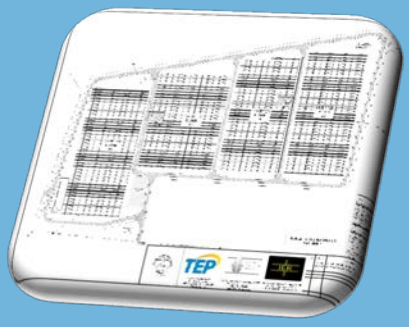
SVERDRUP ENGINEERING SERVICES

PROJECT EXPERIENCE



Fort Huachuca 5MW FT Solar Facility Phase 2

Fort Huachuca, AZ

Civil, Electrical, and Structural system design for 5MWDC fixed tilt system at Fort Huachuca near Sierra Vista, Arizona. Civil design included survey, hydrology/drainage report, site grading and drainage, and fencing. Structural design included specifying and review geotechnical report, transformer/inverter foundation design, review of rack support/foundation design from rack manufacturer, and DC combiner/disconnect support/foundation.

Electrical design included 25-year energy production estimate using PVsyst, DC field layout, rack/post layout, modules, string sizing, AC one-line, DC wiring diagrams, cable/conduit schedule, cable/conduit routing, weather station, grounding, and detail sheets. A full material list was provided with manufacturers part numbers to ensure cost control and that contractor purchased and installed quality components that would last 25 years. Calculations include; string sizing, voltage drop, row to row spacing (shading), conduit fill, cable ampacity, cable/conduit pull, grounding, short circuit, protection device coordination, and arc flash calculations. Major system components were SMA SC2200-US inverters, First Solar 107/115-watt modules, First Solar racking, First Solar 8 string harnesses, Bentek combiner boxes, and Eaton DC disconnects. Performed QA/QC over construction, specified commissioning requirements, and oversaw start up.

Owner: Tucson Electric Power Company

Design: June 2015

Inservice: February 2017