



## FEATURES:

**Revenue Grade System Monitoring** – Utility grade, verifiable data for billing, reporting to agencies, SREC reporting, and analytics.

**Web, Kiosk, and Plasma Display Integration** – Highly customizable and visually interactive web view and optional Kiosk integration. Perfect for integration into websites, store lobbies, and large screen displays.

**Advanced Performance Monitoring** – Our powerful data center allows users to view detailed analysis of system performance. Interactive graphs bring the power to troubleshoot and benchmark systems to the user's fingertips. Our high end data gateway can record a multitude of information including: generation, load, irradiance, volts, amps, cell temperature, weather data, and wind direction / speed.

**Demand Monitoring** – Our demand monitoring package allows you to accurately monitor your facility's energy usage in fifteen minute intervals. The package is fully integrated with the standard flash view including detailed graphing capabilities. This information facilitates energy conservation by identifying high energy use periods.

**System Administration** – Our powerful administration panel allows contractors to quickly get an overview of the performance of all their systems at once (and system owners of their individual systems). Advanced notification options allow you to be notified instantly of errors, alerts and track system performance remotely.

## KEY BENEFITS:

**Customizable** - Easily configurable for customer choice of colors, project information and kiosk integration.

**Integrated Pricing** - The purchasing and installation process is simplified and streamlined. Our basic package includes flash views and contractor admin panels at no extra charge.

**Power and Beauty** – The standard DECK system is a combination of powerful commercial grade features and a stunning user interface. Perfect for public kiosks, web pages, and in-facility displays.

**Customer Service** - Custom alarms ensure installers instantly know about any performance issue. Keep connected to your customer base.



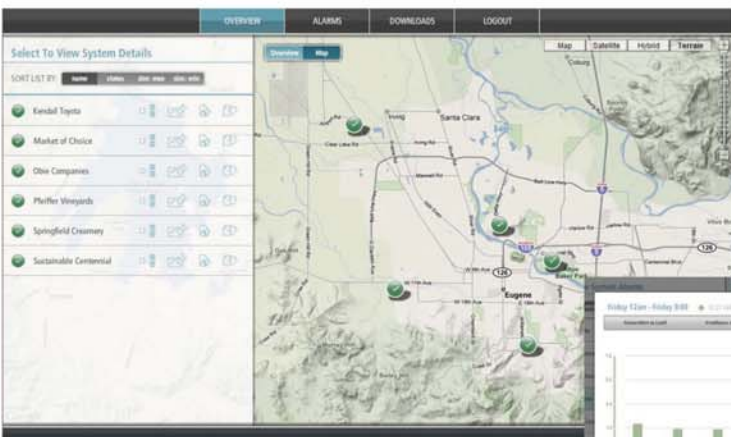
Dashboard - Energy meters display current generation, historical data, weather data, and equivalencies.



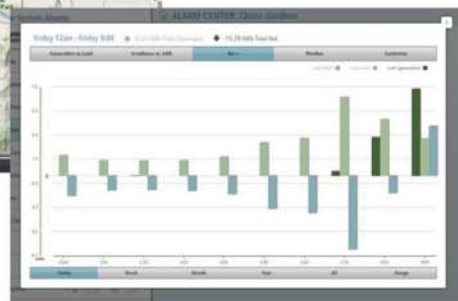
Educational Information - Visitors to your website or facility can learn about how your solar system works.



Custom Pages - Each deployment comes standard with custom pages, describing your specific installation and system details.



Administration Panel - Keep track of your valued customers! System owner and contractor access to view multiple systems, alarms, downloadable historical data, advanced performance visualizations, and case notes for each project.



# Sustainable Centennial : Solar

System Size: 34 kW DC  
 Generating Since: July 15, 2008  
 Data Updated: June 22, 2009 4:30



## KEY MODULES:

**Energy Meters** - Display current solar generation as well as kilowatt hours generated to date.

**Historical Graph** - Display historical graphs of solar generation. Views include detailed daily views, 3 day, weekly, monthly, and yearly graphing options.

**Weather Module** - Display current weather conditions (including irradiance) on site using a compatible DECK weather station, or via the national government weather feed.

**Equivalencies** - Display the equivalent energy which would have been generated or used by other sources. Options include Gasoline, Lightbulbs, Trees, CO<sub>2</sub>, and SREC Credits.

**Customization Options** - Choose your choice of colors, equivalencies, and customizable project details pages. Customization options come standard with our core packages.

## CUSTOM PAGES:

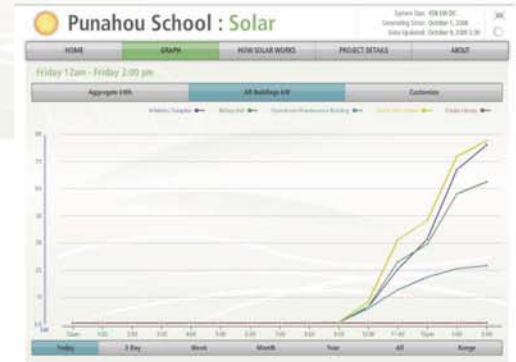
**Company Pages:** Our standard package includes a custom page specific to your installation, which includes photos and text of your choice. Use this page to highlight the green efforts of your company.

**Multiple Installation Integration:** Do you have multiple systems which you would like to integrate into one dashboard? We can easily combine multiple systems into one public display, including graphs which break apart each installations' production (or each inverters' production).



Information specific to your installation

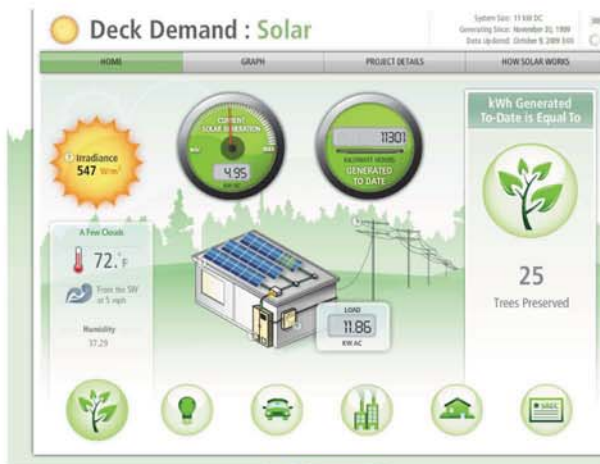
Incorporate multiple installations into one dashboard



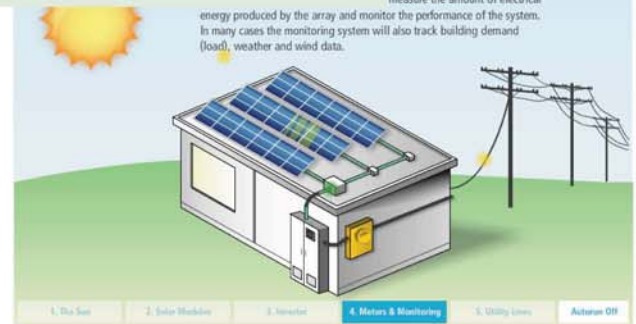
## EDUCATIONAL FEATURES:

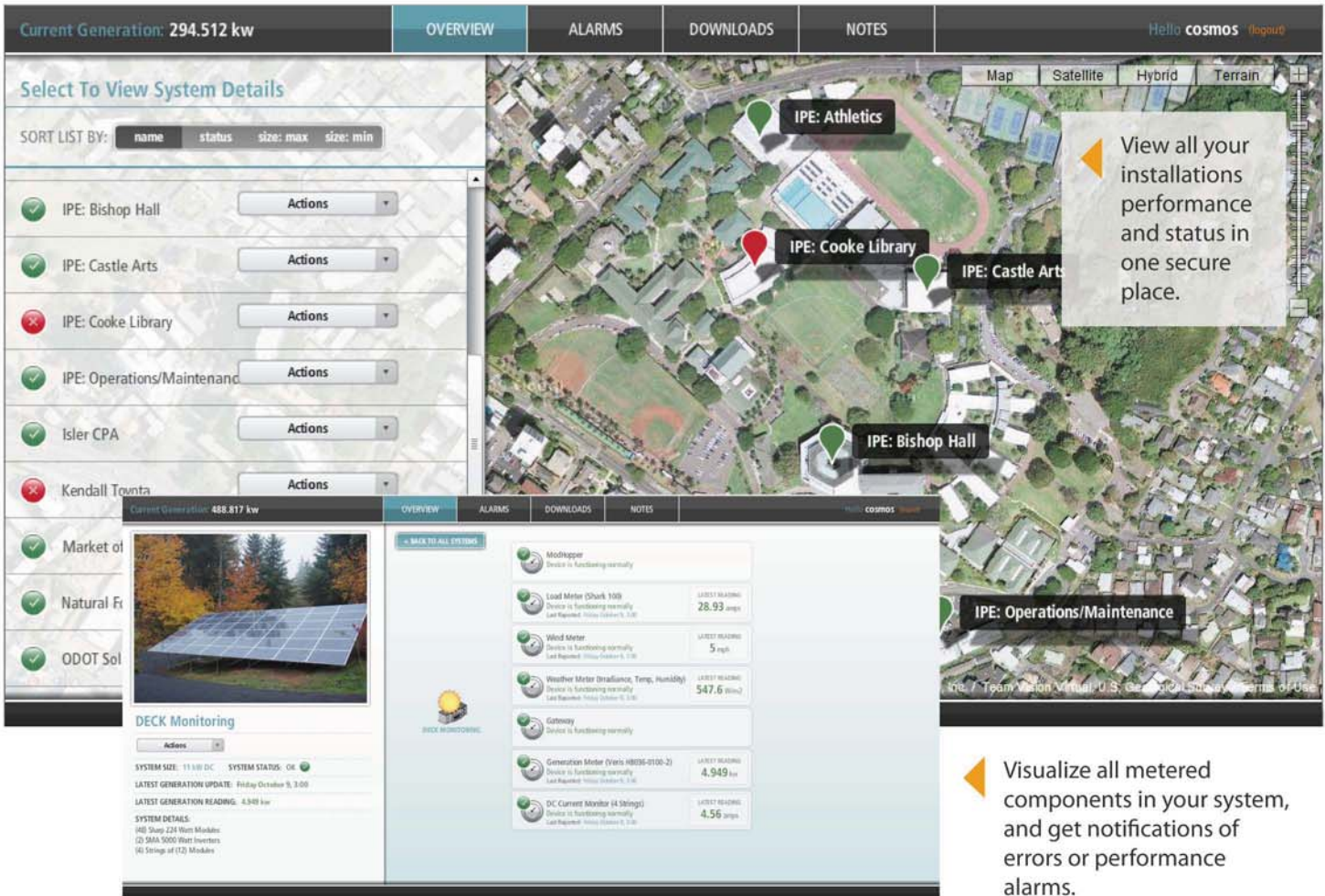
**How Solar Works page:** Every dashboard comes standard with a How Solar Works tab. This tab explains the basics of the solar systems components.

**Educational Dashboard Option:** A highly interactive display which incorporates educational information and is optimized for kiosk or wall mounted touch screen use. Users can see the flow of energy from the sun, through the solar panels, the inverters, the meters, and finally out to the grid. Handy tool tips at each point explain the basics of solar production, and real time data gives users feedback on current conditions. A green equivalency slider offers an easy method to switch between equivalencies - including REC credits!



Interactive educational dashboards and displays





The screenshot displays the DECK Monitoring Admin Panel interface. At the top, it shows the current generation as 294.512 kw. The main navigation bar includes 'OVERVIEW', 'ALARMS', 'DOWNLOADS', and 'NOTES'. A sidebar on the left allows users to 'Select To View System Details' and lists various installations with their status (e.g., IPE: Bishop Hall, IPE: Castle Arts, IPE: Cooke Library, IPE: Operations/Maintenance, Isler CPA, Kendall Touma). The main area features a satellite map with location markers for several installations. A callout box on the map states: 'View all your installations performance and status in one secure place.' Below the map, a detailed system overview for 'IPE: Cooke Library' is shown, including a 'DECK Monitoring' header, system size (11.00 DC), system status (OK), latest generation update (Friday October 5, 3:00), latest generation reading (4.949 kw), and system details (140 Sharp 234 Watt Modules, 22 SMA 5000 Watt Inverters, 40 Strings of 12 Modules). A 'BACK TO ALL SYSTEMS' button is also visible. A second callout box on the right side of the map states: 'Visualize all metered components in your system, and get notifications of errors or performance alarms.'

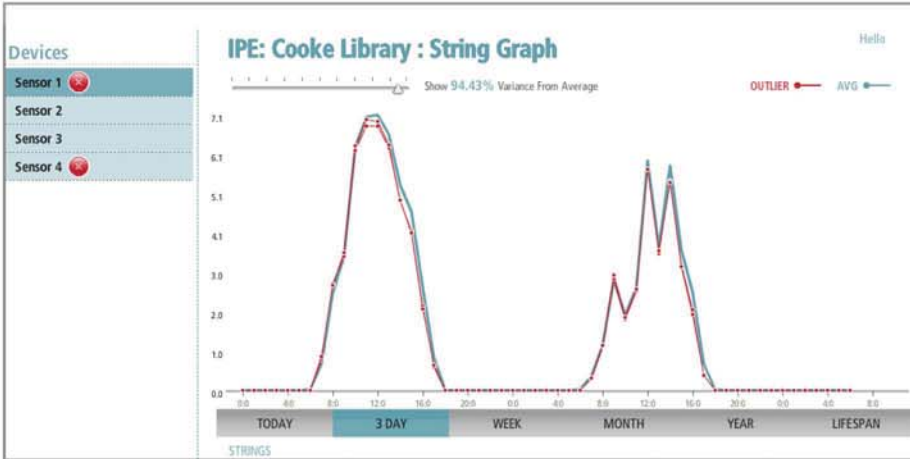
## KEY CAPABILITIES:

**Provide Enhanced Support and Troubleshooting** - The integrator or contractor benefits by being able to keep track of all their valued customers in one place, quickly, and efficiently. Alarms and notices can alert the integrator to potential system problems and outages instantly, and troubleshooting features can save time for both contractor and customer.

**Maximize System Performance** - Be immediately alerted of system performance issues which might go undetected and cause expensive system downtime.

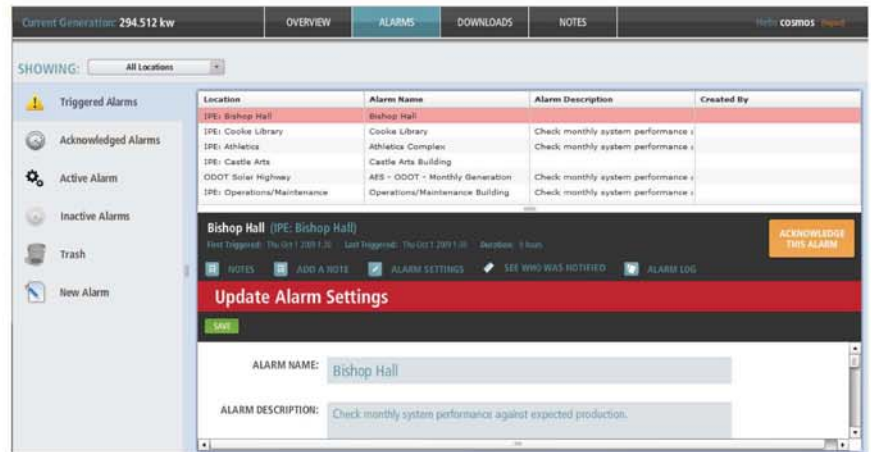
**Agency Reporting and Data Download Center**- Provide automatic transfer of data to utilities in order to receive incentive payments. Certified as a PDP and PMRS in the state of California. The Data Download Center allows users to download data to their desktop at any time in an easy to use format.

**DC String and Subarray Monitoring** - Detailed performance data and visualization down to the string level. View underreporting arrays and strings and identify issues with system performance.



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▶ **Alarms and Notes** - Create custom alarms to notify you or a member of your team in case of performance issues or fault codes from inverters. Take advantage of our hierarchical alarm system to reduce information overload for team members. Make notes specific to systems or alarms. Record who was notified of which alarms, what actions were taken and when those actions were taken. Access a running log of history on any particular system or system alarm.



Location	Alarm Name	Alarm Description	Created By
IPE: Bishop Hall	Bishop Hall	Check monthly system performance	
IPE: Cooke Library	Cooke Library	Check monthly system performance	
IPE: Athletics	Athletics Complex	Check monthly system performance	
IPE: Castle Arts	Castle Arts Building	Check monthly system performance	
OODOT Solar Highway	AES - OODOT - Monthly Generation	Check monthly system performance	
IPE: Operations/Maintenance	Operations/Maintenance Building	Check monthly system performance	

**Bishop Hall (IPE: Bishop Hall)**

First Triggered: Thu Oct 1 2015 7:30 - Last Triggered: Thu Oct 1 2015 10:00 - Duration: 0 hours

Update Alarm Settings

ALARM NAME: Bishop Hall

ALARM DESCRIPTION: Check monthly system performance against expected production.



Gateway: Device is functioning normally

Generation Meter (Veris H8035-0100-2): Device is functioning normally. Last Reported: Monday October 12, 6:30

Weather Meter (Irradiance, Temp, Humidity): Device is functioning normally. Last Reported: Monday October 12, 6:30

Wind Meter: Device is functioning normally. Last Reported: Monday October 12, 6:30

DC Current Monitor (8 Strings): Device is functioning normally. Last Reported: Monday October 12, 9:00

**LATEST READING**

1.1

CLICK FOR MORE

Total Generation: 155326 kWh  
 AC Power: 1.1 kW  
 Voltage A Line to Neutral: 282 volts  
 Voltage B Line to Neutral: 282.2 volts  
 Voltage C Line to Neutral: 279.8 volts  
 Current A: 0 amps  
 Current B: 0 amps  
 Current C: 0 amps  
 DC Voltage: 317 volts  
 DC Current: 1.3 amps

▶ **Inverter and Device Data** - Instant access to performance data directly from the inverter. DECK Monitoring is compatible with most commonly used commercial inverters. In addition our system views give the user instant visibility to each device which is reporting to the system.

## DECK HARDWARE:

**Components:** The standard DECK Monitoring solution is comprised of a data gateway which is mounted on site. This data gateway communicates with supplied meters and data gathering hardware which connects via Modbus, Pulse, or wireless signals. Typically the included CT Meter is used to measure system generation after the inverter on the AC side.

**Revenue Grade and Extendable:** Our hardware components were selected for future expandability, high resolution data and low failure rates. Our system components can be incorporated into other third party systems down the road. In the future, if you would like to add demand monitoring capabilities, integrate with other EMS systems, add another array, weather station, string monitoring solutions or countless other components, you can use the same hardware and you will not have to replace the core components of the system.

## KEY HARDWARE CAPABILITIES:

**Choice of meters**

**Demand (load) metering options**

**Plug and play with third party components**

**Expandable platform**

**Wireless (cellular) connectivity options**

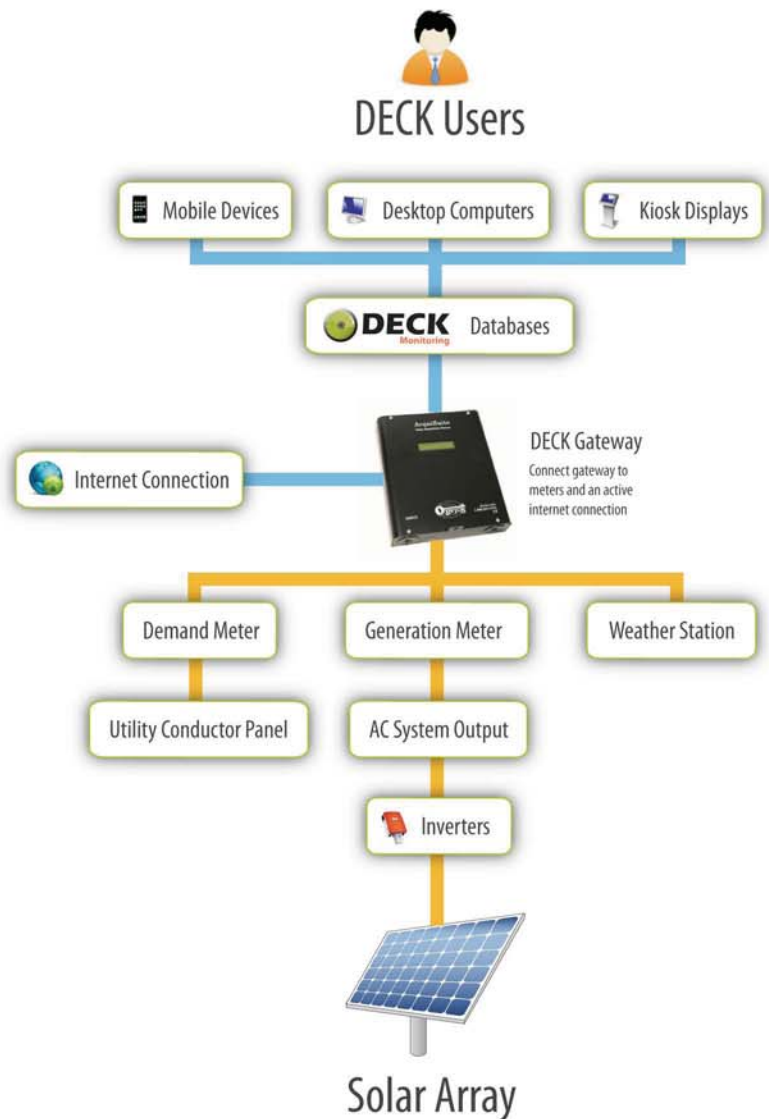
**String monitoring options**

**String combiner box integration**

**Data backup stored onsite in hardware**

**Revenue grade data**

**Inverter communication capabilities**



## EASY INSTALLATION:

The DECK Monitoring platform is designed around plug and play connectivity, and proven communication standards. Mount the gateway to the wall in the facility, connect the internet to the gateway, and install our CT meters to get up and running. We offer a choice of CT meters for our customers including split core Veris CT meters and Shark Electro Industries CT meters.



### STEP 1: GET QUOTE

We can provide you with our standard price sheet, making it easy to price your system on your own. If you have any questions about our solutions or how to price them, contact our sales team and we will generate a custom quote for you or your client.



### STEP 2: PLACE ORDER

Place an order with us directly, or with one of our distribution partners. You will be given the same quality service and equipment either way.



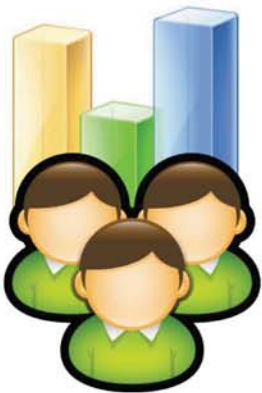
### STEP 3: SITE SURVEY FORM

As soon as you place an order we will send you a link to our online site survey form. The site survey form will give us the necessary information to customize the hardware and software for your specific project. If there is any other needed information, we will contact you directly.



### STEP 4: SHIPMENT

We will pre-configure your hardware and software so it is ready to install, and then drop ship your equipment to your specified shipping address. Standard solutions may ship within two to three weeks. Custom solutions may take longer depending on wait times for hardware.



### STEP 5: Installation

When your team receives the equipment onsite, the software will already be deployed. At this point once the hardware is connected and configured, the installation will be complete.