Project Overview

Location : Soquel, California
Completed : December, 2008
Installation Type : Standing Metal Seam Roof-Mounted Array Over 8 Rooftops
System Size : 315 kW
Number of Modules : 1,800
Inverters : 8 SMA 7000, 1 SMA 6000, 1 SMA 5000, 2 Solectria 82kW, 1 Solectria 60kW

Challenge

Soquel High School, a public high school serving 1200 students in Soquel, CA, had two main motivations for using the sun for electricity. First, financial incentives in California allowed the school to save money immediately. Second, going green was in line with the mission of the school to encourage students to responsibly contribute to society. The school set an example of social responsibility and was able to show the economic and environmental impacts of solar power.

For students and teachers the solar installation offers a hands on learning experience in social, economic and environmental responsibility. Check out the actual power being produced by this system **here**.

Solution

At 315 kW, the photovoltaic ("PV") solar array installed by Sandbar Solar & Electric at Soquel High School is the largest solar PV project in Santa Cruz county and one of the largest school projects in California. The system is expected to produce approximately 40% of the school's electricity.

The system's roof mounted array utilizes 13 inverters of various sizes and manufacture with 1,800 175-watt PV solar modules covering eight separate rooftops over a public high school. Sandbar worked safely and efficiently with roughly 1,200+ students walking under around the job site every 45 minutes when the bell rings.

The entire project was completed ahead of schedule and on budget. The project broke ground in September 2008 and the system went online in December, 2008; ahead of schedule.

Results

We wanted to move and become a greener district, and we did a request for proposal to install solar on all of our schools. This is the first school that we're doing the installation on, we have nine other school sites that we're going to be, we're still working on," says Dick Moss, assistant superintendent of business.

Soquel expects to save 12 thousand dollars per year on electricity cost, and Moss says the more the school can save in one area, it can definitely put to use in another.

"Well obviously the less money we have to spend on electricity, the more money we can spend in the classroom, as you probably know, the government of the state is proposing mid-year reductions in school funding so this kind of a project, although it isn't going to make up for all of the reductions that we're looking at, it'll help."