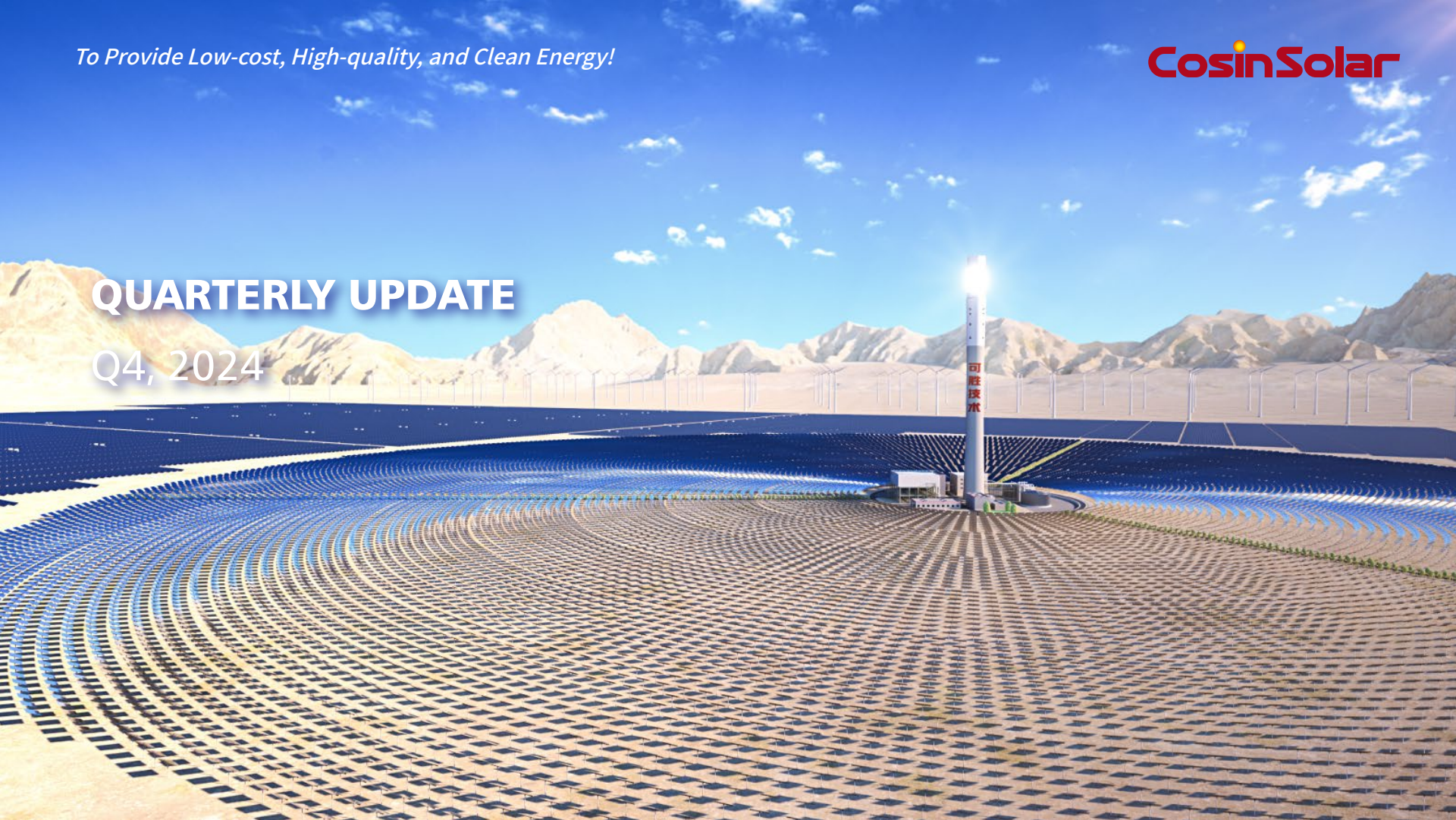


To Provide Low-cost, High-quality, and Clean Energy!

CosinSolar

QUARTERLY UPDATE

Q4, 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

53%

Market share in China
(*CT CSP Busine)

WHAT WE GOT >>>

The world's only

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

Tower CSP Installed Capacity

1360MW

PV Installed Capacity

310MW_p



UNDER CONSTRUCTION

1250MW

11 Tower CSP Projects



Sets of heliostats have been installed

16667

SPIC Xinjiang Turpan Shanshan Qiketai 100MW CSP Project

Sets of heliostats have been installed

25594

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

Sets of heliostats have been installed

23340

CHN Energy Qinghai Qingyu DC 100MW CSP Project



All heliostats have been installed

14680

POWERCHINA Turpan City Tuokexun County CSP + PV Integrated Project (100MW CT CSP)

Sets of heliostats have been installed

21865

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

Sets of heliostats have been installed

23731

CTGR Qinhar Qingyu DC 100MW CSP Project

Sets of heliostats have been installed

5066

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

Sets of heliostats have been installed

13256

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

Sets of heliostats have been installed

4626

Jixi Base Jixilugu DC 1.4GW Hybrid Project
Unit 1 100MW CSP

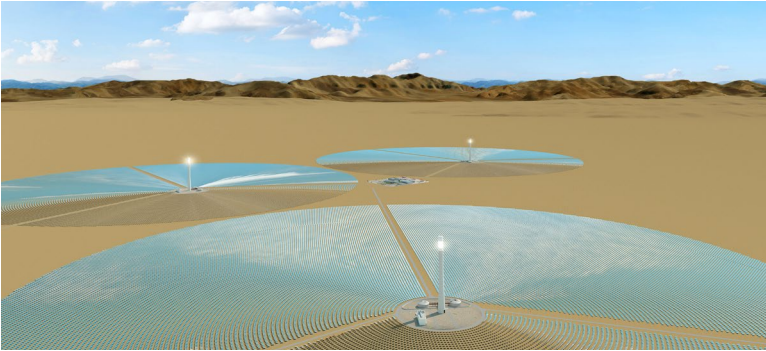
First heliostats have been installed

ENERGY CHINA Hami "PV+CSP+Storage" multi-energy complementary
integrated green electricity demonstration project 150MW CT CSP

First heliostats have been installed

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

Golmud 350MW CT CSP project applied by Cosin Solar was successfully shortlisted for the CSP demonstration (pilot) projects in Qinghai Province in 2024



On November 5, the results of selecting Qinghai Province's 2024 preferred CSP demonstration (pilot) projects were announced. **The Golmud 350MW CT CSP project applied by Cosin Solar was successfully shortlisted.** The selected project will be included in the development and construction plan of key projects in the power industry of Qinghai Province for 2024. This project has an **installed capacity of 350MW and is equipped with a 10-hour molten salt energy storage system.**

As a pioneer in the domestic CSP industry, Cosin Solar has been dedicated to promoting the technological progress and large-scale development of the CT CSP sector. Up to now, Cosin Solar has participated in and provided heliostat field & MSR systems in 14 commercial CT CSP projects. The installed scale ranges from 10MW to 50MW, 100MW, 150MW, 200MW. **The Golmud 350MW CT CSP project is currently the largest CT CSP project in terms of single-unit installed capacity among the completed, planned, and ongoing projects worldwide. Its completion will provide a demonstration for the further development of CSP.**



10MW



50MW



100MW

UNDER OPERATION


110MW


3 Tower CSP Projects



50MW


Delingha 50MW Tower CSP Plant

 **The First CSP Plant in China which Exceeded the Designed Production**

 **The Production Target has been Achieved for Two Years**

The total annual accumulative actual power generation of the Plant in 2022 was 146.4 GWh.

The total annual accumulative actual power generation of the Plant in 2023 was 152.4 GWh.

 **International Certification**

The design of the plant corresponds to state-of-the-art design of similar plants in the world.

Cumulative power generation as of December 2024
706.4 GWh

Maximum annual power generation
152.4 GWh

Maximum monthly generation
18.4358 GWh

Maximum single day generation
1128.6 MWh

Continuous operation for
322.62 hours
Power generation of
9.1955 GWh
Average production at
111.5%

TOP 1



The re-upgrade of the "Star" plant - the successful localization transformation of the MS receiver for the Delingha 10MW Tower CSP Plant

In the first half of 2024, to promote the further localization of key equipment for CSP and reduce the cost of CSP, Qinghai SUPCON and Cosin Solar jointly carried out the localization transformation of the nickel alloy pipe for the molten salt receiver of the SUPCON SOLAR Delingha 10MW Molten Salt Tower CSP Plant ("Plant"). **After the renovation, the Plant was put back into operation in August 2024. After three months of operation, the receiver ran stably and performed excellently.**



The transformation of the MS receiver in the Plant utilizes domestic nickel alloy pipes, overcomes technical challenges such as high-temperature resistance, corrosion resistance, thermal fatigue, and thermal shock of the receiver materials, and adopts an optimized design scheme of the receiver system. Up to now, the MS receiver has been operating safely and stably for five months. The outlet salt temperature of the receiver has reached $565 \pm 5^{\circ}\text{C}$, and the technical indicators have fully met the design value.

The Plant is the first Molten Salt Tower CSP plant in China and the third in the world with a large-scale MSES system. **It is also the first in the world with a two-tower and one-power-block configuration MS CT CSP plant.** Since the plant was connected to the grid in July 2013, it has been running stably for 11 years. The plant took the lead in completing the engineering verification of China's self-developed CT CSP technology and domestic equipment in the cold and high-altitude areas. It verified the feasibility of the technical route of two towers and one power block. **It provides technical support for the construction of large-capacity and low-cost CT CSP with multi-tower and one machine in the next stage.**

NEWS IN BRIEF >>>



Seminar on standard promotion and technology in the field of CSP

On December 28, sponsored by the National Solar thermal Power Generation Standardization Technical Committee and hosted by Cosin Solar Technology Co.,Ltd. the "Seminar on standard promotion and technology in the field of CSP" was successfully held in Hangzhou, Zhejiang Province. The conference centered on the core standards associated with tower solar thermal power stations, facilitating in-depth discussions and exchanges. The event aimed to enhance standardization cooperation within the solar thermal power generation sector and collaboratively explore innovative pathways for industry advancement.

7 IEC international standards

Leading IEC international standards 2
Participated in 5 IEC international standards

10 National standards

Leading the national standards 5
Participate in 5 national standards

16 Industry, group standards



- 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