



# Indian Renewable Energy Sector

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**ICRA-monitored wind portfolio witnessed a decline in PLFs in FY2023, while solar PLFs remained stable**

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## 1 Highlights



## 2 Performance of ICRA monitored wind portfolio



## 3 Region and OEM wise trends for wind portfolio



## 4 Performance of wind projects with P-90 estimate of over 30%



## 5 Performance of ICRA monitored solar portfolio



## 6 Region wise trends for solar portfolio





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

*Performance of the ICRA-monitored solar power portfolio, however, remained stable in FY2023, though under-performing compared to the previous two years.*



- 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. Also, this remains lower than the PLF trends seen in FY2019 and FY2020.



- The subdued performance can be attributed to the wind availability issues and operating issues with certain OEMs. Also, the changing weather patterns led to a decline in wind speed for the monitored portfolio. The wind PLFs are likely to improve in FY2024 YoY, based on the trends observed for H1 FY2024.



- The median wind PLFs for the ICRA-monitored portfolio witnessed a moderation in FY2023 over FY2022 across most of the key states with the extent of decline varying from 51 bps to 177 bps. Within seven key states, there was an improvement in median PLF for the monitored wind portfolio in Karnataka and Maharashtra.



- Of the ICRA-monitored wind portfolio of 4.6 GW, about 35% (1.7 GW) of the capacity has P-90 PLF estimate of more than 30%. The actual PLF across these assets has remained below the P-90 estimate over the past three years owing to the stabilisation issues, relatively weak wind season over the past two years and possibly aggressive wind generation estimates.



- 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.



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