

WOODWARD EASYGEN HYBRID SOLAR DIESEL POWER MANAGEMENT SOLUTION

GOLTENS HELPS SMALL ISLAND MOVE FROM 100% DIESEL POWER TO SOLAR DIESEL COMBO

The feasibility, efficiency and availability of solar panels worldwide make the transition to renewable sources easy and cost efficient. To reduce fuel consumption and CO₂ output, a small self-powered island, which met its power requirements by running Diesel Generators, installed two solar systems to capitalize on the abundant solar energy available in the UAE.

The solar inverters installed are intended to be run as the primary source of power in conjunction with the diesel generators which back up the solar power to fulfill additional demand.

The client required a power management to control the solar inverter and diesel generators in a way that solar usage is always maximized while minimizing diesel generator usage. In addition, as the application is on an island, the client required the ability to monitor the system parameters remotely.

PROPOSED SOLUTION

Goltens proposed Woodward's easYgen 3000XT series as a perfect fit for this application noting that it could satisfy all the client's requirement without any complications with smart features such as photovoltaic load regulation mode, load dependent start stop and advanced power management algorithms. Goltens also added Netbiter, a customizable monitoring solution, to enable the client to monitor the system remotely.

RESULT

Goltens' highly skilled team successfully completed the integration between the solar inverter and diesel generators and commissioned the system. The Island now maximizes the use of solar for their power requirements and is supported by the diesel generators for additional load requirements. Lastly, the installed Netbiter platform enables the client to remotely monitor, record and visualize various aspects of their system in real time from anywhere in the world.

Goltens commends the client for undertaking these efforts to reduce emissions and set an example for others to learn from and follow.

PROJECT FACTS: POWER MANAGEMENT

Application:	Captive Hybrid Power Plant
Solar Panel KW/Panel:	60KW / unit
Diesel Generator KW:	400KW / unit
Location:	Dubai, United Arab Emirates

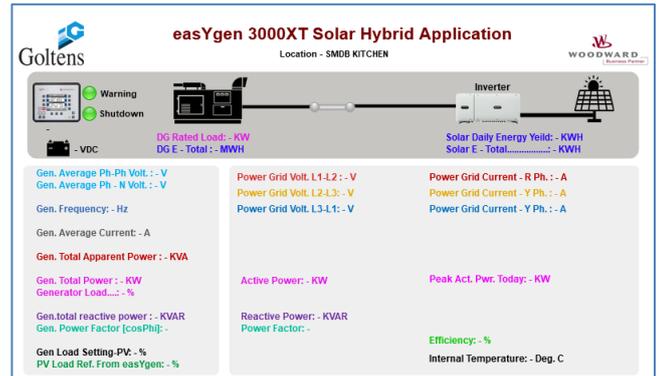


Figure 1: Remote Monitoring – System Status

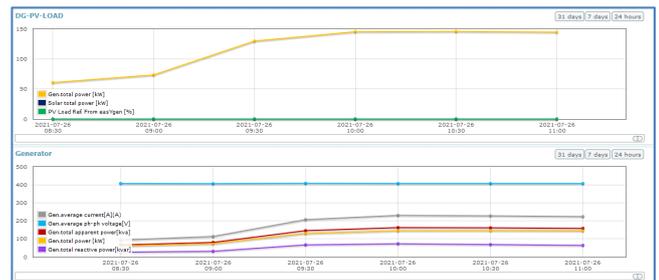


Figure 2: Remote Monitoring – Solar and Diesel Power Graphs



Figure 3: Configuration of Woodward easYgen controllers