

SPEDITION SCHWAAB ROOF-MOUNTED SYSTEM Langweid am Lech



System name:	Spedition Schwaab Roof-Mounted System		
Operator:	Spedition Karl Schwaab		
Energy company:	LEW		
Location:	Foret, Langweid (Germany)		
Commissioned:	June 2005		
Completion time:	6 weeks		

Technical data

Rated system power	total system 259 kWp, subdivided into two subsystems with		No./type of modules	1,524 x BP Solar 4170S (170 Wp)
	1 x 194 kWp and 1 x 65 kWp		Inverter	1 x SMA SC 200, 12 x Fronius IG 60
Annual energy yield	approx. 235,000 kWh		Construction type	roof-mounted system: subsystem 1: parallel to roof,
Feed-in tariff/kWh	EUR 0.52			subsystem 2: elevated
			Tilt angle	subsystem 1: 15°, subsystem 2: 22°
Feed-in tariff p.a.	approx. EUR 120,000		Frame technology	Phoenix Solar base frame for installa- tion parallel to roof, and for elevated installation
CO ₂ -savings p.a.	approx. 216,000 kg*		Orientation	subsystem 1: south, subsystem 2: east/west

* Source: German CO₂ offset calculation (0.932 tonnes of CO₂ avoided per MWh) based on data from BMU AGEE (Arbeitsgruppe Statistik Erneuerbare Energie) 2006.



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Karl Schwaab, forwarder and solar entrepreneur, is convinced by the added value which the solar power plant provides.

"What I found the most convincing aspect of Phoenix Solar's work, was the perfect project management. While the system was being realised, our company's continuing operations were almost undisturbed."

In subsystem 2, the modules were turned to the south, and

elevated at an angle of 22°

When a convincing solar power plant concept comes to fruition

The company Schwaab had clearly defined requirements for its solar power plant: maximum added value for the operating results, and minimum impairment of the forwarding company's continuing operation. When the system was presented on 17th June 2005 in an inaugural celebration on the company premises, the result was one which exceeded these requirements.

The solar power plant with a total capacity of 259 kWp was installed by the Phoenix Solar team on two warehouse roofs, with 1,524 solar modules of type BP4170S. Here, the final planning was preceded by comprehensive statics calculations in order to determine the additional load on the roofs. This was an important aspect, as the roofs' bearing capacity was already considered to be questionable. With intelligent positioning of the roof contact points, optimised load distribution of the supports was achieved, so that there was no longer anything standing in the way of the realisation.

Thanks to the thorough technical and logistical planning, it was possible to implement the system without significantly disturbing the storage and transport operations. And ever since, the system provides the company Schwaab with a reliable additional revenue to that earned from the forwarding and warehousing company's traditional activity.



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