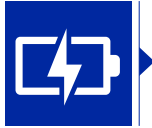
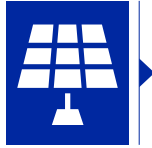


SECI's first tender for BESS project has been bid out through the reverse auction route with a contract tenure of 12 years and availability-linked payments.

Viability of the project and further adoption of such projects in India remains linked with the battery costs, which has witnessed inflationary headwinds in 2022.



- The rise in the renewable energy (RE) capacity over the next decade is estimated to increase the share of RE power in the all-India electricity generation from 11.5% in FY2022 to 28% in FY2030 under ICRA's base case. Integration of higher share of RE would require storage capacity, including Battery Energy Storage Systems (BESS) to manage the intermittency associated with wind and solar power.
- Given that the cost of the battery constitutes a major portion of the BESS, the decline in battery costs over the past decade has led to a reduction in the cost of energy storage. However, the increase in the battery costs in 2022 amid the supply chain constraints and raw material price rise has slowed down this improvement.
- Post the notification of the bidding guidelines by the Ministry of Power for BESS projects, the Solar Energy Corporation of India Limited (SECI) invited tenders in April '22 for setting up a 500 MW/1000 MWh BESS project through competitive bidding under build own operate & transfer (BOOT) model. As per industry sources, the winning bid under the reverse auction process held in August 2022 for this tender is Rs. 10.84 lakh/MW per month.
- The tariff under this bid is fixed and payable based on availability, with a contract tenure of 12 years. The developer is required to achieve 95% annual availability and 85% round trip efficiency for full recovery of the tariff. One of the key conditions under the bid is that SECI will contract 60% of the capacity, with the balance 40% to be contracted by the winning bidder on their own.
- The returns for the winning developer under this bid remain sensitive to the capital cost and realisation for the open capacity. Considering a capital cost of 325 USD/kwh, the cumulative DSCR for the project is expected to be 1.25-1.30x, with realisation of Rs. 5 lakh/MW for open capacity and certain replacement capex. Once commissioned, this project is expected to showcase utility scale grid storage in India. Going forward, greater adoption of BESS projects remains dependent on reduction in battery costs.



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