AES Solar was established in 2008 as a joint venture between the AES Corporation and Riverstone Holding LLC. It is a global company that develops, finances, constructs and manages utility-scale solar photovoltaic power plants across the world. The company seeks to be a leading developer, owner and operator of utility-scale solar power plants that will be connected to the power grid, in order to supply homes and businesses with clean, renewable energy.

Its Italian subsidiary AES Sole has started the construction of a large-scale park in Pouilles in Italy. With an output of 38.5 MW, the park consists of 3 sites, 573,100 solar panels spread over 100 hectares of land. This park will have a power generation capacity equivalent to the consumption of 18,000 homes, i.e. 50,000 inhabitants (based on 3,300 kWh per year). A park of this type represents an annual saving of 28,000 tonnes of CO2.

In order to gain a quick return on its investment, AES Sole wanted to optimise the construction time (9 months), and has called upon a reliable and competitive player that can offer attractive technical solutions and a suitable operating and maintenance contract.
Solution:
A turnkey contract, including:
- Design and installation of structures, panels and the electrical network between the solar modules and the network, including Xantrex inverters
- Civil engineering, construction and wiring (30 kms of trenches, 8.5 km of fencing)
- Overall project control and coordination of partners and sub-contractors
- On-site commissioning
- Securing of the site
- 2-year operating and maintenance contract, renewable. It includes preventive and curative maintenance operations with a commitment to performance ratio and availability

Electrical network:
- 36 transformation station of 1 100 KVA, equipped with:
  > 71 Xantrex GT540E-IT inverters
  > 35 X 1 100 low loss transformer
  > 1 X 550 low loss transformer
  > 40 SM6-36 switchboards
- 4 grid connection stations of 30 kV
- 426 array boxes
- 1,300 km of solar cables

Monitoring system:
- Supervision and control of equipment
- Support for maintenance and exploitation activities
- Evaluation of availability
- Weather monitoring
- Increased reliability
- Centralisation of information
- Creation of graphics and reports
- Data storage
- Management of remote and multiple access

The security system:
- An infrared intrusion detection system
- A video-surveillance (access control, cameras, lighting)
- A monitoring station

OTHER REFERENCES
- Ground-based arrays
  - Spain - Almería (7,76 MW)
  - Germany - Rote Jahne (6 MW)
  - France - Vinon Sur Verdon (4,2 MW)
  - France - Les Mées 1 - La Mouisse (12 MW)
  - France - Le Gabardan (20 MW)
  - France - St Clar (8,9 MW)
  - France - Les Mées 2 (12 MW)
- Buildings
  - Spain - Saragossa (10 MW)
  - Spain - Vilaicañas - Toledo (2,5 MW)
  - Spain - Molina De Segura - Murcia (300 KW)
  - Reunion & Mayotte Islands - 7 Casino stores (16 MW)