

Jakson's Hybrid Energy solutions ensure round-the-clock clean power for commercial and industrial users, ensuring energy reliability.



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KEY HIGHLIGHTS ▼

- Landscape of solar in India and future outlook.
- The company offers advanced solar-plus-storage hybrid solutions with BESS ranging from 3 kW to MW-scale capacity.
- Jakson's BESS solutions enhance round-the-clock renewable power for commercial and industrial users, ensuring energy reliability.

How is Jakson positioning itself in India's fast-growing solar PV market?

India's rapid economic growth, urbanization, and rising energy demand have driven significant advancements in power generation, transmission, and distribution, with solar power emerging as the dominant renewable energy source. The country's solar capacity has grown from less than 10 GW in 2018 to over 100 GW in 2024-25, with a record 24.5 GW of solar installations in 2024, nearly 2.8x the previous year.

Amidst this rapid expansion, Jakson is positioning itself as a key player in India's solar PV market, focusing on manufacturing as well as utility-scale, rooftop, and hybrid energy systems. The company currently has 1200 MW of solar module manufacturing capacity in Greater Noida and is investing in two phases to expand to 6 GW solar wafer, cell and module manufacturing capacity. In the first phase, Jakson is investing over ₹2,000 Cr (US\$240M) in a 2.5 GW solar cell plant and expanding its solar module manufacturing capacity from 1.2 GW to 3 GW, aligning with India's 'Make in India' initiative to boost domestic production and reduce import dependency.

Demonstrating its execution capabilities, the group has a portfolio of 5+ GW Solar EPC, 4+ GW of Solar O&M services, 300+ MW of Solar Rooftop installations as well as multiple hybrid energy systems across India and abroad.

Jakson Green, a new energy transition platform backed by Jakson Group is installing 1.1 GW of Solar and Wind renewable assets and plans to expand this capacity to 5 GW, supporting the government's mission for 50% renewable energy generation by 2030.

What innovative solar technologies or solutions is Jakson bringing to the Indian market?

Jakson is driving solar innovation in India with high-efficiency solar PV modules tailored for Indian climatic conditions. Its N-Type TOPCon modules offer up to 23.34% efficiency with bi-facial gains of 25%, while P-Type Monofacial modules leverage Multi-Busbar (MBB) and M10 Half-Cut Cell technology for enhanced energy yield.

The company is expanding its solar manufacturing capacity with a ₹2,000 Cr investment in a 2.5 GW solar cell plant and 2 GW module expansion, reinforcing India's domestic solar supply chain. It is also pioneering floating solar, agrivoltaics, and hybrid solar-wind solutions to optimize land use and drive renewable energy adoption.

Jakson is integrating smart solar solutions with IoT for real-time performance monitoring and optimization while developing Battery Energy Storage Systems (BESS) from 3 kW to MW-scale to enhance energy resilience. The company's IPP portfolio (1.1 GW), solar EPC portfolio (5 GWp executed, 4 GWp O&M) and largest Hydrogen fueling station as well as CO₂-to-Green Methanol conversion project further strengthen its sustainability efforts.

With ALMM-certified solar modules, a strong focus on rooftop and utility-scale projects, and initiatives like a 50 MW rooftop solar project in UP (₹200 Cr investment) to offset 62,500 tonnes of CO₂ annually, Jakson is shaping India's clean energy future with cutting-edge solar and hybrid solutions.



“Energy storage is the backbone of a resilient renewable future, ensuring that power remains stable and accessible even when the sun isn't shining or the wind isn't blowing.”

How does Jakson plan to expand its footprint in the rooftop and utility-scale solar segments?

Jakson is expanding its rooftop and utility-scale solar footprint through manufacturing scale-up, strategic investments, and partnerships. It currently has executed multiple projects with a portfolio of 300+ MW Solar rooftop projects. In the coming year, the company intends to become one of the top three solar rooftop players in India. With 1.1 GW of solar & wind renewable assets and 5+ GW of Solar EPC projects in India and globally, the company is one of the largest utility scale solar companies in India. The company has won several awards for its strong execution capabilities and follows ESG principles at all its sites.

In C&I rooftop solar, Jakson is a well known brand and has recently won a 50 MW rooftop project in UP, one of the largest in the country. On the utility-scale front, it has executed 5+ GWp of Solar EPC projects and manages 4+ GWp in O&M services, with a ₹3,400 Cr (USD 400M) investment with Blueleaf Energy for a 1 GW solar portfolio.

Additionally, Jakson is investing in solar parks and open-access solar projects for large power consumers while expanding into floating solar, hybrid solar-wind, and microgrid solutions, reinforcing its leadership in India's clean energy transition.

How is Jakson integrating battery storage solutions with solar PV to enhance energy reliability in India?

Jakson is actively integrating Battery Energy Storage Solutions (BESS) with solar PV to enhance energy reliability in India by seamlessly integrating renewable energy into the grid. The company offers BESS solutions ranging from 3 kW to MW-scale, ensuring a stable and uninterrupted power supply for various applications, including commercial, industrial, and utility-scale projects.

To support solar-plus-storage hybrid systems, Jakson is deploying MW-scale battery storage solutions globally, mitigating intermittency issues and providing round-the-clock energy availability. These solutions are particularly beneficial for C&I consumers, microgrids, and utility-scale solar projects, ensuring power stability and energy resilience.

Jakson is also collaborating with technology partners to develop grid-scale storage projects focused on peak power management and smart grid integration. As part of its 'Make in India' initiative, the company is exploring indigenous battery storage manufacturing, strengthening India's energy security. Additionally, it is leveraging IoT-driven energy management systems for real-time monitoring and optimization of storage utilization.

With a strong focus on hybrid solar-plus-storage solutions, smart grid expansion, and grid-scale storage deployment, Jakson is positioning itself as a leader in solar energy reliability and grid stability, playing a crucial role in India's renewable energy transition.

“By investing in storage technology today, we ensure a cleaner, more reliable energy future for generations to come.”

What are the key challenges in scaling solar-plus-storage projects, and how is Jakson addressing them?

Scaling solar-plus-storage projects in India faces challenges like high upfront costs, regulatory barriers, technological evolution, supply chain issues, and skill shortages. Jakson is addressing these through strategic partnerships, policy advocacy, and innovation. On the regulatory front, Jakson is engaging with policymakers to push for incentives and clear regulations for solar-storage adoption.

Investing ₹2,000 Cr in state-of-the-art manufacturing, Jakson is driving cost-effective energy solutions to stay ahead of rapid tech advancements. To strengthen supply chains, it is partnering with key players in India and abroad to ensure long term growth.

Jakson is also investing in workforce upskilling and industry-academia partnerships to build expertise in solar ecosystem, battery tech, smart grids, and hybrid solutions. By integrating financial backing, regulatory engagement, and advanced technology, Jakson is paving the way for scalable, efficient, and sustainable solar-plus-storage solutions in India.

What role do battery energy storage systems (BESS) play in enabling round-the-clock renewable power for commercial and industrial users?

Battery Energy Storage Systems (BESS) play a vital role in enabling round-the-clock renewable power for commercial and industrial (C&I) users by addressing intermittency, optimizing energy usage, and ensuring cost savings. Jakson's BESS solutions (ranging from 3 kW to MW-scale) integrate with solar PV to facilitate energy shifting, allowing surplus solar power to be stored during the day and used during peak demand or nighttime, ensuring continuous operations for businesses.

By reducing dependency on expensive peak-hour grid electricity, BESS helps lower energy costs and enhances sustainability for C&I users. Additionally, Jakson is developing grid-scale storage projects to support peak power management, helping industries optimize power consumption and avoid grid instability.

BESS also plays a crucial role in enhancing grid stability, mitigating the intermittency challenges of solar power generation, and ensuring a reliable energy supply. Jakson integrates IoT-driven smart energy management systems for real-time monitoring and optimization, enabling businesses to maximize renewable energy usage.

Through MW-scale BESS deployment, hybrid energy solutions, and smart grid technologies, Jakson is ensuring that C&I users benefit from reliable, cost-effective, and 24/7 renewable power, accelerating India's transition to a sustainable energy future.

