OPTIMAL POWER SOLUTIONS

Medjumbe Island, Mozambique

for

Anantara Holiday Resort

Customer Need:

The owners of this stunning island resort wished to implement low-carbon energy generation in an eco-conscious move to reduce diesel-fuel usage and protect the natural environment.

Reducing diesel fuel use and associated air and noise pollution was a high priority to showcase the island as a prime destination for international holiday-makers.

Challenge:

Remote islands are logistically difficult project sites yet they provide excellent opportunities for solar power due to high diesel cost and transportation issues. The challenge was to provide a high penetration solar system able to run for extended periods without the use of noisy and polluting diesel fuel generators.

Benefits:

Following the commissioning of the renewable power plant in early 2016, the island resort has been provided with utility grade, 24 hour renewables-based power. The power plant features include fully automatic operation, dispatch optimization, and seamless switchover between power sources. Remote support services continually monitor and optimize the power plant over the internet.

Off-grid Power

The term off-grid refers to locations that lack connections to large, centralized electricity networks. Renewables-based power plants are clean and economical solutions for off-grid locations.

OPS Hybrid and mini-grid systems can provide users with high quality power without incurring the high costs associated with transporting, storing, and burning fossil fuels.

Reliable, cost-effective renewable energy for island resorts

Harnessing solar power and energy storage through OPS hybrid power technologies

Technical Details:

System Topology:	Solar Hybrid with OPS Parallel Inverter System (PIM)
System Generation Capacity:	400 kW peak
Solar Total Power:	275 kWp
Solar Module Type:	Mono c-Si
Backup Diesel:	1 x 220 kVA

Inverter Technology:	Parallel Power Inverters (PIM) with external high-power MPPT
Inverter Capacity:	2x PIM-100 (200kVA)
System Control & Monitoring:	Prescient U-10 Microgrid Control Platform
Energy Storage:	VRLA Gel Type
Storage Capacity:	720 kWh, 2000 Ah