

Case Study

GUIDI IMPIANTI

Commercial Rooftop Fano



Fano, Italy



Solar Frontier modules on four different industrial rooftops in Fano, Italy, generate high output even under non-optimal conditions like a barrel shaped rooftop. (Image: Guidi Impianti)

Site Overview

Location	Fano, Italy
Coordinates	43.79° N, 13.00° E
Average global irradiance	1,382 kWh/m ² /yr
Average temperature	15 °C, 59 °F
Average precipitation	776 mm/yr, 30.6 in/yr

Technical Overview

Date onstream	Beginning of 2012
System capacity	734.1 kWp
Panel type	SF145-L (145 W)
Number of installed panels	5,063
Tilt angle, orientation	0° - 30°, -135° NE / 45° SW
Expected output	916,000 kWh/yr
Total CO₂ reduction	515,708 kg/yr, 1,136,929 lbs/yr
Inverter	Power One TRIO 27.6 Power One TRIO 20.0 Power One PVI 12.5

Financing Bank

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"We are extremely satisfied with Solar Frontier modules because they ensure great performance even in sub-optimal conditions. Moreover the presence of Solar Frontier directly in Italy guarantees us a fast support and effective cooperation."

*Raffaele Guidi,
Managing Director Guidi Impianti Srl.*

Guidi Impianti was founded in 1969 in the Italian town of Pesaro and has established itself as a competent partner in the field of solar power plants. Its team is composed of expert technicians, engineers and employees, who have built more than 500 turnkey PV solar power plants.

This installation with Solar Frontier CIS thin-film modules is part of a multiple rooftop system with an overall capacity of almost one megawatt and was connected to the grid in early 2012 in Fano, Italy. Four sub-installations were comprised of Solar Frontier modules and the other two sub-installations were comprised of crystalline silicon modules. The Solar Frontier system delivers, with a total installed capacity of 734 kWp, almost three quarters of the capacity of all facilities of this area. The system of 5,063 Solar Frontier modules is expected to produce more than 900,000 kWh of electricity annually and thus offset about 500 tons of CO₂ emissions.

The special challenge of this installation was the different tilt angles on the single rooftops, as they vary between zero and 30 degrees and the different orientations of the uniquely shaped rooftops. Solar Frontier modules were selected for these special conditions due to their good low-light behavior, which generates high output even under conditions which are considered to be less than optimal, like low tilt angles or orientations other than south. These aspects as well as the local support of Solar Frontier in Italy convinced the customer and the installer.

About Solar Frontier

Solar Frontier is committed to creating the world's most ecological, economical solar energy solutions. Our proprietary CIS technology (denoting key ingredients copper, indium, and selenium) has the best overall potential to set the world's most enduring standard for solar energy. For more information visit www.solar-frontier.com and www.solar-frontier.eu