

Benban Solar Power Park Deployed Hytera Reliable Communications Solution in Egypt

User
Benban Solar Power Park

Market segment
Energy

Project time
2020

Products
Analog Radio TC780
RD985 Repeater
MD785



Introduction >>

Benban Solar Power Park is the largest Solar complex in Africa. Benban project put Egypt on the solar power map, and has triggered a renewable revolution in the region. Hytera developed reliable communications solution for Benban to help them solve the problem of short-range coverage and unstable signals.

Background >>

Benban, located in Aswan desert, has over 37 square kilometers in area. It will generate 1.5 GW in the future, which will be enough to provide renewable energy to more than one million homes.

The Benban project has totally 32 plots, developed by more than 30 companies from 12 countries, including Spain's Acciona, UAE-based Alcazar Energy, Italy's Enerray, France's Total Enren and EDF, China's Chint Solar and Norway's Scatec. The Egypt's Benban solar power park worth \$4 billion, according to The European Bank for Reconstruction and Development (EBRD).

The Challenge >>

Benban solar power park is an important solar project in Egypt, which has gained great attention from public and government. Once finished, it could be the icon of renewable energy in Egypt. However, it was difficult taking a short time to install this large capacity and connect, especially in harsh environment, the middle of the desert. Also it has 37 square kilometers in area, which might be a big challenge to reach full range communication coverage.

What's more, there are transmission towers, power towers, caravans and the concrete construction of buildings in the park, which are the main obstacles may hinder the signals.



The Solution



The Egyptian Electricity Holding company determines specific points for installing the network and gives restrict instructions for Middle East technical team about the location. According to the requirement and local situation, Hytera has developed customized solutions to customers. Hytera provided analog radios TC780, RD985 repeaters and MD785C station for full range coverage of the whole project.

Hytera RD985, a simple, smooth and cost-effective digital super repeater, can suit their needs for large communication coverage, delivering reliable and high-performance services, which can achieve analog-digital auto switch and smooth migration.

The Results

Hytera solution has gained high satisfaction from clients. The project technical committee which consists of director of operations, the Benban solar power security manager, the Environmental health and safety manager, and Eng. Zakaria Abdel Hafiez, the general manager of Middle East for trading company, which is responsible for supplying and installing the two way radios system at Benban site, gave great credit for Hytera communications service.



The coverage of the network all over the whole Benban solar power park, covering around the north and west, has been tested including entry points and exit points. The final technical report of the committee asserts that the coverage quality at the site is 90%.

The Middle East for Trading Technical Team of professional engineers through using Hytera communications solution, do the best in this huge and complex project to achieve full coverage of the signal with result 90% in all open areas and 70% inside the cars throughout 33 plots with an area spans over 9000 acres.



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