BODMAN COMMERCIAL ROOFTOP SYSTEM
Bodman-Ludwigshafen, Germany

Project data

System name:	Rooftop plant Bodman
Operator:	solarcomplex AG / Dr. Steiner
Energy company:	EnBW AG
Location:	78351 Bodman-Ludwigshafen, Germany
Commissioned:	June 2010
Completion time:	4 weeks

Technical data

Rated system power	0.211 MWp	**No./type of modules**	2,816 units First Solar FS275
Annual energy yield	approx. 194.1 MWh	**Inverter**	16 units PVI-12.5-OUTD-FS
Equivalent to the power consumption of	approx. 48 families**	**Construction type**	Roofing system (parallel)
Feed-in tariff/kWh	EUR 0.3645	**Tilt angle**	10° roofs facing east and west 15° roofs facing south
Feed-in tariff p.a	EUR 70,756	**Frame technology**	TectoSun Plus (cross-bracing)
CO_2-savings p.a.	approx. 111 tons*	**Orientation**	East, west and south

* Source: The evolution of carbon dioxide emissions within the German power mixture 1990-2008: 0.575 tons CO_2 saved per MWh (Umweltbundesamt FG I 2.5., Status March 2010)

** Source: Average power consumption of a family: 4,000 kWh (Verivox, Status 2010)

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Christian Moll, Project Leader Photovoltaics
solarcomplex AG

"As a regional supplier for renewable energies, solarcomplex AG pursues the goal of having switched a large part of the energy supply in the area of Lake Constance to renewable energies by 2030. For this reason, we place special importance on our photovoltaic plants being built to very high standards. As with all predecessor projects, we were very satisfied with Phoenix Solar AG in this project and we are looking forward to future joint undertakings."

Boat houses generate additional benefit and earnings

The boat houses in Bodman on Lake Constance are utility buildings used to store boats over the winter. Putting a photovoltaic system on the rooftops of these buildings makes them even more useful: for producing solar electricity. Income from feed-in tariffs are a welcome supplement to rental income, especially in the best months of the year. And solarcomplex AG has come one step closer to its goal of supplying the Lake Constance region mainly through renewable energies.

As general contractor, Phoenix Solar was commissioned to design an overall photovoltaic system to derive the maximum value from all buildable surface areas. Despite the different angles of the rooftops, 2,816 interconnected First Solar modules installed generate the highest possible yield. Similarly, for reasons of economy the 16 inverters were attached to sub-structure on the side of the building to save space: The entire area therefore remained reserved for the boats. Moreover, the roof skylights which are the source of daylight had to be left free.

Such specific requirements were realised despite the tight schedule thanks to the professional and cooperative teamwork on site. The photovoltaic system on the Bodman boat houses is now working to everyone's satisfaction - and is sending the right signal in terms of climate protection and environmental awareness in the holiday region of Lake Constance.

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