India Power Sector Digest: Trends, Insights & Pathways

Explore industry trends, market dynamics, and policy insights, with a focus on installed capacity, regulatory shifts, and future strategies shaping India's power and energy transition

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Key Highlights – Power Sector in India

- Sunsure Energy signed a 300 MW solar PPA with SECI for a ₹1,800 Cr project in Rajasthan, aiming for 5 GW by 2028.
- The Indian Renewable Energy Development Agency (IREDA) plans to raise ₹5,000 crore through QIP, boosting financial capacity for clean energy projects.
- Avaada Group signed a ₹20,700 crore MoU with Odisha to develop renewable energy projects, boosting the state's green energy ambitions.
- Jakson Green and Blueleaf Energy partnered to develop 1 GW solar projects in Rajasthan, investing $400 million to boost India's renewable energy.
- Jupiter International signed an MoU with Odisha to invest ₹2,005 crore in a solar manufacturing facility, boosting India's clean energy transition.
- Maharashtra secured ₹15.70 lakh crore investments at WEF Davos, with Reliance, Tata, and others focusing on energy, renewables, and EV sectors.

Research Base

India's Renewable Energy Sector is projected to reach USD 2 trillion by 2040, driven by policy support and technological advancements.

Sunsure Energy, a leading renewable energy provide in India, has signed its first utility-scale Solar Power Purchase Agreement (PPA) with SECI for a 300 MW (450 MWp) Solar Project in Bikaner, Rajasthan. This milestone, part of SECI's Tranche XIII auction, marks Sunsure's largest PPA. The project, worth Rs 1,800 Crs, is set for completion by December 2026 and supports Sunsure's goal of reaching 5 GW operational capacity by 2028.

The Indian Renewable Energy Development Agency Ltd. (IREDA) plans to raise ₹5,000 crore through a Qualified Institutions Placement (QIP) of equity shares. This decision aims to strengthen IREDA's financial capacity to support India's Renewable Energy Growth. The funds will be used to enhance clean energy projects, reinforcing India's transition to Sustainable Energy. The issuance ensures continued Government of India shareholding with a dilution cap of 7%.

At the World Economic Forum (WEF) in Davos, the Maharashtra government signed agreements worth over INR 9 lakh crore on the third day, bringing total investments to INR 15.70 lakh crore. Reliance Industries pledged INR 3 lakh crore across various sectors, while the Tata Group committed INR 30,000 crore. Significant investments are focused on energy, green energy, renewable energy, and EV sectors, with notable contributions from companies like Ceat, Olectra EV, and Powerin Urjaa.

Avaada Group signed a Rs 20,700 crore MoU with the Odisha government to develop Renewable Energy Projects, including 1,500 MW of Floating Solar, 2x 1,000 MW Pumped Storage Projects (PSP), and green energy equipment manufacturing units. The agreement was made at the Make in Odisha Conclave 2025, highlighting the state's ambition to be a green energy hub. Avaada reaffirms its commitment to sustainable growth and innovation in Renewable Energy.

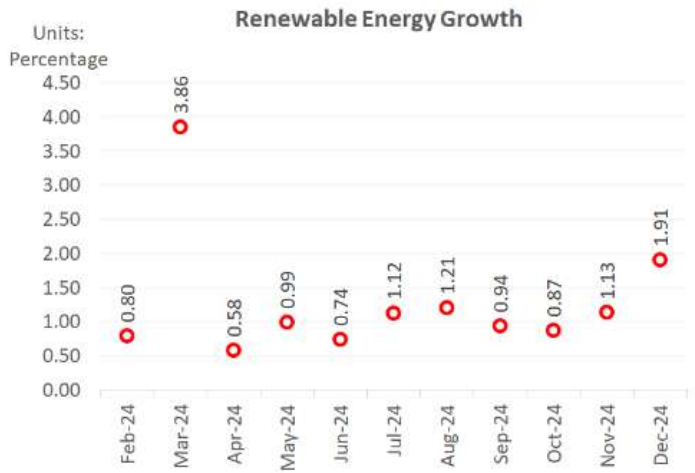
Jakson Green (JGPL) and Blueleaf Energy announced a strategic partnership to develop a 1 GW Solar portfolio in Rajasthan, with a $400 million investment. The three projects, funded by debt and equity, will generate over 1,800 GWh of green energy annually, enough to power 1.5 million households. Expected to be commissioned by 2025-2026, the collaboration aims to add 5 GW of Renewable Energy to India's grid by 2030.

Jupiter International has signed an MoU with the Odisha government to invest INR 2,005 crore in a Solar manufacturing facility. The plant, set up through Jupiter Renewables, will produce 4.2 GW of Solar Cells and 3.6 GW of modules annually. This investment, announced during the Utkarsh Odisha – Make in Odisha Conclave 2025, supports India's clean energy transition and aligns with Jupiter's expansion plans for significant solar manufacturing growth.

Research Objectives

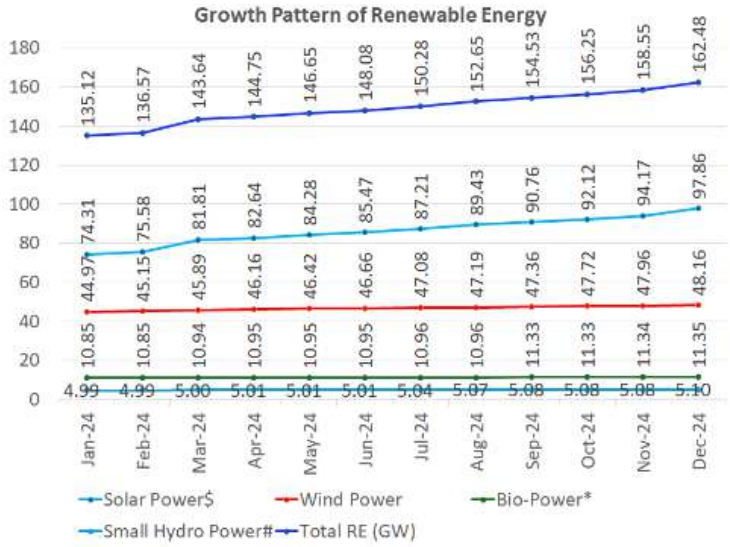
- Examining the growth & trend of chemical industry in India.
- Investment opportunity in different segments of the chemical & petrochemical industry in India till 2030
- Analysis of fertilizer market characteristics.
- Investment opportunity examination in industrial gas
- Capturing of historic market trends , characteristics & outlook for synthetic dye & pigment
- Capturing of historic market trends , characteristics & outlook for ethyl alcohol
- Investment opportunity assessment for plastic material & resin in India till 2030
- Investment opportunity assessment for paints & coatings in India till 2030
- Investment opportunity assessment for specialty chemicals in India till 2030
- End consumer industry wise opportunity assessment for chemicals & petrochemicals in India
- Identifying the export opportunities for Chemical & Petrochemicals in India

Exhibit 01: Renewable Energy Growth (%) from February-24 to December-24

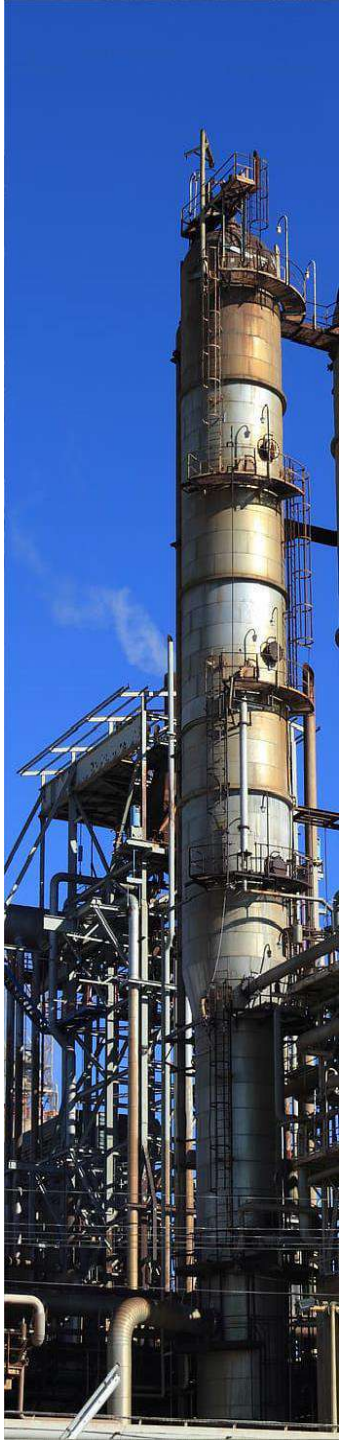


Source: MNRE

Exhibit 02: Renewable Energy Breakup Growth Pattern



Source: MNRE



Research Results

- MNRE's "Solar Systems Order, 2025" mandates BIS certification, efficiency standards, and market surveillance, effective July 2025, ensuring quality compliance.
- CERC's amended tariff regulations (April 2024) redefine bank rates, revise coal pricing, and enhance efficiency, ensuring sustainable power generation.
- BERC approved BSPHCL's procurement of 170 MW wind power from SJVN, ensuring renewable targets and addressing future wind energy shortfalls.
- CERC approved CESC's 300 MW power procurement from Purvah Green Power at ₹2.69/kWh, accepting deviations for cost-effectiveness and prior state approval.
- India's 2025 budget allocates ₹1,500 crore for solar grids, supporting domestic production, reducing imports, and advancing renewable energy goals.

Research Case

How has the Bhadla Solar Park contributed to India's Clean Energy transition, and what strategies were implemented to overcome environmental challenges such as dust and sandstorms to ensure stable Renewable Energy production?"

Bhadla Solar Park: World's Largest Solar Hub Driving India's Clean Energy Growth and Sustainability Goals"

The Bhadla Solar Park, Rajasthan

Overview: Bhadla Solar Park, in Rajasthan, is the world's largest Solar Park, spanning 14,000+ acres with a 2.25 GW capacity. Developed in phases and completed in 2020, it plays a key role in India's Solar Power growth. Situated in an arid region with high Solar radiation, it significantly boosts Renewable Energy production and supports India's Clean Energy goals.

Key Features: Bhadla Solar Park benefits from Rajasthan's high solar irradiance, making it ideal for Solar Energy generation. It has drawn investments from domestic and global firms, highlighting India's Renewable Energy potential. The park supplies power to major cities, strengthening Rajasthan's Electricity Grid and cutting fossil fuel dependence, playing a crucial role in India's Clean Energy transition.

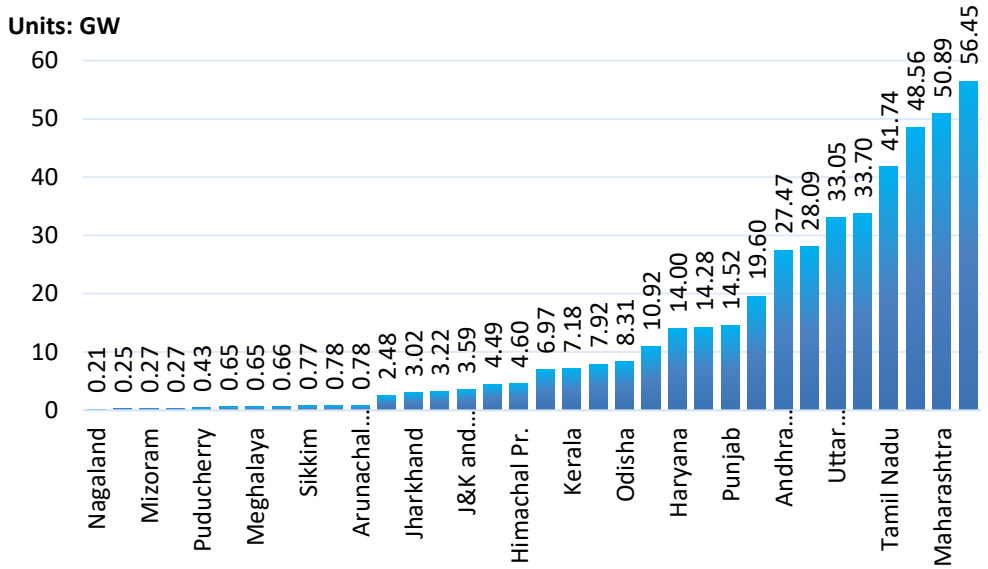
Impact: Bhadla Solar Park has been vital in advancing India's Renewable Energy goals, cutting carbon emissions significantly. It has created local jobs and driven infrastructure growth in Rajasthan's desert areas. By reducing reliance on fossil fuels, it supports Sustainable Energy development while boosting economic opportunities, reinforcing India's commitment to a greener future.

Challenges and Solutions: Bhadla Solar Park faced challenges from dust and sandstorms, which could reduce efficiency. To counter this, advanced cleaning systems and weather-resistant Solar panels were implemented, ensuring stable energy production. These solutions have helped maintain high performance, making the park a reliable contributor to India's Renewable Energy sector despite harsh environmental conditions.

Renewable Sector sector in India: Growing center for Investments

- Gensol Engineering secured a ₹967.98 crore EPC contract for 245 MW Solar PV in Gujarat, expanding its renewable portfolio to 522 MW.
- Welspun New Energy invests ₹13,500 crore in Odisha for 1,200 MW Pumped Hydro and 1,000 MW Floating Solar, boosting green energy.
- Hazoor Multi Projects plans ₹2,500 crore investment in a 500 MW solar project in Andhra Pradesh, expanding its renewable energy portfolio.
- Karnataka's Invest 2025 summit attracts ₹10 trillion investments, boosting manufacturing, renewable energy, and tech, aiming for 2 million jobs.
- Essar Renewables Signs MoU with Maharashtra to invest Rs. 8,000 Cr for 2 GW Renewable Energy for Green Mobility
- Maharashtra secured ₹15.7 lakh crore investments at WEF Davos, focusing on energy, renewables, and EVs, with major pledges from Reliance, Tata.

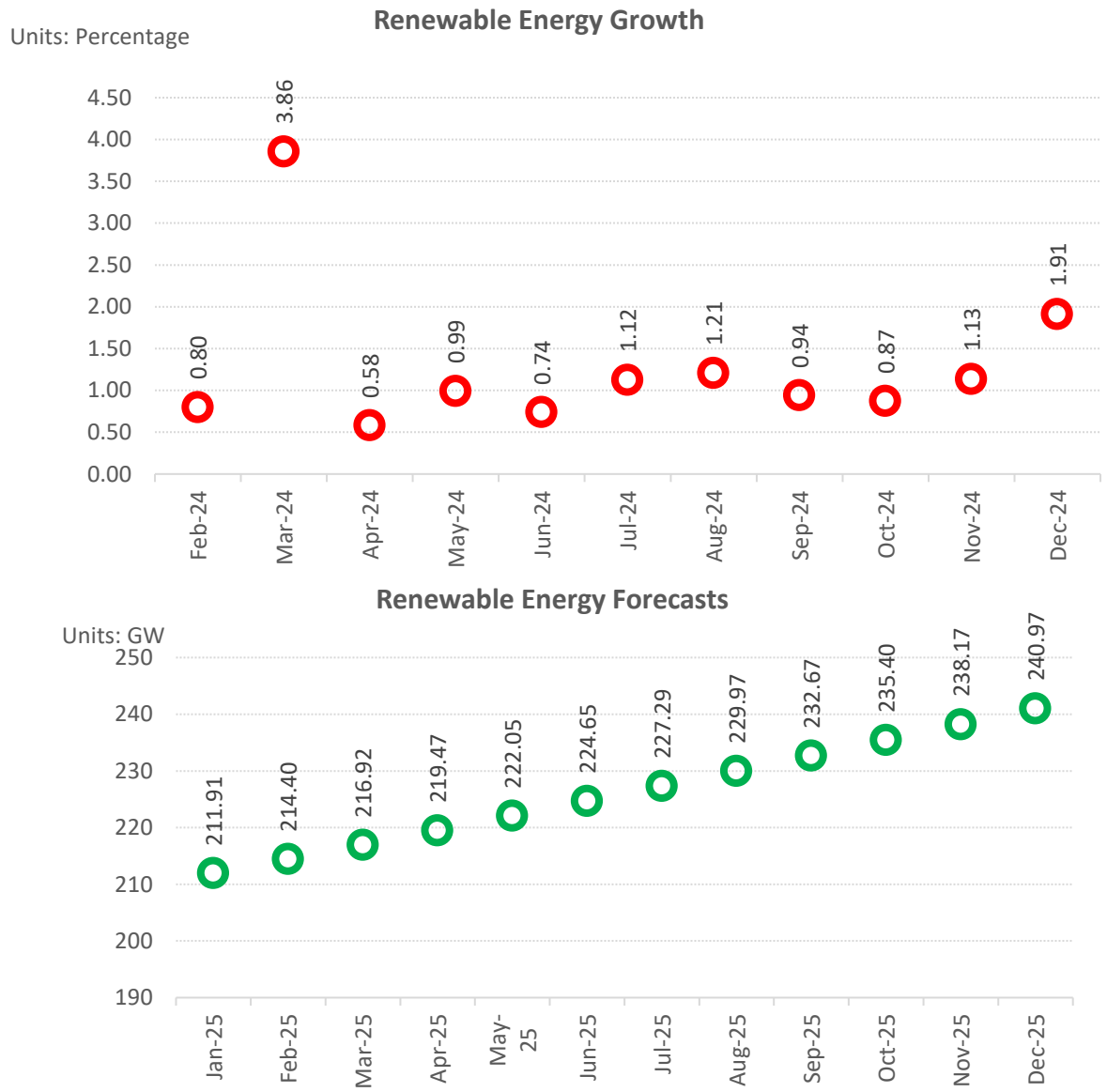
Exhibit 03: State-wise Installed Capacity Overview – Dec 24



Source: MNRE, Eninrac Analysis

As of December 2024, India's installed power capacity varies significantly across states. Gujarat (56.45 GW), Maharashtra (50.89 GW), and Rajasthan (48.56 GW) lead due to high industrialization and population. Tamil Nadu (41.74 GW) and Karnataka (33.70 GW) also have substantial capacity. Smaller states like Nagaland (0.21 GW) and Chandigarh (0.25 GW) have limited infrastructure, highlighting the need for regional energy development.

Exhibit 04: Renewable Energy Growth and Forecasts January-25 to December-25



Source: MNRE, Eninrac Analysis

Must Buy For

- Power Distribution Utilities
- State Electricity Boards
- State Electricity Regulatory Commissions
- Central Power Generation Utilities
- State Power Generation Utilities
- Independent Power Producers
- Solar Power Developers
- EV Market Players
- Power Transmission Utilities
- Research Institutes / Industry Associations
- Government Institute
- Power Project Funding Bodies
- Foreign Collaborating Agencies
- Hydro Power Developers
- Utility Solar Power Project Developers
- Utility Wind Power Project Developers
- Other RE Project Developers

Key Queries Resolved

- What are the game-changing trends shaping India's power future?
- How is India's installed capacity evolving, and what does it mean for energy transition?
- Which regulatory shifts are transforming India's power and energy landscape?
- What are the cutting edge strategies & market opportunities that are steering India's journey towards a sustainable energy future?
- What shall be the investment opportunities in different segments of chemical industry?

- What shall be the market opportunity for Renewable Sector?
- What shall be opportunity as per sizing for adhesive solution providers in India and outlook till 2030?
- What size and scale of track for synthetic dye and pigments market with focus on future outlook till 2030?
- Competitive profiling of major Renewable Power Developers in India.

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6	Future Focus & Strategic Outlook

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