

Saboo Sodium Chloro Limited sets up a 400 kWp in- house Grid –Tied Solar Power Plant

Saboo Sodium Chloro Limited has set up a fully-integrated 400 kWp in- house Grid –Tied Solar Power Plant at its factory located at Nawa city, Nagaur (Raj.), under captive power reverse net metering scheme of Government of Rajasthan. This will result in saving of approx. Rs. 75 Lakhs per annum for the company. This Solar plant will meet upto 80% of energy requirement of the company and with this, Saboo Sodium Chloro Limited becomes the first salt refinery in India to use Solar energy for their 80% of energy consumption.

Brief Description of the Solar Plant: The technology used for installing this 400 kWp in- house Grid –Tied Solar Power Plant includes string inverter technology with poly-crystalline silicone solar modules.

Solar Modules is the most important component of the Solar Power Plant. 1334 numbers of 400 Wp solar modules have been used in this solar power plant. Entire plant is commissioned by a well renowned manufacturer of Solar Panels and EPC Company, SolarMaxx. Solarmaxx is a leading Solar Energy Solutions provider.

Inverter being second most important component allows power to the grid. String Inverters operate on MPPT to ensure maximum power from solar modules at different ambient conditions. World class ABB make solar string inverters are used here, to convert DC power to AC.

Modules are mounted on non-corrosive mounting structures. The frames and legs of the structure are made of hot-dip galvanized iron to maintain longevity of the plant and to withstand high wind velocity generally experienced in this area.

Benefits:

- 1. Supporting peak hour demand:** The strong backup of power ensures increased manufacturing productivity during peak hours which translates to higher profits.
- 2. Reduced dependence on diesel backup:** Solar power can reduce the dependence on the diesel power; if not completely eliminate the need for it. Solar power comes at a levelized cost of around a quarter of diesel power. Hence it makes more sense to depend on solar power, subjected to the time of usage.
- 3. Minimal maintenance:** Solar power plants have no moving parts. This results in minimal need to maintain it. Another advantage is that its noise-free .A noise-free power generation unit could be welcome in an otherwise noisy scenario of a factory.

4. Energy Security: Rooftop Solar PV plants will support selected loads or all the connected loads during a load shedding occasion, if it happens during the daytime. Solar PV plants are able to support factories at night with battery storage solutions, subject to a higher system cost.

5. For charging batteries for specific purposes

Result: The plant is expected to yield electricity for 25 years and will generate around 1300 to 1500 units per day and 4.5 to 5 lakh units per annum in the first year of operation depending on weather conditions.
