

100kW Rooftop Solar System At SDSM School, Jamshedpur, Jharkhand



1 PROJECT BACKGROUND

SDSM School, Jamshedpur was established in the year 1996 and is managed by **SDSM Educational Foundation**. It is a Co-ed school affiliated to Central Board of Secondary Education. The school was set up with a vision to impart education to students irrespective of religion, caste, social status, creed or place of origin. It aims at giving to the world well balanced, healthy and strong citizens with a command.

Observing ever growing electricity tariff/bill and increasing climate concerns, the school management decided to explore rooftop solar systems. However, the management was a little sceptical about the function of the system, but after a detailed presentation by Sologix Energy, School management agreed to install a 100 kW on-grid rooftop solar system to reduce the electricity bill and contributing to climate.

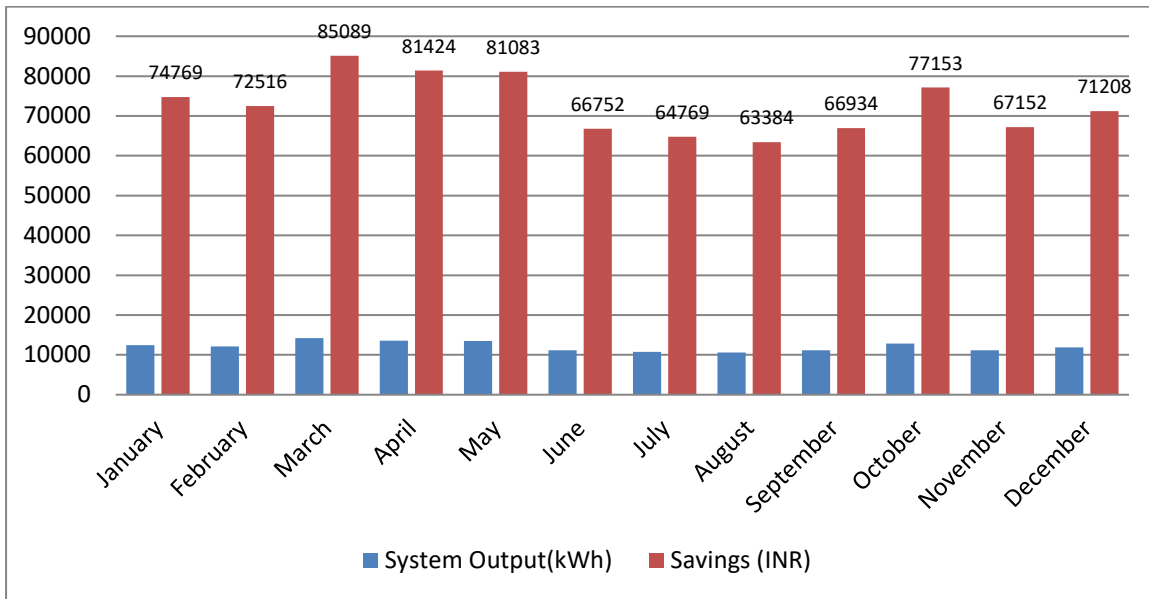
This project consists of 300 number Vikram make solar modules and two ABB make grid-connected inverters. The entire 100 kW system is connected to the TSUILS grid under a net-metering arrangement. The project is to generating approx. 1,45,000 units of electricity per year. After installation of the system, we are able to reduce our electricity bill up to 80%. We are only paying demand charges now.

2 PROJECT SUMMARY

Solar System Capacity	100 kW
Roof Area Covered	1000 Sq. m.
Project Cost (Complete EPC)	42,00,000 Rs.
Annual Solar Energy Generated	1,45,000 Units/Year
Saving	8,70,000 Rs. /Year
Payback Period	5 Years

3 GENERATION & SAVING

Month	System Output(kWh)	Savings (INR)	Emission Reduction (tCO ₂)
January	12462	74769	11
February	12086	72516	11
March	14182	85089	13
April	13571	81424	12
May	13514	81083	12
June	11125	66752	10
July	10795	64769	10
August	10564	63384	10
September	11156	66934	10
October	12859	77153	12
November	11192	67152	10
December	11868	71208	11
Total	145372	872234	131



4 MANAGEMENT SPEAK

Sologix Energy has done excellent work. They have completed the project on time and provided outstanding Operation & Maintenance service, and we are getting excellent output. The plant is performing well, and we are thrilled with our solar system.

Our plant is generating approximately 12,000 units of green energy per month and we are saving 72,000 Rs. /Month. Apart from saving on electricity bills, we are contributing to the environment and our students becoming aware of renewable energy and climate change.

In my opinion, every school should go for solar installation. This saves money and creates awareness among our students about climate change, global warming, and how solar PV system can help mitigate extreme climatic disasters.