C&I Segment: Group Captive Mode to Drive Installations in FY24-FY25

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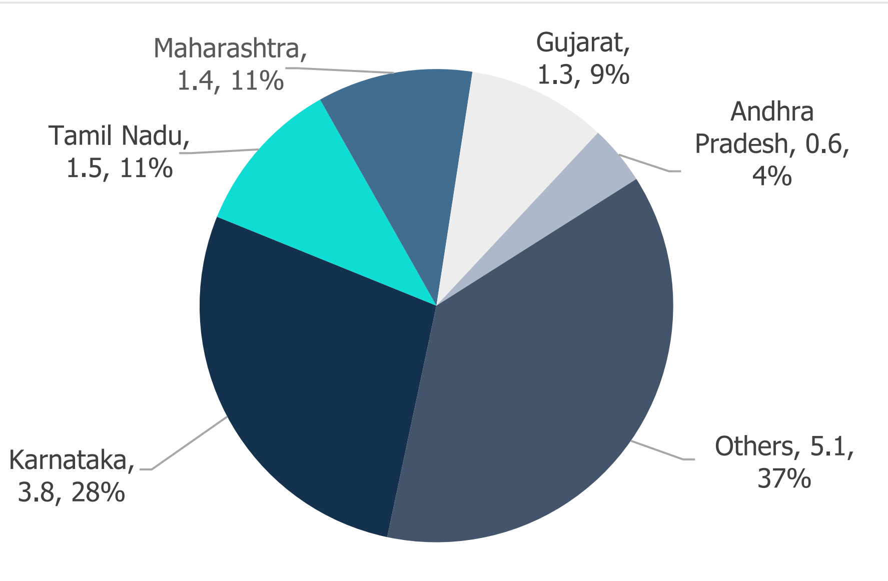
Synopsis

- Annual open-access installations are projected to remain within the range of 4 to 5 GW for the next two years thereby necessitating debt financing of more than Rs. 30,000 crore.
- ESG thrust along with the favourable economic viability, to drive demand prospects for this segment.
- High margin of safety in the key states of Gujarat, Karnataka and UP through the captive route; viability through the third party open access route remains grid due to the applicability of cross subsidy surcharge (CSS) and additional surcharge (AS).

India's Open Access (OA) Market

Commercial & Industrial (C&I) consumers in India have the option to purchase power either through a third-party power plant or through a captive/group captive power plant besides procuring power from the designated utility in their region. Availment through the third-party open access route does not warrant any capital investments from the procurer but necessitates the procurer to pay all the open access charges applicable in the state. On the other hand, in the captive/group captive route, C&I consumer owns at least 26% stake in the plant, while exempt from paying two major types of open access charges i.e. cross subsidy surcharge (CSS) and additional surcharge (AS) which approximately account to Rs. 2.5-3.0 per unit in the key RE states.

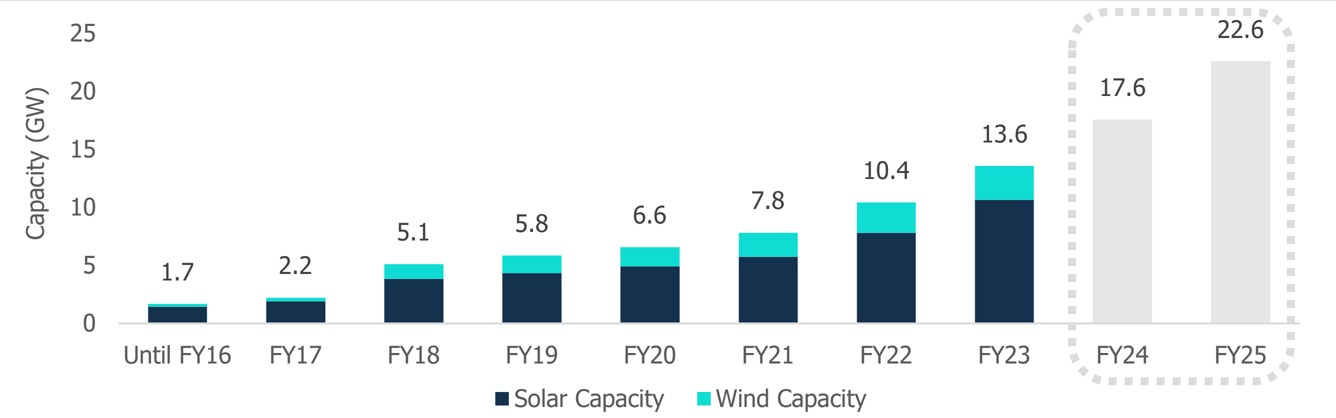
Exhibit-1: OA installations in key RE states (as of FY23 end)



Source: Industry Sources, CareEdge Ratings

Till FY17, the open access RE market was a fledgling market and capacity installations surged on the back of a favourable state policy promulgated in the state of Karnataka. As per this policy, solar plants commissioned prior to 31st March 2018, would be exempt from paying open access charges for a period of 10 years. Resultantly, Karnataka witnessed open access RE installations of over 2 GW in FY18, kickstarting the growth of this segment. Apprehending the migration of premium customers to private players leading to potential revenue loss, few state discoms withdrew open access benefits during FY18 to FY21. Consequently, the installations which suffered due to the spread of covid virus remained subdued during this period. However, the open access market has grown over the last two years with installations of 2.6 GW and 3.2 GW in FY22 and FY23, respectively, driven by supportive policies in some of the key states and improvement in the competitiveness of renewable tariffs against the grid tariffs. The latest growth wave has also been brought by a conducive wind-solar hybrid policy in the state of Gujarat.

Exhibit-2: Trends in cumulative installed OA RE capacity (GW)



Source: Industry Sources, CareEdge Ratings

According to CareEdge Ratings, annual open access installations in India have remained below 3.5 GW thus far, with cumulative installations at approximately 13.6 GWp, which account for between 9 to 10% of the overall installed capacity of renewable energy. The C&I market presents significant growth opportunities for the renewable sector and is expected to attract substantial private investments. In CareEdge Ratings view, annual open-access installations are projected to remain within the range of 4 to 5 GW for the next two years i.e. till FY25 thereby necessitating debt financing of at least Rs.30,000 crore.

Both Demand and Supply Side Levers Propel Growth

During the initial years, this sub-segment was restricted to developers who were active in the C&I market. However, over the last few years, leading utility-scale players have also diversified their operations given the high return prospects & slowdown witnessed in utility-scale auctions. The key drivers of growth in this market include –

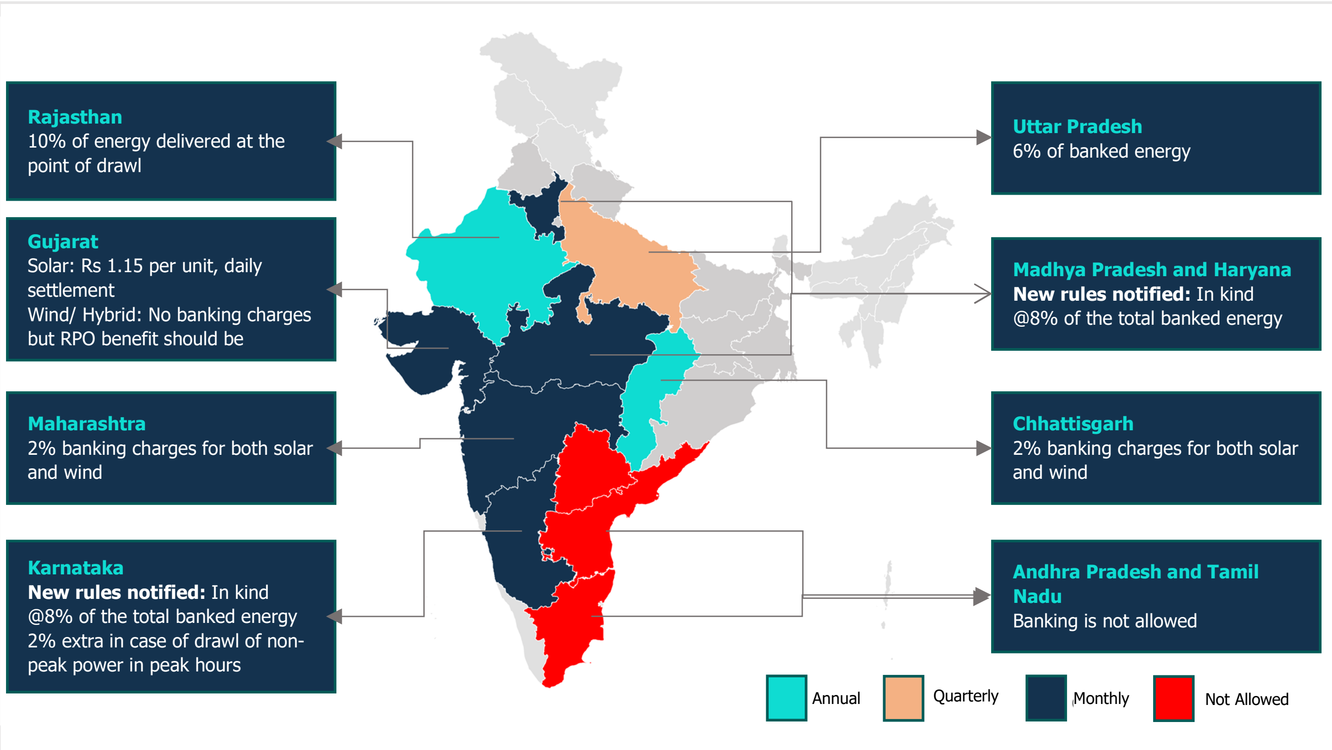
- Commitment of corporates to decarbonising their operations and supply chains, driven by environmental, social, and governance (ESG) considerations
- Improvement in economic viability given the decline in project costs
- Compliance with RPO norms applies to the C&I entities as well and the RPO targets have been increasing on a YoY basis
- Diversification of RE portfolio by leading utility-scale RE developers
- Availability of adequate financing avenues

Green Energy Open Access Rules to be a Key Enabler for C&I Sector

The government has introduced various green energy open access rules to accelerate the transition towards renewable energy rendering the market attractive for both power producers and consumers in the C&I sector. Initiatives include (i) reducing the eligible load to 100 kW from 1 MW for consumers to procure power through the open access route, (ii) defining the modalities of open access charges that can be applied by state distribution companies (discoms), and (iii) stipulating a minimum banking period of 30 days for consumers among others. Discoms are also obligated to supply green energy at an additional cost upon consumer request. While the government aims to harmonize open access rules nationwide, individual states have the jurisdictional powers to determine open access charges for their customers through their electricity commissions.

Thus far, a few states such as Karnataka, Madhya Pradesh and Haryana have come up with a final order for the adoption of green energy open access rules and CareEdge Ratings has analysed the same. While few suggestions primarily pertain to reducing the minimum load requirement, the applicability of a minimum banking period of 30 days has also been accommodated. On the other hand, suggestion related to the adjustment of energy banked in the off-peak period against drawl in the peak period has been disallowed in the states of Madhya Pradesh and Haryana.

Exhibit-3: Banking provisions across key RE states



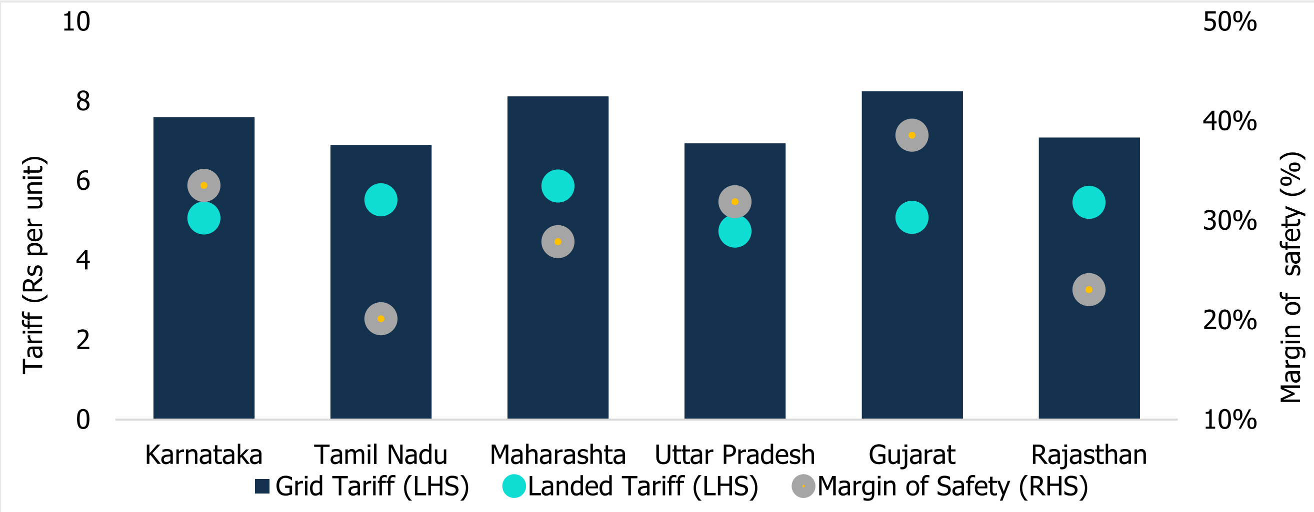
Source: Industry Sources, CareEdge Ratings

In the other key states, which are yet to adopt the green energy open access rules, Tamil Nadu and Andhra Pradesh continue to refrain from offering banking to the C&I customers which poses a hurdle for the segment's development. While Gujarat has a conducive banking policy for wind and hybrid plants with nil banking charges, it has very high banking charges for the solar units @ Rs. 1.15 per unit which discourages the installation of solar plants through open access routes.

Competitiveness of Open Access Projects

CareEdge Ratings in its analysis has compared the landed cost from a wind-solar hybrid open-access project, both captive as well as third-party open-access project against the prevailing grid tariffs for industrial consumers at 33 kV voltage level. For the purpose of this evaluation, the PPA tariff for the wind-solar hybrid project has been assumed at Rs. 4 per unit.

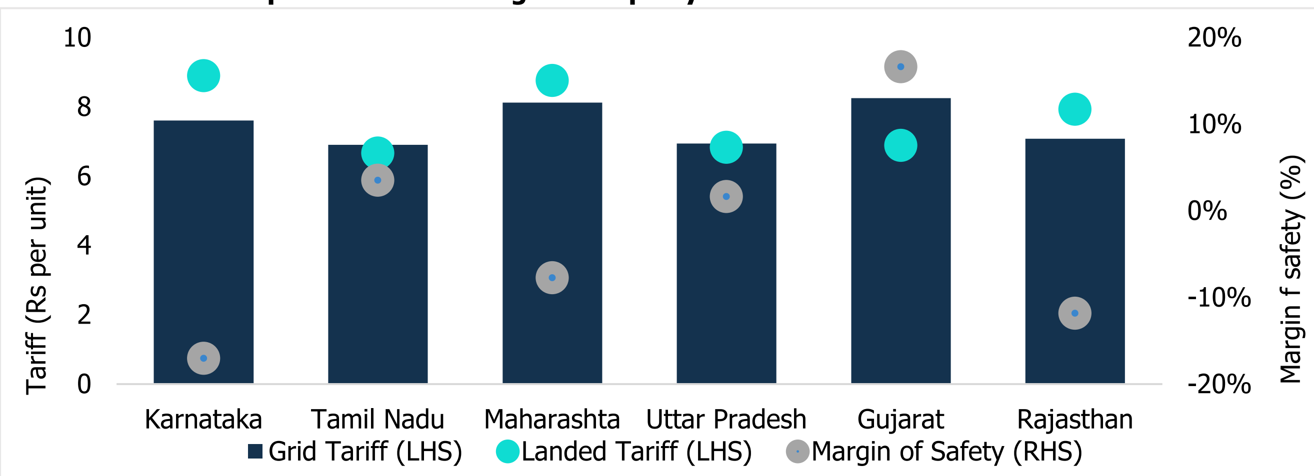
Exhibit-4: Cost competitiveness through captive route



Source: Tariff orders of various SERCs, CareEdge Ratings

As reflected in Exhibit 4, owing to the exemption of CSS and AS, the group-captive model is by far the most preferred OA business model. The margin of safety i.e., the discount a RE C&I project offers on the grid tariff ranges between 20-40% under the group captive mode with the viability being the best in Gujarat, Karnataka and Uttar Pradesh.

Exhibit-5: Cost competitiveness through third-party route



Source: Tariff orders of various SERCs, CareEdge Ratings

As reflected in Exhibit 5, the third-party OA model, wherein all open access charges apply with almost no exemptions, is the least attractive and currently unviable across many states. Interestingly the Margin of Safety in case of Gujarat lies in double digits primarily on account of prevailing high grid tariffs.

CareEdge Ratings View

"The of introduction and successful adaptation of green energy open access rules are expected to support future capacity additions through the open access route. Moreover, the inclination and commitment of corporates towards decarbonising their supply chains along with the strong economic incentive due to procuring green power, especially through the captive route would continue to act as an enabler for this segment. The presence of strong counterparties in this segment has also resulted in adequate availability of debt financing. However, impediments in the form of regulatory risks pertaining to lack of uniform open access policies across states and increase in competitive intensity is expected to pressurize returns," stated Jatin Arya, Associate Director, CareEdge Ratings.

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