Indian Renewable Energy Sector

RE capacity addition momentum is expected to continue in FY2026 at over 32 GW

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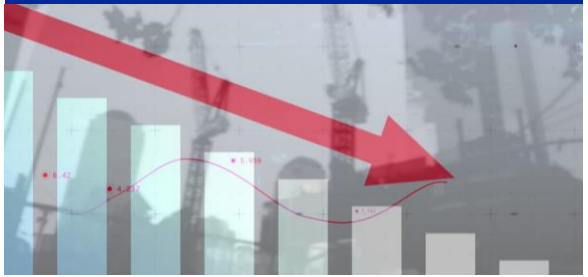

12 Rating Trends in Renewable Energy Sector

Highlights

Highlights – I

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RE capacity addition improved to 28.7 GW in FY2025 from 18.5 GW in FY2024 led by a large project pipeline and low solar PV module prices. The capacity addition is likely to further scale-up to over 32.0 GW in FY2026, driven by growing demand for electricity in the country.

While the project pipeline remains strong, there is a delay in signing of PPAs/PSAs by bidding agencies, which in turn has slowed down the bidding process over the past few months.

- **ICRA's outlook for the renewable energy (RE) sector remains Stable**, led by strong policy support, superior tariff competitiveness and sustainability initiatives by large commercial and industrial (C&I) customers. However, challenges remain on the execution front, including land and transmission infrastructure, delays in signing of power purchase agreements (PPAs), exposure to equipment prices and distribution utility finances.
- **The sector saw a capacity addition of 28.7 GW in FY2025,** which was higher by 55% than the 18.5-GW added in FY2024 driven by a large project pipeline. **The capacity addition momentum continues in the current fiscal with 6.5 GW added in 2M FY2026.** This was supported by favourable solar photovoltaic (PV) cell and module prices and the impending expiry of waiver on inter-state transmission charges with effect from June 30, 2025.
- **The tendering pipeline in the RE sector remains large** with 40.2 GW capacity auctioned in FY2025, following 47 GW auctioned in FY2024. **However, there has been a slowdown in bidding activity over the past few months with 2.2 GW auctioned in 3M FY2026** amid concerns over delays in signing of power sale agreements (PSAs) by the bidding agencies with the state distribution utilities - thus delaying the signing of the PPAs with the winning developers.
- **RE capacity addition momentum is expected to continue with over 32 GW addition expected in FY2026,** supported by the large project pipeline of 145.0 GW, as per the latest status report from the Central Electricity Authority (CEA), favourable module pricing and healthy outlook on electricity demand growth. Timely signing of the PPAs and PSAs along with the augmenting of transmission infrastructure remains key to sustain the scale-up in capacity addition.
- **Prices of imported mono PERC modules remain low at ~8 cents/watt in May 2025**. While prices in the Indian market remain relatively high at 14-16 cents/watt owing to the imposition of the ALMM, they remain attractive for solar power developers based on prevailing bid tariffs. Given the imposition of ALMM for cells from June 2026, the module prices are likely to increase in FY2027 and the same must be factored in by the developers in the upcoming bids.

Highlights – II

BESS tariffs saw a sharp decline over the past 12 months led by the decline in battery pack prices.

The Government of India has announced VGF for BESS projects under the second tranche to support development of storage capacity in India. Further, the CERC has released draft guidelines for virtual PPA which could evolve as another instrument to enable the designated customers to meet the renewable consumption targets.

- With the reinstatement of the ALMM order for solar PV modules from April 1, 2024, **the import of solar cells and modules declined by 37% YoY in FY2025,** thereby benefiting domestic module manufacturers. On the other hand, **the export of solar cells and modules also declined by 42% in FY2025** due to increased scrutiny at US ports on sourcing of cells from China by Indian OEMs. Amid the threat of reciprocal tariffs by the US, the sustainability of the export demand from the country remains to be seen.
- **Quoted bid tariffs for battery energy storage systems (BESS) witnessed a significant decline,** with the cost reducing from Rs. 10.84 lakh/MW/month in the first SECI tender in August 2022 to Rs. 2.18 lakh/MW/month (with viability gap funding) in June 2025. The decline in battery prices improved the cost economics for the BESS projects. **ICRA expects the energy storage capacity requirement to reach 50 GW by 2030** with 5-6 hours of storage, which will be met through a mix of BESS and pumped storage hydro projects (PSP).
- The generation performance of the **ICRA-monitored solar power portfolio remained stable in FY2025** with the median portfolio PLF remaining very close to the appraised estimate. However, the **performance of the ICRA-monitored wind power portfolio declined in FY2025** over the previous year, with only 17% of the portfolio meeting or exceeding the appraised estimates, compared to 26% in FY2024. This was despite a favourable monsoon season, which typically has a positive correlation with wind speeds.
- **Energy storage systems (ESS)** are likely to play an important role in maintaining grid stability given the intermittent nature of renewable power generation. Hence, the Ministry of Power has announced **VGF for BESS projects under the second tranche to support development of 30 GWh of BESS capacity across 15 states and NTPC**. Central Electricity Regulatory Commission (CERC) also released **draft guidelines for Virtual PPA,** which could evolve as another instrument to enable the designated customers to meet the renewable consumption obligation (RCO) targets.
- **The ratio of upgrades to downgrades remains high** in the RE sector led by solar power producers. In FY2025, the sector witnessed 29 upgrades and six downgrades. In the first two months of FY2026, there were nine upgrades with majority of them driven by favourable change in ownership and there were three downgrades, with majority of them driven by weaker-than-expected generation performance by wind power projects.

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