JAKSON MAKING BIG STRIDES IN ROOFTOP SOLAR EPC SOLUTIONS

> JAKSON SHOWCASED ITS INNOVATIVE ENGINEERING CAPABILITIES BY SUCCESSFULLY INTEGRATING SOLAR PANELS ON THE ROOFTOP OF TRAIN COACHES RUN BY INDIAN RAILWAYS.
>
> THE PROJECT WAS AWARDED TO JAKSON BY INDIAN RAILWAYS ORGANIZATION FOR ALTERNATE FUELS.

As India increases its efforts to switch over to renewable energy, there has been significant investments in solar to meet the nation's energy requirements. The National Solar Mission has set an ambitious target of 100 GW solar capacity by year 2022 with special emphasis on developing rooftop solar PV projects. The government plans to add 40 GW of rooftop solar capacity in the country by the year 2022 and the rest 60 GW coming from land based projects.

Rooftop Solar power plants are increasingly gaining popularity today across a wide range of industrial, commercial and residential sectors due to relatively lower cost of investments and lesser complexities involved in setting up a plant. Several favourable government initiatives like subsidies and net metering policies are also giving rise to a demand for rooftop solar projects in India. A nation-wide rooftop solar installation impetus is a sustainable strategy in the long run for the nation to meet its ambitious targets.

> ROOFTOP SOLAR POWER PLANTS ARE INCREASINGLY GAINING POPULARITY TODAY ACROSS A WIDE RANGE OF INDUSTRIAL, COMMERCIAL AND RESIDENTIAL SECTORS DUE TO RELATIVELY LOWER COST OF INVESTMENTS AND LESSER COMPLEXITIES INVOLVED IN SETTING UP A PLANT.

Jakson Group, one of India's leading energy and engineering solutions company is amongst the few select companies in India with an integrated solar portfolio. The company owns and operates Independent Solar Power Plants, has engineering teams for execution of both land-based and rooftop solar power projects, and also manufactures and sells a wide range of solar modules and products.

In a report by Solar Energy Corporation of India, Jakson was ranked as the second largest rooftop solar installer in the country. It is a market leader in the segment with a rooftop solar projects portfolio of approximately 40 MW. In the past few years, Jakson has executed several rooftop solar power projects across some of the most prestigious buildings in the country. These include solar rooftop plants at the President's Estate in Delhi, Varanasi Airport, Raipur Airport, Delhi Metro Rail Corporation, Yamuna Sports Complex in Delhi amongst others. In this article, we present two of its most innovative solar rooftop case studies for our readers.

CASE STUDIES

Powering the Coaches of Indian Railways with rooftop solar

Jakson showcased its innovative engineering capabilities by successfully integrating solar panels on the rooftop of train coaches run by Indian Railways. The project was awarded to Jakson by Indian Railways Organization for Alternate Fuels. It was a complex project with unique design and engineering requirements – integrating solar panels on the roof of coaches that run up-to speeds of 100 km per hour. Using an innovative engineering approach, Jakson was able to fit solar panels on the rooftop of the train coaches using specially designed U-channels. The generated power will be used to power lights and fans inside the coaches for use by the passengers. This solar PV project will help Indian Railways offset Co2 emissions and also achieve significant savings in diesel costs. The railways recently pressed into service once such DEMU train that will operate from Sarai Rohilla in Delhi to Farukh Nagar in Haryana.

Innovative Klip Lock Solar Mounting Structure at Yamuna Sports Complex, Delhi

Jakson successfully commissioned a 400KW Solar Rooftop power plant on a metal roof without piercing the surface by using innovative Klip Lock mounting system. The plant was installed at the Yamuna Sports Complex (YSC) in New Delhi, India. YSC is an international sports complex which is owned by the Delhi Development Authority (DDA). It was a venue for the 2010 Commonwealth Games. YSC wanted to harvest the power of solar. However, the metal roofing of the complex posed a challenge for installing solar panels. This was overcome by Jakson using innovative engineering capabilities. The plant consists of 1600 modules of 250 Wp capacity which generates approximately 5.84 lakh units per year. Bi-directional meters are installed for sale of power to the grid in case of surplus.

> JAKSON SUCCESSFULLY COMMISSIONED A 400KW SOLAR ROOFTOP POWER PLANT ON A METAL ROOF WITHOUT PIERCING THE SURFACE BY USING INNOVATIVE KLIP LOCK MOUNTING SYSTEM