Case Study

Stanford University Synergy House



Renwable (Energy[®]

Overview

at Spaniel

In early 2003, Stanford University renovated an historic house on campus. The residents of the house, an environmentally-minded cooperative named Synergy House, partnered with Stanford Housing and raised enough money to include a 7.2 kW solar electric system in the renovation project. To promote energy awareness and show the environmental benefits of the system, they wanted a way to monitor and display system performance for a non-technical audience.

Challenge

Akeena Solar, the installer of the Synergy House PV system, needed a simple way to provide a clear and compelling visual display of system performance to their customer. Akeena wanted to make the display available to the Stanford campus and on their own web site without costly infrastructure upgrades, programming, database development or web server maintenance.

Solution

Fat Spaniel Technologies provided a turnkey solution that allowed Akeena to retain focus on their core business while exceeding customer expectations. With our PV2Web™ "Anytime, Anywhere" solution, data is automatically collected onsite and securely transmitted to our servers for highly reliable storage, analysis and display. Real-time and historical energy data is made available through any internet-connected device so it is accessible when and where it is needed.

Educating house residents and students on campus about solar electricity was also a priority. Fat Spaniel Technologies developed a dynamic, interactive presentation that describes the individual components of the system. The presentation showed how the components worked together not only in the production of energy, but also in the reduction of greenhouse gases.

Results

Utilizing our modular, platform-independent solution, data acquisition and display is a turnkey process for both Akeena Solar and Stanford Housing. Historical data logs offer an instant, accurate view of how the system is performing at any given time of the year so anomalies can be addressed before they become problems. Fat Spaniel Technologies PV2Web monitoring makes possible better, faster service at an affordable price.

System Specifications

Size	Technology	Expected Energy Production/Yr	Pollution Averted/Yr
7,212 W (AC)	(54) BP Solar 3160B 160W multicrystalline (DC) panels (3) SMA 2500W (AC) inverters	10,789 kWh	13,392 lbs. CO ₂

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PV2Web gives us immediate access to system performance information and allows us to educate others about the environmental benefits of the system.

Robert Kolar-Energy Coordinator Student Housing Stanford University

www.akeena.net/stanford



Customized Synergy House PV2Web site monitoring electricity generation, daily output, system status, and total pollution averted.



Educational interactive web page explaining system design and how solar electricity is created.

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