

he Smart Solar System Market is set to grow from its current market value of more than \$13 billion to over \$35.8 billion by 2032; as reported in the latest study by Global Market Insights, Inc. The U.S. Energy Information Administration (EIA) reported that federal tax credits for solar installations, including the Investment Tax Credit (ITC), were extended through 2024, with an estimated \$30 billion allocated to renewable energy incentives for the year. Integrating IoT and AI technologies enables real-time monitoring and optimized energy management, further driving adoption. Additionally, rising concerns about climate change and the need for sustainable energy solutions encourage government and private sector investments in smart solar technologies. Incentives such as tax credits and subsidies also play a crucial role in accelerating market growth.

The smart solar system market is categorized based on product, end-use, and region.

The inverters segment is set for decent growth through 2032, attributed to the increasing need for efficient energy conversion and grid integration. As solar installations become more prevalent, the demand for advanced inverters that can effectively manage and convert solar energy into usable electricity is rising. Inverters play a crucial role in ensuring the optimal performance of solar systems by handling fluctuations in power output and enhancing energy reliability. Integrating smart features, such as remote monitoring and automated fault detection, boosts their appeal, as

these capabilities improve system efficiency and user experience.

The residential segment will account for a notable market share by 2032, amplifying demand for tailored solar solutions that enhance energy efficiency and reduce utility bills. As homeowners become aware of the benefits of solar energy, including cost savings and environmental impact, they are investing more in smart solar technologies. The shift towards self-sufficiency and the desire for sustainable living are motivating residential consumers to adopt advanced solar systems that offer better performance and ease of integration with home energy management systems.

North America's smart solar system market will grow at an impressive pace during the forecast period, propelled by supportive government policies and incentives that promote the adoption of renewable energy. Federal and statelevel initiatives, such as tax credits and rebates, encourage both residential and commercial sectors to invest in solar technologies. Additionally, increasing awareness of environmental issues and the push for energy independence are ushering in demand. The region's technological advancements and infrastrucimprovements facilitate the deployment of smart solar systems, adding to market valuation.

Source: https://www.gminsights.com/industry-analysis/smart-solar-systemmarket

