



Case Study

Dubai UpTown Construction, JLT, Dubai

Solar-Diesel Hybrid System MV Micro-Grid with Solar Car Park



220 MWh/year
Solar production



1,362 tons/year
CO₂ saved



210,000 AED/year
Saved on energy cost

Project Highlights

- Solar-Diesel Hybrid Micro-grid
- Solar Car Park Structure

Project Details

Industry	Construction
Plant type	Solar-Diesel Hybrid
Capacity	1.7 MVA of DG 542 kWp Solar
Location	JLT Dubai
Deployed	March 2019

Project Description

Six Construct, the middle east subsidiary of Belgian construction giant BESIX known for bringing to life iconic landmark projects such as Ferrari World Abu Dhabi, Warner Brothers Theme Park, Burj Khalifa and many more, was awarded the contract for building the Uptown Tower in the Uptown Dubai district planned by Dubai Multi Commodities Centre (DMCC). The tower will stand at 340 meters tall and will be host to an exclusive mix of international Grade A offices, 5-star hotel and associated branded residences. To power their construction activities, Six Construct, like most other contractors in the Middle East, used to rely solely on diesel generators, which are noisy, very expensive to operate and emit harmful emissions.

To provide cost and emissions savings, Enerwhere using its experience and familiarity with loads in the construction industry introduced power management and renewable energy into their power generation mix. The site is now powered by Enerwhere's solar-diesel-hybrid microgrid, comprising of 500 kWp of solar panels and relies on technology, engineering, and data analysis to deliver clean, renewable and reliable power to site. The system fully powers the site offices, site utilities and even power-heavy applications such as tower cranes, man hoists and pumps via a centralized medium voltage network.

To integrate the solar power into the microgrid, Enerwhere utilizes its proprietary state-of-the-art power management and control system, which provides real-time monitoring of site power requirements and optimizes the solar penetration by controlling the generators, the solar system and the loads. The system has reduced CO₂ emissions by over 300 tonnes while providing BESIX cost savings of over AED 200,000 since its commissioning in March 2019.



System Diagram

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Enerwhere's Solar-Hybrid System For Off-Grid Facilities

