

MURUGAN TEXTILES- THE FIRST POWER LOOM PRODUCER TO USE 100% RENEWABLE ENERGY

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RENEW CASE STUDY

MURUGAN TEXTILES – The first power loom producer to use 100% renewable energy

Installs the largest rooftop solar plant in South India - with a projected savings of INR 11 Crores in 25 years

REQUIREMENTS

Murugan Textiles, the largest power looms producer in India, wanted to lead the way in embracing green energy by implementing a solar system to power their open-end spinning machines installed at their mills in Palladam, Tamil Nadu.

The power loom industry is electricity-intensive and requires power 24x7. Open-end spinning machines are more power intensive than conventional machines needing continuous power:

"Our engagement with Tata Power Solar has been very satisfactory. The team treated this project as if it was their own and did everything to get it executed on time. We are extremely satisfied with Tata Power Solar and their commitment. We want to embrace clean energy and set a benchmark for green energy standards within our industry. We already have our next phase of expansion in place and look forward to working with Tata Power Solar on our future projects as well."

Mr. Murugesan, Managing Director, Murugan Textiles



SOLUTION

Murugan Textiles has invested in a hybrid model of renewable energy consumption, using both solar and wind energy. While there is no grid power shortage, the grid electricity is used only as a back up to renewable energy when required.

The Tata Power Solar team provided a detailed engineering design and customised solution, which focussed on efficiently optimizing resources. The structures were custom designed, to withstand high winds in the region, without creating any impact on the existing building

Benefits

- Projected Cost Savings of INR 11 Crores in 25 years
- Estimated Energy Generation: 3 million (PA)
- CO₂ displacement: 2567 tonnes (PA)
- 10 acres of land space saved
- Accelerated depreciation
- Low break-even period of 6 years
- Fixed energy cost for 25 years.

and rooftop. The rooftop design saved nearly 10 acres of land space, which would have been required for a standard project of this capacity. A dedicated SCADA system has been implemented by Tata Power Solar to monitor the

Specifications

- System Size: 2000 kWp
- Roof Area: 18850 sq m
- Solar Power Plant Setup: 700kW on 1 rooftop; 650 kW each on 2 rooftops
- Modules: Crystalline; 245 Wp & 250 Wp
- Inverter: 30 kW; 57 nos.

plant on a real-time basis.

This is the largest rooftop solar plant installed in the power loom industry, till date, with a 2 MW of installed capacity.

BENEFITS

One of the pioneers in installing green energy to run their complete manufacturing setup, Murugan Textiles now runs nearly 100 per cent of its machinery on renewable energy; 25 per cent of their electricity requirement is met through solar energy and the rest through wind energy.

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