

Case Study

BALTICSOLAR

Distribution Center

Hamburg-Altenwerder



Hamburg-Altenwerder, Germany



This Solar Power Plant of BALTICSOLAR demonstrates the integration of environmental energy generation into traditional landscape of the Hamburg harbor.

Site Overview

Location	Hamburg, Germany
Coordinates	53.30° N, 9.53° E
Average global irradiance	947 kWh/m ² /yr
Average temperature	9.2 °C, 48.56 °F
Average precipitation	773 mm/yr, 30.43 in/yr

Technical Overview

Date onstream	July 2011
System capacity	509.34 kWp
Panel type	SF130-L (130 W)
Number of installed panels	3,918
Tilt angle, orientation	15°, -3° south
Expected output	487,200 kWh/yr
Total CO₂ reduction	430,000 kg/yr, 947,988 lbs/yr
Inverter	SMA Tripower

Financing Bank

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"We had the special challenge to choose solar modules that perform even under low irradiance. The CIS thin-film modules of Solar Frontier best met the requirements by providing optimal output even under low light conditions. They also convinced with their uniform black appearance – they looked the best."

*Michael Höchst,
Key Account Manager Photovoltaic*

Based in Northern Germany, BALTICSOLAR is an innovative and leading company, founded in 2004 by solar energy specialists with deep experience in developing and marketing photovoltaic facilities. From consulting to purchasing and planning by its engineers, right up to installation by the experienced BALTICSOLAR construction team – all these services are delivered by the same company.

In July 2011, a roof mounted solar power plant was connected to the grid as one of the largest installations all over the city of Hamburg. HAMBURG ENERGIE and Hamburg Hafen und Logistik AG (HHLA) built a sustainable energy generating solution on a roof area of 29,000 m². By realizing this project, the local energy provider was able to complete its ambitious urban solar project of installing solar modules with a total capacity of ten megawatt in 2011.

The installation with Solar Frontier CIS modules can provide 170 two-person-households per year with solar energy. The 3,918 CIS modules are efficient and economical at the same time and have a total installed capacity of 509.34 kWp. Another achievement of the energy provider was the aesthetic integration of the power plant into the character of the harbor, which could be realized through the uniform black appearance of the modules. This project is the excellent proof that traditional and future technologies can exist side by side.

About Solar Frontier

Solar Frontier is committed to creating the world's most ecological, economical solar energy solutions, on the world's largest scale. 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