

Case Study

NORDWEST SOLAR ENERGIESYSTEME Commercial Rooftop Lehe



Lehe, Germany



Solar Frontier modules generate highest output on the east- and west side of this saddle roof in Lehe. (Image: Nordwestsolar)

Site Overview

Location	Lehe, Germany
Coordinates	53.00° N, 7.33° E
Average global irradiance	990 kWh/m ² /yr
Average temperature	8.6 °C, 47.5 °F
Average precipitation	781 mm/yr, 30.8 in/yr

Technical Overview

Date onstream	January 2012
System capacity	906.9 kWp
Panel type	SF150-L (150 W)
Number of installed panels	6,048
Tilt angle, orientation	15°, -90°/+90° S
Expected output	810,000 kWh/yr
Total CO₂ reduction	473,000 kg/yr, 1,042,776 lbs/yr
Inverter	30 x AURORA Power One TRIO-27.6-TL-OUTD

Financing Bank

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"The quality of Solar Frontier modules absolutely convinced us, both regarding output generation and mechanical stability. During the whole installation, we had no glass breakage, neither during transport nor installation. Due to the tight schedule of the project, the perfect service of Redpoint Solar in logistics and in-time delivery of the modules were success factors for this installation, too."

*Markus Wiggerthale,
Project Manager of Nordwestsolar*

Nordwestsolar Energiesysteme GmbH, located in the Borger of the Emsland region is a planning, project development, and installation provider for solar power plants. Nordwestsolar only uses components of well-known and reliable manufacturers.

This PV-installation, located in the Emsland town of Lehe, approximately 100 km west of Bremen, was connected to the grid in January, 2012. On both rooftops of the building, more than 6,000 CIS thin-film modules were installed, which were delivered together with inverters by the local PV wholesaler Redpoint.

The challenge for this installation of 907 kWp installed capacity was to optimize for the east and west orientation of the saddle roofs, which are non optimal for PV installation. Due to the good low light behavior of Solar Frontier's CIS thin-film modules, high output levels can be achieved even under low irradiation levels. Thanks in part to this attribute of Solar Frontier modules, the rooftop installation is expected to generate 810,000 kWh of energy annually. The installation will provide energy for about 184 four-person households and offset about 500 tons of CO₂ emissions per year.

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