‘Rural areas serve as promising market for off-grid solar’

There is immense scope for off-grid PV technologies in developing countries like India, says ***Simarpreet Singh***, Founder-Director, Hartek Solar in an interaction with ***Anurima Mondal***

Q Hartek Solar recently launched customised rooftop solar kits. Tell us more about these plug-and-play kits and the technology used.

Hartek Solar’s customised rooftop solar kits come with an option of a unique remote sensing technology tailor-made for small-scale solar plants. The remote sensing technology has largely remained confined to large rooftop solar installations owing to its non-viability for small-scale solar from the commercial viewpoint. Hartek Solar has now made this technology commercially feasible for small-scale plants as well by linking remote sensing with consumers’ Wi-Fi or GPRS SIM card to get alerts on cleaning and maintenance as well as real-time data on energy generation and savings. Consumers can avail this service either through web browser or mobile application. The remote sensing technology aids lower downtimes and has quicker fault detection tools aimed at optimising generation.

How will Hartek Solar’s standardised small-scale solar solutions be a decisive step in tapping the rooftop solar market?

Hartek Solar’s standardised small-scale solar solutions promise to be a game changer in driving the demand for rooftop solar in the residential, commercial and industrial categories owing to the various advantages they offer. Designed as 5-10 kWp plug-and-play kits, these small-scale solar installations will cater to both net metering and gross metering consumers. Offered in different configurations depending on the area available, these standardised plug-and-play kits can be installed in a matter of hours rather than days. The kits have been specifically designed for RCC roofs. Their non-invasive structure design with roof protection pads rules out any damage to the roof. The 10-kWp kits, on the other hand, are ideal for 2-kanal houses, nursing homes, hotels and other commercial establishments.

Addressing the major issue of regular monitoring and maintenance associated with small-scale solar plants so as to ensure operational efficiency, Hartek Solar has also

decided to extend services for cleaning modules on a fortnightly or monthly basis, checking the efficiency of solar plants after every three months and servicing the inverters twice a year.

Simple to install, easy to maintain, weatherproof and eco-friendly, Hartek Solar's customised solar kits act as a safeguard to constantly rising cost of electricity. The cost-effective kits have been so optimally designed that the labour and maintenance costs are bare minimum. With a break-even period of three years and four months, rooftop solar is a win-win situation for residents, enabling them to reap its benefits for the next 22 years. Rooftop plants have a life span of about 25 years.

We have set a target of 10-MW rooftop solar projects by the end of the current FY. In the process, we will build on our rooftop portfolio in the commercial, industrial and residential segments

Where are you planning to install these kits? What are the responses of your consumers till now?

Our plug-and-play rooftop solar kits cater not only to the residential category but also industrial and commercial consumers. We plan to put up at least 100 such installations in residential, commercial and industrial categories in the next six months, targeting Chandigarh, Mohali and Panchkula as well as industrial clusters in Ludhiana, Baddi, Dera Bassi and Mandi Gobindgarh.

Our small-scale solar solutions will benefit kanal houses, housing societies, nursing homes, small commercial establishments, hotels and micro, small and medium enterprises (MSMEs). We are going all out to tap the small-scale solar market by approaching commercial establishments and medical, hotel and restaurant associations. We will also be conducting door-to-door and social media campaigns to draw on the residential category. We will adopt a cluster-based approach to reach out to end consumers in the residential, industrial and commercial categories.

While shortage of space in cities is a major constraint, the adoption of rooftop solar in the residential category can make all the difference. We aim to make our small-scale solar solutions an integral part of the upcoming Smart and Model Solar Cities. Effective net metering policies can be a game changer in shaping Model Solar Cities like Chandigarh.

Our rooftop solar kits have received a tremendous response from residents, as evident by the fact that we have secured 20 orders in Chandigarh alone. We have already executed a 10-kWp project based on state-of-the-art remote monitoring system at a temple in Chandigarh.

Elaborate on your future plans and the technology initiatives that are driving the company ahead?

We have set a target of executing 10-MW rooftop solar projects by the end of the current financial year. In the process, we will build on our rooftop portfolio in the commercial, industrial and residential segments. Pursuing the 40-GW target, the government is all set to give a big push to the rooftop segment, and we are up for it. The rooftop segment is set to grow at a faster pace than the market for utility-scale projects in the near future with constantly declining tariffs and net metering expected to emerge as the game changers.

We enjoy a competitive edge in developing and providing complete rooftop solutions, right from installation of solar panels and inverters to supply, design, engineering and commissioning. Planning to come up with innovative solutions like solar tree and solar fencing, we will also be focusing on energy storage solutions and charging stations infrastructure to build a truly sustainable ecosystem for future generations.

Excelling in in-house design and engineering, we follow uncompromising quality standards. Our expertise in executing smart grid technologies is one of our key strengths. We have bagged a prestigious smart grid order from the Punjab State Power Corporation Ltd for the supply, installation and commissioning of Supervisory Control and Data Acquisition (SCADA) relays at 55 substations in the upcoming Smart Cities of Ludhiana, Amritsar and Jalandhar. By equipping these substations with SCADA relays, the Hartek Group will enable collection and storage of information relating to any indications for troubleshooting and maintenance, thus making the power systems smart and robust. This order is a stepping stone to establishing our leadership in smart grid power solutions. Incidentally, SCADA systems are also ideal for integration of large-scale renewable energy systems.