

Case Study

HopSol

Commercial Rooftop Windhoek



The installation on the roof of a Woermann supermarket is currently the largest PV installation in Namibia with more than 300 kWp. (Image: HopSol)

Site Overview

Location	Windhoek, Namibia
Coordinates	22.6° S, 17.1° E
Average global irradiance	2,363 kWh/m ² /yr
Average temperature	19.9 °C, 67.8 °F
Average precipitation	362 mm/yr, 14.3 in/yr

Technical Overview

Date onstream	November 2012
System capacity	302.4 kWp
Panel type	SF150-S (150 W)
Number of installed panels	2,016
Tilt angle, orientation	4°, 0° S
Expected output	586,958 kWh/yr
Total CO ₂ reduction	330,490 kg/yr, 728,598 lbs/yr
Inverter	18 x SMA STP 17000 TL-10

Financing Bank

Private Investment

"This, currently Namibia's largest installation, is just the beginning of other major projects. With HopSol, we are glad to have found a competent partner that will help us with our ambitious goal, to invest in sustainable energy production. The payback time of this investment of 5 – 6 years could be achieved with the CIS thin-film modules from Solar Frontier."

*Jesko Woermann, Managing Director
of the Woermann Group*

HopSol provides turn-key solutions for photovoltaic power plants. HopSol's head office is located in Switzerland and the headquarter of HopSol Africa (Pty) Ltd has been established in Windhoek, Namibia, for its customers in southern Africa, where they have specialized in fulfilling the requirements of the solar industry for desert regions. Furthermore, HopSol acts as a wholesaler of all relevant parts for photovoltaic solar power solutions. Superior quality of modules and balance of equipment, along with engineering experience for desert conditions are crucial success factors.

This system on the rooftop of a Woermann Group supermarket with more than 300 kWp, is currently the largest PV installation in Namibia. Commencing in November 2012, it is expected to produce almost 600,000 kWh of electricity annually, covering approximately 40% of the energy needs of the supermarket. This investment confirms the ambitious "Green Strategy" of the Woermann Group, to be the first Namibian retailer, who supports electricity from renewable sources and gain independence from the steady increasing price of electricity in Namibia.

The special challenge of this system was mainly the hot climate conditions in Namibia. HopSol has decided consciously for CIS thin-film modules for this commercial installation due to their low temperature coefficient. Even with the high temperatures of this region, the Solar Frontier CIS modules produce up to 15% more electricity than comparable crystalline modules. This shows that the Solar Frontier modules yield higher output even under non-optimal conditions, such as high temperatures or the four degrees flat tilt angle of this PV system.

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