Case study
Project TAMBOS – Peruvian government
Peru

The challenge

In Peru there are many remotely situated villages. To get in closer contact with the population there, the Peruvian government decided to set up 27 local "Tambos". A Tambos is a decentralised government unit equipped with lighting and electricity to provide basic services for the inhabitants in surrounding villages.



Q-Energy Perú

The Tambos are located in eight regions across Peru, mainly in La Sierra and the Amazon. The programme was financed by the Peruvian Ministry of Housing, Construction and Sanitation.

Why STUDER

The regions where these Tambos are installed are either located at high altitudes in the mountains or in conditions of extreme temperature and humidity in the Amazon. STUDER products were chosen for their performance in severe conditions. By guaranteeing the functioning of its equipment under the project's working conditions and extending the product warranty, STUDER provided security to meet the life expectancy set for the project.

The Solution

The 27 Tambos are presently covering 100% of their energy demand with the photovoltaic systems. For emergencies they use a generator for backup.
Each Tambo daily provides services to the inhabitants in these remote villages, reducing the need travel to the main cities to do paperwork and get in contact with the government.
Each system is mounted in an electrical cabinet with its related accessories and electrical protections in accordance with Peruvian regulations.
The status of the equipment in the Tambo's photovoltaic system is remotely controlled over the Internet thanks to STUDER's data transmission accessories.

System components

The system contains the following components:

16 x GREALTEC solar polycrystalline modules GAT150P, 12 Vdc 150 Wp
12 x RITAR OPzV12-180,12 Vdc in a battery bank with 600 Ah and 48 Vdc
1 x STUDER Xtender inverter / charger XTM 4000-48
1 x STUDER VarioTrack MPPT charge controller, VS-70
1 x STUDER RCC-03 remote control
1 x STUDER BTS-01 battery sensor
1 x STUDER Xcom-LAN communication set
1 x STUDER BSP 500 battery status processor

Project outcome

In the time of the Incas, a "Tambo" (Tanpu in the Quechuan language) was an area located next to an important road which was used as a shelter and as a centre for storing food and provisions. Thanks to this project, modern "Tambos" also have lighting and electricity to provide basic services to the inhabitants of the surrounding villages.

The Company

Q-Energy Peru is a Peruvian company that has been developing renewable energy projects, mainly with photovoltaic energy, for over 8 years. "We are proud to say that we have carried out projects in Peru's 24 regions and even at sea with signalling systems for buoys and electricity supply to Guano Islands". Aldo Rosas, Project Manager at Q-Energy.

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