

SOLAR POWER PLANT

As a part of our Commitment towards Sustainable Energy and Energy Conservation Activities Sreepathy Engineering college takes initiatives to set up **30KW Grid- Tied Solar Plant** on the Roof top. This Plant serves approximately half the energy requirements of our college. Non working days energy is exported to grid. The present average annual power generation is around **0.43 lakh units** considerably. As per the NASA Data Access Viewer Climatology with the present minimum insolation of SIMAT college area is **4.5 kWh/m²/day**. GSM Based Energy tracking System is installed to Track, Monitor and Evaluate the Performance of Solar Plant.

1.5 KW off Grid Solar plant is used for Street lighting Purpose in our campus. It light up the campus in night time with 10 numbers of 50W LED Lights.

DETAILS OF GRID-TIED SOLAR SYSTEM

CAPACITY – 30KWp Solar Photo Voltaic Module

Make - Vikram Solar

Number of Panels – 95 Each Rated 320Wp

Open Circuit Voltage – 46 V

Short Circuit current – 9.03A

Rated Voltage & Current – 37.7V, 8.50A

Fill Factor = 77.74

Efficiency = 16.67%

Approximate Power Generation/Day – 120 Units

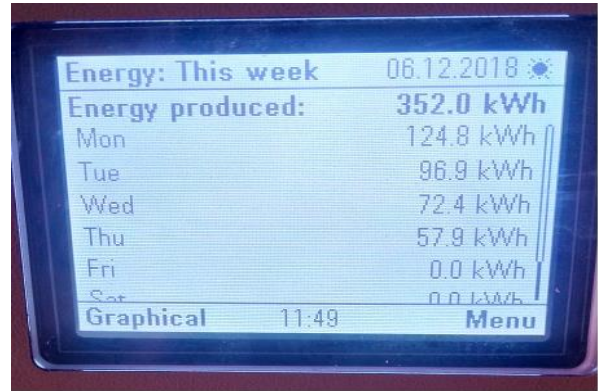
Solar Inverter – 30KW – ABB with Distribution Board.



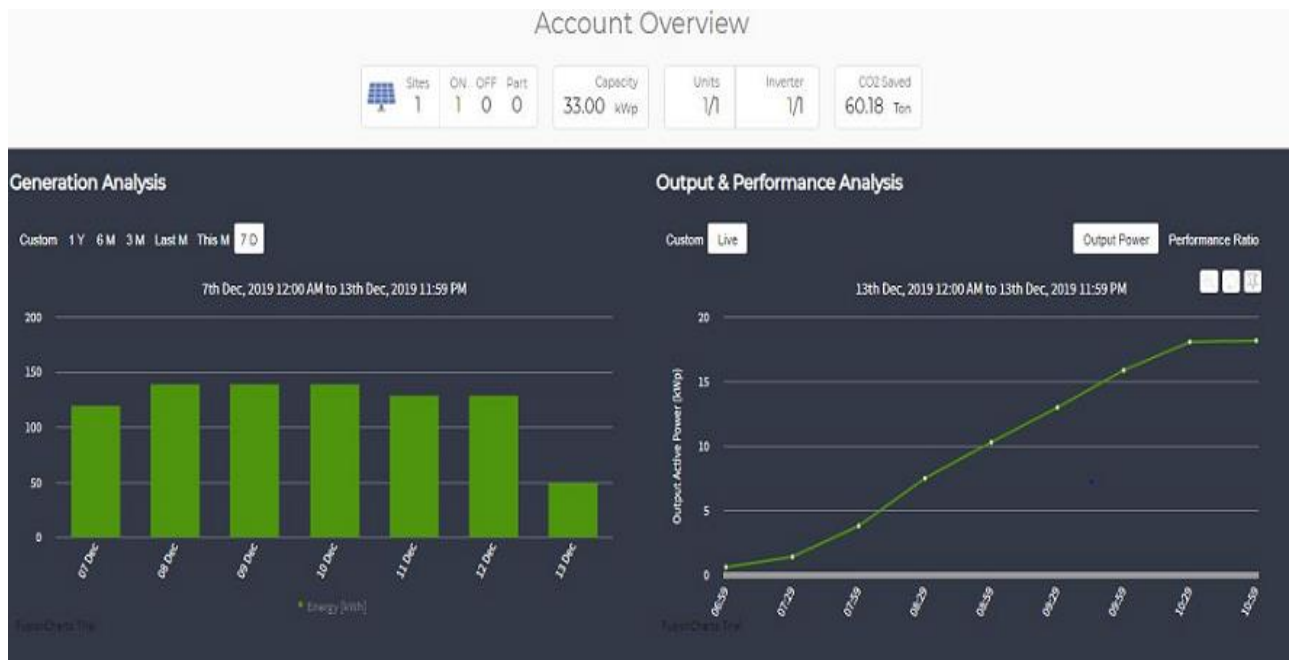
30KW SOLAR POWER PLANT



GRID TIED INVERTER & AC DISTRIBUTION BORD



ENERGY DATA



REMOTE MONITORING OF SOLAR SYSTEM