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Sustainable Energy. Anywhere.

Commercial-scale solar solutions.
Anytime. Anywhere.

Case Study

SOEX Processing ME , Hamriyah Free Zone, UAE

Solar-Diesel-Battery Hybrid System

300 kWp
Rooftop Solar

589 tons/year
CO_2 saved

60,000 USD/year
Saved on energy cost

Project Highlights

- Solar-Diesel-Battery Hybrid System
- Complex industrial loads
- Record breaking plant efficiency
- 60+% Solar share

Project Details

Industry	Textile Recycling
Plant type	Solar-Battery-Diesel hybrid
Capacity	1 MVA of DG 300 kWp Solar 100 kW/190 kWh Storage
Location	Sharjah, UAE
Deployed	June 2019

SOEX

Project Description

SOEX is a German multinational company that recycles textiles for major clothing brands globally. Their operations in the United Arab Emirates consist of a plant with around 350 employees in Hamriyah Free Zone, Sharjah. This facility primarily sorts used articles of clothing and readies them for transport to processing plants abroad where they are repurposed as high quality secondary raw material. SOEX's facility in Hamriyah Free Zone is currently working towards a grid connection; however, it found itself relying on costly diesel generators temporarily which has meant an OPEX and carbon footprint that is significantly higher than they had anticipated.

Enerwhere came to the rescue with a detailed analysis of SOEX's evolving loads as early as plant commissioning. Based on the data retrieved using Enerwhere's monitoring platform, Enerwhere proposed a solar-hybrid system on a Power Purchase Agreement (PPA) involving zero capital investment on SOEX's part. In 2019, Enerwhere deployed close to 300 kWp of roof-top solar synchronized with SOEX's 1,000 kVA of diesel generator capacity. This resulted in a 30% reduction in diesel consumption over the last quarter of 2019. In 2020, Enerwhere has added a Tesla Powerpack to help better manage peaky loads, improve power quality and use solar energy at night. By adding energy storage, Enerwhere has successfully cut diesel consumption by a further 15-20%.

The significant decrease in diesel consumption has been made possible using Enerwhere's unique energy management software that allocates generation between resources. Enerwhere has achieved record plant efficiencies on this system and successfully reached up to 60% solar energy share, a benchmark for hybrid plants around the world.

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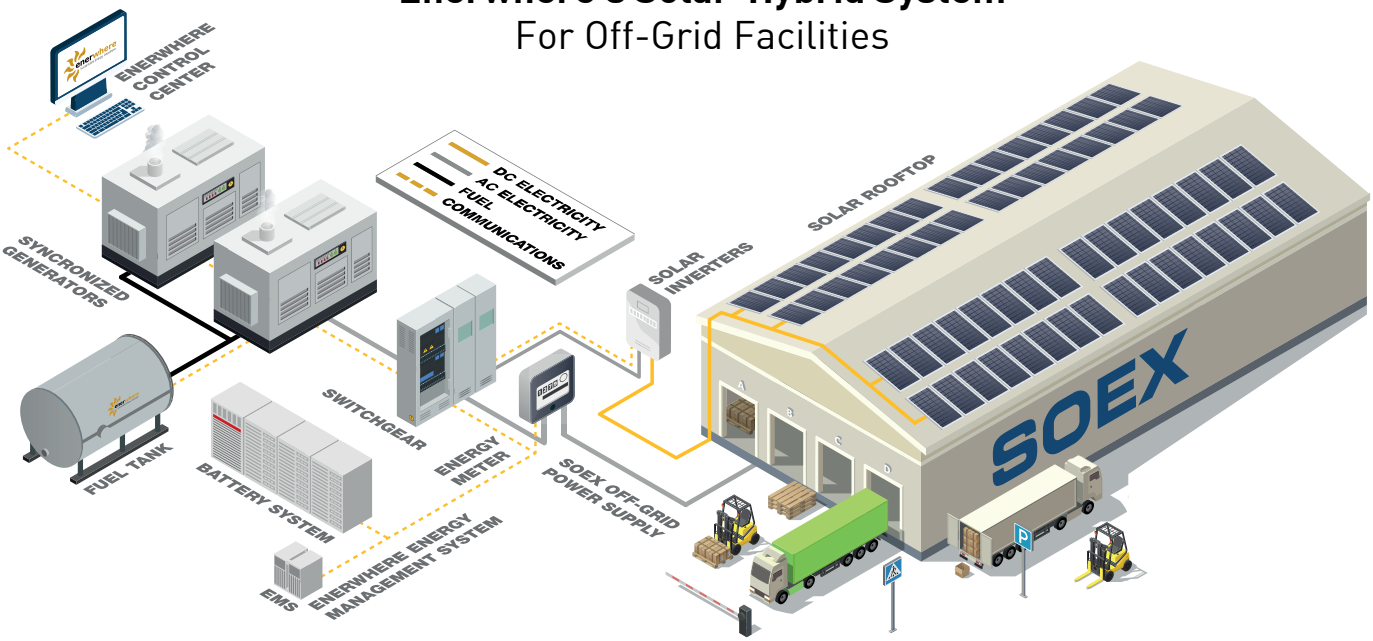
System Diagram

SOEX Processing ME , Hamriyah Free Zone, UAE

Solar-Diesel-Battery Hybrid System

Enerwhere's Solar-Hybrid System

For Off-Grid Facilities



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