



Energy Sustainable Guardrooms - Abu Dhabi, UAE



Conergy's first government project in the Middle East, commissioned by the Environment Agency Abu Dhabi (EAD) has been successfully realised together with an experienced local partner, EnviTech Middle East LLC. The turnkey project involved the supply of components, design and implementation of fully integrated renewable energy solutions to power 55 guardrooms situated along the main roads of Abu Dhabi (Hameem Road, Bidaa Zayed and roads in the Eastern region).



These standalone guardrooms are essentially cargo containers inhabited by the EAD desert rangers who are responsible for the safeguarding of natural reserve spots, forests and farms from unauthorised personnel.

With Conergy's solution, each guardroom was transformed into a self-sustainable unit equipped with a complete hybrid system utilising solar PV, solar thermal, wind energy and a diesel generator as back up. The system generates sufficient clean energy to provide for the daily power needs of the rangers. With smart design and planning, the limited installation space within each guardroom was perfectly utilised to maximise energy output and efficiency of the system. This tailored solution contributed to cost and space savings as the system was built around the specific needs, location and existing structure of the guard rooms.

Data	
Date	January 2009
Location	Emirate of Abu Dhabi
Type of System	PV-Wind Hybrid
Installed Capacity	87 kWp (PV only)
Type of Module	170 Wp
Load	1.2 kW
Battery Bank	2 V, 100 Ah
Autonomy	1 day