

Indian Renewable Energy Sector

**Project awards at all-time high in
FY2024; timely execution is key**

MARCH 2024



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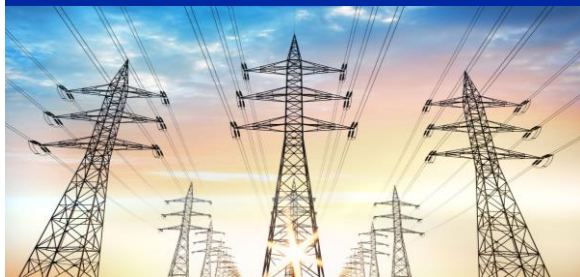
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Project bidding activity reached an all-time high in FY2024, in line with the 50 GW trajectory announced by the Ministry of New and Renewable Energy in March 2024.

Timely signing of the power purchase agreements and execution thereafter remain important to achieve the scale-up in RE capacity.



▪ **ICRA's outlook for the renewable energy (RE) sector remains Stable**, led by strong policy support from the Government of India, superior tariff competitiveness and sustainability initiatives by large commercial and industrial (C&I) customers. However, challenges remain on the execution front, distribution utility finances and exposure to module prices, supply chain concerns on equipment availability and hardening interest rates.



▪ **The tendering activity has reached an all-time high** with 47 GW RE capacity bid out in FY2024, significantly higher than the 9 GW bit out in FY2023. Also, the tendering pipeline remains strong with 19 GW under bidding by the Central nodal agencies and state distribution utilities (discoms) as of March 2024. Moreover, there is a greater focus on tenders for firm supply, i.e., round-the-clock (RTC) supply. Considering the oversizing required for these projects, the capacity set up under the RTC tenders would be 3-4 times the auctioned capacity.



▪ **The RE capacity addition is likely to scale up to 25 GW in FY2025 from the estimated 17-18 GW in FY2024**, supported by the large project pipeline of close to 87 GW as per the latest status report from Central Electricity Authority (CEA), improved tendering pipeline and the impending expiry of waiver on inter-state transmission system (ISTS) charges in June 2025. Apart from the scale-up in tendering, timely signing of the power purchase agreements and execution thereafter remain important to achieve the scale-up in RE capacity, going forward.



▪ **The prices of the mono PERC modules continue to remain low** at 11-12 cents/watt in March 2024, reducing from the high of 27-28 cents/watt seen in Q4 FY2022. Also, the cell prices have declined to 5-6 cents/watt in Q4 FY2024 from the peak of 16-17 cents/watt in December 2022. This has been driven by improved supplies across the value chain, moderation in demand from Europe and restriction on Chinese imports by the United States.



▪ **The moderation in solar photovoltaic (PV) cell and module prices remains a positive** for the developers. Based on prevailing imported module and cell prices, the viability of the projects using imported modules remains relatively better than sourcing modules from domestic OEMs using imported cells. While this is possible currently, considering the relaxation available from the Approved List of Models & Manufacturers (ALMM) till March 31, 2024, clarity is awaited on the applicability of ALMM from April 1, 2024.

While the scale-up in capacity addition in FY2024 YTD is slower than FY2023, it is likely to improve with the month of March expected to witness a large capacity addition.

The generation performance of the ICRA-monitored wind power portfolio declined in FY2023 on a YoY basis on account of lower wind speeds.



- **The sector witnessed a capacity addition of 11.4 GW in the 11M FY2024**, lower than the 12.2 GW added during the corresponding period of the previous year. The first half of FY2023 saw a higher RE capacity addition than the second half of the year as developers imported modules before March 31, 2022, in view of the imposition of customs duty on solar PV modules from April 1, 2022. While the scale-up in capacity addition in FY2024 YTD is slower than FY2023, it is likely to improve with March expected to witness a large capacity addition.
- **The solar and wind bid tariffs continue to remain highly competitive.** Moreover, the tariffs discovered in the bids for RTC supply from RE projects remain highly competitive against the cost of generation from conventional sources. However, the tariffs discovered in the recent firm and dispatchable renewable energy (FDRE) tender by SECI was relatively high at Rs. 5.6/unit owing to the stringent bid conditions and relatively low participation. This subsequently reduced to Rs. 4.7/unit in the FDRE tender by NTPC.
- **The generation performance of the ICRA-monitored wind power portfolio of 4.6 GW declined in FY2023** on a year-on-year (YoY) basis on account of lower wind speeds with only 9% of the sample capacity performing in line or higher than the P-90 estimate compared to 16% in FY2022. This is owing to the wind availability issues including due to changing weather patterns and operating issues with certain OEMs.
- **The generation performance of ICRA-monitored solar portfolio of 4.3 GW has been analysed**, wherein 31% of the capacity performed in line or better than estimated PLF in FY2023. While this is lower than the 40-45% of the capacity over the past two years, the PLF variability is relatively lower for solar power projects compared to the wind projects. The weighted average PLF for the portfolio was 21.2% against the estimate of 22.0%. The overall portfolio level performance over the past two years has broadly mirrored the appraised estimates.
- **The ratio of upgrades to downgrades continues to remain high** in the RE sector led by the solar power IPPs. In 11M FY2024, the sector witnessed 18 upgrades and three downgrades. The upgrades were led by change in parent credit profile, change in rating approach with the presence of a surplus cash-sharing arrangement, project commissioning, demonstration of generation performance, and favourable debt refinancing.



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