Case study

Water pumping system in Morocco

Morocco

The challenge

In 2016, students from CIFP Don Bosco in Spain were participating in the "Panda-Raid" car ralley, from Madrid, Spain to Essaouira, Morocco. Along the road they came in contact with a nursery school in the Errachidia valley and they observed the difficulties that the people had extracting water from the subsoil through the wells. A relationship was established and back in Madrid, the students were challenged to design a water pump system powered by solar energy to help extract the water easier.

Elektra

Why STUDER

STUDER products were chosen as they operate even at extremely warm temperatures without losing efficiency.
STUDER is a recognised brand whose products are durable, resilient and able to withstand important peak starting loads, necessary for the smooth running of the KSB water pump in this installation.

System components

The system contains the following components:
8 x 50W solar panels
2 x 6V batteries
1 x STUDER AJ inverter AJ2100-12
1 x PRS 30 Ah solar controller
1 x KSB ITUR water-extraction pump

The Solution

A photovoltaic installation was set up in order to supply an extraction pump with enough energy to pump water from the well and in addition providing electricity for other potential loads such as lamps and computers.

The two Don Bosco students took advantage of their participation in the Panda-Raid 2017, to set up the photovoltaic installation. The STUDER AJ2100-12 inverter and 30A PRS regulator was generously donated by the ELEKTRA group along with advice for the set-up.

Project outcome

The PV system developed by the CIFP Don Bosco students has provided the nursery school with running water and a source of electricity, creating a most comfortable school environment for both its students and teachers.

The Don Bosco students and teacher who oversaw the installation and start-up on site in Errichidia thought it "magical to see the happy faces of the people approaching the fountain to collect water. The school is still under construction and they hope to have it finished by September. It will be a school built with the hearts and hands of many volunteers".

The Company

ELEKTRA

The ELEKTRA Group is a market leader in the distribution of electrical and electronic equipment, as well as other valuable services. The group has over 30 years of experience and enjoys constant growth, increasing the number of its points of sale and distribution companies year after year. The ELEKTRA Group's technological focus and entrepreneurial character has led them to become a mature company that collaborates with its clients as a technological partner making them more competitive every day.

CIFP DON BOSCO

The Integral Vocational Training Centre Don Bosco seeks to meet the educational needs of the population in its scope of influence, offering a quality education based on human values which guarantees students the acquisition of technical and social skills that facilitate their access to University or the job market.

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