CASE STUDY

FACTS AT A GLANCE

PROJECT CAPACITY

5 MW

PROJECT LOCATION

Solarizing 13 Sites
Across Six States in India

Punjab – 5 Outlets
Uttar Pradesh – 3 Outlets
Madhya Pradesh – 2 Outlets
One Outlet each in
Andhra Pradesh,
Chhattisgarh and Rajasthan

TYPE OF PLANT

Rooftop Solar Plants
Spread over Cumulative Area
of 45300 Sq. Meters

TECHNICAL DETAILS

Pv Modules: 12000 nos. of Trina 315 Wp PV Modules
Inverters: 52 nos. of SMA STP 60 Inverters

CUMULATIVE ANNUAL GENERATION

52,00,000 kWh

AVOIDED CO_2 EMISSIONS OVER THE SYSTEM'S LIFETIME

25,80,000 Metric Tonnes

OVERVIEW

Amplus Solar has partnered with Walmart India Private Ltd to solarize 13 Best Price outlets across six states in India. Walmart India, is a wholly owned subsidiary of Walmart Stores Inc., which is the American multi-national retailing corporation that operates a chain of hypermarkets, department stores and grocery outlets, following in the footsteps of its global counterpart whose aim is to go '100% Renewable' in the next coming years.

As a part of this initiative, Amplus is providing solar power to the Walmart's facilities under a long-term Power Purchase Agreement (PPA), that has pledged to meet 50% of its energy needs through renewables.

The 1st Walmart outlet got commissioned in Agra on 17th October, 2016 and latest one got commissioned in Raipur on 21st April, 2017. All the plants at the 13 sites have been commissioned and have been running successfully.

UNIQUE FACETS OF THE PROJECT

Walmart can be considered as a milestone project for many reasons such as:

- This project is the composition of 13 independent promising projects across six states.
- The Diesel generator (DG) synchronization was implemented by the Amplus for the first time to circumvent the diverse complications of the grid synchronization.
- The first net-metered plant for Discom (DVVNL) in UP is for Walmart installed by Amplus.

Challenges en route and their mitigation:

Although all 13 projects are homologous, different regulations in different states resulted in numerous regulatory challenges and hardships. This was further overcome by deployment of a dedicated team for policy and regulatory affairs and through their many substantial efforts.

This effort included consistent negotiating with the corresponding state DISCOM's to implement net metering for the rooftop plants. It was challenging for the team to elucidate all the practical benefits associated with NEM policy and implement it. With implementation taking around 3-4 months for each outlet, the team was able to translate the policy into practice in 11 stores out of 13 which is considered a remarkable achievement.

BENEFITS OF THE SOLUTION IMPLEMENTED

The key benefits derived out of the solar plant installed are:

- The expected solar power generation is 52,00,000 units (kWh) annually.
- Total savings of INR 839 million for the client over the plant's lifetime which is approximately equivalent to 46% of the variable grid cost of electricity.
- The cumulative reduction in CO_2 emissions for 13 plants cumulatively is approximately 1,72,500 Metric Tonnes.

(Figures above are Environmental Savings calculated for the installed capacity over the lifetime of the plant.)

"By answering all the challenges, Amplus has become trailblazer in enacting Net metering policy for rooftop plants. Furthermore, Amplus is the first to enforce Net metering in Uttar Pradesh state. The entire team working on this project was able to deliver high quality work well in time."

Hemant Makode
Project Manager