



# India's solar power technology development



## Overview

EUPD Research estimates that the country will install 213 GW of new solar capacity between 2025 and 2029, averaging 42 GW a year. Yet manufacturing capacity is rising far faster, creating a structural surplus that could redefine global supply and pricing. India is transitioning from simple technology adoption to a fully integrated green innovation ecosystem. India has surpassed its 2030 renewable energy targets five years early through massive infrastructure scaling. Introduction just a decade ago, India's solar landscape was in its infancy. India's solar power has grown nearly 20 times since December 2015, at an average growth rate of 40% per year. As of 2025, it is now India's third largest source of electricity behind hydro. Ministry of New & Renewable Energy (MNRE) supports Research, Development and Demonstration (RD&D) to develop the technologies, processes, materials. In a world battered by climate disasters, energy insecurity, and geopolitical fragmentation, India offers an audacious alternative: a solar civilization built on equity, innovation, and self-reliance. At the heart of this transformation are massive solar.



## Article Content

India's Energy Infrastructure Shift: Rise of Solar Parks & Farms

Learn how utility-scale solar developments are modernizing India's grid, attracting billions in investment, and accelerating clean energy adoption.

India's Solar Revolution: From Compliance to Clean ...

In a world battered by climate disasters, energy insecurity, and geopolitical fragmentation, India offers an audacious alternative: a solar ...

How India is scaling its energy-technology innovation ecosystem

India has surpassed its 2030 renewable energy targets five years early through massive infrastructure scaling. The nation is transitioning from simple technology adoption to a fully integrated ...

Research & Development | MINISTRY OF NEW AND RENEWABLE ...

Ministry of New & Renewable Energy (MNRE) supports Research, Development and Demonstration (RD& D) to develop the technologies, processes, materials, components, sub ...

From scale to strength: How India's solar industry is ...

India's solar manufacturing boom marks a turning point in the global PV industry. Rapid capacity growth, narrowing cost gaps with China, and lower ...

India's Renewable Energy Boom: The Power of Solar ...

Between 2014 and 2023, solar energy capacity in India expanded dramatically, fuelled by the decreasing costs of Photovoltaic (PV) technology, an investment ...

Solar power in India

OverviewInstallations by regionHistorySolar potentialInstallations by applicationConcentrated solar powerHybrid solar plantsSolar heating

The installed photovoltaic capacity in Andhra Pradesh was 4257 MW as of 30 September 2022. The state is planning to add 10,050 MW solar power capacity to provide power supply to the farming sector during the day time. The state has also offered five Ultra Mega Solar Power Projects with a total capacity of 12,200 MW to developers under renewable power export policy outside the state. Andhra Pradesh ...

India targets complete domestic solar cell ...

Currently, India has 100GW of module manufacturing capacity, Rs500bn in investments, and over 12,600 direct jobs under the PLI Scheme. ...

The Solar Surge: India's Bold Leap Toward a Net Zero Future

In July 2025, India's solar power capacity had increased by 4,000%, and the country's total renewable energy capacity reached 227 GW. Palli village in Jammu & Kashmir became a ...

Discovering India's Solar Goldmine: A Data-Enabled Approach

India must reassess its solar potential to unlock investment, drive green growth, and lead global clean energy transitions through data-driven insights.

## Contact Us

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