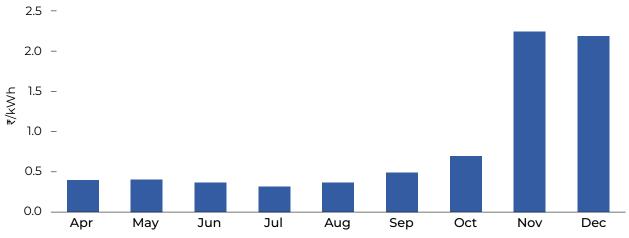
FACTSHE Decoding the impact on transmission bills & procurement decisions INTERNATIONAL FORUM FOR ENVIRONMENT, SUSTAINABILITY & TECHNOLOGY **iFOR**≡ST

- 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 West Bengal meet their renewable purchase obligation (RPO), by
 making RE imports from 'RE-rich' states cheaper.
- On average, West Bengal discoms and industry consumers (designated ISTS consumers or DICs) pay an estimated ISTS charge of ₹0.86 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.

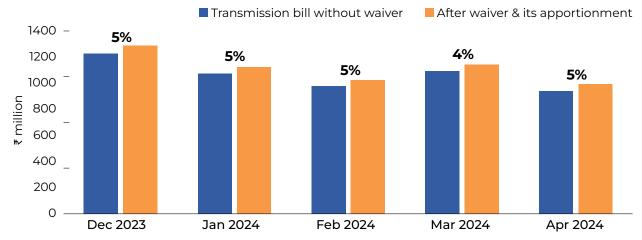
Month-wise estimated ISTS charges for DICs in West Bengal during 2023



Source: iFOREST estimates based on POSOCO and ERLDC 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, West Bengal has lost from the waiver in terms of its impact on the state's network bill. In recent months (December 2023 to April 2024), 0.52 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 -4.8 percent. For the five months, this has aggregated to a loss of ₹266.98 million.

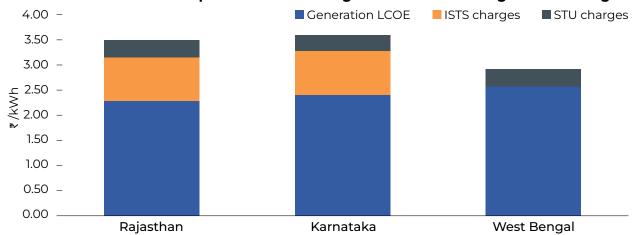
Impact of waiver on ISTS transmission bills of West Bengal



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

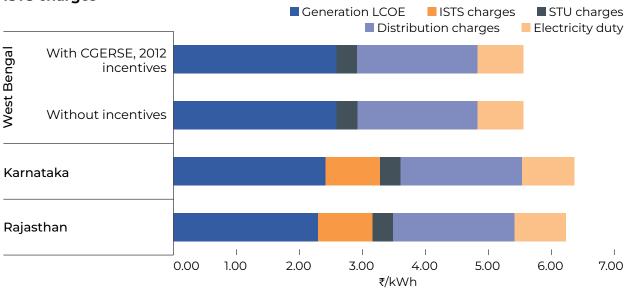
- This loss on the transmission bill must be further assessed in the context of the waiver's impact on the procurement decision of state discoms. West Bengal is moderately endowed with solar resources, where the operational efficiency of its solar installations is lower than the states of Rajasthan and Gujarat, but comparable with Karnataka. iFOREST estimates suggest that compared to Rajasthan, the tariffs of solar plants installed in West Bengal are about ₹0.29 per unit higher. Meanwhile, compared to Karnataka, the generation tariff is only ₹0.17 per unit higher.
- Given that the effective ISTS charges waivers for the state is about ₹0.90 per unit, while the generation differential can be up to ₹0.29 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 West Bengal discom accounting for ISTS charges



Source: iFOREST estimates

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



Source: iFOREST estimates

The mechanism of ISTS charges waiver is highly inefficient for West Bengal:

- It is driving demand for solar projects in states that are only marginally better endowed than 'low-RE' states like West Bengal. Power procurement decisions are highly price sensitive, and a waiver of ₹0.86 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 9 percent of West Bengal'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.
- In the case of West Bengal, the waiver and apportionment mechanism lead to a net increase in the transmission bill, to the tune of nearly ₹54 million per month. On top of this, there is a loss of the 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 West Bengal Policy on Co-generation and generation of electricity from Renewable sources of energy, 2012.
- 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.

