Les Mées - La Mouisse - France
12 MW Photovoltaic Power Plant

Solairedirect, a leading player in the photovoltaic market is expanding its business with the construction of a new photovoltaic power plant at the Mées in the Alps of Haute Provence.

With 12 MW power, the power plant comprises 55,000 solar panels (220 watt peak) spread across 24 hectares of land. Through a study specifying environmental requirements to be observed, this project conforms to an energy and ecology policy.

The installation blends harmoniously into the landscape, contains no permanent structures and panels are fully recyclable.

Solairedirect, entrusted Schneider Electric with the dependability studies and the lightning risk analysis to make the electrical equipment as safe and reliable as possible, followed on by the supply and installation of the complete energy conversion and distribution system.

Future production of this power plant, which will supply the public network, will be equivalent to the annual power consumption of 12,000 people.
Solution and services
Supply and installation of a complete system involving the conversion and distribution of photovoltaic electricity, including:
- Electrical protection studies and adjustments
- Dependability studies
- Lightning risk analysis
- Studies, supply and installation of the electrical system between the solar modules and the EDF power grid including Xantrex inverters
- Overall project control and coordination of partners and sub-contractors
- On-site commissioning
- 20-years operating and maintenance contract

Electrical network:
- 12 transformation stations of 1 MVA each, equipped with: 2 GT500 Xantrex inverters, medium voltage cubicle
- 1 EDF grid connection station
- Direct current cables
- 96 array boxes
- Installation and commissioning of the complete electrical system

Monitoring system:
- A current measurement on each input of the array boxes
- A voltage measurement in each array box
- A data logger in each transformation station
- A global data logger in the grid connection station
- Local and remote monitoring system

OTHER REFERENCES
- Ground-based arrays
  - Spain - Badajoz - Almendralillo (4 MW)
  - Spain - Almeria (7.76 MW)
  - Germany - Rote Jahne (6 MW)
  - France - Vinon Sur Verdon (4.2 MW)
  - France - Gabardan (20MW)
- Buildings
  - Spain - Saragossa (10 MW)
  - Spain - Villacafias - Toledo (2.5 MW)
  - Spain - Molina De Segura - Murcia (300 KW)
  - Reunion Island - Casino - St André (840 KW)