

*To Provide Low-cost, High-quality, and Clean Energy!*

**CosinSolar**

# QUARTERLY UPDATE

Q3, 2024



# WHO WE ARE >>>

## *Global Leading Provider for Molten Salt Tower CSP*

Cosin Solar Technology Co., Ltd. ("Cosin Solar"), was founded in 2010 with its headquarter in Hangzhou, China. As one of the pioneer and leading enterprise in China devoted in the promotion of research and industrialization of CSP technology, we are now specialized in the application of CSP, CSP+ hybrid solution and molten salt thermal energy storage technologies. We are able to provide our customers with advanced, mature, and cost-competitive CSP and molten salt energy storage products and solutions.

**14** Years

Continuous Research

**117** Million USD

R&D Investment

**3**

Business Domain

**55.3%**

Market share in China  
(\*CT CSP Businee)



# 400

## Patents

400 Applications  
Including 293 invention patents  
232 Authorized  
Including 160 invention patents

# 33

## Standards

Leading IEC international standards 2  
Participated in 5 IEC international standards  
Leading the national standards 5  
Participate in 5 national standards  
Industry, group standards 16

# 6

## Technical Award

First prize of provincial and municipal  
science and technology progress  
  
SolarPACES 2020 Technology Innovation Award  
(the only independent winner in Asia)

# 31

## National and Provincial Research Projects

Undertake the second phase of the  
World Bank China Renewable Energy  
Scale Development Project (CRESP)



# WHAT DO WE DO

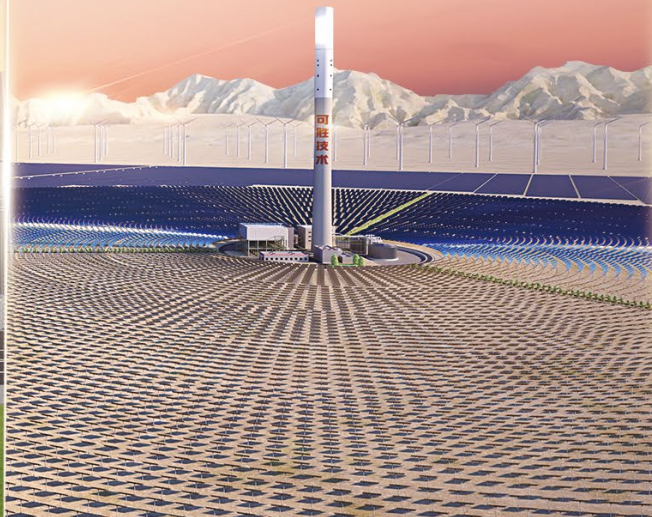
## MSES

Integrated Energy Solution  
Based on MSES



## CT CSP

Total Solution of Molten Salt  
Tower CSP



## PV

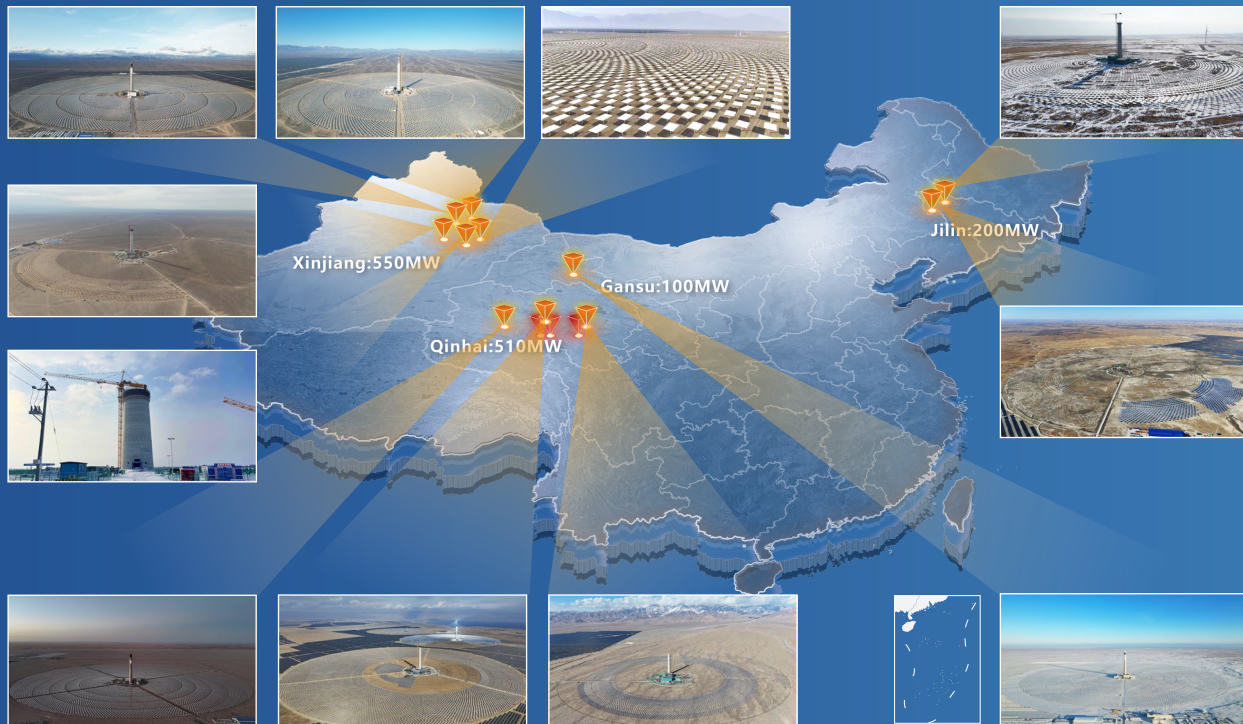
Comprehensive Solution for  
Smart PV Tracking System





# Total Solution of Molten Salt Tower CSP

Extensive experience in construction and operation of large-scale commercial tower CSP plants



## The world's only

Tower CSP technology provider  
with a track record of over **1GW**

### 1360MW

Tower CSP installed capacity

Tower CSP Projects  
Under Operation

### 110MW

3 Tower CSP Projects

Tower CSP Projects  
Under Construction

### 1250MW

11 Tower CSP Projects

# UNDER CONSTRUCTION

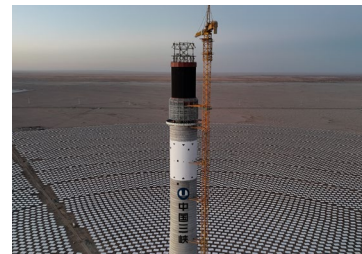
## 100MW Jinta ZhongGuang Solar "CSP + PV" Hybrid Pilot Project 100MW CSP Project

The important engineering nodes of the project have been completed in succession, including 25,594 sets of heliostats installation, the receiver body hoisting, turbo-generator's stator hoisting and the civil works. The main installation project of the island is in progress, and the installation of the MS storage tank has been basically completed.



## 100MW CTGR Qin Hai Qingyu DC 100MW CSP Project

All 23,731 sets of heliostats were assembled for the CTGR Qin Hai Qingyu DC 100MW CSP Project, being constructed by Cosin Solar. Since the assembly of the first set of heliostat on October 17, 2023, all heliostat assembly tasks have been successfully completed in about seven months (excluding a one-month winter break).





# 100MW

## ENERGY CHINA ZTPC Xinjiang Turpan CSP + PV Integrated Project (100MW CT CSP)

On October 18, all heliostats for ENERGY CHINA Xinjiang Turpan CSP + PV Integration Project 100MW CT CSP Project (the "Project"), being constructed by Cosin Solar as a member of the EPC consortium, was successfully assembled and rolled off the assembly line, marking another major breakthrough in the project.



# 100MW

## CHN Energy Qinghai Qingyu DC 100MW CSP Project

Until the end of October 2024, the 14,536 sets of heliostats have been installed for the CHN Energy Qinghai Qingyu DC 100MW CSP Project, being constructed by Cosin Solar. And the Suction tower 188 meters capped.



# 100MW

## CGN New Energy Delingha 1GW Hybric Project (200MW CT CSP)

Until the end of October 2024, the 5,486 sets of heliostats have been installed for the CGN New Energy Delingha 1GW Hybric Project (200MW CT CSP), being constructed by Cosin Solar. And the Suction tower 188.5 meters capped.



# 100MW

## SPIC Xinjiang Turpan Shanshan Qiketai 100MW CSP Project

Until the end of October 2024, the 12,685 sets of heliostats have been installed for the SPIC Xinjiang Turpan Shanshan Qiketai 100MW CSP Project, being constructed by Cosin Solar. And the heat absorber steel structure is being installed.





# Integrated Energy Solution Based on MSES

Cosin Solar has developed a comprehensive set of solutions based on large-scale wide-temperature MSES. These solutions cover MSES technology, independent design of key system equipment, system equipment integration and supply, etc.



## Core Competence

### Large Capacity High Temperature MSES System

- Large-scale molten salt storage tank design
- Multiple pairs of molten salt storage tanks in parallel
- Large-scale electric heater series parallel

### High Temperature MS Safety Control Strategy

- Customized system start and stop control policies
- Interlocking and protection strategies for abnormal conditions such as frozen salt, overtemperature and tube burst

### System Development and Supply

- Design and selection of key equipment such as molten salt storage tank, molten salt heat exchanger, molten salt pump, molten salt valve, electric tracing of molten salt and molten salt instrument
- Equipment installation management

### Implementation and Operation of MSES Project

- Construction quality control
- Debug and operation technical guidance

# 260MW

MSES installed capacity



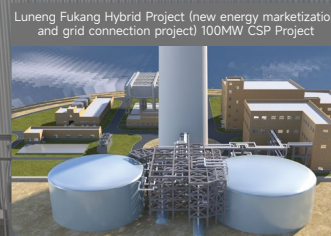
SUPCON SOLAR Delingha 10MW  
Molten Salt Tower CSP Plant



SUPCON SOLAR Delingha 50MW  
Molten Salt Tower CSP Plant



Jinta ZhongGuang Solar "CSP + PV" Hybrid  
Pilot Project 100MW CSP Project

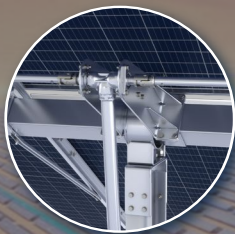


Luneng Fukang Hybrid Project (new energy marketization  
and grid connection project) 100MW CSP Project

# Comprehensive Solution for Smart PV Tracking System

Based on more than 10 years of independent design, development, manufacturing and operation of high-precision intelligent tracking products, Cosin Solar has actively expanded and extended the industrial chain, carried out technological innovation, and successfully developed Cosin Solar PV tracking system well suited for harsh environmental conditions. What's more, it has been successfully applied in commercial projects.

## *Cosin Solar Tracking System ——Horizontal Single-Axis PV Tracker*



PT Tracking System



PJ Tracking System





UNDER OPERATION

Zhejiang Energy Ningdong 150MW  
Composite PV Power Generation Project

50 MWp



China · Ningxia



UNDER CONSTRUCTION

Jinta Zhongguang Solar "CSP + PV"  
Pilot Project

260 MWp



China · Gansu

# NEWS IN BRIEF ►►



## SolarPACES 2024



On October 8, SolarPACES 2024 opened in Rome, Italy. Cosin Solar was invited to attend and show the strength of the company to the world. As one of the reliable technology providers for Molten Salt Tower CSP Plant, Cosin Solar has been focusing on the R&D, equipment and engineering of Tower CSP and Molten Salt Energy Storage technology, with an aim to use advanced and efficient CSP technology to provide high-quality and low-cost clean energy.

- The former SUPCON SOLAR, officially renamed into Cosin Solar Technology Co., Ltd. ("Cosin Solar" for short) in July 2021
- Founded in 2010, focus on tower CSP and energy storage technology
- Independent R&D with fully patented technology and homebred equipment
- Technology consultancy, equipment integration, engineering services, etc
- Development, investment, construction, commissioning, operation of projects, etc

Youtube: Cosin Solar

Twitter: @CosinSolar

Website: [www.cosinsolar.com](http://www.cosinsolar.com)