

Case Study

IRFTS

Private Rooftop Magliano Sabina II



Magliano Sabina, Italy



Solar Frontier's CIS modules were installed on this hipped roof with an integrated system by IRFTS.

Site Overview

Location	Magliano Sabina, Italy
Coordinates	42.39° N, 12.50° E
Average global irradiance	1,440 kWh/m ² /yr
Average temperature	13.7 °C, 56.7 °F
Average precipitation	930 mm/yr, 36.6 in/yr

Technical Overview

Date onstream	December 2011
System capacity	5.8 kWp
Panel type	SF145-L (145 W)
Number of installed panels	40
Tilt angle, orientation	18°, -90° E/ +90° W/ 0° S
Expected output	6,380 kWh/yr
Total CO ₂ reduction	3,592 kg/yr, 7,919 lbs/yr
Inverter	Power One 6.0 OUTD

Financing Bank

Private Investment

"The good low-light behavior and the high module efficiency of the modules convinced us to use the CIS thin-film technology from Solar Frontier. In addition, with IRFTS's unique, patented EASY ROOF overlapping mounting system, all components of a PV system can be installed quickly and easily. The compatibility with the Solar Frontier CIS thin-film modules allowed us a high-quality and easy installation in the shortest time."

Julien Aubenas, Marketing Manager IRFTS

IRFTS is a French specialist for roof integrated systems and has developed the EASY ROOF overlapping mounting system for quick and easy installation of PV systems. Through continuous development and adaptation, IRFTS has set a goal to make new PV mounting systems for a wide range of prospective customers. The system is suitable for any roof shape, even with old, irregular or deformed roofs.

This 5.8 kWp rooftop installation with Solar Frontier's CIS thin-film modules was installed on a private rooftop in Magliano Sabina, Italy, by using the IRFTS EASY ROOF overlapping mounting system. This residential installation was connected to the grid in December 2011. In total, 40 CIS modules were installed on three sides of the hipped roof: eight modules on the east side and 16 modules each on the west and south sides of the roof. The special feature of the French EASY ROOF system is the quick and easy installation: two workers needed about one day to install. The private rooftop installation is expected to produce more than 6,300 kWh of electricity annually and thus save over 3,500 kg of CO₂ per year.

The challenges of this system were the east-/west-orientation of the roof and a low tilt angle of only 18 degrees. Thanks to the good low-light behavior of CIS thin-film modules from Solar Frontier, even under these conditions, this system is expected to generate higher output compared to crystalline silicon modules.

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