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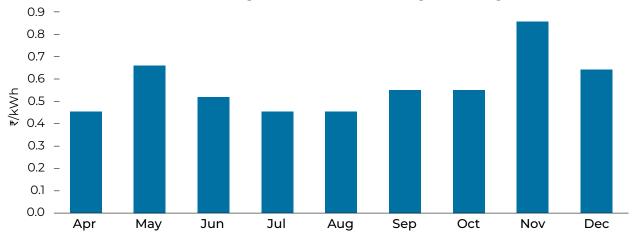
ISTS CHARGES WAIVER FOR CHHATTISGARH

Decoding the impact on transmission bills & procurement decisions



INTERNATIONAL FORUM FOR ENVIRONMENT, SUSTAINABILITY & TECHNOLOGY

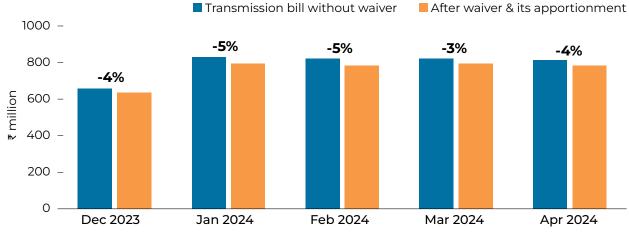
- Renewable energy (RE) power procurements through the inter-state transmission system (ISTS) network have been exempted from charges and losses by the Ministry of Power (MoP) since 2016 to help 'low-RE' states like Chhattisgarh meet their renewable purchase obligation (RPO), by making RE imports from 'RE-rich' states cheaper.
- On average, Chhattisgarh discoms and industry consumers (designated ISTS consumers or DICs) pay an estimated ISTS charge of ₹0.59 per unit for power procurements through the ISTS network. This is estimated based on the charges paid in recent months against the units drawn. All RE transactions are exempted from these charges.



Month-wise estimated ISTS charges for DICs in Chhattisgarh during 2023

Source: iFOREST estimates based on POSOCO and WRLDC data

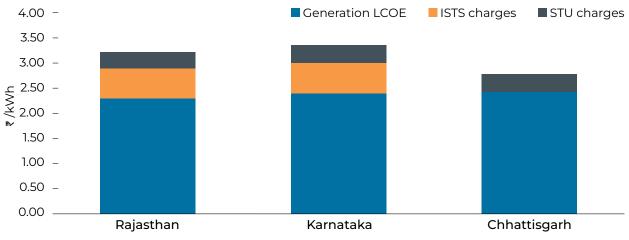
- Under the existing Central Electricity Regulatory (CERC) regulations, the waived-off ISTS charges for RE power are aggregated and apportioned among all DICs based on their total transmission charges. This socialization mechanism has had an uneven impact on the transmission bills of states based on their overall dependence on the ISTS network for power procurement and the share of RE in it.
- So far, Chhattisgarh has benefitted from the waiver in terms of its impact on the state's network bill. In recent months (December 2023 to April 2024), 9.3 percent of the state's aggregate transmission bill has been waived off. However, accounting for the amount apportioned back to the state, the net impact on the transmission bill has been limited to 4.2 percent. For the five months, this has aggregated to an amount of ₹161.98 million.



Impact of waiver on ISTS transmission bills of Chhattisgarh

*% amount shows net decrease in transmission bill after apportionment of waiver Source: iFOREST estimates based on POSOCO data

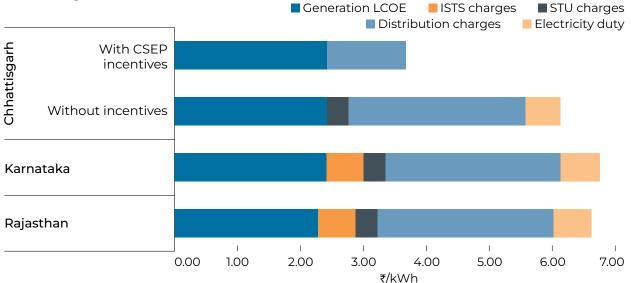
- This gain on the transmission bill must be further assessed in the context of the waiver's impact on the procurement decision of state discoms. Chhattisgarh is moderately endowed with solar resources, where the operational efficiency of its solar installations is lower than the states of Rajasthan and Gujarat, but comparable with Karnataka. iFOREST estimates suggest that compared to Rajasthan, the tariffs of solar plants installed in Chhattisgarh are about ₹0.14 per unit higher. Meanwhile, compared to Karnataka, the generation tariff is only ₹0.02 per unit higher. In this scenario, the ISTS waivers.
- Given that the effective ISTS charges waivers for the state is about ₹0.60 per unit, while the generation differential can be up to ₹0.14 per unit, it acts as a significant market distortion driving up the demand for solar imports.
- In a scenario where state discom and industrial consumers had to pay ISTS charges, procurement from projects located within the state would have been significantly cheaper than procurement from projects located in the so-called 'RE-rich' states.



Procurement cost of solar power for Chhattisgarh discom accounting for ISTS charges

Source: iFOREST estimates

Procurement cost of solar power for OA consumers in Chhattisgarh accounting for ISTS charges



Source: iFOREST estimates

The mechanism of ISTS charges waiver is highly inefficient for Chhattisgarh:

- It is driving demand for solar projects in states that are only marginally better endowed than 'low-RE' states like Chhattisgarh. Power procurement decisions are highly price sensitive, and a waiver of ₹0.60 per unit is a major cost component to consider.
- Meanwhile, the policy of focusing on 'RE-rich' areas is necessitating massive investments in ISTS projects to evacuate power from 'RE-rich states.' These investment costs are being recovered through the national component (NC)-RE of the ISTS charges, burdening even the states that do not procure ISTS RE power.
- The NC-RE component of ISTS charges accounts for about 10 percent of Chhattisgarh's transmission bill and has been steadily increasing as investments in RE-based transmission projects have expanded.
- Further, the impact of ISTS charges waivers on the transmission bills of states remains uneven, with states with low total procurements and high RE procurements benefiting, while states with high total procurements and low RE procurements experiencing net loss.
- Even in the case of Chhattisgarh, which benefits from the waiver, the net benefit per month amounts to only about ₹33 million per month, which is a big price to pay for the loss local economy and energy security due to increased reliance on RE imports.
- In fact, the state is having to counter this through several of their own exemptions provided to industries under the Chhattisgarh Solar Energy Policy, 2017.
- As the state gears up to meet the scaled-up RPO target of 43 percent by 2030, it is crucial that these considerations are adequately addressed by national policy. While the ISTS waiver provided the initial boost to the sector, its impact in a matured market has become highly distortionary.



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