CASE STUDY

SOLAR STREET LIGHTING

FUJAIRAH, UNITED ARAB EMIRATES

“THIS IS ONE OF THE MOST IMPORTANT PROJECTS BY THE MINISTRY OF PUBLIC WORKS AND IS THE FIRST OF ITS KIND WHERE SOLAR ENERGY WAS USED FOR STREET LIGHTING.”

MOHAMMAD HASHIQUE ➔ HYDROTURF ENERGY

LOCATION ➔ CHALLENGE ➔ SOLUTION ➔ OUTCOME

Wadi Sidr, Fujairah Province, United Arab Emirates (UAE)
To light treacherous mountain roads in a remote, off-grid region.
Solar street lighting with Trojan deep-cycle VRLA batteries.
Improved safety conditions and provided area lighting to 800 homes.

808 BATTERIES
11.5 KM OF LIGHTED ROADWAY
AREA LIGHTING FOR 800+ HOMES
LOCATION

Rocky, mountainous Wadi Sidr is one of the most remote areas in the Fujairah province of the UAE, and its terrain has prevented high-capacity electric lines from reaching the region.

CHALLENGE

Driving on the mountain roads at night with no lights can be difficult and dangerous, and at the start of this project, street lighting was not available since the electric grid did not extend to the area.

SOLUTION

Hydroturf International LLC and Incon designed and installed 404 stand-alone, photovoltaic, pole-mounted street lights. Each light consisted of one 245W polycrystalline photovoltaic module, one 160W LED light, a charge controller, and two Trojan deep-cycle 8D VRLA batteries. Trojan batteries were chosen for this project because of their high quality and durability. Trojan deep-cycle VRLA batteries are also maintenance-free and deliver superior energy and long battery life in demanding renewable energy applications.

SYSTEM SPECIFICATIONS

- Batteries: (808) Trojan deep-cycle 8D VRLA batteries
- Solar Modules: (404) 245W Incon solar modules
- Lights: (404) 160W Incon lights
- Charge Controllers: (404) Phocos charge controllers
- Mounting: (404) light poles
- Monitoring System: OEC monitoring system

OUTCOME

The installation improved visibility at night and dramatically improved the safety conditions on the roads. It also brought area lighting to more than 800 homes situated along the road with significant cost-savings compared to the high cost of conventional electricity.

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Trojan batteries are available worldwide and backed by outstanding technical support provided by full-time application engineers.

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