

October 24, 2019

Press Release

Roof-top solar a win-win proposition for Discoms & Consumers

Scaling up rooftop solar leads to financial gains for consumers as well

- **Roof-top solar especially beneficial in areas where transformers are prone to overloading**
- **Roof-top solar can help consumers save money and bring them within the threshold of availing government subsidy**
 - **A residential consumer can save over INR 1000 per KW/per year**
 - **Roof-top solar is helping 30 societies in Dwarka save over INR 2 crore annually**
 - **Consumers opting for RESCO model don't have to incur any cost**
 - **Consumers opting for the Capex model can recover costs between 3.5-4 years**
- **Discoms could enjoy net gains of up to INR 0.22 for every unit of electricity generated via solar rooftops. Over a system's lifetime, discoms could save INR 5500 (net-present value) for every kilowatt of capacity installed.**

Increasing the share of solar rooftop is a win-win proposition for both the Discoms and the consumers alike. It can lead to significant net financial savings for both.

New Delhi: Discoms could enjoy net gains of upto INR 0.22 for every unit of electricity generated via solar rooftops, according to a recent study by the Council on Energy, Environment and Water (CEEW) and BSES Rajdhani Power Limited (BRPL). Over a system's lifetime, discoms could save INR 5500 (net-present value) for every kilowatt of capacity installed. This is in addition to the savings accruing to the rooftop solar consumers. Further, the study finds that discoms stand to benefit more by scaling up solar rooftop installations among residential consumers, especially those in lower tariff slabs, versus industrial and commercial consumers.

These findings are based on the data collected from solar rooftop installations connected to nine distribution transformers and one group housing society feeder in BRPL's license area. The findings are a part of an MoU between CEEW and BRPL, which led to the design of a framework to determine cost-benefit analysis of solar rooftop from a discoms perspective.

Commenting on the study, BRPL CEO Mr Amal Sinha said, "This study highlights costs and benefits of deploying solar rooftops for discoms and could guide strategic deployment of solar installations in licensed areas going forward. Widespread adoption of solar power is beneficial to both consumers and the discoms alike"

"Besides helping discoms in meeting their renewable purchase obligation (RPO), rooftop solar will help the discoms minimise overloading issues in congested areas during the peak summer months. It will also help them in achieving capex deferment for line replacement and unplanned grid upgradation intermittently. All these will have beneficial impact for consumers", **added Mr Sinha.**

Mr Neeraj Kuldeep, Programme Lead, CEEW, said, "Our analysis highlights that focusing on scaling solar rooftops among residential consumers leads to enhanced discom revenues, while also advancing India's

solar targets, and creating new jobs. We also found that solar rooftops contribute to reducing BRPL's peak demand by about 13 per cent of its rated capacity. With the improving cost competitiveness of solar rooftop systems, on-ground operationalisation of net-metering policies, and the support provided by MNRE through the SRISTI scheme, solar installations could grow at a rapid pace. Focused consumer awareness and engagement programs coupled with discovery of competitive tariffs will hold the key to India's rooftop solar ambitions."

The CEEW-BRPL study recommends deploying solar rooftops in areas where distribution transformers experience frequent overloading and day time peaks to increase net benefits. Further, the study finds that to meet increasing power demand and avoid distribution network upgrade, discoms must prioritise the net export of solar power from subsidised consumers into the grid and adopt net-metering based compensation.

Solar rooftop a win-win proposition for discoms and consumers

Another independent analysis by BRPL also found that increasing the share of solar rooftop is a win-win proposition for both the discoms and the consumers alike. Direct benefits to discoms will also have an indirect impact on the consumers. For every KW of rooftop solar, a residential consumer can save anywhere between INR 908 to over INR 1091 per month (including GBI), depending on the type of premises.

Rooftop solar is helping consumers to not only reduce their electricity bills, but also do their bit for the environment. It allows them to generate electricity for self-consumption and sell surplus, if any, to the discom, which in-turn pays them for the surplus energy generated over and above their own consumption as per applicable regulations. Domestic consumers also enjoy the benefit of Generation Based Incentive (GBI), which at present is INR 2 per unit in Delhi.

Rooftop solar generates about 90 – 120 units of electricity every month and the cost of the system can be recovered within 3.5 to 4 years. For example, thirty group housing societies in Dwarka with a connected rooftop solar capacity of 2 MW (2000kW) are saving around 2 crore annually (including GBI) on their electricity bills.

BRPL & BYPL are premier power distribution companies and Joint Ventures between Reliance Infrastructure Limited and GoNCT.

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