun, to Share Value with the Sun





**20GW+** Solar Power Plants Completed

**CO<sub>2</sub>**

Reducing emissions of CO<sub>2</sub> per year  
**20,000,000** tons



Providing electricity to residents per year  
**213,483**



Generating clean energy per year  
**1,900,000,000** kWh



Equivalent to planting trees per year  
**10,000,000**





One of the Largest PV Utility  
in South America

**315 MW**

Cauchari, Argentina





One of the Largest PV Utility  
in Western Europe

**99.5 MW**

Limburg, Belgium





**97 MW**

California, USA



An aerial photograph of a vast solar farm in a desert. The solar panels are arranged in long, parallel rows that stretch across the landscape towards the horizon. The ground is sandy and sparsely covered with low-lying green desert vegetation. The sky is clear and blue.

**65 MW**

Juarez, Mexico





**3.8 MW**

Thai-China Industrial Park, Thailand





一百兆瓦大型光

一百兆瓦大型光

100 MW

Jiayuguan, Gansu, China



中利华源



招商新能源 光伏





**100 MW**

Ningxia, China





**9.8 MW**

Changshu, China





**70 MW**

Sa Kaeo, Thailand





**20 MW**

Berlin, Germany





**24 MW**

Calabria, Italy





**30 MW**

Thiruvannamalai Tamilnadu, India





**12 MW**

Essex , UK





**3.5 MW**

Yamaga, Japan





**2.2 MW**

Nordhorn, Germany




An aerial photograph of a massive industrial facility, likely a warehouse or factory, with a roof almost entirely covered in solar panels. The building is long and rectangular, with a central corridor. The surrounding area includes a railway line to the left, green fields to the right, and a body of water in the distance. The sky is overcast.

**7.2 MW**

Bonvillars, Switzerland



A high-angle, top-down photograph of five children of diverse backgrounds holding hands in a circle on a lush green lawn. The children are arranged in a pentagon shape, with their shadows cast onto the grass. The image is tilted at an angle, creating a dynamic feel. The text is overlaid on the center of the image.

Advanced Solar Module Manufacturer  
Global Leading Energy Solutions Provider





**Thanks !**

