

Execution headwinds

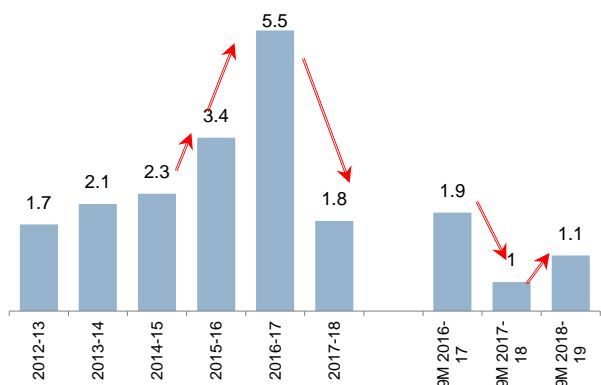
Viability and implementation risk constrain outlook for wind sector

February 2019



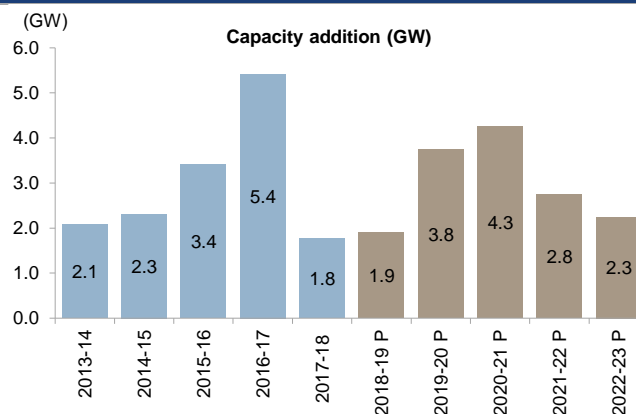
Screenshots

Capacity addition of ~1 GW over Apr-Dec FY19



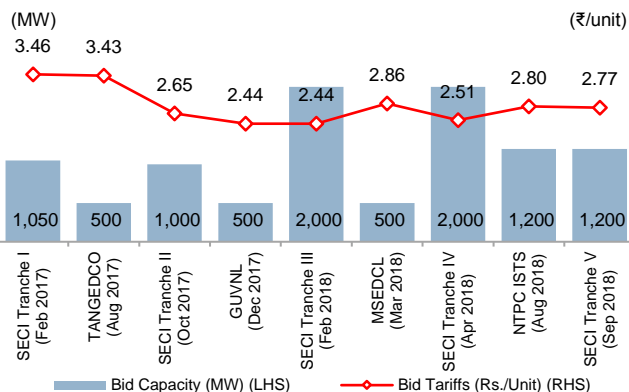
Source: MNRE, CRISIL Research

14-16 GW of capacity addition expected over FY19-FY23



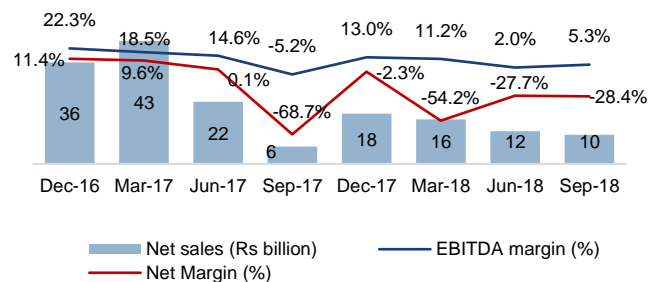
Source: MNRE, CRISIL Research

Weighted average tariff of Rs 2.7 per unit at auctions to date



Source: Industry, CRISIL Research

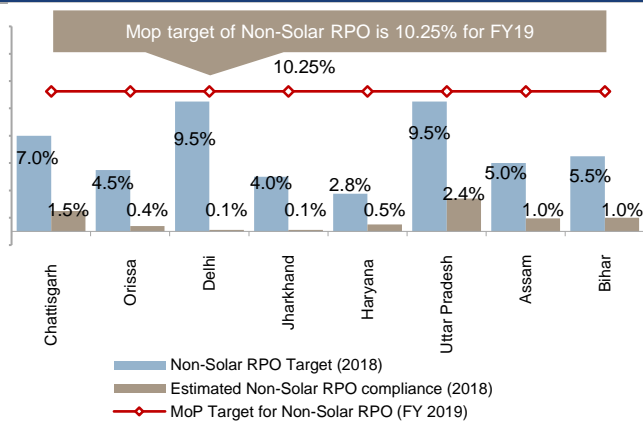
OEMs face severe decline in profitability



Note: Financials for Inox Wind Limited (S) and Suzlon Energy Limited (S) have been considered

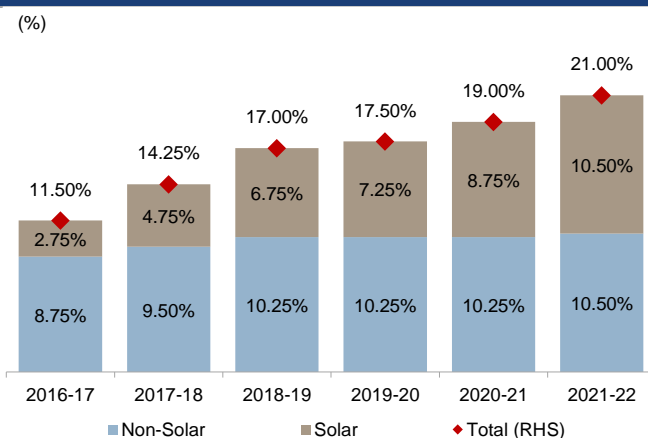
Source: Company Filings, CRISIL Research

Non-solar compliance low in non-windy states



Source: State policy documents, CRISIL Research

RPO targets up steeply; compliance a monitorable



Source: Ministry of Power, CRISIL Research

Wind capacity addition of 14-16 GW expected over fiscal 2019 to 2023

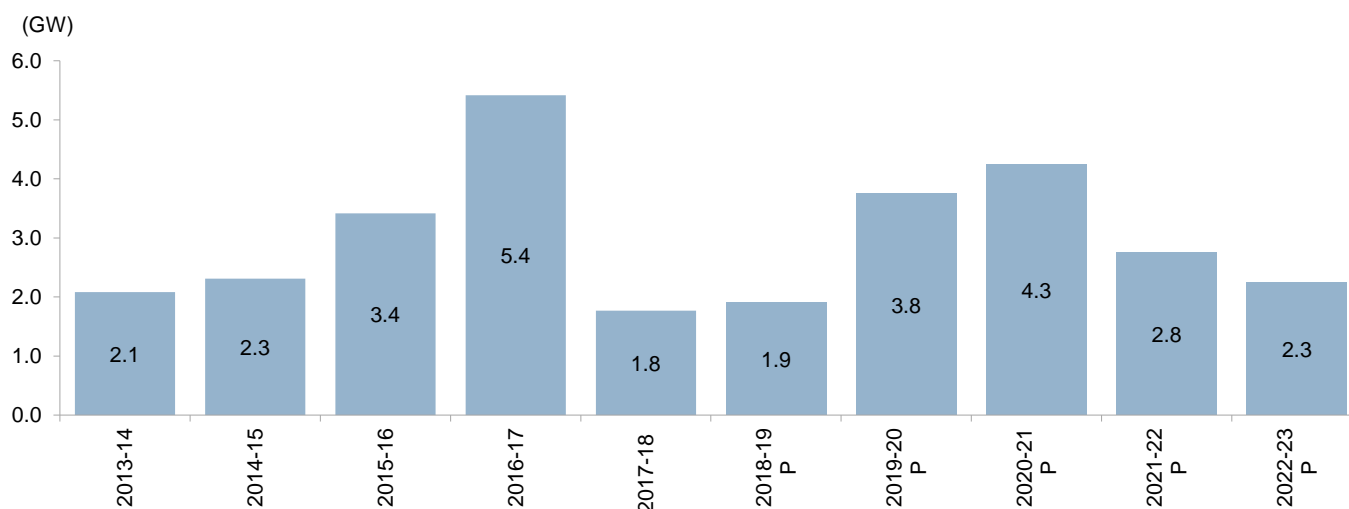
CRISIL Research expects capacity addition to grow slowly over the next five years, driven by the allotment of central transmission utility's (CTU) grid connected capacities. The shift to a competitive bidding mechanism has slowed industry growth due to a significant fall in tariffs, triggering a decline in both bid response and profitability for original equipment manufacturers (OEMs).

CRISIL Research expects **capacity addition of 14-16 GW over fiscal 2019 to 2023**, entailing investments of **~Rs 1,100 billion**. Capacity additions will primarily be driven by central government (SECI) allocations with relatively stronger counterparties like Solar Energy Corporation of India (SECI) and PTC, reducing risk as compared to direct exposure to state discoms. State auctioning, on the other hand, has slowed as several states have signed power supply agreements (PSAs) with PTC and SECI to procure wind power under the schemes auctioned by them, to help fulfil their non-solar renewable purchase obligations (RPO) targets.

A shift to a competitive bidding mechanism in the wind energy sector has caused a slowdown in capacity addition as participants are yet to adjust, with tariffs having fallen to Rs 2.4-2.6 per unit, from Rs 4.0-4.5 per unit under the feed-in-tariff regime. Such low realisations remain unviable for the entire value chain at current capital costs of Rs 6.8-7.2 crore per MW.

Further, fiscal 2019 is expected to continue to see a slowdown in capacity additions as, despite tendering and auctioning occurring in spurts through the fiscal, most of the capacity is expected to come online only between end-fiscal 2019 and fiscal 2021. Thus, capacity pipelines are presently bunched up over those years with a weak outlook thereafter due to incremental challenges to execution.

Wind capacity addition expected over fiscal 2019 to 2023



Source: MNRE; CRISIL Research

Execution and viability challenges are major risks to future capacity addition

Despite robust tendering, we believe that the sector would require significant regulatory support from states in terms of acceptance of bid results, resolution of payment-related issues with wind developers, and meeting of state RPO targets and open access regulations to allow seamless transfer of wind power.

The following constraints/risks have emerged in this regard which may constrain capacity addition:

I. Sustainability at low tariffs:

The initial competitively-bid wind auctions, which took place in fiscal 2018 and early-fiscal 2019, witnessed bid tariffs of ~Rs 2.5 per unit. This led to regulatory authorities (discoms/SECI) considering this the benchmark. However, current market dynamics are not conducive to such realisations. While those tariffs were achievable at low capital costs of Rs 6.3-6.5 crores per MW (on account of an inventory build-up with OEMs), current capital costs range between Rs 6.8-7.2 crore per MW, and cannot be supported by tariffs as low as Rs 2.5 per unit. With state/central tendering agencies not ready to accept tariffs above a certain mark, the sector has witnessed a pricing impasse. OEMs are also not in good shape with a few key players reporting losses at the net level over the past five quarters.

II. Poor bid response and slow tendering / auctioning activity:

The sector witnessed an initial spurt of auctions from February to December 2017, with tariffs reaching Rs. 2.44 per unit by the end of Dec 2017. Auctions saw a brief lull post-April 2018, with two tenders (NTPC, 2 GW, and SECI, 2 GW) delayed by several months due to poor bid response. The last wind auction took place in September 2018, post which there has been only one 1.2 GW tender issued by SECI which is pending for auction. This is in contrast to the 30-40 GW tendered in solar over FY'19. Players are also finding it difficult to acquire contiguous land with good quality (Type I) wind sites. These execution challenges have also led to poor bid response. The slowdown in tendering/ auctioning will further extend the time for commissioning, weakening the sectoral outlook.

III. Adequate transmission infrastructure:

The rapid addition of renewable capacities requires adequate grid infrastructure to evacuate incremental power. This has increasingly emerged as a concern, with developers lowering participation in bids (SECI, 2 GW, NTPC, 2 GW) where this has been a key issue. Specifically, for wind, a majority of the best wind sites are concentrated in a few states like Gujarat, Tamil Nadu, Andhra Pradesh and Karnataka, causing increased congestion in specific regions in these states. Although, the central government has framed several policy initiatives to solve these issues, their implementation lacks pace, especially at the intra-state level.

IV. Availability of low-cost funds for projects:

Reduction in marginal cost of funds-based lending rate (MCLR), coupled with opening up of other financing avenues, had helped players reduce their capital cost. Fiscals 2017 and 2018 witnessed a relatively lower interest rate regime, which started to reverse in fiscal 2019 due to several macroeconomic factors. This may be a cause for concern going forward as it would directly impact cost of debt for developers. Lenders have also become cautious in lending to the segment due to a pile-up of stressed assets in the conventional power sector. While there are ways to lower the cost of debt for developers, players would have to actively manage the same as a rising interest rate regime and other macro factors impact borrowing costs. This remains a key monitorable for the sector.

Despite the above-mentioned challenges, CRISIL Research believes that the sector does have an upside in view of the ambitious 60 GW target by fiscal 2022. The centre does expect to auction upwards of 5 GW each year, which will support additions to an extent. Additionally, capacities under other schemes such as the 1.2 GW wind solar hybrid scheme (includes solar component), offshore wind energy tenders and repowering of existing low capacity wind turbines may further contribute to overall capacity addition, provided risks are mitigated.

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