CASE STUDY – C&I

TRIVITRON HEALTHCARE

CUSTOMER BACKGROUND

Trivitron HealthCare is a global medical technology company providing innovative healthcare solutions. As a part of its corporate ESG initiatives, the company wanted to reduce its carbon footprint and transition toward renewable energy for its manufacturing operations. High energy consumption at its production facilities resulted in significant electricity costs, prompting the search for a sustainable, cost-effective power solution.

PROJECT SCOPE

The project entailed the installation of rooftop solar power plants across three of Trivitron's key factory locations. The facilities house critical manufacturing processes that demand a consistent and reliable power supply, and the organization was incurring high electricity bills on its premises.

Trivitron HealthCare partnered with Greenlance Energy, adopting the OPEX model (Operational Expenditure) to transition to renewable energy without any capital investment.

- **Proposal:** 332.17 KWp Rooftop Solar Project.
- **Location & Capacity:**
    - 104.43 KWp at Unit 1, TTC MIDC Shirvane, Navi Mumbai
    - 115.64 KWp at Unit 2, TTC MIDC Shirvane, Navi Mumbai
    - 112.1 KWp at Unit 3, MIDC Industrial Area, Khalapur, Raigarh
- **Time frame:** 6 Months (Multi-site design, procurement, and commissioning).
- **Material Source:** The project utilizes high-efficiency 585 Wp Bi-Facial Topcon Panels, designed to maximize energy generation by capturing sunlight from both sides of the panel
- **Performance Guarantee:** A guarantee of 90% of estimated generation has been guaranteed to our client, ensuring a consistent amount of energy for the client.
- **Warranty:** 5 years for the whole project. 25 years of Linear Warranty on the Solar Panels.

EXECUTION

The Grid Connected Rooftop Solar Plants allows Trivitron to consume solar power directly at its facilities, leading to immediate savings on grid electricity consumption.

- **System Capacity:** A cumulative 332.17 KWp across three sites.
- **Energy Generation:** The plants are projected to generate approximately 4,54,000 solar electricity units (kWh) annually.
- **Monitoring:** State-of-the-art monitoring via the Greenlance Energy NOC (Network Operations Center) for optimum Energy Asset Management.

CHALLENGE & SOLUTION

A key technical requirement was the seamless integration of the solar plant with the existing Diesel Generator (DG) sets. To achieve this, a specialized Power Manager was installed to intelligently sync the photovoltaic system with the DG backup. This solution ensures maximum solar energy is consumed on-site while maintaining the stability and reliability of the client's critical backup power systems in cases of emergencies such as grid downtimes.

BENEFITS

- By adopting the OPEX model, Trivitron cuts its per-unit (kWh) electricity cost significantly compared to the industrial grid tariff.
- The system will generate over 1,250 solar electricity units (KWh) daily on average, reducing dependence on conventional power.
- The implementation will reduce the company's carbon footprint by an estimated **437 tonnes** annually, which is equivalent to planting over **5,100 trees**.
- Used idle factory rooftop space to transition to renewable energy.
- By taking a step towards a renewable source of energy, Trivitron sets an example and will lead other corporates to choose sustainable practices in the long run.