

Global Solar Thermal Collector Market Projected to Reach USD 7.33 Billion by 2034, CAGR of 4.68% (2026-2034)

Solar Thermal Collector Market Growth Outlook to grow from USD 5.08B in 2026 to USD 7.33B at a 4.68% CAGR through 2034.

PUNE, MAHARASHTRA, INDIA, February 7, 2026 /EINPresswire.com/ -- The global [solar thermal collector market](#) is forecast to experience steady growth through the next decade, driven by increasing renewable heat demand and supportive policies aimed at decarbonizing the heat sector, according to a new market research report by Fortune Business Insights™. The global market was valued at USD 4.85 billion in 2025 and is expected to grow from USD 5.08 billion in 2026 to USD 7.33 billion by 2034, registering a compound annual growth rate (CAGR) of 4.68% during the forecast period.



Renewable heat solutions like solar thermal collectors are critical to decarbonizing building & industrial heat loads, cost-effective thermal energy without increasing electricity demand.”

Fortune Business Insights

Get a Free Sample of this Report -

<https://www.fortunebusinessinsights.com/enquiry/request-sample-pdf/solar-thermal-collector-market-101755>

Solar thermal collectors are engineered devices that absorb solar radiation and convert it into thermal energy, which is then transferred to a working fluid for use in a wide range of applications — from domestic hot water and space heating to district heating and low- to medium-temperature industrial process heat. The ongoing global

push for decarbonization in heating, coupled with rising energy costs and the need to reduce greenhouse gas emissions from buildings and industrial processes, is fueling sustained adoption of solar thermal technologies.

Market Drivers and Growth Factors

The escalation of renewable heat policies and financial incentives across countries is a key driver supporting solar thermal adoption. Government schemes that make solar heat systems financially viable — especially in residential and commercial segments — are critical to market growth. For instance, incentive programs that reduce upfront installation costs and improve financing options are helping alleviate affordability barriers, particularly for capex-intensive solar thermal systems.

Additionally, growing retrofit activity in mature markets and strong solar resource availability in emerging regions are expanding the addressable market. Increasing interest in low-carbon industrial heat solutions — where solar heat can displace fossil fuels — also contributes to the market's long-term viability.

Market Trends

A notable trend in the solar thermal collector market is the transition from pilot projects to utility-scale deployments, especially for Solar Heat Industrial Process (SHIP) applications. Industrial solar heat is scaling up in project size, with multi-megawatt thermal fields increasingly replacing boiler fuel for consistent daytime heat loads. Larger project sizes improve fuel displacement impact, project economics, and investor confidence, marking utility-scale solar thermal as a bankable solution for industrial decarbonization.

Get a Free Sample of this Report - <https://www.fortunebusinessinsights.com/enquiry/request-sample-pdf/solar-thermal-collector-market-101755>

Market Segmentation

The market is segmented by collector type, installation type, temperature range, and end-user, helping stakeholders understand adoption trends across different use cases.

By Collector Type

Evacuated Tube Collectors (ETC): Historically dominating due to strong performance in variable climate conditions and higher temperature applications.

Flat Plate Collectors (FPC): Expected to hold a significant share owing to their favorable cost-performance balance and ease of large-area deployment in residential and commercial markets.

Concentrating Solar Thermal Collectors (CST): Forecast to grow fastest with a projected CAGR of ~6.78%, driven by industrial decarbonization and the need for medium-to-high temperature heat.

By Installation Type

Rooftop Systems: Currently dominate due to widespread adoption for building-level hot water and space heating in residential and commercial segments.

Ground-Mounted Systems: Projected to register the fastest growth as utility-scale heat projects, including district heating and industrial sites, gain traction.

By Temperature Range

Low ($\leq 80^{\circ}\text{C}$): Holds the largest share, driven by mature applications in domestic and commercial hot water systems.

Medium ($80\text{--}250^{\circ}\text{C}$): Expected to grow rapidly, supported by rising use in industrial process heat and district heating systems.

High ($>250^{\circ}\text{C}$): Forecast to register the highest CAGR of around 8.19% due to demand for high-temperature applications beyond traditional uses.

By End-User

Residential: Largest current share, driven by robust demand for solar domestic hot water systems.

Industrial: Forecast to grow at the highest rate during the forecast period, propelled by corporate decarbonization initiatives and the need for renewable heat in low- and medium-temperature processes.

Request for customization -

<https://www.fortunebusinessinsights.com/enquiry/customization/solar-thermal-collector-market-101755>

Regional Insights

Regionally, Asia Pacific accounted for the largest share of the global solar thermal collector market, valued at approximately USD 3.36 billion in 2025. This dominance is supported by a significant installed base of solar hot water systems, replacement demand, and increasing adoption across residential and commercial applications. China, in particular, plays a leading role, with its extensive footprint of evacuated-tube systems and strong domestic manufacturing scale.

Europe represents another key regional market, supported by policy incentives, retrofit initiatives, and the acceleration of large-scale solar thermal projects linked to district heating and

industrial heat. Countries such as Germany and the U.K. have well-established markets bolstered by renewable heat support mechanisms.

North America holds a modest yet steady share, with demand focused on replacement-led rooftop systems for building hot water. However, broader adoption faces competitive pressure from electrification technologies such as photovoltaic (PV) and heat pumps.

Latin America and the Middle East & Africa are also witnessing market expansion, driven by favorable solar resources and commercial hot water applications, though growth is influenced by policy continuity and financing structures.

Competitive Landscape

The solar thermal collector market is moderately fragmented, with a mix of large global manufacturers and strong regional players supplying collectors, balance-of-system components, and turnkey solutions. These companies are actively innovating to improve collector efficiency, reduce installed costs, and expand into larger commercial and industrial markets.

Key players profiled in the report include:

Viessmann (Germany)

GREENone Tec (Austria)

Aalborg CSP (Denmark)

SUNRAIN (China)

TVP Solar (Switzerland)

Heliodyne (U.S.)

SunEarth (U.S.)

SunMaxx Solar (U.S.)

Ritter Solar / Ritter Solartechnik (Germany)

Vaillant Group (Germany)

Major industry developments include commercialization of high-temperature concentrating collectors for industrial heat, launches of hybrid photovoltaic-thermal solutions, and scaling utility-scale district heating installations — signaling solar thermal's maturation from a niche

residential technology to a scalable contributor to renewable heat infrastructure.

Ashwin Arora

Fortune Business Insights™ Pvt. Ltd.

+1 833-909-2966

sales@fortunebusinessinsights.com

This press release can be viewed online at: <https://www.einpresswire.com/article/889926239>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.