

Concentrated Solar Power (CSP) Market projected to surpass US\$22.304 billion by 2030 at a CAGR of 9.12%

The concentrated solar power (CSP) market is anticipated to grow at a CAGR of 9.12% from US\$12.110 billion in 2025 to US\$22.304 billion by 2030.

NEW YORK, NY, UNITED STATES, February 12, 2025 /EINPresswire.com/ -- According to a new study by Knowledge Sourcing Intelligence, the global <u>concentrated solar power</u> <u>market</u> is projected to grow at a CAGR of 9.12% between 2025 and 2030 to reach US\$22.304 billion by 2030.

Concentrated solar power (CSP) plants use mirrors to concentrate the sun's



energy to run conventional steam turbines or engines that generate electricity. The thermal energy concentrated in a CSP plant can be stored and used to generate electricity as per requirements, day or night. CSP technology generates electricity by focusing on sunlight. The concentrated sun's energy is converted into high-temperature heat, which is then channelled



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through a conventional generator. The CSP plant consists of two parts: the first collects the <u>solar energy</u> and converts it into heat, and the second converts the heat energy into electricity.

Through thermal storage, CSP systems can supply solar power on demand, helping to address grid integration challenges related to the variability of solar energy and enabling solar-generated heat to be stored until electricity is needed. In addition to powering a turbine, CSP technology can also be used as heat in several industrial

applications, such as water desalination, food processing, enhanced oil recovery, mineral

processing, and chemical production.

Concentrated solar power energy is a carbon-free source of electricity. It is best suited for regions and countries with strong radiation, such as Australia, the Southern United States, China, Southern Europe, South Africa, and the Middle East, among others. As such, a high focus on renewable energy sources, especially solar, is significantly driving the concentrated solar power market worldwide. Countries are rushing to meet their set targets regarding zero greenhouse gas (GHG) emissions while increasing the share of renewable energy sources in total electricity generation.

Further, Supportive government policies and programs to ramp up the installation of concentrated solar power will continue to bolster this market's expansion during the next five years. The U.S. Department of Energy (DOE) provided funding through competitive awards to industry, universities, and national laboratories to make large-scale dispatchable solar energy systems cost-competitive without any subsidy. MUSTEC (Market uptake of solar thermal electricity through cooperation), in light of EU 2030, aims to explore and propose solid solutions to overcome the barriers that hamper the arrangement of concentrating solar power (CSP) cooperation projects.

Access sample report or view details: https://www.knowledge-sourcing.com/report/global-concentrated-solar-power-csp-market

The Global concentrated solar power market is segmented by type into four major categories: Parabolic Trough (PT), Solar Tower (ST), Solar Dish (SD), and Fresnel Reflector (FR). The solar power towers segment holds a considerable market share. Solar power towers make use of flat sun-tracking mirrors on a large field. These mirrors, called heliostats, reflect and concentrate sunlight onto a receiver on the top of a tower. The parabolic trough segment is projected to grow at a decent CAGR during the forecast period.

The global concentrated solar power market by end-user category is segmented into commercial and industrial. Concentrated solar power installations require a significant capital investment, so their penetration in residential and commercial areas is very low when compared to utilities. Installation of CSP for utilities aids in peak load shaving, power demand management, and integrated thermal storage with variable time for different technologies.

Based on geography, the Asia Pacific region is projected to note significant growth in the global concentrated solar power market. The installation of concentrated solar power systems is booming in Asia Pacific. The market is expanding as a result of the increasing investments in concentrated solar power technology for grid location relief in nations like China. Rapid urbanization, industrialization, and pollution are some of the factors driving both the decline in carbon emissions and the increase in energy demand.

As a part of the report, the major players operating in the global concentrated solar power

market that have been covered are Abengoa S.A., AccionaEnergía, BrightSource Energy, Inc., HeliosCSP, FRENELL GmbH, Siemens Energy, Intecsa Industrial S.A., Eni S.p.A., Pacific Green Technologies Inc., Aalborg CSP A/S.

The market analytics report segments the global concentrated solar power market as follows:

- By Type
- o Parabolic Trough (PT)
- o Solar Tower (ST)
- o Solar Dish (SD)
- o Fresnel Reflector (FR)
- By End-User
- o Commercial
- o Industrial
- By Geography
- North America
- o United States
- o Canada
- o Mexico
- · South America
- o Brazil
- o Argentina
- o Others
- Europe
- o Germany
- o France
- o UK
- o Italy
- o Others
- · Middle East and Africa
- o Saudi Arabia

- o UAE
- o Israel
- o Others
- Asia Pacific
- o China
- o India
- o Japan
- o South Korea
- o Taiwan
- o Thailand
- o Indonesia
- o Others

Companies Profiled:

- Abengoa S.A.
- AccionaEnergía
- BrightSource Energy, Inc.
- HeliosCSP
- FRENELL GmbH
- · Siemens Energy
- Intecsa Industrial S.A.
- Eni S.p.A.
- Pacific Green Technologies Inc.
- Aalborg CSP A/S

Reasons for Buying this Report:-

- Insightful Analysis: Gain detailed market insights covering major as well as emerging geographical regions, focusing on customer segments, government policies and socio-economic factors, consumer preferences, industry verticals, other sub-segments.
- Competitive Landscape: Understand the strategic maneuvers employed by key players globally to understand possible market penetration with the correct strategy.
- Market Drivers & Future Trends: Explore the dynamic factors and pivotal market trends and how they will shape future market developments.
- Actionable Recommendations: Utilize the insights to exercise strategic decision to uncover new business streams and revenues in a dynamic environment.
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Report Coverage:

- Historical data from 2022 to 2024 & forecast data from 2025 to 2030
- Growth Opportunities, Challenges, Supply Chain Outlook, Regulatory Framework, Customer Behaviour, and Trend Analysis
- Competitive Positioning, Strategies, and Market Share Analysis
- Revenue Growth and Forecast Assessment of segments and regions including countries
- Company Profiling (Strategies, Products, Financial Information, and Key Developments among others)

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