



Rooftop solar: Another welcome push in the right direction

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The government's commitment to pushing solar rooftops can achieve much more than what meets the eye

The Government's recent announcement on phase-II of the Grid Connected Rooftop Solar Programme is yet another big step in the right direction for the Indian renewable power ecosystem.

The second phase of this popular scheme from the government now offers 20 per cent to 40 per cent financial subsidy to residential users for new rooftop solar installations ranging between 3 kilowatt (kW) to 10 kW, including user-clusters such as housing societies. This fresh impetus is going to boost the big and stated objective of installing 40 gigawatt (GW) of rooftop solar (RTS) projects in the country by 2022, which also forms a part of the country's aim to have an overall solar capacity of 100 GW by 2022 -- the year when Independent India turns 75.

The focus on residential users in the second phase of this programme will go a long way in correcting the most glaring anomaly in the Indian solar power ecosystem. Currently, of the 3,400 megawatt (MW) of RTS in the country, only about 8 per cent to 9 per cent of solar rooftops installed in the country is in the residential sector, while about 70 per cent is in the industrial/commercial establishment, who clearly see the long-term financial benefit in having captive and sustainable power source. The reason for lacklustre response in the residential space has been mostly financial. A typical 1-kW RTS can cost anywhere between Rs 50,000 to Rs 60,000. For an average Indian household, this can be a serious deterrent, particularly when the occupant lives in a rented property and the landlord is unwilling to provide financial support.

Under this phase-II scheme of rooftop solar, the financial support from government to the residential or household users can tilt the scale in favour of the common man's aspiration to seek a permanent and sustainable solution to not just lower his or her monthly power bill, but also seek a cleaner source of energy without breaking the bank account.

RTS as an energy source offers much more than what is commonly understood and much less appreciated. The conventional model of grid-based power being a centralised system comes with several challenges. One being the large upfront investment made by the utilities for producing, transmitting, and distributing energy, taking it years for them to reap their returns and recoup their investment. Secondly, this model is prone to other long-standing issues such as heavy losses in transmission and distribution. Around a fourth of the power produced in

India goes unbilled, either due to technical leakages or plain theft. A decentralised model like RTS can change this entire scenario. Further, RTS enables the power consumers to become the power sellers by selling excess power. With the aid of smart grids and digital technology, excess power (what is left unconsumed by RTS owner) can be fed back into the common grid, thus helping the end power consumer become power producer and save on the monthly energy bill. The Net Metering Policy applicable in most of the states support consumers to net off the energy consumed and energy fed into the grid through their RTS system.

Further, the current power ecosystem has several inherent inefficiencies. According to government data, discoms owe as much as Rs 40,500 crore as of November 2018 to power producers. Under phase-II of the RTS Programme, a provision has been made to provide performance-based incentives to the discoms based on RTS capacity achieved in a financial year.

Pushing for greater adoption of RTS in the country will help to solve many of the challenges in the Indian power sector. The digital transformation is already revolutionising the age-old power industry and when combined with RTS will completely change the way people are used to consuming power. Continued investment in clean source of power on one side will provide controls in the hands of consumers and on the other side will make the whole country gain from the emerging issues of climate change. This is what makes the latest policy push to back RTS among residential users a unique opportunity we cannot afford to miss.

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About Praveer Sinha

Praveer Sinha is the Managing Director and Chief Executive Officer of Tata Power. He has over three decades of experience in the power sector including setting up greenfield and brownfield power plants in India and abroad. Sinha holds a Master's Degree in Business Law from National Law School, Bengaluru and is an Electrical Engineer by training.