

Quality in Question

Why should the quality of rooftop solar systems not be compromised with lower costs?

India's rooftop solar (RTS) sector has immense growth potential though it is underperforming currently with only 8 GW installed capacity as against the 40 GW target set for 2022. The potential needs to be realised quickly because the scaling up of RTS is paramount to achieving India's ambitious renewable energy targets. The recently launched National Portal for Rooftop Solar, which is expected to simplify the application and subsidy disbursement process, aims to accelerate RTS growth in India. This portal, along with high customer awareness and favourable net-metering regulations, will help the RTS sector grow and contribute significantly to India's 300 GW solar target for 2030.

With the growth in the RTS sector, customers will have multiple vendors offering various system configuration options. Vendors generally quote a price range for an RTS system, including several options for solar panels, inverters, cables, and so on. With multiple vendors quoting different prices, customers have numerous options at their disposal. However, they need to carefully consider the price and the most critical aspect of an RTS system—quality.

An RTS system is expected to have a minimum service life of 25 years. This is possible only if the system fulfils all required parameters, such as material quality, work quality, and timely and recurring maintenance. An RTS system meeting these parameters usually provides higher efficiency, trouble-free operations, and extended service life. A quality RTS system also prevents hazards related to electrical safety, equipment failures, and poor work quality—such as short circuits or equipment fires. These hazards could result in serious accidents causing injuries or equipment damage and must be avoided. A quality RTS system thus ensures higher energy generation and savings, longer life, and safer operations compared to an RTS system that does not fulfil all required parameters.

An RTS system is different from a consumer electronic device such as a television set. An inexpensive television set may not provide the same picture quality or sound quality as the costlier ones but would still fulfil basic needs and is unlikely to create hazards for customers. However, the same logic cannot be applied when purchasing an RTS system.

A customer should buy an RTS system only after carefully deliberating quality, performance, service life, features, benefits, and potential hazards. Price alone must not be the driving factor. While it would be enticing to go with the lowest quote, the customer must ascertain an RTS system's quality before making a purchase decision.

From vendors' perspective, making quality their USP and sensitising customers about the importance of an RTS system's quality is imperative. This would create a good brand name for vendors, help spread positive reviews through word of mouth, and bring more business while increasing customer awareness. Vendors must maintain the RTS system for five years or more based on their agreement with customers. Therefore, vendors should not only focus on bringing down costs but also on maintaining quality so that their offerings perform well and pass the test of time.

The National Portal for Rooftop Solar includes quality certification and standards for RTS systems. An efficient monitoring mechanism is needed to ensure that these standards are followed diligently. Since vendors are solely responsible for quality compliance in RTS installations, a national accreditation system of vendors with performance and quality ratings is vital. This would ensure that vendors maintain quality in RTS systems and that customers have cognisance of vendors' credentials

to help them make informed decisions while choosing an RTS vendor. Also, distribution company officials are required to inspect the RTS system for the fulfilment of minimum technical specifications and standards. A standard and comprehensive checklist should be developed to make the inspection process thorough. Distribution company officials should be provided regular training for this inspection. Any anomalies observed during the inspection should be duly rectified by the vendor, and the system approval should be given only after rectification. An exhaustive inspection process and vendor accreditation system would be instrumental in maintaining the quality of RTS systems across the country.

The primary focus on quality would result in a long-term fruitful association between stakeholders. With all stakeholders in sync with regard to quality, the growth of the RTS sector could speed up sustainably to achieve India's renewable energy targets.