



GOING GREEN,
INVESTING GREEN

MAKE POWER
GENERATION GREENER



中节能太阳能股份有限公司
CECEP SOLAR ENERGY CO.,LTD.

Address: Jieneng Building, No.42, North Street, Xizhimen, Haidian District, Beijing

Postal Code: 100082

Fax: 010-83052888



中节能太阳能股份有限公司
CECEP SOLAR ENERGY CO.,LTD.



2050

CARBON PEAKING

CARBON NEUTRALITY

WORK TOGETHER FOR
A NEW ERA OF DEVELOPMENT
AND WRITE A NEW CHAPTER OF
HUMAN PROGRESS



CONTENTS

ABOUT US



- Group profile
- Company profile
- Overall Objectives

DEVELOPMENT POTENTIAL



- Background advantages as a central enterprise
- A pioneer in solar energy
- Sufficient reserves of high-quality projects
- Technical support for innovation-driven development
- honor

PROJECT STRENGTH



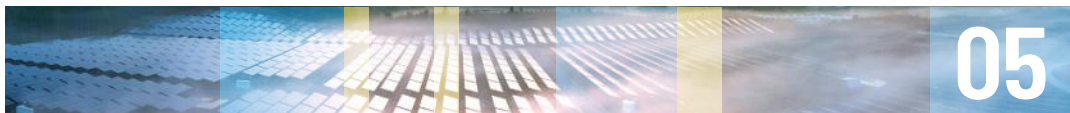
- Featured Projects
- Business expansion
- Overseas Business
- PV Manufacturing

ABUNDANT RESOURCES



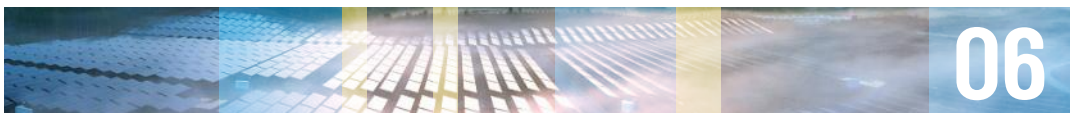
- Strong financing capacity
- Adhere to standardized operations for stable return on investment

INNOVATION EXCELLENCE



- Road of digital & intelligent enterprise transformation and innovation

SUNSHINE CULTURE



- Social responsibility
- Sunshine spirit



CECSEC

ABOUT US





CHINA ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION GROUP

As a central enterprise focusing on energy conservation, emission reduction and environmental protection, China Energy Conservation and Environmental Protection Group (CECEP) focuses on energy conservation & clean energy supply, ecological environment protection and life health, and promotes the development of green buildings, green new materials and green engineering services. It is recognized as a flagship enterprise with large scale, complete specialties, wide business coverage and strong comprehensive strength in the field of energy conservation and environmental protection in China.

COMPANY PROFILE

THE FIRST A-SHARE LISTED COMPANY ENGAGED PRIMARILY
IN SOLAR POWER GENERATION AND SECONDARILY
IN SOLAR CELL MODULE MANUFACTURING

CECEP SOLAR ENERGY CO., LTD. STOCK CODE: 000591

CECEP Solar Energy Co., Ltd. (hereinafter referred to as "the Company"), as a controlled subsidiary of China Energy Conservation and Environmental Protection Group (CECEP), is China's first A-share listed company engaged primarily in solar power generation and secondarily in solar cell module manufacturing (stock abbreviation: Solar Power; stock code: 000591). The Company focuses on the comprehensive application of solar power and is committed to the investment, construction, operation and production of the following two main business items: photovoltaic power stations and solar cell module manufacturing. Through information-based digital construction with novel technologies and high energy efficiency, it has effectively promoted comprehensive improvement in its main business items.

The Company has strong project development, construction and operation management capabilities and rich investment experience. It has developed a variety of photovoltaic power station modes, such as ground mode, water-surface mode, tidal-flat mode, distributed mode and photovoltaic agriculture mode. As of the end of December 2024, the total scale of the Company's operating power stations, power stations under construction, power stations to be built, and power stations with pre-acquisition agreements signed is about 12.114 GW.

The Company has invested in the construction of a photovoltaic cell and module manufacturing base in Zhenjiang, Jiangsu, China. The base has a total annual solar product production capacity of 5 GW, including 1.5 GW of high-efficiency photovoltaic cells and 3.5 GW of high-efficiency photovoltaic modules (compatible for P type and N type). Through technological upgrades and innovative cooperation models, the Company is striving to become a high-efficiency battery manufacturer using the mainstream technology in the industry.

The Company has excellent technical personnel, a scientific maintenance and management mechanism and a perfect corporate culture system, possesses high-level operation and management capabilities and sticks to the positive spirit of "struggling and dedication, truthfulness and innovation, resolute action, and solidarity and cooperation". It aims to become a first-class leading enterprise in China's comprehensive utilization of new energy.

BY THE END OF 2024

Total assets:
about RMB

49 billion

Photovoltaic power station business of the Company:
distributed in

24 provinces, municipalities and
autonomous regions across the country

Total scale of power stations operated, under
construction and proposed by the Company:

about **12.114** GW

Total solar product capacity
of the Company:

5 GW

Annual capacity of
high-efficiency photovoltaic cells:

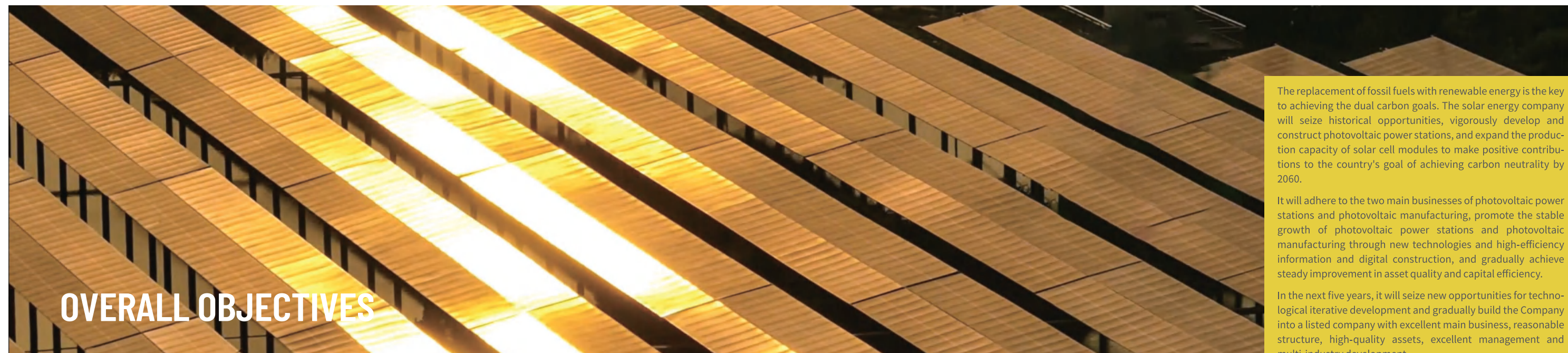
1.5 GW

Total installed capacity of 11 operating
energy storage power stations:

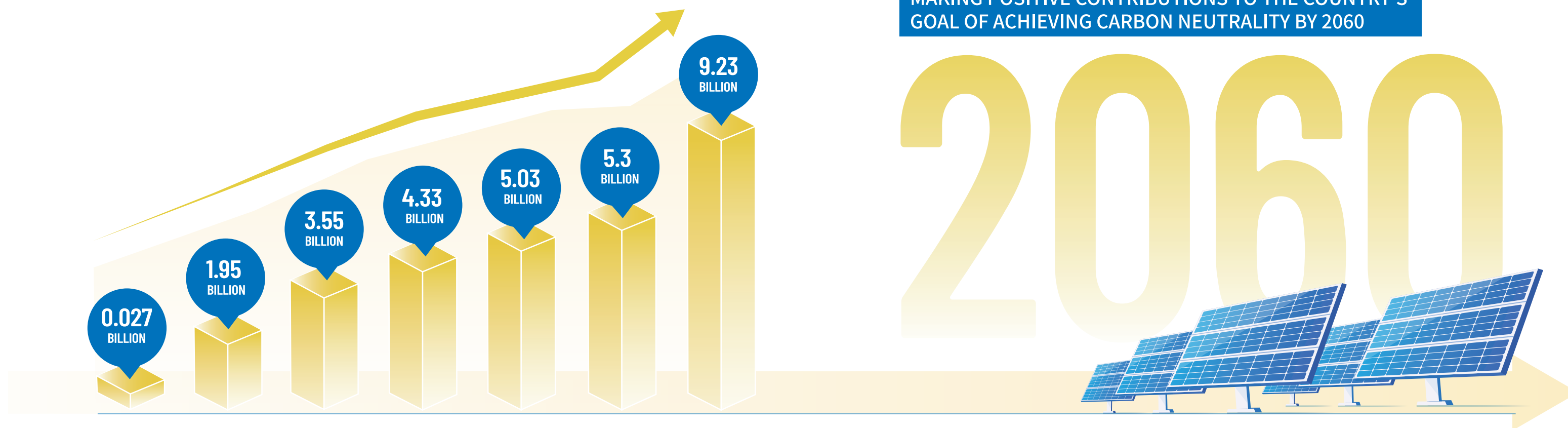
338.5 MW/ **822** MWh

Power generation: about

6.966
billion kWh in 2024



MAKING POSITIVE CONTRIBUTIONS TO THE COUNTRY'S
GOAL OF ACHIEVING CARBON NEUTRALITY BY 2060

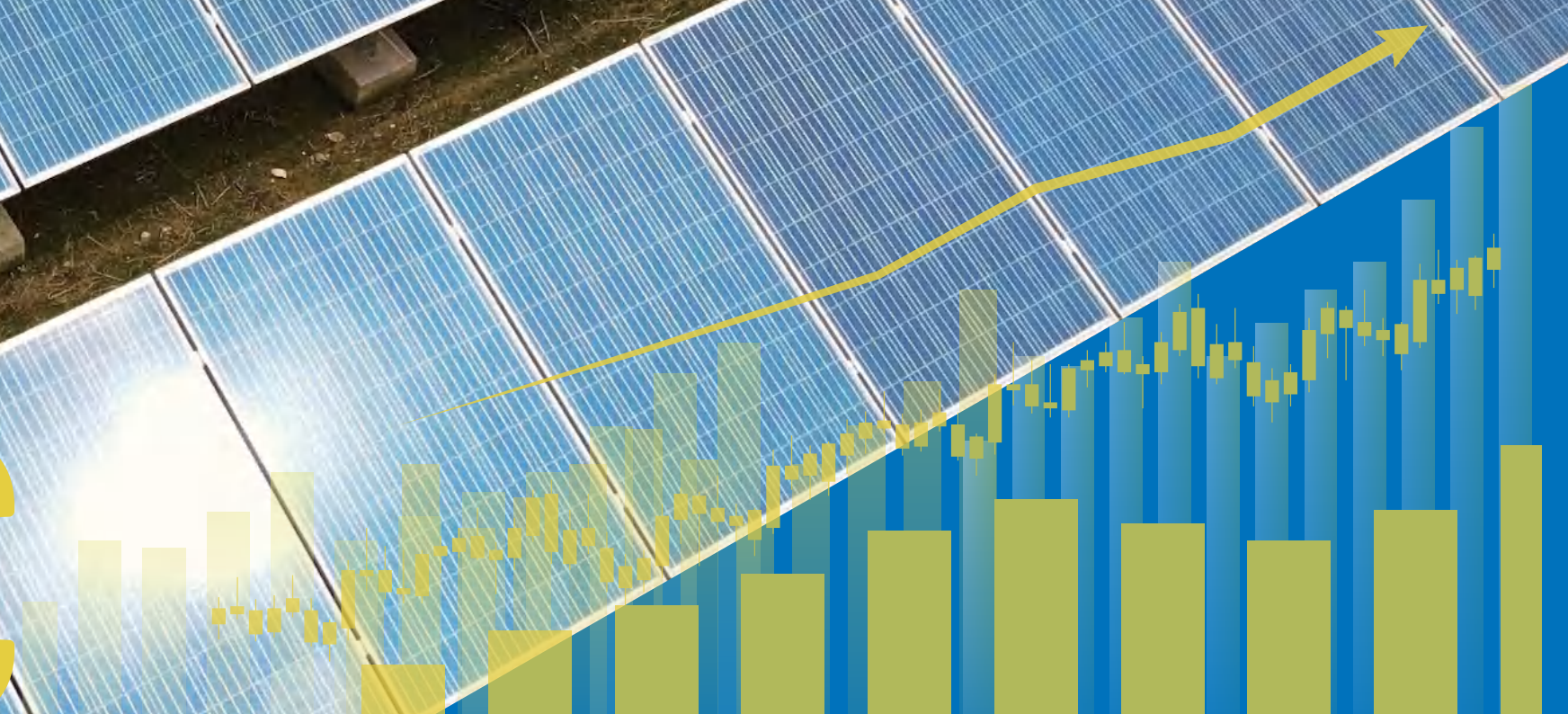


MAKE POWER
GENERATION GREENER



DEVELOPMENT
POTENTIAL

CECSEC



BACKGROUND ADVANTAGES AS A CENTRAL ENTERPRISE

As the only platform for China's energy conservation and solar power business, the Company fully utilizes the industrial resource advantages of its controlling shareholder to effectively provide "PV +" solutions. It dynamically combines its own professional experience in solar power generation with the industrial advantages of its controlling shareholder to promote resource acquisition and rapid development of its main business.

A PIONEER IN SOLAR ENERGY

As one of the first batch of enterprises to enter the photovoltaic field, the Company has advantages in terms of project development team, development mode, and project types. In the development of new projects, the Company flexibly adapts to regional policies, refines its layout, and explores deep-level comprehensive resource utilization according to local conditions, thus continuously obtaining high-quality project resources and pushing the Company to a higher development platform.



1 **10** MW Solar Photovoltaic Power Generation Project of Phase I by CECEP in Shizuishan. It was successfully connected to the grid in April 2010.

2 **6.688** MW Rooftop Photovoltaic Grid-connected Power Generation Project by CECEP in Shanghai Hongqiao Railway Station (Beijing-Shanghai High-speed Railway). The project was commenced in March 2010 and officially connected to the grid for power generation in June.

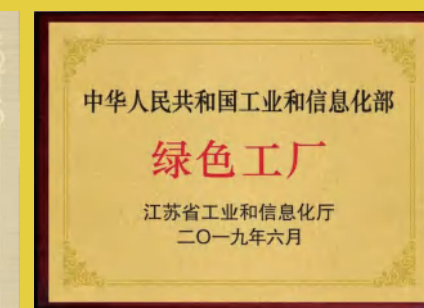
3 CECEP Solar Energy Technology (Zhenjiang) Co., Ltd. was registered and established in August 2010. In September 2011, the 100MW module workshop of CECEP (Zhenjiang) Solar Energy Industrial Base officially reached production capacity. Now, it has developed into a high-tech digital factory with an efficient capacity of 1.5GW photovoltaic batteries and 3.5GW modules.

4 **78.8** MW Photovoltaic Grid-connected Power Generation Project by CECEP in Dongtai, Jiangsu. The project was connected to the grid for power generation in December 2011.



The Company focuses on technological innovation. In 2025, the Company was successfully recognized as a national enterprise technology center. In addition, the whole system has obtained National CNAS Laboratory and TUV Rheinland Witness Laboratory qualifications, and established six high-tech enterprises (all valid). As of December 2024, the Company had been granted 506 valid patents, including 85 valid inventions, 411 utility models and 10 design patents. It has obtained 62 authorized software copyrights and published 91 articles of science and technology (29 articles in SCI/EI).

HONOR/MAJOR AWARDS



National Green Factory



**CNAS Laboratory
Accreditation Certificate**



**TUV Rheinland Witness
Laboratory Certificate**



**Second Prize for National Science
and Technology Progress**



Third Prize for Science and Technology in Jiangsu Province

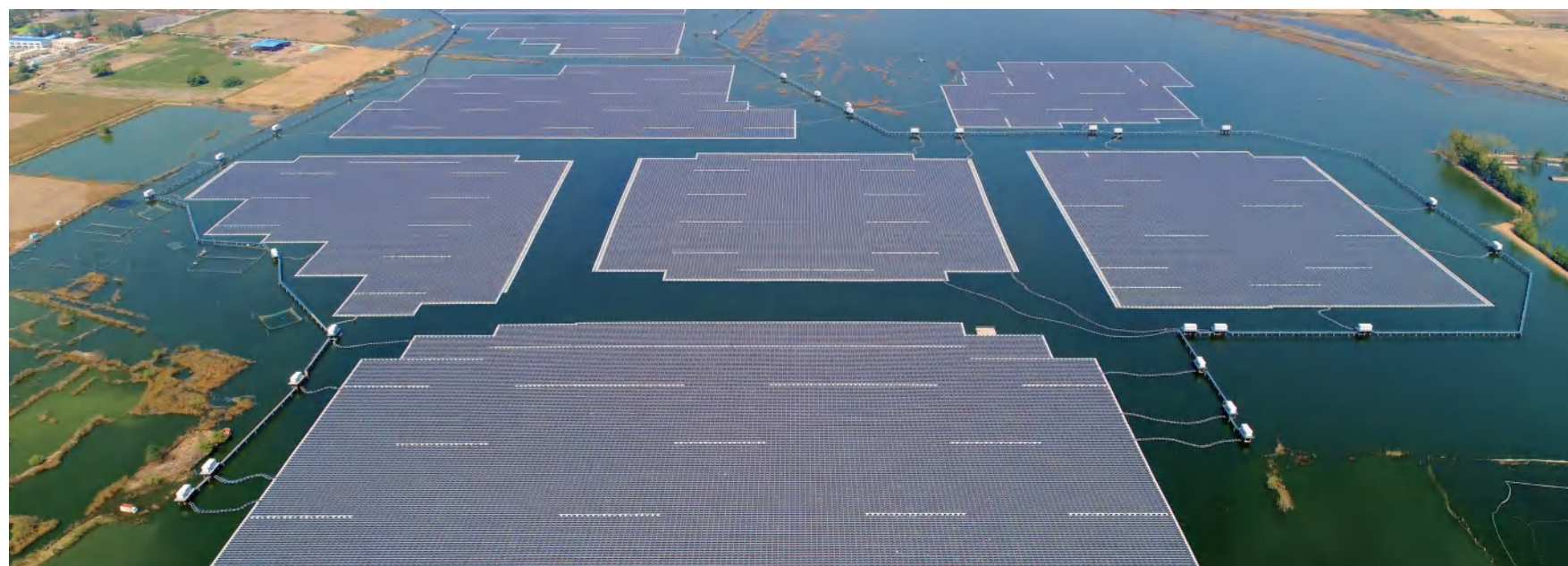


PROJECT STRENGTH

CECSEC



FEATURED PROJECTS



YONGQIAO ZHUXIANZHUANG 70 MW WATER-SURFACE PV POWER GENERATION PROJECT IN COAL MINING SUBSIDENCE AREA OF CECEP

The Yongqiao Zhuxianzhuang 70 MW Water-Surface PV Power Generation Project in Coal Mining Subsidence Area of CECEP is located in the National Advanced Technology PV Demonstration Base in the Huaibei and Huainan coal mining subsidence area of Anhui Province. The project is a floating photovoltaic power station with top single scale and leading technology in China. The project generally adopts a floating scheme that uses the leading floating system on the water surface to form 13 floating islands to support photovoltaic cell panels. The buoy material is food-grade high-density polyethylene (HDPE), and the floating island scheme may be flexibly arranged according to the actual situation of the water surface to achieve integration with the surrounding natural ecological environment.

The former coal mining subsidence area has become a new energy base. This realizes the reuse of land resources, more effectively promotes the adjustment of local industrial structure, and provides a reliable solution for the development of green energy.

CHANGXING 70 MW PV SMART AGRICULTURE COMPREHENSIVE DEMONSTRATION PROJECT

The Changxing 70MW Photovoltaic Smart Agriculture Comprehensive Demonstration Project by CECEP and Fudan University consists of a 50MW fishery-solar hybrid project, a 20MW agriculture-solar hybrid project and a over 80 acres wetland park. It combines the development of ordinary photovoltaic power stations with fishery, agriculture and leisure tourism, aiming to create an agricultural innovation town model that integrates fishery, agriculture (animal husbandry) and solar energy.

The project is jointly carried out by CECEP (Changxing) Solar Energy Technology Co., Ltd. and New Rural Area Research Institute of Fudan University. It integrates the advantages of all parties to promote the industrialization of scientific and technological achievements, facilitate the long-term development of new energy green industry and high-tech agriculture, and implement the strategy of scientific and technological innovation-driven development through the high combination of government, industry, university, research and application.

The Changxing 70MW Smart Agriculture Project is a new model for cross-border development by building a brand-new modern agricultural industrial system, scientific and technological system, quality system and carrying out multi-subject cooperation under the background of the strategic spirit of revitalizing rural areas in the 19th CPC National Congress and the reform of agricultural supply-side structure at the Central Rural Work Conference, guided by the development concept of "innovation, coordination, greenness, openness and sharing".



CECEP YUMEN 9.8 MW WIND-SOLAR COMPLEMENTARY POWER GENERATION PROJECT

Located in Jiuquan Yumen Wind Power Base of 10 million KW, with a total investment of RMB 200 million, CECEP Yumen Wind and Solar Hybrid Power Generation Project uses the gap between wind turbines for construction and comprehensive utilization of land space. The project is the first photovoltaic power generation project planned and constructed in a wind farm in China, which organically combines wind power generation with photovoltaic power generation to complement each other's advantages.

Annual output of clean electricity:

more than **13** million kWh

Sales revenue: more than RMB

160 million

Annual tax contribution: RMB

3 million



FEATURED PROJECTS



CECEP DISTRIBUTED 96.4 MW PV POWER GENERATION PROJECT IN THE WHOLE MINQIN COUNTY

The Solar Energy Company actively responds to the policies of the National Energy Administration on rooftop distributed photovoltaic development in the whole county (city, district) to build distributed photovoltaic power stations on the roofs of residential buildings, collectively-owned unused land, governments, schools and other public buildings in Minqin County, Wuwei City, Gansu Province. The electricity will be consumed nearby and the surplus electricity will be connected to the grid.

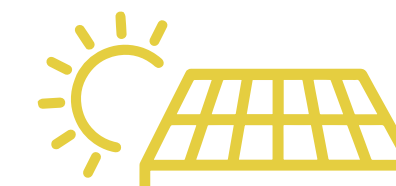


BUSINESS EXPANSION

The Company will continuously focus on major national strategies, take the opportunity of accelerating the construction of large-scale photovoltaic bases in deserts, Gobi and arid areas, and seize a number of national key major and important project resources. It will continuously explore new models and solutions, enrich and innovate the "PV +" development model, tap into deep-level comprehensive resource utilization, and broaden the channels for obtaining project resources.

The Company will actively seize the opportunity of global energy structure transformation, firmly adhere to the "going-out" strategy, and focus on overseas emerging market and renewable energy projects. It will focus on promoting project development and acquisition in countries and regions along the Belt and Road.

In the future, the Company will continuously refine and deepen cutting-edge business areas such as module recycling, industrial and commercial energy storage, and virtual power plants, open up new paths for energy development, and make another splendid achievement on the journey towards "carbon peaking and carbon neutrality" through a smart energy ecosystem.



OVERSEAS BUSINESS

ADVANCING OUR GLOBAL STRATEGY

Responsible central enterprise:

In alignment with the international development strategy for central enterprises, CECEP Solar Energy wholeheartedly advances the implementation of the Belt and Road Initiative by establishing strategic hubs and promoting clean energy projects in countries along the Belt and Road.

We are committed to building a global supply chain network. By integrating technology, capital, and talent, we aim to realize collaborative energy development and provide efficient and sustainable green power solutions for local communities, thereby contributing to the optimization of the global energy mix and the achievement of carbon neutrality goals.

SYNERGISTIC UPGRADING OF GLOBAL INDUSTRY CHAINS

Synergistic effect:

Through our overseas projects, we are driving the export of critical domestic products such as PV equipment and energy storage systems. By collaborating with suppliers, we are facilitating industrial upgrades and enhancing the overall strength and international competitiveness of our supply chain, aiming to feed a powerful catalyst for the global transition to clean energy. Driving export of domestic equipment.

Innovation and growth:

Our mission is to achieve coordinated development between domestic and international industrial chains, bolstering the competitiveness of our overseas operations. By utilizing digital platforms, we are integrating global resources, enhancing market responsiveness, and consolidating our advantages abroad, in a bid to support the dual circulation development pattern of energy transition and economic growth.

Talent collaboration:

By establishing joint training bases and international exchange programs, we aim to cultivate skilled technicians in new energy technologies and promote the transfer of knowledge and innovative cooperation in cutting-edge fields like PV and energy storage, thus accelerating the localization and global dissemination of green energy technologies.

MILESTONE BREAKTHROUGHS AND INNOVATIVE OPERATION

Market expansion:

We are implementing a dual-track strategy comprising "key countries + regional outreach," with Central Asia as our foundation for expanding into surrounding markets and Central and Eastern Europe and forming a multi-point support pattern. By establishing regional operation centers in Central Asia, we enhance service localization and resource integration, which allow us to swiftly respond to the evolving needs of emerging markets in Central and Eastern Europe and ensure sustainable growth for our global operations.

Significant partnership:

We have signed a memorandum of understanding with the National Investments Agency under the President of the Kyrgyz Republic to develop new energy projects, facilitating local energy transition. Through the dual-track strategy of "project implementation + capacity building," we are accelerating the construction of the Central Asian Clean Energy Corridor in a bid to establish technical standards and investment models for future projects in Kazakhstan, Uzbekistan, and beyond.



Photo of Signing Ceremony for Projects in Kyrgyzstan

Kazakhstan
Uzbekistan
Kyrgyz Republic



PV MANUFACTURING

Established on August 26, 2010, CECEP Solar Energy Technology (Zhenjiang) Co., Ltd. is a tertiary subsidiary of China Energy Conservation and Environmental Protection Group directly under the State-owned Assets Supervision and Administration Commission of the State Council. Its main businesses include research, manufacturing and sales of crystalline silicon solar cells and components, as well as development and sales of artificial intelligence application software and hardware. At present, it can achieve a production capacity of 1.5GW monocrystalline PERC solar cells and 3.5GW efficient modules.



INNOVATIVE SOLAR EQUIPMENT MANUFACTURING CAPABILITY





ABUNDANT RESOURCES

CECSEC

STRONG FINANCING CAPACITY

Equity financing

In August 2022, the Company completed the private placement and listing of shares, raising funds of RMB **5.981** billion.

In April 2025, the Company completed the issuance and listing of convertible bonds, raising funds of RMB **2.95** billion.

Bond financing

In 2022, the Company successfully issued the first tranche of green corporate bonds of RMB 1 billion, achieving high multiple subscriptions and a good offering price.

In 2023, the Company successfully issued RMB 1 billion of dual-labeled publicly offered green corporate bonds featuring "carbon neutrality" and "technological innovation" to professional investors. This issuance is an important embodiment of the Company's role as a central enterprise and its active response to the national goals of "carbon peaking and carbon neutrality" and the strategy of "innovation-driven development".



中国证券监督管理委员会

证监许可〔2025〕33号

关于同意中节能太阳能股份有限公司向 不特定对象发行可转换公司债券注册的批复

中节能太阳能股份有限公司：
中国证券监督管理委员会收到深圳证券交易所报送的关于你公司向不特定对象发行可转换公司债券的审核意见及你公司注册申请文件。根据《中华人民共和国证券法》《中华人民共和国公司法》《国务院办公厅关于贯彻实施修订后的证券法有关工作的通知》（国办发〔2022〕5号）和《上市公司证券发行注册管理办法》（证监会令第206号）等有关规定，经审查深圳证券交易所审核意见及你公司注册申请文件，现批复如下：
一、同意你公司向不特定对象发行可转换公司债券的注册申请。
二、你公司本次发行应严格按照报送深圳证券交易所的申报文件和发行方案实施。
三、本批复自同意注册之日起12个月内有效。
四、自同意注册之日起至本次发行结束前，你公司如发生重大

中国证券监督管理委员会

证监许可〔2022〕1045号

关于核准中节能太阳能股份有限公司 非公开发行股票的批复

中节能太阳能股份有限公司：
《中节能太阳能股份有限公司关于非公开发行A股股票的申请报告》（太阳能〔2022〕22号）及相关文件收悉。根据《公司法》《证券法》和《上市公司证券发行管理办法》（证监会令第163号）等有关规定，经审查，现批复如下：
一、核准你公司非公开发行不超过902,129,409股新股，发生转增股本等情形导致总股本发生变化的，可相应调整本次发行数量。
二、本次发行股票应严格按照你公司报送我会的申请文件实施。
三、本批复自核准发行之日起12个月内有效。
四、自核准发行之日起至本次股票发行结束前，你公司如发

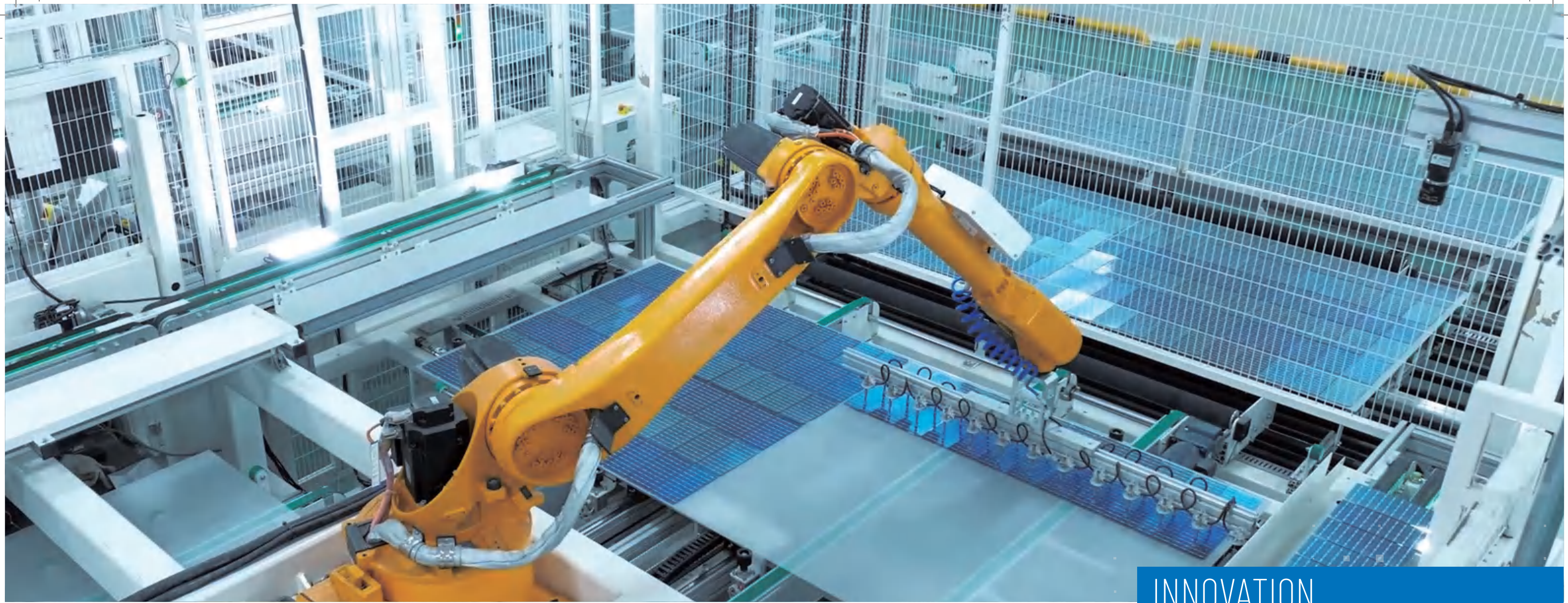
ADHERE TO STANDARDIZED OPERATIONS FOR STABLE RETURN ON INVESTMENT

Rated "A" in information disclosure evaluation
for three consecutive years

Rated as an excellent practice case
for listed company board offices in 2024

Rated as the best practice case for listed company
board offices for three consecutive years





INNOVATION
EXCELLENCE

CECSEC

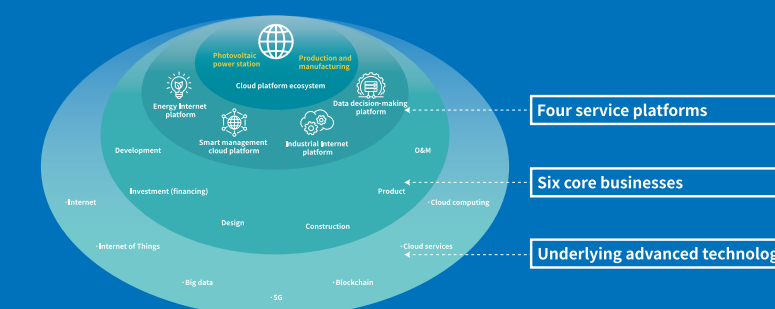
INNOVATION EXCELLENCE

ROAD OF DIGITAL & INTELLIGENT ENTERPRISE TRANSFORMATION AND INNOVATION

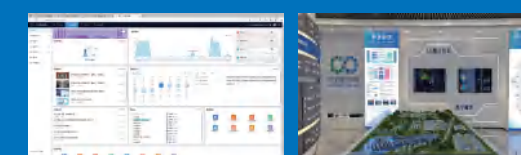
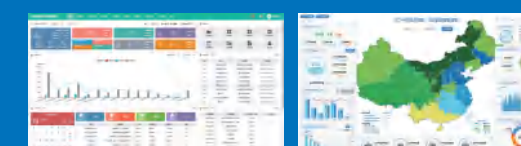
The Company adheres to high-quality party building to lead the high-quality development of enterprises, is committed to innovative practice and demonstration guidance of green, low-carbon and digital intelligence transformation, continues to make efforts in creating an intelligent photovoltaic industry ecosystem, and further promotes the integration and innovation of new generation information technology such as 5G communication, artificial intelligence, advanced computing and industrial Internet with the photovoltaic industry.

DIGITAL ENERGY CONSERVATION EMPOWERING THE FUTURE

The Company uses new digital means such as cloud computing, big data, Internet of Things and 5G as smart technology and data application carriers to build an energy-saving cloud platform ecosystem, form a 1+4+2 intelligent photovoltaic capability system, create a "platform + ecology" digital low-carbon mode, and enhance customer service and brand value. Focusing on photovoltaic manufacturing and photovoltaic power stations, it covers six core businesses to provide customers with digital full-scenario solutions integrating "hardware + software + cloud + integration + consultation", so as to make data productive and promote the integrated innovation and digital empowerment of enterprises.



Energy-saving Photovoltaic Cloud Ecosystem



SMART MANAGEMENT CLOUD PLATFORM

Collaborative enterprise operation: provision of safe integrated portal service for enterprise management, one-stop access, business collaboration and sharing; realization of mobile handling of important businesses to get rid of environmental restrictions and improve work efficiency.

INDUSTRIAL INTERNET PLATFORM

Intelligent manufacturing: real-time control over the production process of each product, process parameters of each piece of equipment, work order information, contract orders, production material information, etc.; refinement of cost analysis and control to reduce costs and increase efficiency.

ENERGY INTERNET PLATFORM

Intelligent operation and maintenance of power stations: real-time control over the power generation information of each power station, the operating status of each piece of equipment, accurate fault diagnosis of on-site abnormalities, diagnostic analysis reports, asset management, and fast and efficient O&M management.

SOCIAL RESPONSIBILITY

The Company actively participates in building a beautiful China. It continuously gives full play to its own advantages, focuses on its main business of promoting revitalization and benefiting the people, and increases the construction of photovoltaic projects in Xinjiang, Qinghai, Gansu, Guizhou and other areas with weak economic foundations and weak economic vitality. It also actively expands "photovoltaic +" models such as PV-based desertification control, mountainous agriculture-PV, and PV-based barren mountain transformation, facilitating local economic development.



The Company contributes to the implementation of China's comprehensive rural revitalization strategy, and makes every effort to carry out people-benefiting, farmer-benefiting, and revitalization assistance based on the revitalization assistance expectations for the places where the photovoltaic power generation projects are located. It carries out charitable donations and consumption assistance, effectively facilitates the improvement of rural environment, and drives income generation and income increase, making due contributions to promoting comprehensive rural revitalization.

The Company is committed to taking public welfare actions such as environmental protection, safety utilization of electric power, voluntary blood donation, donations to schools, and elderly assistance to convey the power of kindness. The Company actively provides student subsidies for many places to improve the school running quality and help poor students with good character and academic performance. It organizes the young people in the system to carry out various forms of Learn from Lei Feng movement such as volunteer inspections for safety utilization of electric power, volunteer publicity of "green pioneer" garbage sorting, and condolences to veterans. It promotes the core socialist values with its practical actions and demonstrates the responsibility of central enterprises.



The Company conscientiously implemented the requirements of the cash dividend policy and actively returned investors with cash dividends on the premise of not affecting the normal operation and sustainable development of the Company.

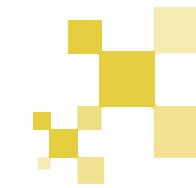
In 2022-2024, the proportions of the cash dividend amount (including tax) to the net profit attributable to owners of the parent company in the consolidated statements were 36.06%, 36.15% and 36.11% respectively.

The proportions of the Company's cash dividend amount (including tax) to the net profit attributable to owners of the parent company in the consolidated statements were:

36.06%
2022 year

36.15%
2023 year

36.11%
2024 year



SUNSHINE CULTURE

CORPORATE CULTURE - "SUNSHINE CULTURE"



VALUE

Innovation, development,
integrity and win-win cooperation

MISSION

Provide high-quality products, dedicate
clean energy and benefit human society

SPIRIT

Struggling and dedication, truthfulness
and innovation, resolute action, solidarity
and cooperation



CORPORATE VISION

COMPLIANCE WITH THE BLUEPRINT, STAYING TRUE TO THE ORIGINAL AND INNOVATION FOR STEADY AND SOUND DEVELOPMENT

With the social attention to environmental protection and the increasing demand for clean energy, solar energy will usher in a broader market prospect as a green, clean and renewable energy source. Besides, with technological progress and cost reduction, the competitiveness of solar energy will continue to increase.

The Solar Energy Company will take ecological civilization construction as its own responsibility and "double carbon" as its goal. Together with counterparts from all walks of life, it will be more actively involved in the new energy industry to jointly promote the development of clean energy power, build a new power system, and help build China into a beautiful country by means of green electricity.