



GLOBAL CASE STUDY

Solis Residential Hybrid PV Inverter

S6-EH1P11.4K-H-US



CASE STUDY

WORLD4SOLAR CASE STUDY

CALIFORNIA

Solis Inverters Support World4Solar's Unique Off-Grid EV Charging Carport

Embracing a sustainable and resilient future in style: Functional design of integrated light, charging, carport and battery storage for homes and businesses

Background: Bringing Form, Function and Style Together for Sustainability

World4Solar is a holistic solution provider for homes and businesses alike. They knew the sustainability industry required something different. With growth in EV adoption in the United States and the growing desire to easily offset electricity costs, World4Solar created the HelioWing, an innovative and out-of-the box solution that makes the art of sustainability simpler. Space is scarce, whether it is a business parking lot or a multi-unit dwelling, the desire to have resiliency, shading and EV charging shouldn't compromise valuable parking spots.





📍 California, USA ⚡ 11.4kW 📦 S6-EH1P11.4K-H-US

HelioWing 5 is their smaller model with a peak performance of 7.38 kW. It's perfectly suited for locations where available space is limited, like residential driveways, smaller parking lots or backyards. With the Solis S6 Hybrid and World4Solar's self-manufactured 36kWh integrated battery pack, valuable, green energy can be stored or used right away to charge any EV – all autonomously and independent of any power grid. If tied to the grid, excess energy produced can be sold back to the utility to generate revenue and offset costs. World4Solar also offers smaller, third-party batteries for more flexibility in capacity.

The HelioWing color can be customized as well to match the design preference of the system owner and align their statement for sustainability with either their corporate colors, their individual taste, or property features.

Challenges & the Solution: Harnessing the Sun While Ensuring Quality

Like many solutions in the marketplace, harnessing the sun can be done, but ensuring the reliability and efficiency of that process, not so much. World4Solar had to deeply analyze the quality of its individual components to ensure that the out-of-the-box solution could deliver on its promise.

They turned to Solis' S6 Hybrid due to its flexibility to operate on or off-grid, with or without a battery while the sun is shining. Additionally, Solis's quality and reliability is tested and proven on the global level, making us a clear choice for the integrator. The S6's capability to support high-powered bifacial modules and open ecosystem with an array of compatible batteries, helps ensure the solution World4Solar delivers operates as seamlessly and efficiently as intended.



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“With the installation of the Solis hybrid inverter, we gain the flexibility to operate both off-grid and grid-tied, offering a seamlessly integrated architecture that supports a Level 2 EV charger in both environments. Additionally, we have incorporated our very own World4Solar high-voltage battery as a robust backup power solution. In grid-tied mode, this battery can also be utilized for Time-of-Use management and peak shaving, enhancing energy efficiency and cost savings.”

— Nick Boateng, Director of Solution Management, World4Solar

Community Benefits: Delivering Innovation to Support the Community

This first install of the HelioWing was completed to support the community's American Legion, which is a nonprofit veterans organization that advocates for veterans, their families, and communities. The American Legion across the United States offers many benefits and support for our nation's veteran's, including community, scholarships, youth development and wounded warriors support programs.

The unit is currently in the initial phase of installation, operating in full off-grid mode for resilient EV charging to demonstrate this capability. In the next phase, we will complete the necessary connections to integrate with the American Legion building's electrical panel, enabling electricity bill reductions and providing reliable backup power.

System Overview

- American Legion site in California
- 18 Aptos 400W Bifacial Modules
- Pre-programmed IP68 LED Lighting system
- Tesla LV 2 EV Charger
- World4Solar 36kWh integrated B.E.S.S
- 380 sq. feet of carport shade
- 1 built-in S6 High Voltage Hybrid Inverter 11.4kW
- Patented steel structure

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