

Case Study

BELECTRIC

Solar Power Plant Bonnhof



Bonnhof, Germany



22,365 Solar Frontier CIS thin-film modules supplying power near Bonnhof. (Image: BELECTRIC)

Site Overview

Location	Bonnhof, Germany
Coordinates	49.21° N, 10.48° E
Average global irradiance	1,050 kWh/m ² /yr
Average temperature	8.7°C, 47.7°F
Average precipitation	665 mm/yr, 26.2 in/yr

Technical Overview

Date onstream	August 2011
System capacity	3,102 kWp
Panel type	13,005 x SF130-L (130 W), 9,360 x SF145-L (145 W)
Number of installed panels	22,365
Tilt angle, orientation	20°, 0° S
Expected output	2,946,900 kWh/yr
Total CO₂ reduction	2,013,000 kg/yr, 4,437,860 lbs/yr
Inverter	2 x SC 800 CP Outdoor, 2 x SC 500 CP Outdoor

Financing Bank

Deutsche Kreditbank AG

"For us, the CIS thin-film modules from Solar Frontier were the first choice for this three megawatt solar power plant. Besides the high module efficiency, the high quality and easy installation of framed modules were crucial decision factors."

*Bernhard Beck,
Managing Director BELECTRIC*

BELECTRIC designs, manufactures and constructs photovoltaic systems around the world. Besides free-field solar power plants, they offer a wide product range consisting of photovoltaic rooftop installations as well as photovoltaic parking lot rooftops or photovoltaic greenhouse installations. The company is headquartered in Lower Franconian Koltitzheim and employees 2,000 people in 17 nations.

This solar power plant is owned by the Nuremberg utility company, N-ERGIE, one of the largest utilities in Germany. The utility is expanding its share of energy produced from renewable energy sources steadily and in 2011 acquired ten solar power plants, including this 3.1 MWp solar power plant near Bonnhof, Germany.

Along a railway near the Bavarian town Bonnhof this 3.1 MW solar power plant was connected to the grid in August 2011. More than 22,000 CIS thin-film modules were installed with BELECTRIC's well-known multi-row column design. The entire system consists of three sub-fields, where the modules were installed vertically into five rows. This public solar project of the utility N-ERGIE is expected to produce nearly three million kwh of energy per year and thus will annually offset over 2,000 tons of CO₂ emissions. The project will substantially to the utility's ambitious goals of producing energy from renewable energy sources. Additionally N-ERGIE customers directly profit from the revenues of this highly efficient solar power plant with CIS thin-film modules from Solar Frontier.

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