Saint-Hilaire-Du-Rosier (France)
6 MWp Photovoltaic Power Plant

PROJECT AT A GLANCE
Saint-Hilaire-du-Rosier Photovoltaic Power Plant

Situation
Saint-Hilaire-du-Rosier (Isère) - France

Customer: Solaire direct

Application
Production of electrical power

Equipment installed
Electrical EPC contract (Engineering, Procurement & Construction)

CUSTOMER BENEFITS
• A single coordinator for the entire project
• A reliable and experienced partner
• A single contract for both the design phase and for the electrical package
• Minimum downtime in the event of a fault, owing to the monitoring system that allows energy production to be controlled remotely
• Schneider Electric’s commitment to installation availability
• Production secured over the next 20 years with the operating and maintenance contract
• The quality and reliability of Schneider Electric’s electrical systems

Solaire direct builds and operates solar arrays projects. With the development of solar arrays projects in more than 50 sites in France, representing a total capacity of 300 MWp, Solaire direct is one of the leading 100 % solar power plant operators in France.

Solaire direct has selected Schneider Electric for the electrical Engineering, Procurement & Construction (EPC) package of a park in the Isère region near Grenoble at Saint-Hilaire-du-Rosier. With a capacity of 6 MWp, this park is composed of 24,000 solar panels spread across an area of 11 hectares. Its production will supply power to about 2,000 households, i.e. nearly 4,300 inhabitants.

The production of green electricity will prevent the emission of 2,600 tonnes of CO2 every year. To ensure quick return on investment, Solaire direct decided to optimise the park construction time. It has therefore turned to a reliable and competitive player that can offer attractive technical solutions and a suitable operating and maintenance contract.

Make the most of your energy
Solution:
A turnkey electrical contract including:

- Design and installation of electrical system between the solar modules and the EDF power grid, including Xantrex inverters.
- Construction and wiring
- Management of the electrical EPC package and coordination of partners and sub-contractors
- On-site commissioning
- 20-years operating and maintenance contract, renewable. It includes preventive and curative maintenance operations with a commitment to availability (98%).

Electrical network:
- 5 transformation stations 1MW equipped, with:
  - > 10 Xantrex GT500E inverters
  - > 5 X 1000 kVA transformers
  - > 5 RM6 cubicles
  - 1 filter station for the 175 Hz signal
  - 1 grid connection of 20 kV
  - > 1 SM6-24 switchboard
  - > 1 auxiliary transformer (100 KVA)
  - 38 array boxes
  - 100 km of solar cables

Monitoring system including:
- 1 M340 PLC
- 5 RIO PLCs
- iRIO remote modules
- 1 Kerwin server

performing the following functions
- Supervision and control of equipment
- Support for maintenance and exploitation activities
- Evaluation of availability
- Weather monitoring
- Centralisation of information
- Creation of graphics and reports
- Data storage

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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 Haute Montagne (12 MW)
  - Italy - Cellino San Marco - AES (43 MW)
  - Buildings
  - Spain - Saragossa (10 MW)
  - Spain - Villacañas - Toledo (2.5 MW)
  - Spain - Molina De Segura - Murcia (300 KW)
  - Reunion & Mayotte Islands - 7 Casino stores (16 MW)