

SunPower Makes Solar Power Affordable for Tucson Water



Tucson Water provides services to approximately 80 percent of the population in the Tucson metropolitan area. Processing, pumping and storing the water needed for approximately 775,000 residents requires a substantial amount of electricity, but the agency now has an affordable, environmentally friendly way to meet its energy needs. With the installation of a SunPower Serengeti® T0 Tracking solar power system, made possible through a unique funding partnership between the local utility, a third-party financier and SunPower, Tucson Water is now enjoying a reduction in its monthly electrical costs and a hedge against energy price increases.

BENEFITS

- Enables department to realize its sustainability goals without additional costs
- Provides a 20-year hedge against rising utility rates
- Delivers dependable ROI for all stakeholders
- Reduces CO₂ emissions annually by more than 1,300 tons; equivalent to removing 240 cars from the road each year

PROJECT OVERVIEW

Location: Tucson, AZ

Completed: April 2011

Installation Type: Ground

System Size: 1 Megawatt

PV Surface Area: 69,280 square feet

Number of Panels: 3,464

Product: SunPower® T0 Tracker
Serengeti™ Panels

"This project truly benefited from SunPower's expertise and willingness to help, even in areas that were new to them. Working with an experienced solar partner like SunPower made a difference."

Asia Philbin,
Hydrologist, City of Tucson,
Tucson Water Department

A SUSTAINABILITY CHALLENGE

From the beginning, the Tucson Water's sustainability program has stressed the importance of executing all processes in a safe, reliable and environmentally responsible manner. As a part of the program, Tucson Water's energy management team sought to leverage renewable energy sources to further sustainability goals and reduce operating costs. Initially, the up-front expense of installing a solar power system at a water storage and recovery facility outside of Tucson appeared prohibitive. "We don't have a lot of capital, and what we do have is dedicated to water and infrastructure," explained Asia Philbin, department hydrologist. "We began looking at ways to implement renewable energy, without incurring additional costs."

SUNPOWER OFFERS IDEAL SOLUTION

In 2009, after a thorough evaluation process, SunPower was awarded the contract to construct a solar power system on the 10-acre site. Philbin said SunPower came to the table with the necessary combination of affordable pricing, technical competency, and expertise needed to create a viable financing solution. "SunPower offered us the Power Purchase Agreement, that best suited our situation," Philbin said. "This arrangement was fairly new to Arizona and made the project possible."



INNOVATIVE PARTNERSHIP YIELDS SUCCESS

Under the terms of the PPA, Wells Fargo will finance and own the system that SunPower designs, builds, operates and maintains. Trico Electric, the utility serving the site, will provide additional funding via its SunWatts renewable energy incentive program. The City will host the system and buy the electricity produced by it. Trico Electric Cooperative will purchase the renewable energy credits (RECs) associated with the system. Tucson Water's cost for the solar energy will be competitive with its current bulk retail rate, providing renewable energy with no initial capital investment. Said Philbin, "This was a very complicated process, and required a team of people who were solution-oriented to get the job done. SunPower's experience was critical to the success of our project."

SunPower Corporation
1.800.SUNPOWER
sunpowercorp.com