Launch Of **National Rooftop Portal**:

A Giant Leap Towards Attainment Of India's Rooftop Goal?

Prelude

Prime Minister Narendra Modi has launched a national portal for Rooftop solar recently. This portal will track online the process of installation of rooftop solar plants for individual households. The portal is a one-stop destination for residential consumers to register, install or hire a vendor to install a rooftop solar power system. This portal will track the entire process, making it convenient and transparent, and is likely to benefit more than 10 lakh households in the country. The growth in the rooftop solar segment has been slower as compared to grid-connected large-scale solar power generation projects. The government hopes to reach 1 million megawatts of solar energy by 2022, with 40,000 megawatts coming from rooftop solar power plants. With the launch of this portal, India will surely move towards its rooftop target. At the same time, customers will profit greatly from the increase in the use of renewable energy in the nation. Here is what our experts had to say about the rooftop portal. Read on...

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India's rooftop solar journey has been a roller coaster and yet the achievement of app. 10 GW is a significant milestone given the host of challenges on all fronts and tough times the sector is going through even today. Commercial and Industrial (C&I) sector's significant share in the installed capacity (>75%) is a success story to share though limited by varying state policies and regulations. At the same time, the uptake in the Government, Institutional and residential sectors is equally impressive, thanks to initiatives by the Central Government through MNRE Phase I and Phase II Grid Connected Rooftop Solar (RTS) Programs. The recent launch of the National Rooftop Portal by our Hon'ble Prime Minister is potentially a game changer as it empowers the residential consumers to install rooftop solar systems of their choice on market mode and enables receipt of a transfer of direct benefits (capital grant) from MNRE.

The MNRE Phase I Grid Connected Rooftop Solar Program seeded the popular concept of demand aggregation and sensitization of the Government Agencies to implement RTS projects via L1 tenders. State Governments across the country have successfully deployed both the third-party investment models and CAPEX model for RTS installation.

The MNRE Phase II Grid Connected Rooftop Solar Program was launched with direct engagement with the DISCOMs for implementing RTS systems in the residential sector. Till June 2022, the 88 DISCOMs across the country were restricted to tendering RTS capacities for the residential sector based on sanction from MNRE through the L1 selection process. Achievements from this DISCOM engagement on L1 mode alone have resulted in the installation of over 1.3 GW in the country with Gujarat leading with >1GW installed RTS capacity. However this process had several limitations related to the time consumed for various pre and post-tendering processes, the time gap between the first sanction and the second sanction period by MNRE, non-standardized bids, unhealthy L1 price discovery, quality compromise by vendors, documentation non-compliance delaying the release of subsidy to vendors, etc.,

To overcome the above lacuna, encourage vendors to supply RTS systems of consumers' choice, and enable Direct Benefits Transfer (DBT), the National Portal for Rooftop Solar was designed and launched by MNRE. The major features of NP-RTS include direct registration (for RTS installation) by the consumer across the country, online sharing of such registrations to the respective DISCOMs, online calculator to estimate costs after subsidy, choice of DISCOM tender or self-selection of the vendor for consumer, online processing of RTS applications by DISCOMs (through Unified Web Portals), an online dashboard for the consumer to track his/her application status, and release of subsidy directly to consumer account after complying MNRE's requirements, access to key information about RTS, Vendors, etc.,) grievance redressal mechanism etc., MNRE has also announced a different benchmark and subsidy for consumers opting for NP-RTS for implementing RTS systems.

The NP-RTS is set to define the open market mode engagement by the residential consumers and the initial response has been observed to be moderate. Preparedness and readiness by DISCOMs to optimize the benefits for consumers from the NP-RTS and vendors' engagement with DISCOMs to complete the MNRE mandatory empanelment are the two major critical factors of success. DISCOMs with MNRE's support are already gearing up in terms of launching massive consumer awareness and outreach activities which is the need of the hour. On the digital side, integration of DISCOMs' Unified Web Portal and NP-RTS will further increase the transparency as regards approval processes. NP-RTS upon accomplishing these key aspects are all set to accelerate the deployment of RTS systems in the residential sector and contribute to the overall target of 280 GW of Solar by 2030.

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Rooftop solar is expected to play a major role in India's 280 GW solar target for 2030. However, only ~8 GW of the 40 GW target for 2022 has been achieved so far. The residential sector accounts for less than 20% of this installed capacity, despite being offered incentives such as net metering and a 20%–40% capital subsidy.

In order to tackle the various issues pertaining to rooftop solar uptake in the residential sector, the honorable Prime Minister Narendra Modi launched the National Rooftop Portal in early August 2022. Using this portal, consumers can directly apply for a rooftop solar system by choosing any vendor registered with the local distribution company (DISCOM). The central portal is supposed to be aligned with the DISCOM portal, and applications are to be processed in a seamless manner. Technical feasibility inspections and net-metering installation will be conducted by DISCOM. After installation and commissioning, the subsidy will be directly transferred to the consumer's designated bank account.

While this process will remove many hurdles for the consumer, a supportive ecosystem is needed for accelerating residential rooftop solar adoption in the country. The primary advantage of this portal is the disbursal of the subsidy in a timely manner. However, there are concerns regarding the subsidy amount, which is calculated on the basis of benchmark costs determined by the Ministry of New and Renewable Energy (MNRE). The post-pandemic dynamics in the global markets have led to rising costs of every component associated with solar photovoltaic systems. A majority of reliable developers now charge 20%–50% more per kW than the MNRE benchmark prices. This makes the investment parameters unviable for a prospective consumer dependent on the subsidy amount. Of note, the MNRE is now in the process of revising the benchmark prices in alignment with global commodity rates. This revision will lead to a more transparent subsidy calculation, thereby protecting the consumer's business case against the risks of price inflation.

Another crucial aspect of the portal is that it allows consumers to choose any vendor. However, apart from a few states, there are only a few reputable vendors/EPCs in the 1–10 kW segment. Moreover, vendors have to pay ~INR 2 lakh as registration fees to the relevant DISCOM in their coverage area of interest. Thus, a vendor working in the NCR area will have to pay INR 2 lakhs each to the 4–5 DISCOMs serving the area. This makes the system financially tedious for small developers with slim margins. There is a need to uplift these smaller players through incentives. Moreover, local city-based associations can be formed instead of independent individual businesses, which will lead to higher demand aggregation numbers as well as lower procurement costs. In particular, the Gujarat model can be replicated where more than 550 installers are registered with DISCOMs. The registration fees can be based on geographical zones instead of per DISCOM. Access to accurate data rooms for suitable rooftops in cities will further reduce acquisition costs. Once the vendor ecosystem is stabilized in each state, consumers will have access to reliable and high-quality products. This will augment rooftop solar adoption and enhance business opportunities for smaller players.

Another concern is that the subsidy applies only to modules included in the 'Approved List of Models and Manufacturers. Presently, this list contains very few modules above 350 Wp, while there are several Indian manufacturers with products above 500 Wp. In India, rooftop space is already at a premium. This constraint limits developers from optimally utilizing the available area and compelling them to design smaller systems. As this list is being updated by the MNRE, larger modules should be included in the future.

The last mile of grid interconnection and installation of net meters still lies with DISCOM. Training of ground officials and linesmen is also imperative for the proliferation of rooftop solar in smaller cities and towns with development potential.

The aforementioned factors should be taken into account, and concerted efforts need to be made by central and state-level stakeholders to ensure that the National Rooftop Portal achieves its intended objectives. This will promote the growth of the residential rooftop solar sector in the long run.