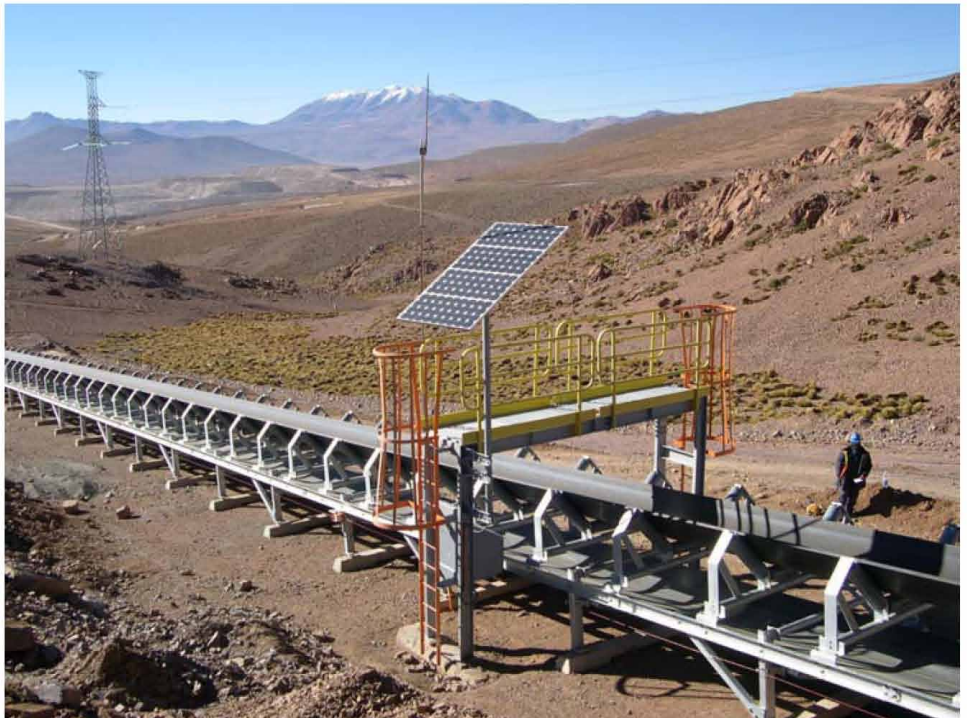


# Remote Telecommunications

## **System Overview:**

- 280 Wp Shell solar array
- 530 Ah, GEL, battery
- 40 A voltage controller with temperature compensation
- Matrix, 4 module top of pole



## **Background**

The project is at the Collahuasi copper mine in Northern Chile installed on an 8 km overland conveyor manufactured and installed by Krupp Canada.

The installation is in a very remot area at 4500 meters above sea level subject to a wide temperature variation of  $-20^{\circ}\text{C}$  to  $+20^{\circ}\text{C}$  as well as being in a high keraunic area. Two metres of snow is quite common in this area as well as severe summer rain and hail storms.

## **Solution**

The conveyor has a monitoring system which requires electrical power to be supplied at the middle of the conveyor, hence the decision was taken to install solar cells and batteries rather than 10,000 feet of electrical cable.

According to ABB Inc. the installation was simple and the total system comprising the solar modules, controller and batteries function satisfactorily.