



System Size	Estimated Annual Production	Installation Date	Synchronization Date
28 kW	59,200 kWh	June 2006	June 2006
Modules	Inverters	Panel Orientation	Panel Pitch
Sharp 185 W	6 – Xantrex 30 kW 208 V	Adjustable	Adjustable

Project Description

In 2006, WorldWater & Power Corporation installed a 28 kW grid-tied photovoltaic system on the 300-acre Erro Farm. The project was intended to demonstrate the feasibility of installing a PV system that would offset the energy required to pump water to the farm's crops. During peak hours of operation, the pump accounts for 50% of the farm's energy use.

Major Challenges/Solutions

Quality assurance during installation was difficult. The installer was unfamiliar with the monitoring system equipment and this led to data transmission issues from the monitoring system to the online site. Some of this work had to be redone. No briefing was given to the owner when project was completed. Additional costs were incurred to retrofit the owner's prefabricated shed to meet county standards.

A solution to the problem of tracking the system performance was to manually track it and record the data in spreadsheet. Different vendors were contacted to demonstrate the maintenance and operation of the system.

Financial Benefits

Total Cost	\$263,878 (2006)
CA Energy:	\$80,766 (2006)
Financed	\$183,112 (2006)
Federal Tax Credit	\$57,670 (2006)
CA Tax Credit	none

Environmental Enhancements over 25-year project life (CEC solar estimate worksheet)

CO2 reduction:	71,262 lbs
SO2 reduction:	1.332 lbs
NO reduction:	99.31 lbs

Quote

"After a few errors during installation...operation and maintenance of the PV system has been easy. The electrical output and cost savings have surpassed projections."

*Phil Erro
Erro Farms-Owner*