

# Closing the Sale with Solar Monitoring



End-User view showing the performance of an individual PV installation.

## Add Value to your PV Installations

Fat Spaniel Technologies PV2Web<sup>TM</sup> monitoring and display tool allows you to add value to your PV installations. The advanced display features allow you to offer your existing customers a high level of customer service, show new clients examples of how solar electric systems work, and the environmental benefits they receive when you install their solar electric system.

## Provide High Levels of Customer Service

PV2Web allows you to view system status in real-time for every installation. You can view exactly what's happening with each system from your office or on the road, which helps you keep your customer's systems running at peak performance levels. Automated alerts help you diagnose and resolve system issues more quickly than if you had to drive to each site, and improves your ability to better serve your customer.

## Use Live Web Views in Presentations

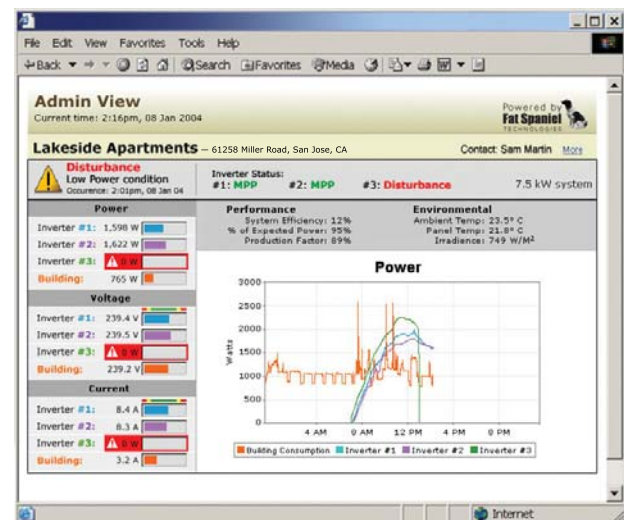
Add graphical data to live presentations and slide shows of your installations to help future customers visualize how a solar electric system would look and perform at their home or business. When you are presenting a competitive bid, PV2Web helps you differentiate yourself from your competitors through professional graphics and compelling interactive displays.

## Plug-and-Play Hardware and Software

PV2Web collects data from solar electric installations and presents it on the Internet in a user-friendly web page format. Unlike many monitoring systems, PV2Web does not require dedicated on-site computer equipment. All our monitoring equipment comes pre-programmed; PV2Web is "plug-and-play."

## For More Information . . .

We invite you to check out our web site or call us for a demonstration of PV2Web. Whether you are monitoring Residential, Commercial or Industrial installations, Fat Spaniel Technologies can provide a monitoring and display solution that meets your requirements.



Installer view showing real-time inverter status.

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Flash views available as separate product. Commercial view shown.

## Standard System Includes

- All required hardware, including sensors, loggers and communication equipment
- 5 years monitoring service
- 5 years of feature upgrades
- Executive View and Installer Administrative View
- 24x7 information accessibility via any internet enabled device

## Hardware Components

- Enclosure: All PV2Web components are delivered assembled inside 1 or more enclosures
  - Steel or plastic
  - Outdoor rated, NEMA 3R
- Communication Gateway
  - Internet connectivity: TCP/IP
  - UL and CE listed
- Power adaptors and power cords
- Connectors and short run cabling

## Additional Hardware Components if needed

- Data logger
  - For building load and environmental monitoring
- Current transducers
  - Available Sizes: 3 1/4", 2", 1 1/4"
- Environmental sensors
  - Pyranometer or light level sensors
  - Thermister
  - Anemometer

## System Compatibility

- PV2Web is compatible with any inverter including models from:

**Ballard:** Ecostar

**Beacon:** M5

**Fronius:** IG, Sunrise, Solarix

**Magnetek:** Aurora

**Outback:** FX, VFX, GTFX, GVFX

**PV Powered:** Star Inverter PVP1100, Star Inverter PVP1800, Star Inverter PVP2800

**Sharp:** Sun Vista

**SMA:** Sunny Boy Series, Sunny central

**Solectria:** PVI

**Xantrex:** Trace Series, SunTie, PV Series

Note: Some systems require power meter

## No Computer Required

- No onsite computer necessary
- Monitoring software resides on the Fat Spaniel Technologies' servers

## Internet Connectivity

- Internet connectivity is required for data collection at PV site
- Internet connectivity options include DSL, Cable, modem\*, wireless\*

## Power/Electrical

**US:** Standard 110 AC

**EU/UK:** 220

## Standard Data Collected

- AC voltage (Volts)
- AC current (Amps)
- AC power (Watts)
- AC total energy since start of operation (kWh)

## Optional Data Collected

- DC current, voltage, power and cumulative energy
- Building voltage, power and cumulative energy
- Irradiance (W/M<sup>2</sup>)
- Ambient Temperature and Cell Temperature (Degrees Celsius, Degrees Fahrenheit)
- Wind speed (mph, or m/s)
- Wind direction (Degrees)
- Battery input/out current, voltage, power and cumulative energy

## Data Acquisition

- System stores data locally for up to 24 hours in the event of a network outage
- Data upload automatically occurs via Internet connection
- 2 years worth of live data available on the Fat Spaniel Technologies servers

## Documentation

- Quick Reference Installation Guide
- Wiring Diagrams

## Certifications

- California Energy Commission approved performance meter

\* Requires separate accessory kit

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