

RESIDENTIAL SOLAR ROOF Singapore



Photos courtesy of Guz Architects

Building type:	2 storey bungalow
Architect:	Guz Architects
Builder:	Sunho Construction Pte Ltd
Roofer:	Sheet Metal International Systems Pte Ltd
M&E consultant:	Herizal Fitri Consultants
Location:	Sentosa Cove, Singapore
Commissioned:	April 2009

Technical data

Rated system power	5.71 kWp
Annual energy yield	approx. 7,200 kWh
Avoided CO₂ p.a.	approx. 3,600 kg*

Modules	Unisolar flexible laminates
Inverter	Fronius IG series
Construction type	Metal roof
Tilt angle	Variable (curved roof)

* Based on typical 0.5 tonnes CO₂ /MWh from gas fired power plants



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"Phoenix Solar came up with the perfect solution for our home. The flexible photovoltaic laminates follow the wave-shaped roof design inspired by the ocean," said the Fishers.

Sustainable sanctuary

Stephen & Shijung Fisher's home defies the local convention of enclosing its inhabitants in air-conditioned isolation from the environment.

Built on the waterfront at Sentosa Cove, this home uses principles of tropical architecture to create a stylish and comfortable oasis that completely embraces its surroundings.

In keeping with the homeowner's eco-conscious theme, solar PV modules generate sufficient power for the house's daytime energy needs.

The building's twin wave-shaped roofs echo its coastal setting, and the architect selected flexible UniSolar laminates to discretely follow the roof's contours.

Phoenix Solar divided the roof into 2 sections and started from partway, with PVL136 laminates running the length of the roof to one side, and PVL68 running to the other side.

Cables were run under a roof cap and connected to inverters in the electrical room.

With aesthetics playing such a key role in the system design, it was essential for Phoenix Solar to be involved early in the planning phase. Success was ensured through close collaboration between Phoenix Solar, the architect and the roofing contractor.

The final result is an eye-catching tropical paradise that also emphasises the beauty of the natural surroundings.

