

Remote Telecommunications

System Overview:

- 1.1 kWp SIEMENS solar array
- 2300 Ah Sonnenshein battery reserve
- PV-3 120 A voltage controller
- Custom 56 module ground mount
- Complete system drawings and installation manuals (in Spanish).

Background

In 1999, Hydro Quebec International needed a cost effective means to provide power to their nine microwave repeater sites for their Mantaro-Socabaya Transmission system.

The sites were all located between Mantaro and Arequipa, in Peru each having a 450 W continuous load.

Solution

In conjunction with Captel, Matrix Energy Inc. designed and shipped the complete solar system on time and on budget. All systems continue to function without interruption since their installation.

The extreme remoteness of all but a few sites dictated that the system and its individual components provide maximum reliability and ease of repair in the event of damage. A unique system feature is the voltage regulator which offers redundant, plug-in controllers and mercury relays for failsafe operation and ease of field replacement by non specialized personnel.

