

LE CASTELLET SOLAR PARK

Le Castellet, France



Project data

System name:	Le Castellet
Operator:	German/French operator
Energy utility:	Electricité de France (EDF)
Grid operator:	Electricité Réseau Distribution France (ERDF)
Location:	Le Castellet, Var department, France
Completion:	October 2011
Completion time:	6 months

Technical data

Rated system power	11.93 MWp	Inverter	35 x PowerOne PVI-330
Annual energy yield	ca 17,300 MWh	Construction type	Ground-mounted system
Corresponds to power consumption of	ca 4,325 families**	Tilt angle	25°
CO ₂ -savings p.a.	1,557 t*	Frame technology	Habdank
No./type of modules	150,000 First Solar (FS 275 and FS 277)	Orientation	Southeast

* Source: 90 g CO₂-savings per kWh, publication of DGEMP (Direction Générale de l'Énergie et des Matières Premières), as of 2007

** Calculation basis: average power consumption of one family: 4,000 kWh

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Large-scale turnkey project on the Côte d'Azur

Challenges for Phoenix Solar

- Site restrictions permit only little space between the module rows
- Very rocky terrain
- Turnkey construction within a tight time window

With a surface area totalling around 25 hectares (approx. 62 acres), Le Castellet Solar Park is situated in one of France's sunniest regions. The solar power plant can supply more than 4,000 households with green electricity.

The construction of the power plant proved to be especially challenging due to the small spacing between individual module rows: the surface area available for building the power plant had to be reduced due to air traffic control of the nearby airfield. In order to ensure the highest plant performance possible, despite these constraints, the module arrays had to be assembled more closely together than usual.

The rocky terrain also necessitated additional effort: the Phoenix Solar construction team needed eight weeks for predrilling the subsurface and the extensive excavation work alone.

As the EPC contractor, Phoenix Solar was responsible not only for building the solar park but also for developing the project, grid connection, turning the turnkey plant over to the customer and taking over its operation and maintenance.



Le Castellet Solar Park against the backdrop of the Massif de la Sainte-Baume