



India Solar Energy Market Outlook 2022

By **Sangita Shetty** - 4th January 2022



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Solar energy offers the capability to generate power on a distributed basis and enables rapid capacity addition with short lead times. Endowed with a vast solar energy potential, India has huge potential to harness this form of energy through solar photovoltaics. Additionally, from the perspective of energy security, solar power is touted to be the most secure of all sources, due to its abundance.

The National Institute of Solar Energy has evaluated the country's solar potential at about 748 GW by assuming 3% of the waste land area to be covered by Solar PV modules. Also, solar energy has taken a centre stage in India's National Action Plan on Climate Change with the National Solar Mission as one of the key missions. Through the launch of National Solar Mission (NSM) in 2010, the Government of India along with the States has set sights to promote ecological sustainable growth while addressing India's energy security challenges. The mission will also constitute a major contribution by India to the global effort to meet the challenges of climate change. One of the key objectives of the NSM has been to establish India as a global leader in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible.



During cop 26 summit in Glasgow, the Honorable Prime Minister has announced that by 2030, 50% of India's energy requirements will be met by Renewable Energy. This means that by 2030 India's capacity of Renewable energy will be approximately 500 GW if we consider the current Renewable installed capacity, then we are looking forward to 30-40 GW of annual capacity enhancement to meet this objective. This coupled with custom duty announcements and PLI schemes will make manufacturing in India a profitable & sustainable business. We will see many manufacturing facilities commence work in 2022. In order to optimize transmission network load, we will also see more and more hybrid and RTC tenders. We will also see more Solar and BSES solutions being tendered and installed in 2022. Enhancement of the Elective vehicles population will also wide opportunities for technologies whereby additional solar power charging stations will be deployed. Opportunities to sell Renewable power in the open market and many big organisations committing towards ESG will also facilitate increased B2B PPAs along with more deployment of rooftop systems in residential segments.

Tata Power Solar is the go-to premiere name in EPC (engineering, procurement and construction) for large utility-scale and rooftop projects. Empowering the lives of millions, Tata Power Solar has a portfolio of more than 7GW, installed capacity of rooftop solar is more than 750MW and over 55000 solar pumps installed in India. Tata Power Solar has commissioned many prestigious projects that stand proud as a benchmark in the industry. One such project is the 300MWp DC in Pavagada Solar Park, Karnataka for SoftBank Group. Pavagada Solar Park has provided us a unique opportunity to enhance our generation with 2GW capacity of the installation. Establishment of solar project in this area is seen as a one of the pioneers in Solar Park in the entire Country. Another remarkable project is the 100 MW plant under DCR for the National Thermal Power Corporation (NTPC) in Anantapur, Andhra Pradesh. This project was delivered three months ahead of the deadline. Besides the aforementioned projects, Tata Power Solar comes with a successful background of executing many other large projects such as the 105 MWp of Floating solar at Kayamkulam, 95MW Dhuravan at Gujarat, 300 MW in Pavagada, 50 MW Kasargod at Kerala, 56 MW Greenko, 30 MWp Solar Power Plant in Lapanga, Odisha to name a few. Being one of the largest specialized EPC players in the country, Tata Power Solar has a portfolio of more than 5.4 GW of ground-mount utility-scale projects across the country till date.

On an overall basis 2022 will be a landmark year in India's journey of energy transition and solar power will play the most critical role in the transition.

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