

Extension in waiver of inter-state transmission charges for RE projects



Revision to: Tariff Policy, 2016

Issued on: November 23, 2021

- Inter-state transmission charges (ISTS) waived for solar and wind projects commissioned up to June 30, 2025, applicable for a period of 25 years. This is extended from June 2023 earlier.
- ISTS charges waiver is also applicable for electricity used by Hydro Pumped Storage Plant (PSP) and Battery Energy Storage System (BESS) with the condition of at least 51% of the annual electricity requirement for storage is met by the solar/wind power plant
- Waiver is allowed for inter-state transmission charges only and not for losses, except for projects whose bidding was completed up to January 15, 2021
- No transmission charges for use of ISTS shall be levied for inter-company procurement, when solar/wind power plant situated at one thermal/hydro generating station is supplying to another plant at a different location

Exhibit 46: Applicable ISTS charges post June 30, 2025

Period of Commissioning	Inter-state transmission charges
July 01, 2025 to June 30, 2026	25%
July 01, 2026 to June 30, 2027	50%
July 01, 2027 to June 30, 2028	75%
From July 01, 2028	100%

Source: ICRA Research, Ministry of Power



Positive for RE IPPs - encourages capacity addition not only in the utility segment, but also in the C&I segment



The Supreme Court of India ruled that **the captive power consumers are not liable to pay an additional surcharge** under Section 42 (4) of the Electricity Act, 2003

The distribution company (MSEDCL) was directed to refund the amount by adjusting the additional surcharge already recovered from the future wheeling charges bills



Positive for IPP segment - This ruling clarifies that the liability of additional surcharge is not applicable for captive / group captive plants employing open access mechanism. Positive for RE IPPs focused on open access segment through group captive mechanism.



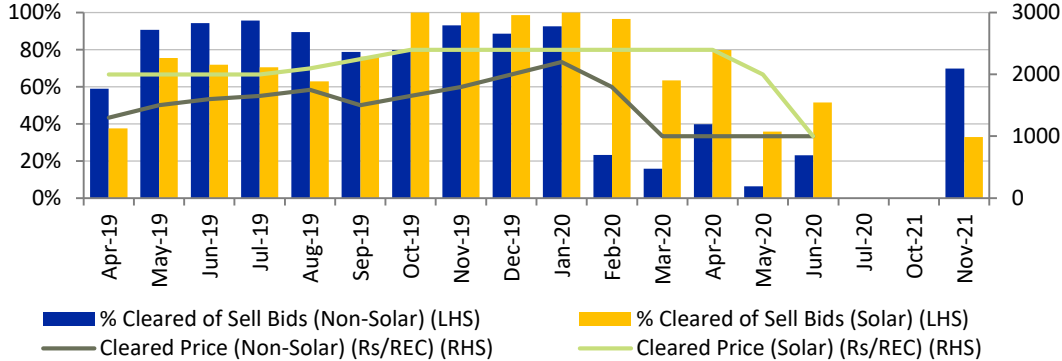
The Central Board of Indirect Taxes and Customs (CBIC) notified a **hike in GST rates to 12% from 5%** for renewable energy devices

The renewable energy devices within the purview of this revision include solar panels and modules, solar power generators, windmills, solar lamps among others



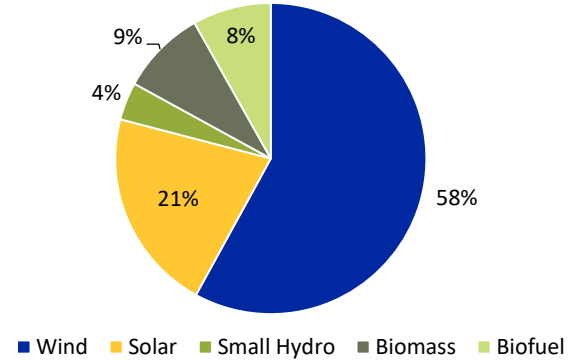
Negative for IPP segment – The hike in GST rates on solar equipment would increase effective GST rate for a solar power project from 8.9% to 13.8% (comprising 70% supply & 30% services), leading to a 4.5% increase in project cost. This would in turn require a ~8 paise per unit increase in tariff rates to protect the returns for the developers. Projects already bid out would have claim this additional cost through change in law.

Exhibit 47: Trends in cleared volume & price of solar & non-solar RECs



Source: ICRA Research, IEX and PXIL

Exhibit 48: Capacity under REC mechanism



Source: ICRA Research, REC Registry

- The trading of REC on energy exchanges resumed from November 2021 following the order from APTEL on November 09, 2021, wherein, it set aside the order issued by CERC revising the REC floor price to zero. In November 2021, for non-solar RECs, 70% of the volume of sell bids were cleared and the cleared price was Rs. 1000 per REC. In the case of solar RECs, the clearing price has been Rs. 2000 per REC and 33% of the sell-bid volume has been cleared. The capacity under REC mechanism across different renewable energy sources is predominantly spread between wind and solar power constituting 58% and 21% respectively. The suspension of trading since June 2020 had resulted in the piling up of REC inventory. As of December 22, 2021, the REC inventory stands at 6.3 crore.

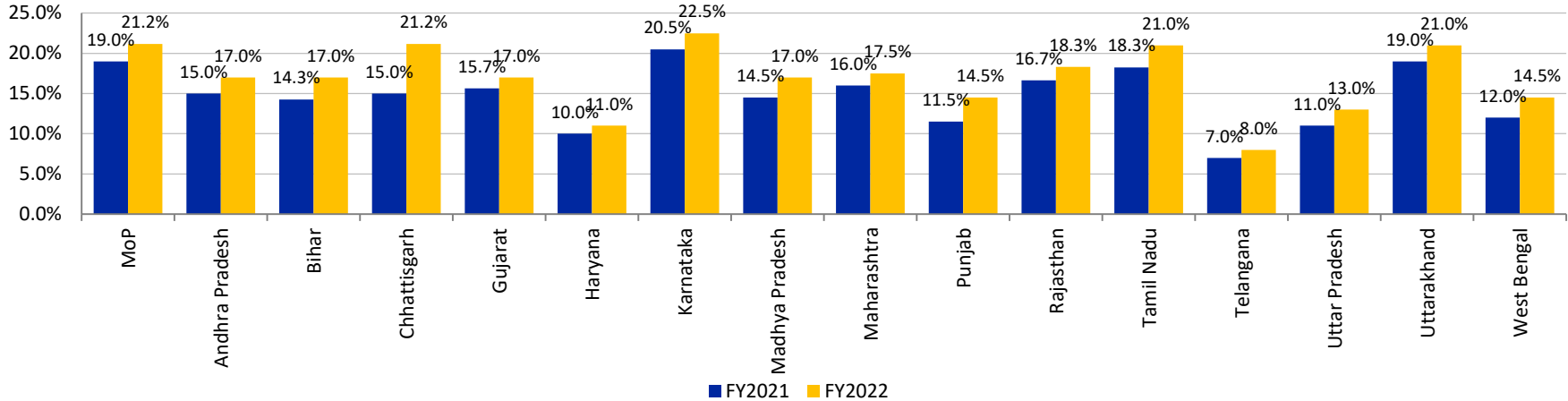


RPO Trajectory & Compliance

RPO norms remain inconsistent across states and against the target suggested by MoP; compliance remains less than 70% at all India level

RPO trajectory remains inconsistent across states

Exhibit 50: RPO recommended by MoP and RPO approved by SERCs in key states

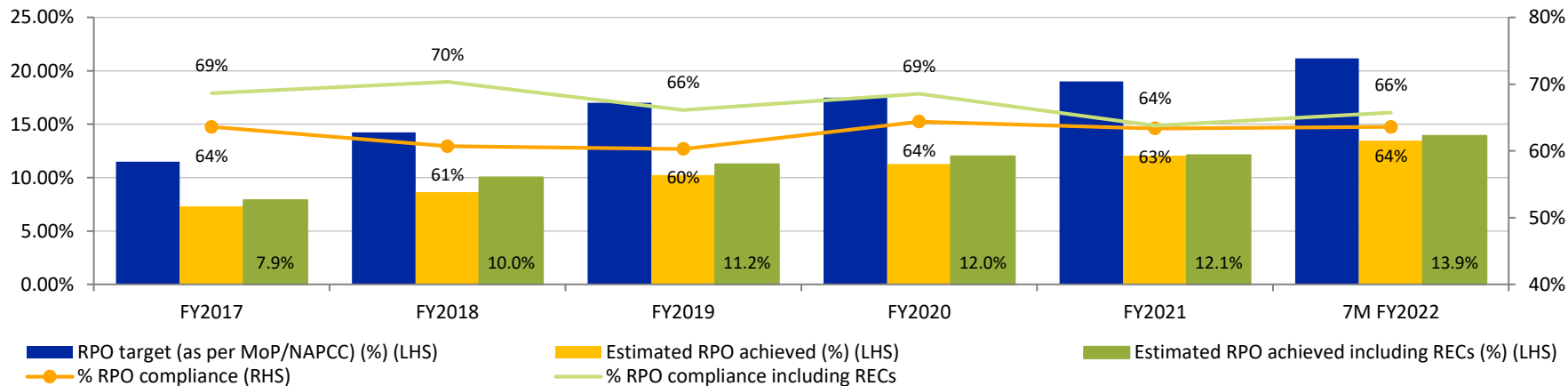


Source: ICRA Research, RPO regulations notified by SERCs

- The Renewable Purchase Obligation (RPO) remains the key driver for promotion of RE in the country, with the Electricity Act, 2003 and the National Tariff Policy, 2006 requiring discoms & open access consumers to procure a certain fixed proportion of their power from RE sources. However, the RPO norms continue to vary across the states in terms of both the quantum of the RPO and the period of the RPO trajectory approved by the SERCs. Also, the RPO levels for most of the states continue to remain lower than the RPO trajectory recommended by the Ministry of Power. The SERCs in only two states i.e. Chhattisgarh and Karnataka, have stipulated the RPO norms equal to or higher than the target of 21.18% for FY2022.

RPO compliance estimated at 65-70% of the target at all-India level

Exhibit 51: Estimated RPO compliance at all India level



Source: ICRA Research, CEA

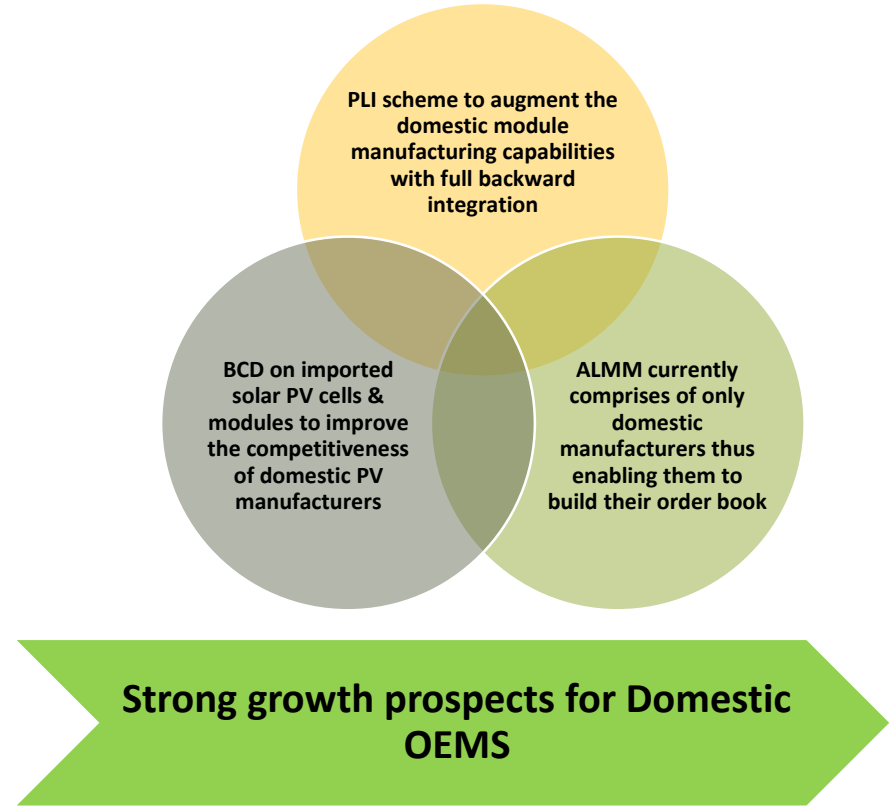
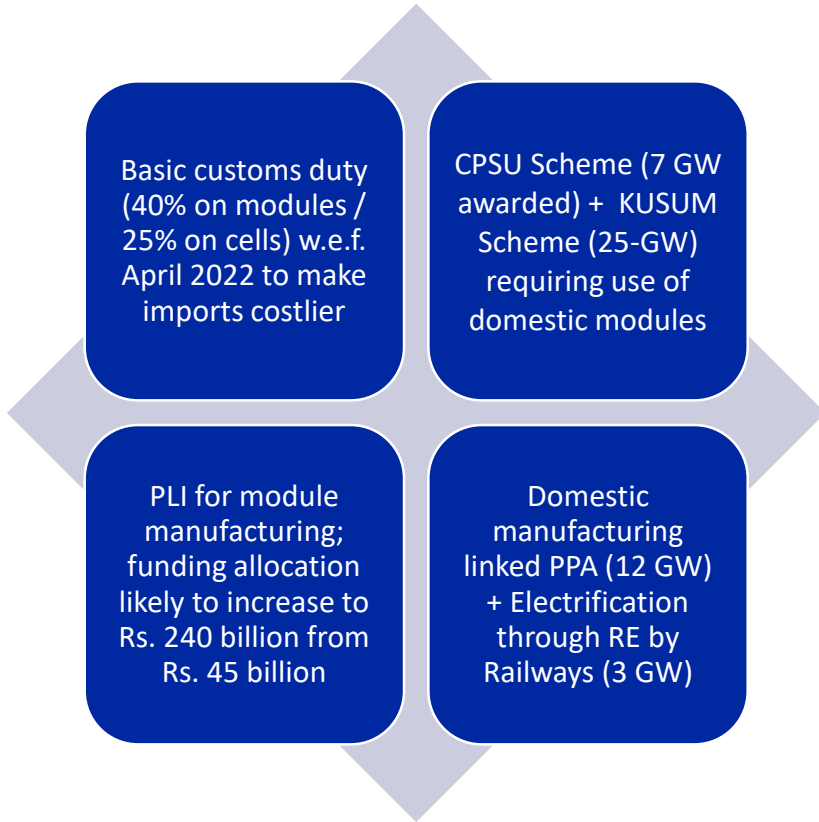
- The mix of RE power in the overall electricity generation has improved in the recent years with the significant addition of solar power capacity. However, the extent of RPO compliance continues to remain less than 100%. Moreover, the compliance level varies across the states, with the states having high wind and solar generation potential reporting higher compliance. At the all-India level, the RE sources contributed to 12.0% of the electricity generation mix, excluding hydro in FY2021, resulting in about 63% compliance against the RPO target of 19.0% suggested by the Ministry of Power. The same stood at 13.5% in 7M FY2022 against the stipulated target of 21.18%. As wind is seasonal, the full-year RE mix in electricity generation, excluding wind, is estimated at 12.5% for FY2022, which along with RECs is expected to lead to a compliance level of 67-68%.



Update on Solar OEMs

Strong response for the solar PLI scheme; funding outlay likely to be increased

Business outlook remains strong, for domestic OEMs



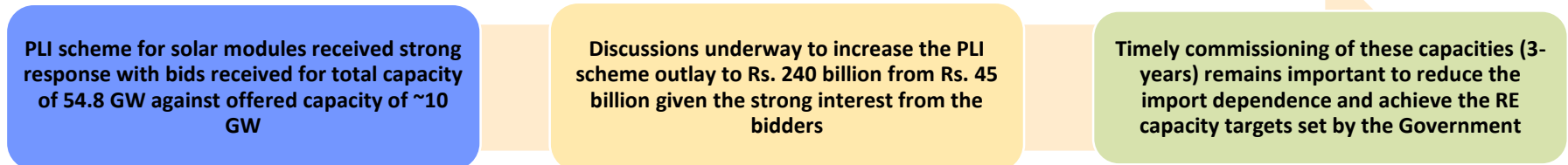
Strong response for the solar PLI scheme; funding outlay to be increased

Exhibit 52: Winning bidders under the PLI scheme for solar modules

Bidder	Proposed manufacturing capacity (MW) with full backward integration	PLI quoted (Rs. Billion)
Jindal India Solar Energy	4000	13.90
Shirdi Sai Electricals	4000	18.75
Reliance New Energy Solar	4000	11.90

Source: ICRA Research

Capex outlay for setting up the fully integrated module capacity (till polysilicon) awarded under the PLI scheme is estimated at Rs. 350-400 billion



Over the next 2-3 years, module and cell manufacturing capacity to witness a significant increase from the current level of ~10 GW and ~3 GW respectively



Counterparty Credit Risk

Discom dues to RE IPPs have increased over the past six months, with sharp increase from AP, Karnataka, Maharashtra and Madhya Pradesh

Cash gap for discoms remains high at all-India level

Exhibit 53: Cash gap per unit between cost of supply and tariffs for discoms at all-India level

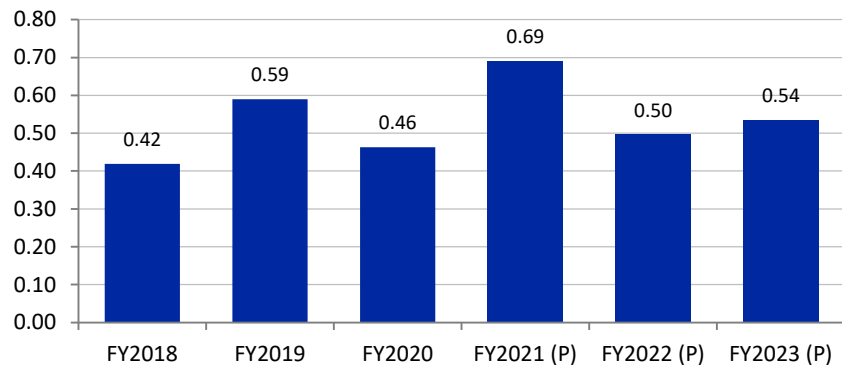
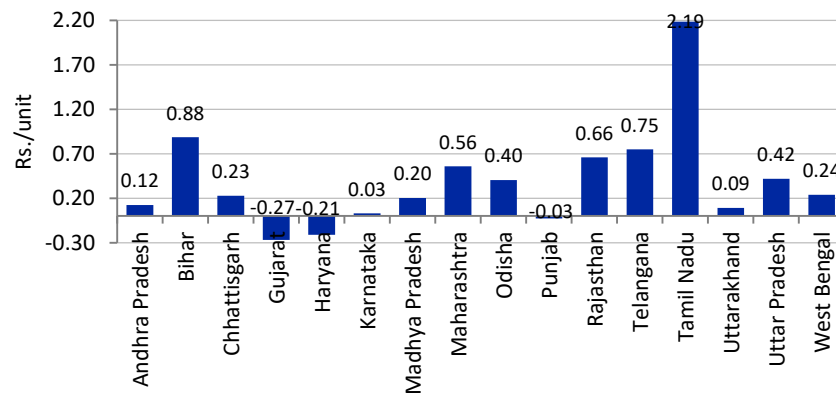


Exhibit 54: Trends in cash gap for utilities across key states in FY2020

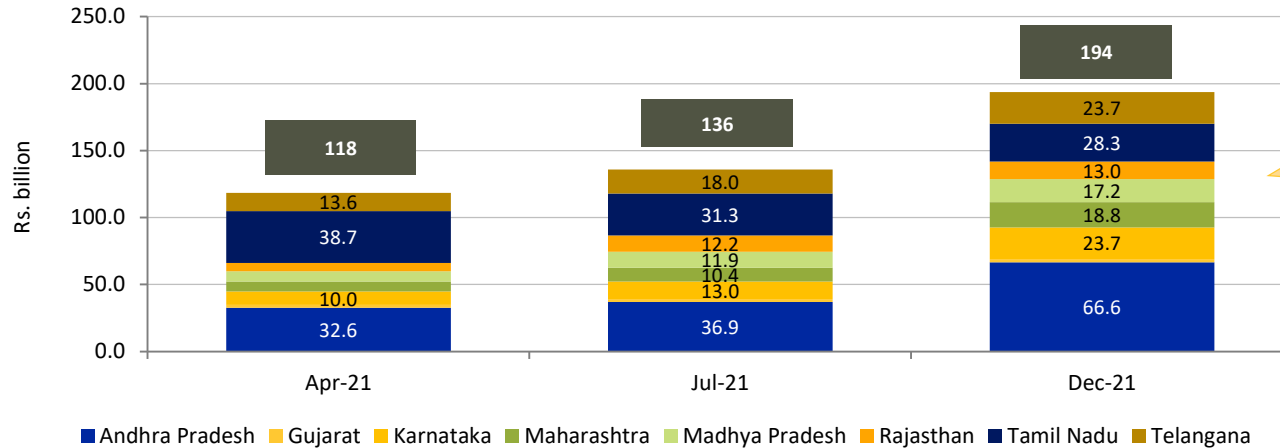


Source: ICRA Research, ICRA Research, PFC report on performance discoms; cash gap = (PAT + Depreciation + UDAY Grant + Regulatory Income)/Unit Sales

- The weak operating efficiencies of the state discoms and lack of timely and adequate tariff revisions have led to gap between cost of supply and tariffs. The cash gap is increasing in FY2021 owing to the loss of demand from the C&I segment amid Covid-19. While the gap is moderating in FY2022 with the recovery in demand, it is expected to remain significant at 50 paise per unit and further estimated to increase in FY2023.
- The cash gap was the highest for the Tamil Nadu state discom because of lack of tariff revisions over the last six year and the rising cost structure. The other state discoms with significant cash gaps included Bihar, Telangana, Rajasthan, Maharashtra and Uttar Pradesh.
- The state discoms of Gujarat, Haryana, Punjab and Karnataka (2 discoms) are performing well above the national average, with cash surplus or limited cash gap in FY2020 supported by healthy operating efficiencies and regular tariff revisions.

Sharp rise in dues from discoms to RE IPPs over the past six months

Exhibit 55: Trends in overdue from discoms to RE IPPs across key states



Dues from discoms to RE IPPs have increased by 43% between July 2021 and December 2021 mainly due to increase in dues from AP, Karnataka, Maharashtra & MP

Source: ICRA Research, PRAAPTI portal

- While the dues for the RE IPPs from discoms in the state of Tamil Nadu have come down post receipt of funds from PFC/REC, the overall dues from discoms in the eight key states have gone up by 43% to Rs. 194 billion as of December 2021 from Rs. 136 billion as of July 2021. The jump is on account of continued delays by discoms in AP amid the tariff issue and a large increase in dues from Karnataka, Maharashtra, Madhya Pradesh and Telangana amid the liquidity stress faced by discoms in these states. The high wind season billing also contributed to the increase in dues.