

40kW Rooftop Solar System  
At  
Ranchi Gymkhana Club, Ranchi, Jharkhand



## 1 PROJECT BACKGROUND

Ranchi Gymkhana Club situated on a 5km stretch of greeny environment in the heart of Jharkhand - Ranchi. It is 10 minutes from Ranchi Birsa Munda Airport and 3 minutes from Ranchi Railway Station. For the citizens of Ranchi, Ranchi Gymkhana Club was set up in 1988, with the generous help of Usha Martin Group of Industries.

Observing ever growing electricity tariff/bill and increasing climate concerns, the club 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, management agreed to install a 40 kW on-grid rooftop solar system to reduce the electricity bill and contributing to climate.

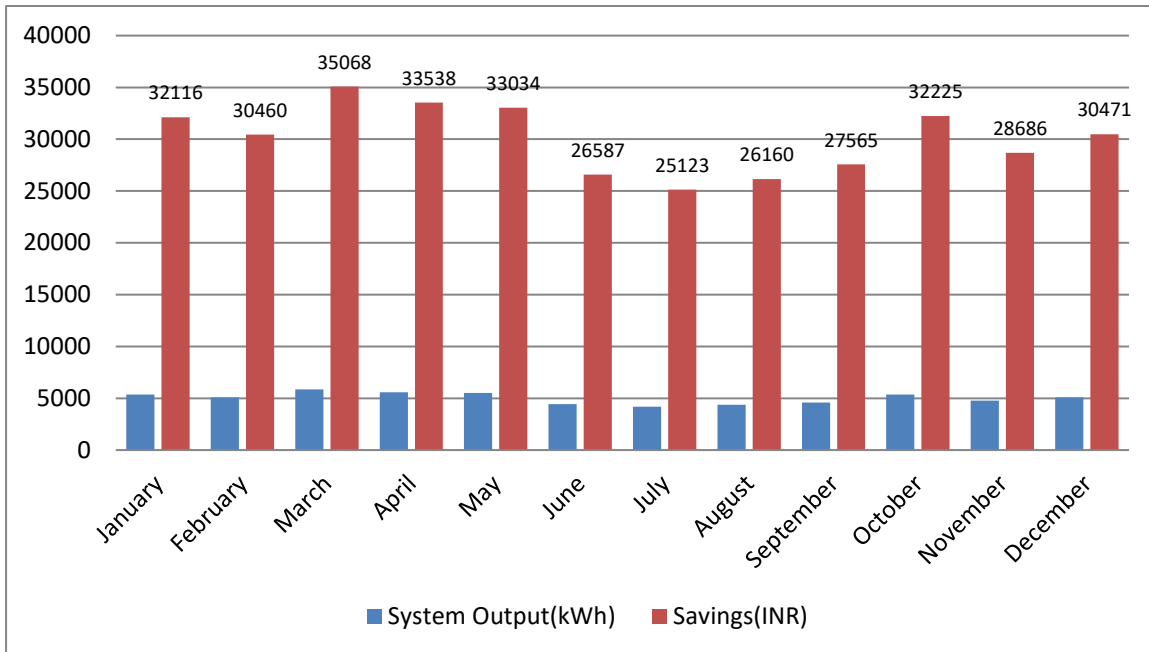
This project consists of 120 number Vikram make solar modules and two ABB make grid-connected inverters. The entire 40 kW system is connected to the JBVNL grid under a net-metering arrangement. The project is to generating approx. 60,000 units of electricity per year. After installation of the system, we are able to reduce our electricity bill up to 70%.

## 2 PROJECT SUMMARY

Solar System Capacity	40 kW
Roof Area Covered	400 Sq. m.
Project Cost (Complete EPC)	16,80,000 Rs.
Annual Solar Energy Generated	60,000 Units/Year
Saving	3,60,000 Rs. /Year
Payback Period	5 Years

## 3 GENERATION & SAVING

Month	System Output(kWh)	Savings (INR)	Emission Reduction (tCo <sub>2</sub> )
January	5353	32116	5
February	5077	30460	4.6
March	5845	35068	5.3
April	5590	33538	5.0
May	5506	33034	5.0
June	4431	26587	4.0
July	4187	25123	3.8
August	4360	26160	3.9
September	4594	27565	4.1
October	5371	32225	4.8
November	4781	28686	4.3
December	5078	30471	4.6
<b>Total</b>	<b>60172</b>	<b>361033</b>	<b>54.2</b>



#### 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 5,000 units of green energy per month and we are saving 30,000 Rs. /Month. Apart from saving on electricity bills, we are contributing to the environment and our society becoming aware of renewable energy and climate change.

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



Chief Administrator – Ranchi Gymkhana Club