

Case Study

HopSol

Commercial Rooftop Erongo Mountains



Perfect synthesis of environmental sustainability and profitable energy production: Solar Frontier modules on Namibia's largest PV plant

Site Overview

Location	Erongo Mountains, Namibia
Coordinates	21.43° S, 15.93° E
Average global irradiance	2,383 kWh/m ² /yr
Average temperature	19.9 °C, 67.8 °F
Average precipitation	370 mm/yr, 14.6 in/yr

Technical Overview

Date onstream	September 2011
System capacity	51.24 kWp
Panel type	SF140-L (140 W)
Number of installed panels	366
Tilt angle, orientation	12°, -165° N
Expected output	113,752 kWh/yr
Total CO ₂ reduction	64,042 kg/yr, 141,187 lbs/yr
Inverter	4 x STP 15000 TL

Financing Bank

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"With our PV installations, we succeeded in providing energy in line with, and even below the actual price level. Announced further price increases for electricity will make our solutions even more cost-efficient - and they do not only deliver lucrative, but also environment-friendly electricity, an additional reason for many customers for choosing Solar Frontier modules."

Dipl. Ing. Björn Wilschke, CEO HopSol Africa

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.

For this project, Solar Frontier modules were chosen due to their superior properties under African climate conditions. With a total capacity of 51.2 kWp, this was the largest solar installation in Namibia at that time of installation. The climate in this region is characterized by extreme daily variations in temperature, concentrated sun irradiation, dust, and sandstorms. Solar Frontier's thin-film modules are expected to produce approximately 110,000 kWh per year with the installed 366 panels – significantly more energy output compared to other technologies. The high yield, helping Omaruru Beverages Pty Ltd (OASIS Mineral Waters) build a sustainable and profitable business model, was one of the reasons for choosing Solar Frontier CIS modules.

By consequently avoiding the use of toxic substances like lead or cadmium, Solar Frontier obtained the RoHS certificate, documented evidence of their ecological mission. This is yet another convincing argument not only for residential customers, but also for the government, in striving towards an independent, self-sufficient and sustainable national energy production.

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