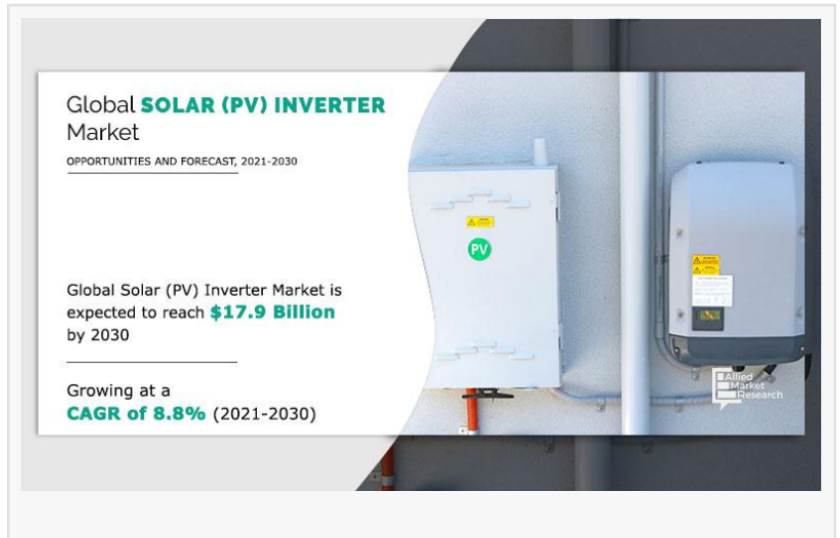


Solar (PV) Inverter Market Surges Toward \$17.9 Billion by 2030, Driven by Utility Expansion and Clean Energy Adoption

□ *Solar Inverter Industry Booms: Central Inverters & Utility Projects Drive Market Growth*

WILMINGTON, DE, UNITED STATES, August 5, 2025 /EINPresswire.com/ --

The global □ [solar \(PV\) inverter market](#) □ is set for robust growth, projected to rise from □ \$7.7 billion in 2020 to \$17.9 billion by 2030, at a □ CAGR of 8.8%. This growth is fueled by increasing solar power installations across utilities, industries, and residential sectors—especially in Asia-Pacific, which accounted for over 61% of the global share in 2020.



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Solar (PV) inverter market to hit \$17.9B by 2030, driven by utility projects, industrial demand & Asia-Pacific expansion. □ □

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□ Key Takeaways

Central inverters and on-grid systems will dominate till 2030.

Three-phase and single-phase inverters are both growing, based on application.

Utility projects like solar parks and [decentralized plants](#) will be the biggest end-user sector.

Asia-Pacific will continue to lead globally due to government initiatives and infrastructure investments.

□ What is a Solar (PV) Inverter?

A solar inverter is a vital component of a solar power system. It converts the direct current (DC) output from solar panels into alternating current (AC) suitable for residential and industrial applications. With components like voltage regulators and step-up transformers, these inverters help optimize power delivery and increase system efficiency.

Solar inverters offer several advantages:

Reduced electricity bills □

Low environmental impact □

High operational efficiency □

Minimal maintenance compared to diesel generators □□

□ Market Growth Drivers

Industrial Expansion

Industries such as oil & gas, telecom, mining, and healthcare are increasingly adopting off-grid solar systems, which significantly boosts solar inverter demand.

Demand from Developing Nations

Rising energy needs in India, China, and Japan, combined with government incentives and investments in solar infrastructure, continue to push the market forward.

Cost-Efficiency and Smart Grid Integration

On-grid solar inverters are gaining traction due to cost savings and ability to manage real-time electricity demand—offering a smart alternative to traditional systems.

□□ Market Restraints

Despite the promising outlook, the market faces a few challenges:

High heat generation from large-sized inverters

Directional misalignment in solar panel installation can reduce inverter efficiency

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□ Segment Overview

□ By Product Type

Central Inverters held the largest market share (50.9%) in 2020. These are ideal for large industrial and utility applications.

Their dominance is expected to continue due to rapid infrastructure development in Asia-Pacific.

□ By Connection Type

On-grid systems lead the market (65.5% share in 2020). Benefits include:

Easy grid integration

Lower setup costs

Efficient energy transfer without battery dependency

□ By Phase

Three-phase inverters dominate, thanks to their utility in high-capacity power plants.

However, single-phase systems are the fastest-growing segment (CAGR 9.2%) due to increased use in residential solar installations.

□ By End User

The utilities sector leads in market share and is expected to grow at a CAGR of 8.3%.

Increasing solar parks, water-based solar installations, and rural electrification projects are fueling this growth.

The commercial & industrial segment is also gaining momentum, projected to grow at a CAGR of 9.4%.

□ Regional Insights

Asia-Pacific is the clear leader in the solar (PV) inverter market:

Home to key players and massive consumer base

Rapid urbanization and industrialization

High investments in renewable energy and aging grid infrastructure

Countries like India and China are aggressively building renewable power infrastructure, positioning the region for continued dominance through 2030.

□ Key Players in the Market

Leading companies are heavily investing in R&D, strategic partnerships, and infrastructure expansion. Prominent names include:

Delta Electronics, Inc.

Fronius International GmbH

Huawei Technologies Co., Ltd.

SMA Solar Technology AG

SolarEdge Technologies, Inc.

Sungrow Power Supply Co., Ltd.

Fimer S.p.A.

Siemens AG

Other active players: Goodwe, Canadian Solar, Sineng Electric, Omron Corporation, and more.

□ COVID-19 Impact on Solar Inverter Market

While the pandemic caused disruptions in manufacturing and global supply chains, the long-term outlook remains optimistic:

Short-term dip in demand due to lockdowns

Delays in equipment delivery and construction

Accelerated shift toward clean energy post-pandemic

Governments and private sectors are now more focused on [sustainable energy](#), paving the way

for strong market recovery.

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□ Conclusion

The global solar (PV) inverter market is on a strong growth trajectory, fueled by rising solar energy adoption across utility, commercial, and residential sectors. As governments push for greener alternatives and industries seek cost-effective power solutions, demand for efficient inverter technologies—especially central and on-grid systems—is set to surge. Asia-Pacific remains the powerhouse of this expansion, with strong policy support, infrastructure development, and manufacturing capacity. Despite minor hurdles such as high heat generation and directional inefficiencies, advancements in inverter design and integration with smart grids are paving the way for a more sustainable energy future. □□

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