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Individual, Smaller Capacity Solar Power Projects Costlier

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Individual solar power projects, having a smaller capacity prove to be costlier, with increased expenditure on site development, drawing separate transmission lines to nearest substation, procuring water and in creation of other necessary infrastructure. Even the operations and maintenance cost become relatively expensive.

While India is in dire need of clean, cheap and reliable sources of energy due to its sheer size and a fast-growing economy, the country is blessed with a massive solar energy potential as most of its land lies in the high solar insolation region with sunshine for up to 300 days. According to estimates, India receives an annual mean daily global solar radiation in the range of 4.5-6.5 kWh/m2/day.

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Solar parks on the other handare situated in a concentrated zone of solar power generation projects, which gives developers an area that is well characterized, properly infra-structured and where the risk of the projects can be minimized and permitting process can be felicitated. Solar parks have quickly emerged as a powerful instrument forrapid development of solar power projects in the country.

A solar power developer can get a fully developed land along with pooling sub-station and transmission facilities and can therefore set up a project immediately with very low gestation period and almost nil uncertainty. Solar parks in Gujarat and Rajasthan not only enable the states to meet their policy targets for solar power and renewable purchase obligations, but also contribute towards the ambitious targets put in place by the Jawaharlal Nehru National Solar Mission (JNNSM). In addition, clean power generated by these projects play a pivotal role in reducing India's carbon footprint, promote high end technical investments, create local jobs and thereby empower local communities.

The Ministry of New and Renewable Energy (MNRE), through this scheme will target development of similar solar parks across India. Large size projects have the potential to bring down solar power costs. Therefore, Ultra Mega Solar Power projects, each having capacity of 500 MW or above, have been planned in India. Large chunks of land are available in some states. There are some developers who are keen to take up their very large projects. Land has been identified in Gu-

jarat, Rajasthan, Jammu and Kashmir (Leh and Kargil) and Madhya Pradesh.

The MNRE has come up with a scheme to set up a number of solar parks of higher capacities in several states. The scheme proposes to provide financial support by the Government of India to establish solar parks with an aim to facilitate creation of infrastructure necessary for setting up new solar power projects in terms of allocation of land, transmission and evacuation lines, access roads, availability of water and others, in a focused manner.

Solar Energy Corporation of India (SECI), a central public sector enterprise under MNRE, has been implementing various schemes to develop solar sector in the country. As per the policy, these solar parks will be developed in collaboration with the state governments. The implementation agency would be Solar Energy Corporation of India (SECI) on behalf of Government of India (GOI). SECI will handle funds to be made available under the scheme on behalf of GOI. The states shall designate a nodal agency for implementation of the solar park.

As part of solar park development policy, the land required for development of solar power projects with a larger capacity will be identified, acquired and infrastructure like the transmission system, water, road connectivity and communication network etc. will be developed. The parks will be characterized by well-developed proper infra-structure where the risk and gestation period of the projects will be minimized. At the state level, the solar park will enable the states to bring in significant investment from project developers in solar power sector, to meet its Solar Purchase Obligation (SPO) mandates and provide employment opportunities to local population. The state will also be able to reduce its carbon footprint by avoiding emissions equivalent to the solar park's generated capacity.