

SVERDRUP ENGINEERING SERVICES

PROJECT EXPERIENCE



RV Solar Carport

Tucson, AZ

Electrical Engineering for 10KWAC Solar RV Carport for local resident in Tucson, Arizona. Site consists of one oversized RV covered parking space and design included infrastructure for future electric vehicle charging station as well as batter storage.

Client: Sundial

Design: January 2018

Inservice: November 2018

Electrical design included forty-four Qcell 305-watt solar modules in eleven module strings at 600V DC and connected to two single phase SMA SunnyBoy 5KW Inverters. The modules were attached to the carport structure at a fixed 3-degree tilt. The inverter outputs combined into a 125A 120/240VAC power panel and run in underground trench to the PV meter and disconnect. The system tied to upgraded 400A power panel size for PV and future loads. Surge arrestors were designed/installed and tied to the new and existing ground. Performed design, construction support, and commissioning and start up support.

Design drawings include; site plan, demolition, grounding, stringing, details, single line diagram, three-line diagrams, DC line diagrams, signage, and equipment data sheets.