

# Case Study

## RUSOL

### Residential Rooftop Weikersheim



Weikersheim, Germany



A total of 84 Solar Frontier CIS thin-film modules were installed on the east and west roof of this house in Weikersheim. (Image: Rusol GmbH & Co. KG)

#### Site Overview

<b>Location</b>	Weikersheim, Germany
<b>Coordinates</b>	49.38° N, 10.19° E
<b>Average global irradiance</b>	1,055 kWh/m <sup>2</sup> /yr
<b>Average temperature</b>	10.8 °C, 51.44 °C
<b>Average precipitation</b>	640 mm/yr, 25.2 in/yr

#### Technical Overview

<b>Date onstream</b>	December 2011
<b>System capacity</b>	12.6 kWp
<b>Panel type</b>	SF150-L (150 W)
<b>Number of installed panels</b>	84
<b>Tilt angle, orientation</b>	40°, -90° E, 90° W
<b>Expected output</b>	10,594 kWh/yr
<b>Total CO<sub>2</sub> reduction</b>	9,387 kg/yr, 20,695 lbs/yr
<b>Inverter</b>	KACO Powador 12.0 TL3

#### Financing Bank

Volksbank Vorbach-Tauber eG.

*"Thanks to the outstanding properties of Solar Frontier's CIS modules they are especially good in less favorable conditions for solar installations. The customer selected Solar Frontier modules as the best choice for his rooftop because of the modules' shadow tolerance and good low-light behavior."*

*Michael Halbritter,  
Deputy Sales Manager Rusol GmbH & Co. KG*

RUSOL GmbH & Co. KG, based in Ispringen was founded in 2003 as a distributor of high-quality photovoltaic energy solutions. The product range comprises high-end photovoltaic modules, inverters and substructures. Consulting services such as technical, commercial and logistics consultation complete the service portfolio.

This installation of Solar Frontier CIS thin-film modules has been installed on a private rooftop in the city of Weikersheim, Franconia and was connected to the grid in December 2011. The homeowner chose Solar Frontier modules because of their high output generated even under difficult conditions. A total of 84 Solar Frontier CIS modules were mounted on both roof surfaces of the house with an unfavorable east-/west orientation and high tilt angle of 40°.

In contrast to conventionally used crystalline silicon modules, Solar Frontier's CIS thin-film modules supply higher yields due to their excellent low-light behavior and good shadow tolerance even under the unfavorable conditions as described here. The 12.6 kWp solar installation will generate 10,594 kWh of energy annually and avoid 9,387 kg of CO<sub>2</sub> thanks to the high performance of CIS 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](http://www.solar-frontier.com) and [www.solar-frontier.eu](http://www.solar-frontier.eu)