Case Study

EURO-SOLAR Off-Grid project

The Challenge

To improve the living conditions in the rural communities of Latin America's eight most disadvantaged countries through the use of renewable energy. To help the inhabitants to fight against poverty, isolation and marginalisation resulting from their socioeconomic conditions.



EURO-SOLAR

Bolivia: 59 beneficiary communities

El Salvador: 48 beneficiary communities

Ecuador: 91 beneficiary communities

Guatemala: 117 beneficiary communities

Honduras: 68 beneficiary communities

Nicaragua: 42 beneficiary communities

Paraguay: 45 beneficiary communities

Perú: 130 beneficiary communities

The Solution

The EURO-SOLAR Programme helped the communities through the installation of kits that provides electricity, communication facilities in form of computers, an internet connection and a projector and health care devices such as a refrigerator for medicine and a water purifier.

Most of the beneficiary communities (70%) opted for a solar-energy system. The consistent wind in Bolivia and in Peru, led these countries to choose mixed solar-wind systems. 12 Gel batteries store the energy for access to electricity around the clock.
A control panel monitors and manages the electricity storage and directs the power to the facilities.

This project used a participatory approach where the communities has to cover the expenses for the operation and maintenance of the equipment included in the EURO-SOLAR kit. For that reason the system has been designed to be user-friendly and its equipment carefully selected for its robustness, reliability and ease of repair.

Components of System:

- 5m2 of PV panels
- A wind turbine (30% of communities)
- 12x gel batteries
- 1x solar charge regulator
- 1x Inverter STUDER AJ 1300-24
- 1x Inverter STUDER AJ 350-24
- A cinder-block shed to protect the batteries
- A control panel and power supply
- A safety fence for the enclosure

Why Studer

As these systems are installed in remote areas, EURO-SOLAR wanted products of high reliability that were produced in Europe.

Project outcome

At the end of the EURO-SOLAR Programme 600 power-generation kits had been installed providing electricity, based exclusively on renewable energy sources, to over 300 000 people in 600 rural communities in Latin America previously without access to electricity.

The total budget was 36.4 million Euros, co-financed by the European Union (80%) and the national governments of the beneficiary countries (20%).

La Organization

The EURO-SOLAR Programme, was promoted by the European Commission's Directorate-General for Development and Cooperation – EuropeAid, and has been a ground-breaking initiative at international level to promote the use of renewable energy as a driving force for development in rural communities without access to electricity.

For more information:

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