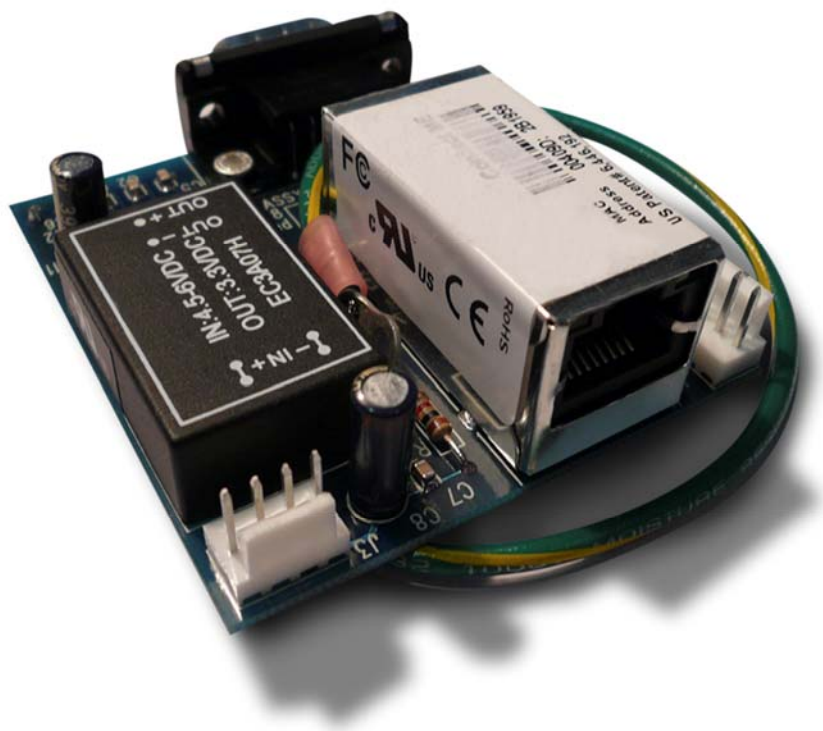


# PVM1010 Inverter Data Monitoring Module

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## User's Guide



**PVPowered**

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## 1 INTRODUCTION

The PVM1010 Data Monitoring Module is a data acquisition and communications interface accessory that you can add to PV Powered inverters. When installed, this module can provide PV system performance data three ways:

1. The recommended way to use the PVM1010 Data Monitoring Module is to subscribe to the standard monitoring service on the *myvpvpower.com* website, which lets you track the PV system and inverter information online.

This secure website is provided by PV Powered, and the Basic Monitoring Service is free to all registered users.

2. For on-site monitoring that doesn't go through the website, users can access performance information directly from the PVM1010 circuit board using standard open UDP protocol from PV Powered.
3. Add remote, incentive-based performance monitoring and reporting programs for third parties.

This *User's Guide* explains how to use the Basic Monitoring Service provided on the *myvpvpower.com* website.

NOTE: To use Options 2 and 3, contact PV Powered for special arrangements.

### 1.1 How the PVM1010 Works

An inverter changes direct current (DC) produced by a solar array into alternating current (AC) that can be used in a home or business. The PVP1010 Data Monitoring Module includes a printed circuit board (controller card) that is installed on the inverter and a user-subscribed web-based performance monitoring service.

The PVM1010 circuit board gathers energy data from the inverter, which it then transmits to the *myvpvpower.com* web server in data "packets" every 15 minutes. The *myvpvpower* website displays the inverter and PV system performance information for registered users.

### 1.2 PVM1010 Features

#### Easy Installation

To add the PVM1010 Data Monitoring Module to a pre-installed inverter, installers plug the PVM1010 Module circuit board into the inverter and connect it to a broadband internet router with continuous internet access. LED blink codes and PV Powered technical support help installers troubleshoot the system before leaving the installation site. For instructions on installing the PVM1010, refer to the *PVM1010 Data Monitoring Module Installation Manual*.

## Convenient Access to Inverter Data

The PVM1010 Data Monitoring Module offers 24-7 remote access to inverter performance information. The inverter sends data to PV Powered's web server every 15 minutes. By entering a secure web-based login, users and installers can view and monitor near-real-time data for inverters.

## User-Friendly Presentation

The PVM1010 *myvpvpower.com* website displays inverter performance data in simple and understandable graphics, charts, and language. Information includes a summary of voltage and power output over various time ranges, historical energy produced, and total energy production, as well as detailed energy data.

## Integrated Support Tools

The PVM1010 *myvpvpower.com* portal integrates a variety of support tools. The website includes an online Service Request Form – just click a link to request service for your PV Powered inverter or PVM1010 Data Monitoring Module. You also have quick access to online documentation, including frequently asked questions (FAQs) and answers available on the Support page.

## Online Warranty Registration

The PVM1010 Data Monitoring Module lets installers and users register the warranty online, in just a few easy steps. This convenient process is a quick way to register installations without postponing or interrupting service.

## 1.3 Purpose of This Manual

This User's Guide is designed to help registered users of the PVM1010 Module's basic monitoring service access, navigate, use and interpret the performance data presented on the *myvpvpower.com* website.

## 1.4 Terms and Definitions

You will encounter the following acronyms and terminology in the PVM1010 documentation.

Power	A unit of electricity in DC circuits equal to the product of current and voltage.
DC	Direct Current
AC	Alternating Current
Watt (W)	Unit of power; one joule per second. Ex: an incandescent light bulb might use 40 to 100 watts.

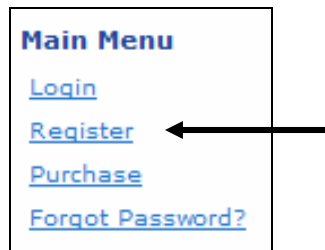
Kilowatt (kW)	Unit of measuring power; 1000 watts of power.
Watt -hour	Unit of energy that's often used for electric meters in the form of kilowatt-hours. One watt-hour is the electrical energy expended by a one-watt load, such as a light bulb, over one hour.
Kilowatt-hour (kWh)	Unit of energy; 1000 watt-hours, or 1000 watts of continuous power acting over a period of one hour. Commonly used by electric companies to measure energy consumed per hour, or – in the case of PV arrays – energy produced or output per hour.
Mega-watt-hour (MWh)	Unit of energy; 1000 kilowatt-hours, or 1,000,000 watts of continuous power acting over a period of one hour.
Vdc	Volts of DC
Irradiance	The direct, diffuse, and reflected solar radiation that strikes the surface.
Efficiency	The ratio of output power (or energy) to input power (or energy). Expressed in percent.
Grid	Term used to describe a utility's electricity distribution network.

## **2 REGISTER THE PVM1010 MODULE**

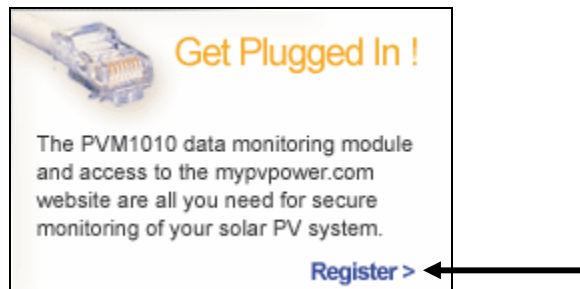
If the PVM1010 Data Monitoring Module is installed and hooked up to Ethernet, you can register the PVM1010 on the *mypvpower.com* website.

NOTE: This is usually done with the installer on-site, immediately after the installer hooks up the PVM1010 device. Both the installer and the user will have the required url and password for future access to PVM1010 Data Monitoring Module monitoring data.

4. Open your internet browser and type [www.mypvpower.com](http://www.mypvpower.com) in the address line.
5. If you are a first time user, follow the directions below to register your PVM1010 Data Monitoring Module. Otherwise, you can log in directly.
6. From [www.mypvpower.com](http://www.mypvpower.com), click **Register** on the left hand menu:



You can also access the registration wizard from the **Register** link located on the right side of the page:



7. **Step 1** displays on the first page of the registration wizard.

The wizard asks for your personal information, including your first name, last name, and your email address. The email address will be your future Login.

**NOTE:** If you forget your password, PV Powered support will send your new password to this address.

Complete the information and click **Continue**.

The screenshot shows a four-step progress bar at the top: Step 1 (Personal Information), Step 2 (Installation Location), Step 3 (Inverter Selection), and Step 4 (Finish | Create Account). Step 1 is active. The main content area is titled "Step 1 - Fill in your personal informaton." and contains three text input fields: "First Name:", "Last Name:", and "Email/Login:". Below these fields is a blue "Continue" button with a right-pointing arrow.

8. **Step 2** asks for the location of the inverter and the name of the Installer.

Complete all of the required field information. Click **Back** if you want to correct information in Step 1, or click **Continue** to Step 3.

The screenshot shows the same four-step progress bar, with Step 2 (Installation Location) now active. The main content area is titled "Step 2 - Tell us where your inverter is installed." and contains several input fields: "Street", "City", "State", "Zip", and "Phone" (all text inputs); "Time Zone:" with a dropdown menu currently set to "Los Angeles"; and "Installer" with a text input field and a circular arrow icon to its right.

The **Installer** field auto-completes when you start typing. If your installer is not in the auto-completing list, manually finish entering your installer's company name.

9. **Step 3** asks for the serial number(s) on your inverter(s).

Click **Add Another Inverter** to enter multiple inverters at once. You can also add a nickname for your inverter(s) to make it easy to identify. Example:  
*Back Yard*

Complete this information and click **Continue**.

Step 1      Step 2      **Step 3**      Step 4  
Personal Information      Installation Location      Inverter Selection      Finish | Create Account

**Step 3 - Which inverter(s) did you purchase?**

Serial # is a required field. Your serial number should begin with 'PV', 'SP', or '280XV' followed by a series of digits.

Inverter Serial #      Nickname

[Add Another Inverter](#)

**← Back      Continue →**

10. **Step 4** asks you to review the information you entered. If anything is incorrect, click on the underlined heading to change the data.
11. The system asks if you want to set up a mypvpower.com account, or if you just want to Register your inverters.

Click **Yes, I want a MyPVPower Account**.

12. **Step 5** asks you to set up a **Password** for your MyPVPowered account.

The password is case-sensitive and must be five or more characters long. When you login, remember that this password is case-sensitive and you must always enter it the same way.

13. After you complete all the steps, log into your account using your email address (for the Login) and your **Password**.

Now you can view the inverter data on the [www.mypvpower.com](http://www.mypvpower.com) website.

NOTE: Registration information is also included in the *PVM1010 Module Installation Manual* and the *Quick Start* guide.

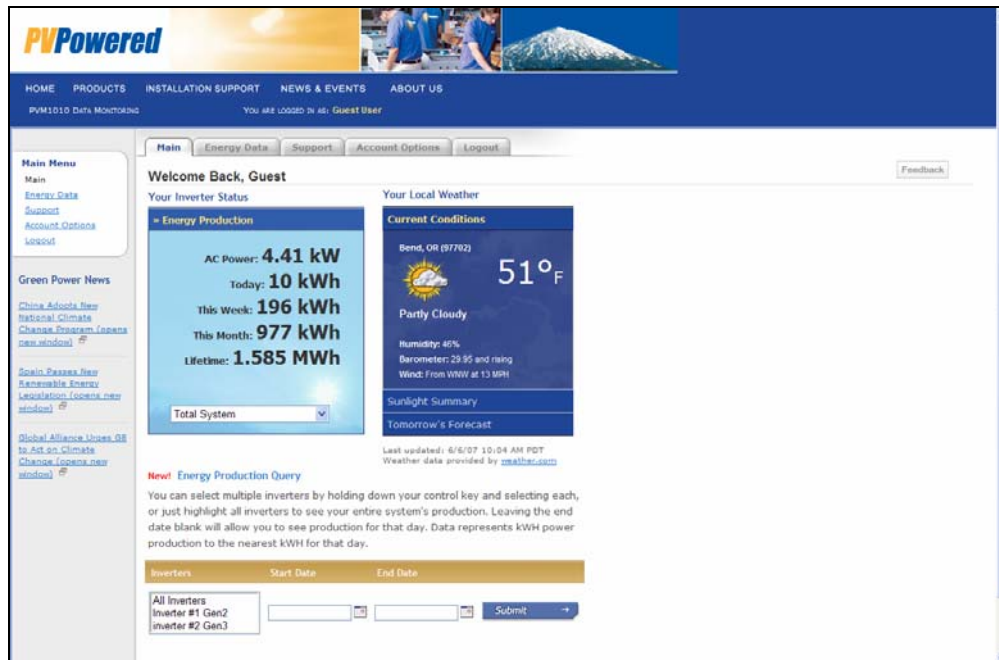
**CONGRATULATIONS! The PVM1010 Data Monitoring Module is now registered and ready for you to start monitoring this inverter's performance data.**

### 3 OVERVIEW AND NAVIGATION

#### 3.1 Website Overview

The mypvpower.com website is organized into four primary categories of pages:

- ◆ **Main page** – This is your “landing” page. It displays immediately after you Log In. The Main page includes a summary of your Energy Production, as well as local weather information that might affect the performance of your PV array. It also provides a query that calculates power in kilowatt hours (kWh) for the selected inverter for a particular date or date range. You can export the query data for reporting or analysis purposes.



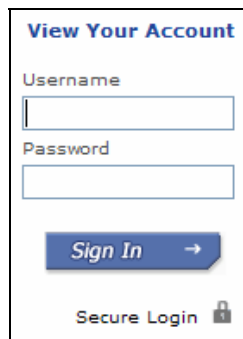
Main page (landing page)

- ◆ **Energy Data page** – This page displays user-friendly graphs showing your inverter’s DC Input voltage in relation to the AC voltage output produced by your inverter. View energy production for a particular inverter / time interval combination. You can see data for Today, Yesterday, the Last 3 hours, the Last 8 hours, 24 hours, or Last Week. The page also features a Quick Glance window that keeps a running tab on the Total Energy and AC Power produced by your PV system for the current day.
- ◆ **Account Options page** – In Account Options, you can view, update or add information related to your mypvpower.com account. This page provides links for editing your personal user information (such as your name, Login and Password), the location of your installation, inverter information (model and serial number), and the name of your installer.
- ◆ **Support page** – This page offers helpful features like FAQs (frequently asked questions and answers), access to additional documentation, and an online service request form.

### 3.2 Log into the Website

To access your inverter performance data on the mypvpower website:

1. Open your internet browser and type [www.mypvpower.com](http://www.mypvpower.com) in the address line. The mypvpowered Login page displays.
2. You registered your account. Now you can directly log into the website.
  - ◆ Enter your **Username**. This is your Email Address that you entered when you registered your account.
  - ◆ Enter the **Password** that you created when you registered your account.



The image shows a login form titled "View Your Account". It contains two text input fields: "Username" and "Password". Below the "Password" field is a blue button labeled "Sign In" with a right-pointing arrow. At the bottom of the form, there is a "Secure Login" label with a small lock icon.

NOTE: The first time you log into your account, a message asks if you want to save your Password. Click **Yes** if you want the system to auto-populate your **Password** the next time you enter your **Username**.

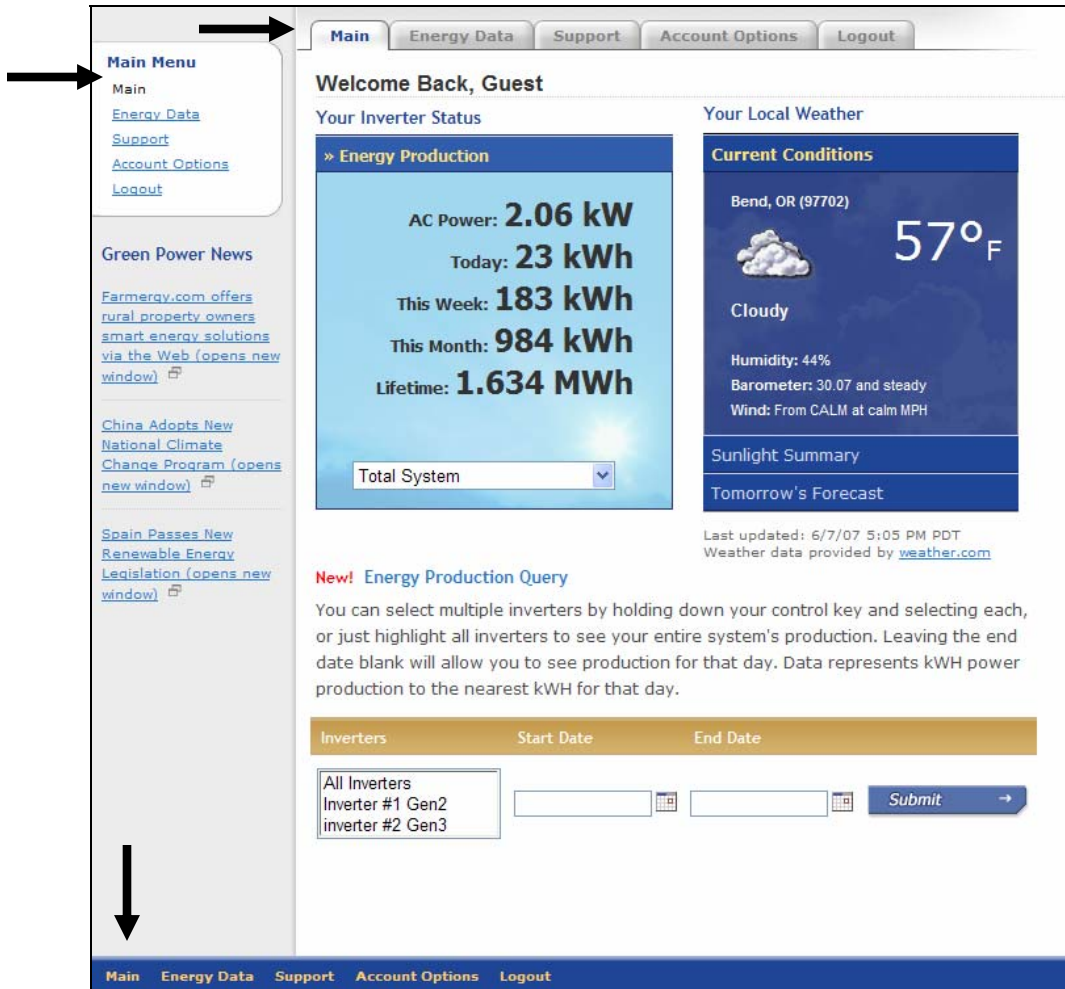
3. Click **Sign In**. The Main page of your mypvpower account displays summary performance data and local weather information.

### 3.3 Navigate the Website

To view information on the website, use the general navigation techniques and features that are common to most websites and Windows applications.

All pages on this website provide three ways to link to other menu items and functions:

- ◆ **Side Menu Bar** – Click the desired item listed on the left side-bar menu to access the corresponding page or function on the website. *OR*
- ◆ **Tabs** – Click one of the tabs that run horizontally across the page (located below the banner and above the content body). *OR*
- ◆ **Links at the Bottom** – Click the links displayed at the bottom of the page to access another place on the website.



The menu item or page that's selected displays in a different color from the other items on side menu. That selected menu item no longer displays as a hyperlink.

Also, the tab that's selected displays in front, while the non-selected tabs are grayed out.

### 3.4 Additional Features

#### 3.4.1 Green Power News Links

PV Powered also provides links to interesting articles and information about solar power and the energy industry. Look on the left side bar under **Green Power News** for these links to news articles and current events.

#### 3.4.2 Customized Website Portals

In the future, Installation Companies will have the option of giving their customers access to their customized version of the mypvpower.com portal. Someday, you might use a website that reflects your Installation Company's brand.

## 4 VIEW YOUR PERFORMANCE DATA

Inverter performance monitoring data is located on both the **Main** page and the **Energy Data** page.

### 4.1 Main Page

To view the energy production information on the Main page:

1. Click **Main** on the left side menu bar. The Main page displays.

NOTE: When you log in, this is also the first page you see. If **Main** is selected on the left menu bar and the menu tabs, you are already on the Main page.

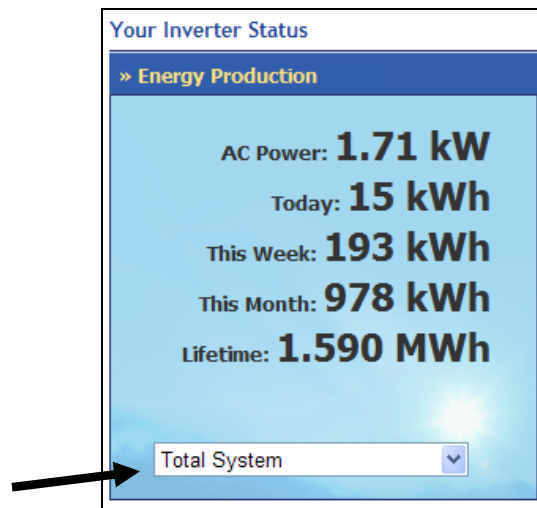
2. View the **Energy Production** summary, check **Your Local Weather** information, or submit an **Energy Production Query** to calculate energy for selected inverters over a specific time period.

#### 4.1.1 How to Read the Energy Production Summary

The Energy Production window displays energy data for Today, This Week, This Month, and Lifetime for the selected inverter(s).

To view a quick summary of current and historic energy production values, use the drop-down list at the bottom of the window to select either a specific inverter or **Total System** for all inverters.

- ◆ If you select **Total System**, the Energy Production window displays data for the all inverters registered for your PV array.

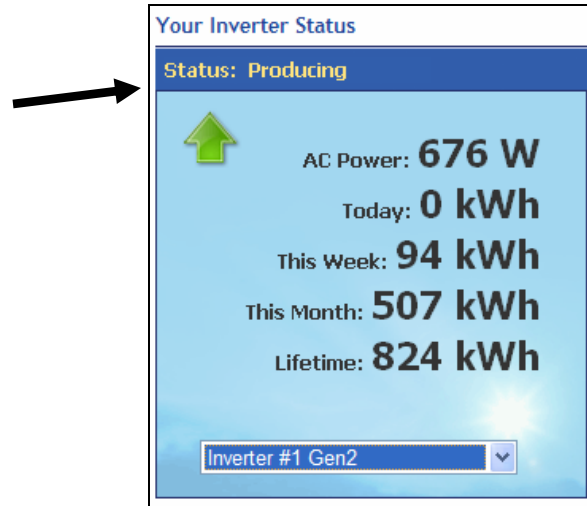


*Energy production for the total system (all inverters)*

- ◆ If you select a specific inverter, the data is for that particular inverter only.

## Status

If you select a specific inverter, the current operating state of the inverter (**Status**) displays at the top of the window, sometimes accompanied by an icon representing the current status.



*Energy production for a specific inverter*

- ◆ **Producing:** Your inverter is generating AC POWER from your PV system. This status is common during sunlight hours.
- ◆ **Sleeping:** Your inverter is online, but unable to produce energy. This status might occur at night or if your PV system might be under shade and unable to convert power.
- ◆ **Faulted:** There is a problem with the inverter system. Submit a Service Request.
- ◆ **Unknown:** There are several possible causes for this status:



- ◆ The PVM1010 device is not yet installed on the inverter.
- ◆ The installation of the device wasn't successful.
- ◆ The device is already installed, but 15 minutes have not yet passed for it to post energy data to your account.

## AC Power

AC Power is the amount of power produced by your PV system up to the current date and time, as of the last data update to the server. This value is measured in watts (W) or kilowatts (kW), which is 1000 watts.

If you select a particular inverter in the Energy Production window, this value represents the amount of power produced by the selected inverter on the current day so far.

### Today

This value is the amount of power in kilowatt hours produced so far today. A kilowatt-hour (kWh) is 1000 watts of power continuous for one hour of time.

### This Week, This Month, Lifetime

These values represent the energy produced by the by the selected inverter or PV system, as measured in kilowatt-hours, for that week, month, or from the time it was installed and went online with the PVM1010.

The weekly and monthly incremental measurements are only updated after one full week or one full month of production.

### 4.1.2 Run an Energy Production Query

The website lets you query the database for energy production values based on user-selected inverters and time periods. You can enter a date range using Start and End Dates, or just enter a **Start Date** to collect the energy data for that day only.

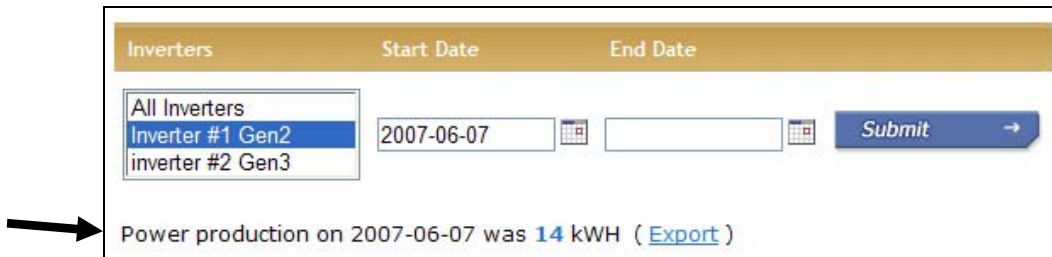
To use the Query:

1. Select **All Inverters**, to retrieve data on the entire system, or a specific inverter.  
  
To select more than one inverter for the Query, you can also press CTRL and right-click (Control-Click) each inverter you want selected into the query.
2. To enter a **Start Date**, click the calendar icon and then select the month and date (click the day). The system looks for data produced from midnight of this Start Date.
3. To enter an **End Date**, click the calendar icon and select the month and date. The system gathers data from midnight of the **Start Date** up to 11:45 p.m. of this **End Date**.

If you leave this field blank, the query gathers data for the day of the **Start Date** only.

4. Click **Submit** to request the query.

The result of the query displays as power production to the nearest kilowatt hours for the day or date range entered.



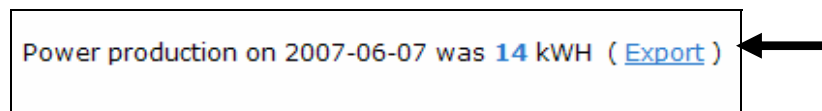
**Export Your Performance Data**

This feature gives you the flexibility to export detailed energy data to a CSV file or Excel spreadsheet, which can then be used for your personal records or to generate additional reports.

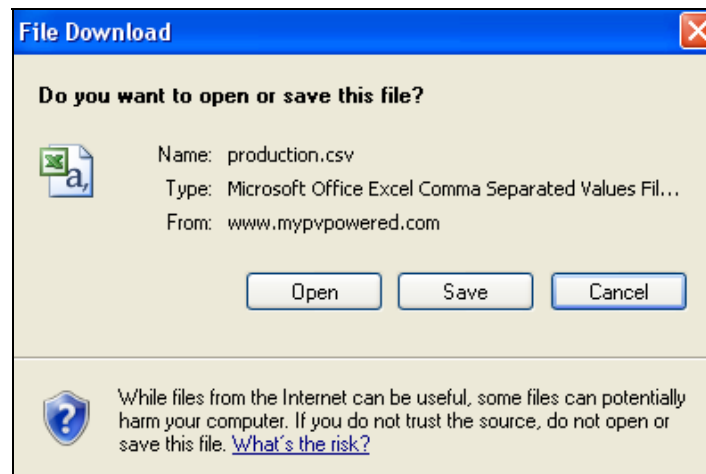
NOTE: The data is exported to a CSV file, which opens in Excel by default if that program already resides on your computer.

To export your query to a file:

1. Click the **Export** link next to your query result.



The **File Download** window displays.



2. Click **Open** to view the file, **Save** to save the file to a folder on your computer or disk, or **Cancel** to stop the export process and return to the **Main** page.

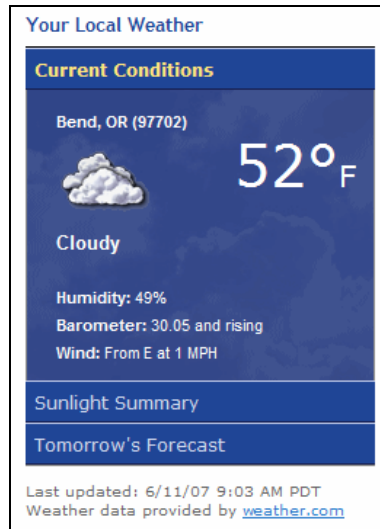
The query gathers data in 15-minute increments, for each data packet sent from the PVM1010 to the mypvpower.com server.

- ◆ If you click **Open**, the file opens in Microsoft Excel. You can review the data and close the file, or select **Save As** from the **File** drop-down menu to save the query as an Excel spreadsheet.
- ◆ If you click **Save**, a Browser opens and lets you select the folder and filename to which you want the query saved.

### 4.1.3 Check Your Local Weather

Sunlight and weather conditions, particularly clouds, affect the amount of irradiance available to your solar array. The Local Weather window displays local weather conditions that may affect the performance of your PV system.

**Current Conditions** is expanded by default when you access the **Main** page. Click **Current Conditions**, **Sunlight Summary**, or **Tomorrow's Forecast** to expand the section you want to view.



Below the window, a message indicates when the server last updated this weather information.

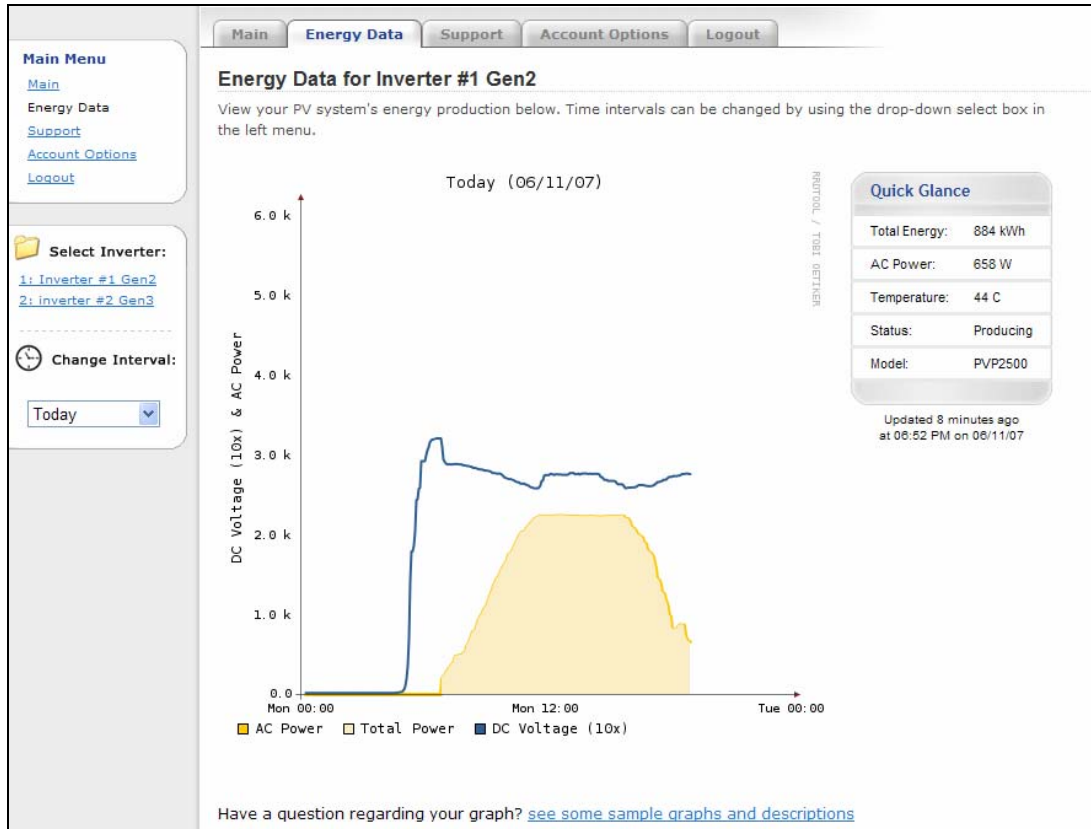
## 4.2 Energy Data Page

The Energy Data page displays a power curve graph showing how efficiently your inverter transfers DC Input voltage into AC voltage output. This page also has a **Quick Glance** window showing current power production and inverter information that is updated every 15 minutes.

The PVM1010 Module stores minute-by-minute information about your inverter, and it sends observations (data packets) to your mypvpower.com account every 15 minutes. More frequent, real-time updates by the minute or second could take up a lot of bandwidth and slow down the website's responsiveness.

The mypvpower.com website displays inverter data in display easy-to-read graphs that accurately show power trends for the current day or other time intervals, such as yesterday and even last week. To change the time interval displayed on the graph, select a different time range from the **Change Interval** drop-down list.

To view energy graphs and the **Quick Glance** information, click **Energy Data** on the side menu bar. The Energy Data page displays:

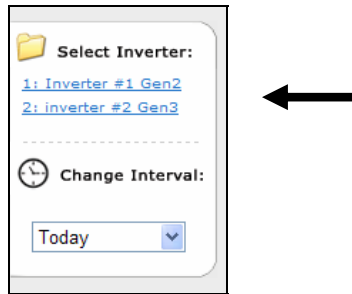


*Graph shows data so far for the current day*

#### 4.2.1 Read the Power Curve Graph

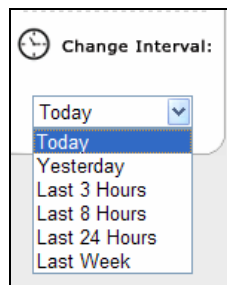
The Energy Data power curve is a user-friendly graph showing your inverter's DC Input voltage in relation to the AC voltage output produced by your inverter. View energy production for a particular inverter / time interval combination.

1. Your mypvpower.com account can track more than one inverter at a time. Under **Select Inverter**, click the inverter for which you want the graph data displayed.

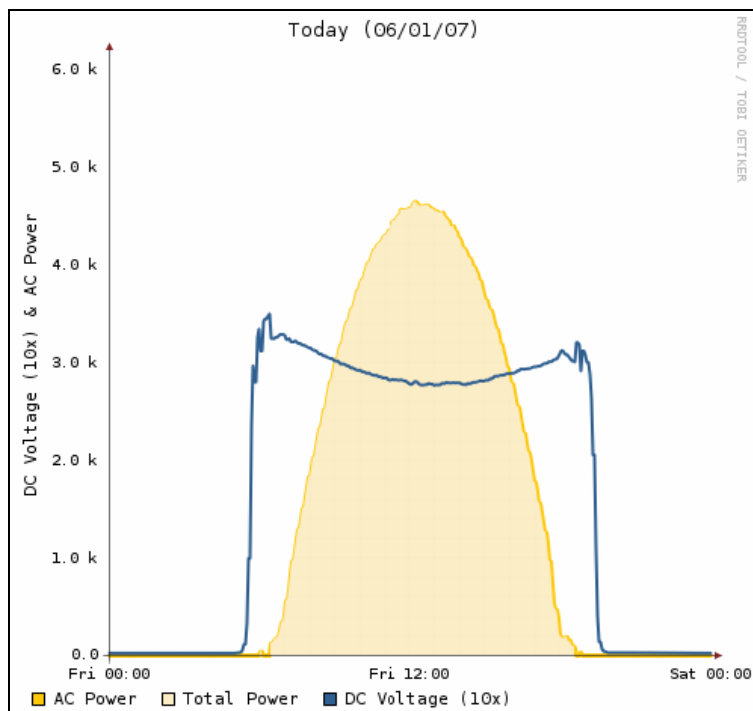


2. On the **Change Time** drop-down list, click and select the time period for which you want the graph to display. The graph can report data for **Today**, **Yesterday**, the **Last 3 hours**, the **Last 8 hours**, the past **24 hours**, or for the **Last Week**.

NOTE: The time interval defaults to **Today**, for the current day's power curve.



The graph shows the power curve for the inverter and time interval selected.



Sample graph

- ◆ **DC voltage** produced by your solar array is represented by the BLUE line on the graph. DC input voltage is the voltage output of your PV array to the inverter – it's determined by panel configuration and temperature of your PV panels. The graph shows it multiplied by 10, to make it easier to see changes in voltage. That means 200VDC will look like 2000V on the energy graph.
  - ◆ The **AC power output** of your inverter is represented by the YELLOW line.
3. For more information on interpreting your energy graph, click the link to **see some sample graphs and descriptions**.

Current is directly dependent on the amount of available irradiance. Several things can affect the available irradiance and corresponding power curve, including weather, shade, and even dirt on the solar panels. That means not all graphs look alike, and many variations of the graph are within normal limits.

#### 4.2.2 Quick Glance Information

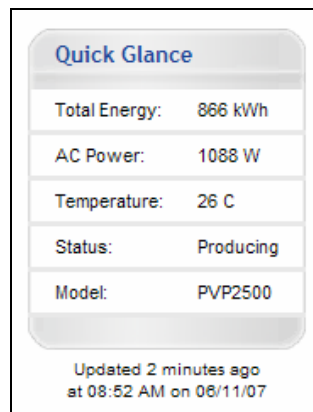
The Energy Data page also features a daily **Quick Glance** window that keeps a running total on the **Total Energy** and **AC Power** produced by your PV system for the current day.

Under **Select Inverter** on the side bar menu, click the inverter for which you want to display data.



The daily **Quick Glance** displays a summary of the most recent energy data for the current day, and for the inverter selected.

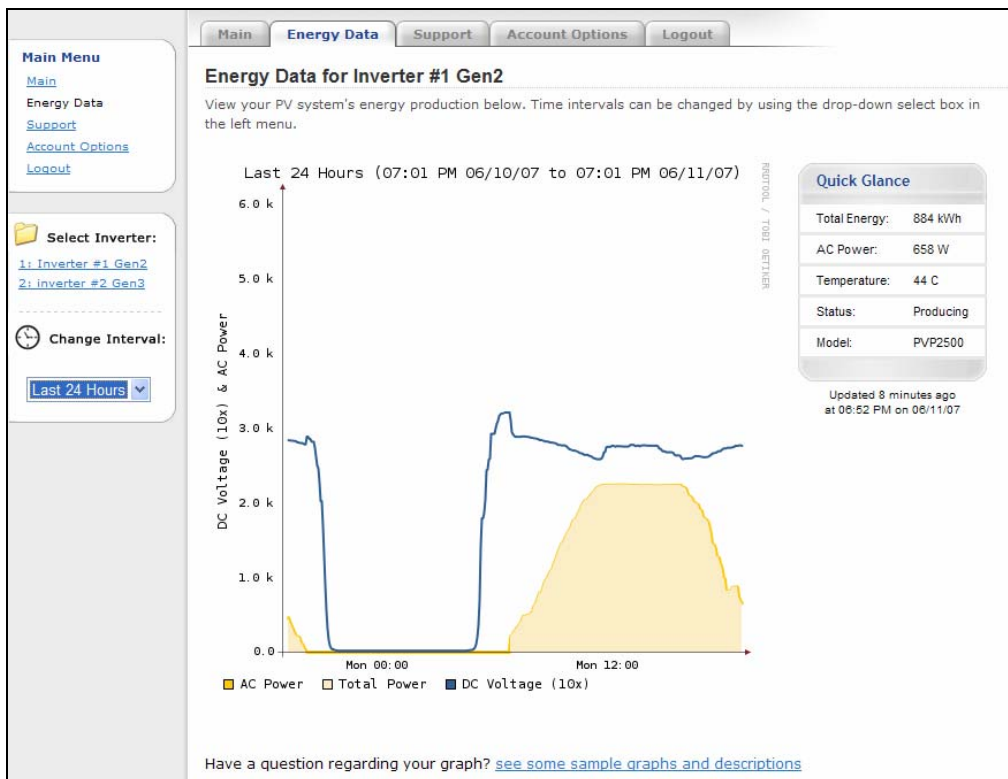
NOTE: The **Change Interval** has no effect on the daily **Quick Glance** data. It always displays for the current day.



- ◆ This information updates every 15 minutes. The **Updated** message beneath the **Quick Glance** table indicates when the PVM1010 device last sent data to the web server.
- ◆ **Total Energy** is the amount of energy produced in kilowatt-hours by the selected inverter.
- ◆ **Temperature** is the temperature of the heat sink located on the inverter. Normal is between the outside temperature and 90 C.
- ◆ The **Status** field is the current operating state of your inverter:
  - ◆ **Producing:** Your inverter is generating AC POWER from your PV system. This status is common during sunlight hours.
  - ◆ **Sleeping:** Your inverter is online, but unable to produce energy. This status might occur at night or if your PV system might be under shade and unable to convert power.
  - ◆ **Faulted:** There is a problem with the inverter system. Submit a Service Request.
  - ◆ **Unknown:** There are several possible causes for this status: The PVM1010 device is not yet installed on the inverter, or the installation wasn't successfully. The device might be installed, but 15 minutes have not yet passed for it to post energy data to your account.
- ◆ **Model** is the model number of the inverter selected on the Energy Data page.

### 4.2.3 Sample Energy Data Page

Review the following sample Energy Data:



The sample graph shows:

- ◆ Data that was collected on Inverter #1 for the past 24 hours.
- ◆ The DC input and AC power output dropped to zero for several hours. This is typical during the night, when sun is not available.
- ◆ DC input peaked just below 3500 volts (vdc) for the day, which is actually 350 volts.
- ◆ The AC power curve topped out at 3500 volts of power produced.

The **Quick Glance** window shows:

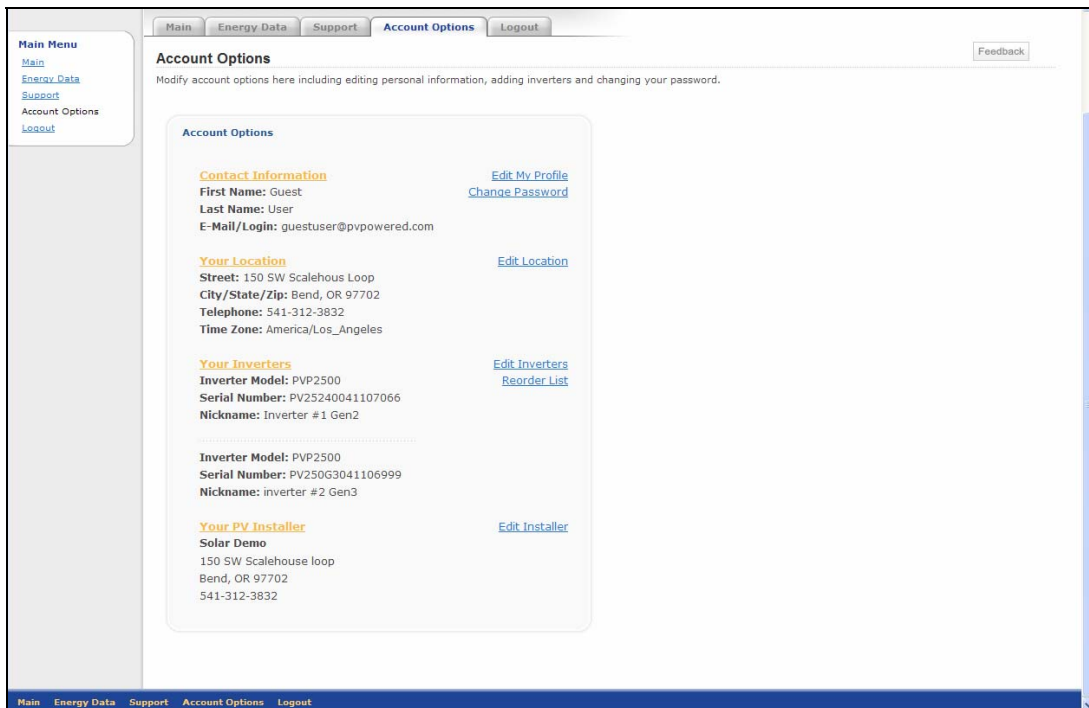
- ◆ Daily values. It does not reflect the 24-hour time interval selected.
- ◆ The data in the **Quick Glance** and on the graph was updated eight minutes earlier.
- ◆ The inverter's heat sink temperature is 44 degrees Centigrade.
- ◆ The inverter's current operating state is producing power, and its model number is PVP2500.

## 5 MAINTAINING YOUR ACCOUNT

The website's Account Options let you view, update and add information for your mypvpower.com account.

The Account Options page displays your mypvpower.com account information, including: user name and login information; the location of the inverter; all inverters associated with this mypvpower account; and your installer's company name and contact information.

1. To access the Account Options page, click **Account Options** on the side menu bar, tab menu, or bottom menu bar.



2. To change the information presented on this page, click the corresponding hyperlink on the right side of the window.

An edit page displays for you to update the details of your account.

### 5.1 Update Your Login Information

To change your user profile:

1. Click **Edit My Profile**. The edit window displays.

The screenshot shows the 'Account Options' page with a navigation bar at the top containing 'Main', 'Energy Data', 'Support', 'Account Options', and 'Logout'. Below the navigation bar is the 'Account Options' title and a subtitle: 'Modify account options here including editing personal information, adding inverters and changing your password.' The main content area is a rounded rectangle with the title 'Account Options' and a 'Cancel' link. It contains three input fields: 'First Name' with the value 'Guest', 'Last Name' with the value 'User', and 'Email/Login' with the value 'guestuser@pvpowered.com'. A 'Submit' button with a right-pointing arrow is at the bottom.

2. Change the **First Name** or **Last Name**.
3. Click **Submit** to save your changes, or click **Cancel** to ignore your changes and retain the original information.

To change your password:

1. Click **Change Password**. The edit window displays.

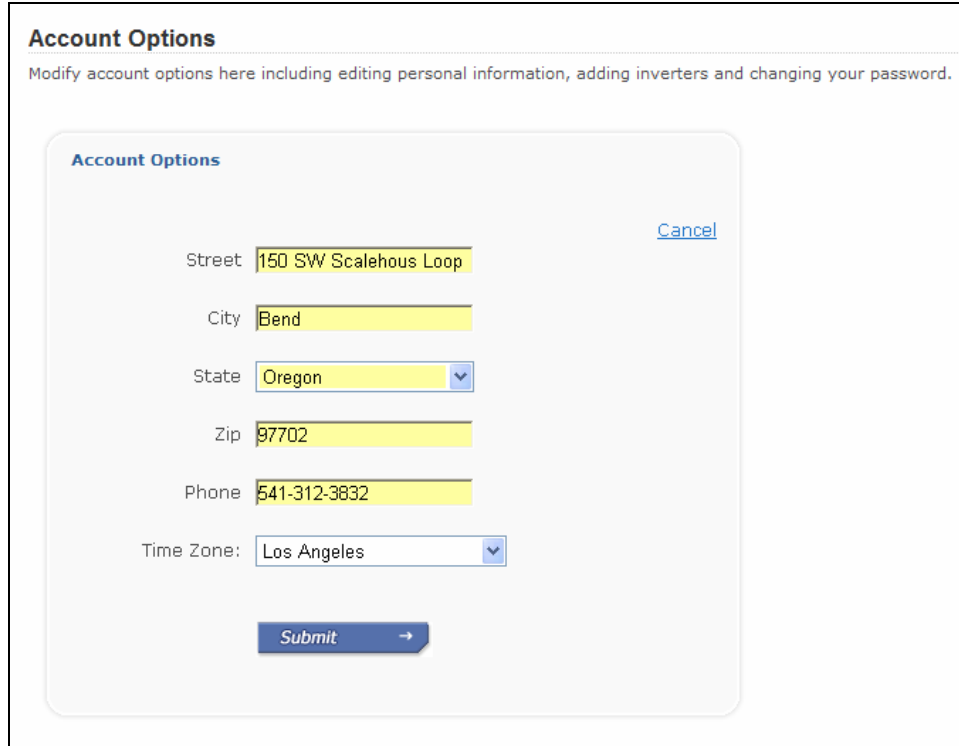
The screenshot shows the 'Account Options' page with the same navigation bar and subtitle as the previous image. The main content area is a rounded rectangle with the title 'Account Options' and a 'Cancel' link. It contains three input fields: 'Old Password:', 'New Password:', and 'Password Confirmation:'. A 'Submit' button with a right-pointing arrow is at the bottom.

2. Enter your current password in the **Old Password** field.
3. Then enter the **New Password**.
4. Enter the New Password again in the **Password Confirmation** field.
5. Click **Submit** to save your changes, or click **Cancel** to ignore your changes and retain the original information.

## 5.2 Update the Inverter Location

To change the physical location of your PV system and inverter(s):

1. Click **Edit Location**. The edit window for location displays.



The screenshot shows a web form titled "Account Options" with a subtitle "Modify account options here including editing personal information, adding inverters and changing your password." The form contains several input fields: "Street" with the value "150 SW Scalehous Loop", "City" with "Bend", "State" with a dropdown menu showing "Oregon", "Zip" with "97702", "Phone" with "541-312-3832", and "Time Zone" with a dropdown menu showing "Los Angeles". A "Submit" button with a right-pointing arrow is at the bottom, and a "Cancel" link is in the top right corner of the form area.

2. Enter a new street address or phone number, or use the drop-down list to select a different **Time Zone**.
3. Click **Submit** to save your changes, or click **Cancel** to ignore your changes and retain the original information.

## 5.3 Update Your Inverter Information

To remove or correct specific information for a registered inverter:

1. Click **Edit Inverters**. The edit window displays.

**Account Options**  
Modify account options here including editing personal information, adding inverters and changing your password.

**Account Options**

Serial # is a required field. Your serial number should begin with 'PV', 'SP', or '280XV' followed by a series of digits. [Cancel](#)

Inverter Serial #	Nickname
<input type="text" value="PV25240041107066"/>	<input type="text" value="Inverter #1 Gen."/>
<input type="text" value="PV250G3041106999"/>	<input type="text" value="inverter #2 Gen."/>

[Add Another Inverter](#)

→

2. You can assign an inverter a user-friendly nickname as an easy way to keep track of the inverters installed on your PV system.

Delete or backspace over an inverter's current **Nickname** and enter a new one.

3. Verify that the inverter's serial number is correct. If necessary, change it.
4. To add another inverter to your mypvpower account, click **Add Another Inverter**.

A blank row displays, where you can enter the new inverter's serial number and Nickname.

**Account Options**  
Modify account options here including editing personal information, adding inverters and changing your password.

**Account Options**

Serial # is a required field. Your serial number should begin with 'PV', 'SP', or '280XV' followed by a series of digits. [Cancel](#)

Inverter Serial #	Nickname
<input type="text" value="PV25240041107066"/>	<input type="text" value="Inverter #1 Gen."/>
<input type="text" value="PV250G3041106999"/>	<input type="text" value="inverter #2 Gen."/>
<input type="text"/>	<input type="text"/> ←

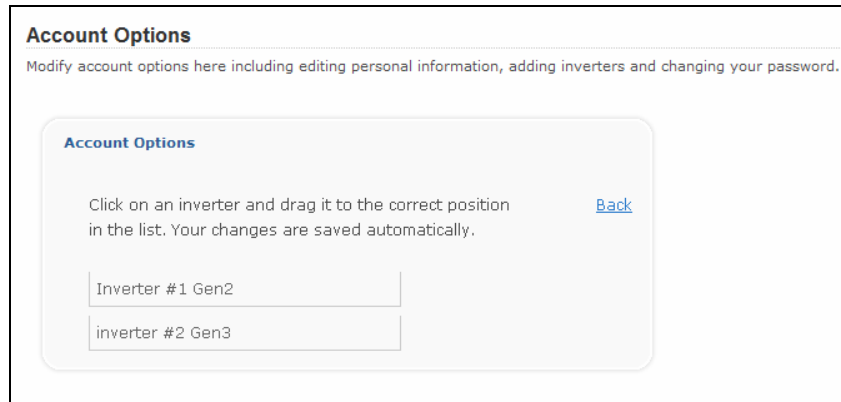
[Add Another Inverter](#)

→

5. To remove an inverter from your mypvpower account, click the Trash Can icon to the right of the inverter you want to delete.
6. Click **Submit** to save your changes, or click **Cancel** to ignore your changes and retain the original information.

To change the order in which the inverters display on the Main and Energy Data pages:

1. Click **Reorder List**. The edit page displays.

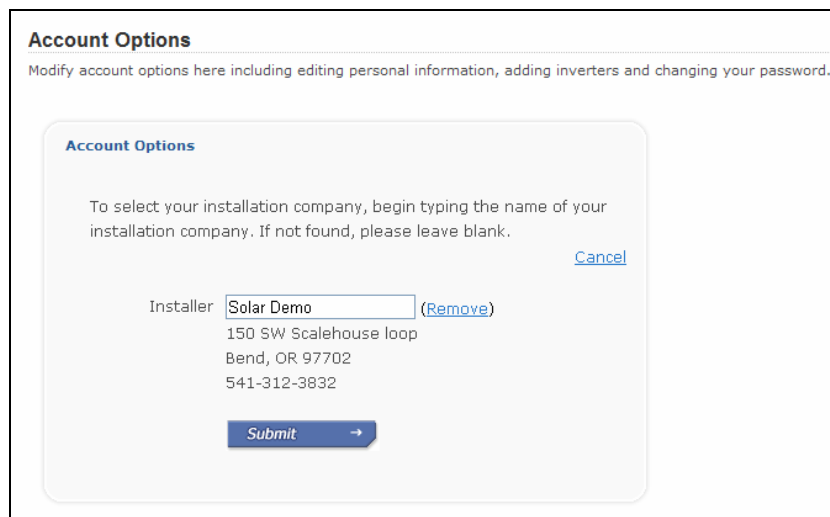


2. Click one of the inverter names on the list and drag it up or down to the correct position.
3. When you're satisfied that the inverters are listed in the proper order, click **Back** to save your changes and return to the Account Options view page.

## 5.4 Update or Add Your Installer's Information

To change your installation company's name or contact information or to add an installer if you did not enter it during the Registration process:

1. Click **Edit Installer**. The edit page displays.



2. If necessary, change or correct the Installation Company's name in the field.
3. If you forgot to add the installer Registration, start entering the company's name in the field.

If the Installation Company is already on file with PV Powered, the rest of the information on this page auto-completes.

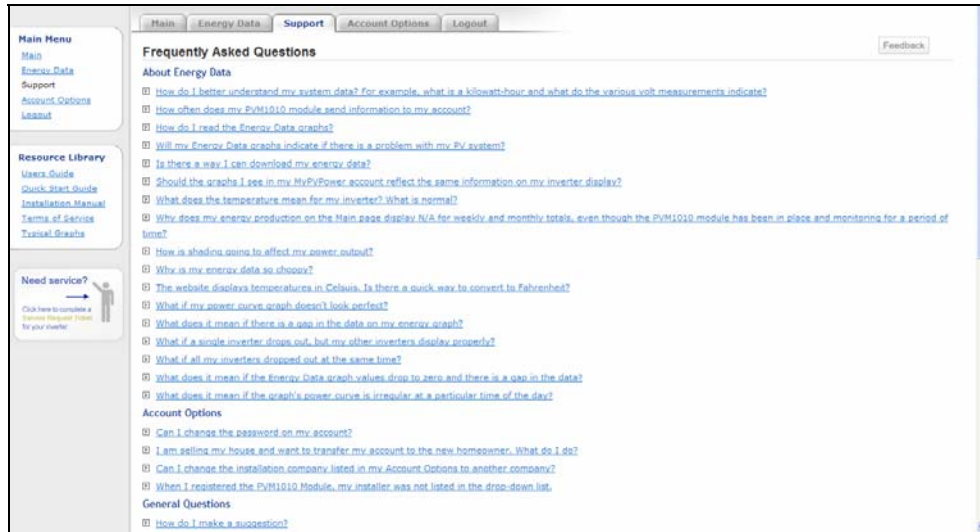
4. If you want to remove the Installation Company from your account, click **Remove**.
5. Click **Submit** to save your changes, or click **Cancel** to ignore your changes and retain the original information.

NOTE: You can change the Installation Company on your account, but we do not advise it. You and your installer are responsible for issues related to the performance of your PV array. If there is an issue with your inverter, PV Powered needs to be in contact with both you and your installer.

## 6 ONLINE SUPPORT TOOLS

The website's Support page provides a variety of online support tools to registered users, including:

- ◆ FAQs
- ◆ Online Service Request Form
- ◆ Resource Library of available documentation
- ◆ Feedback button (available on every page)



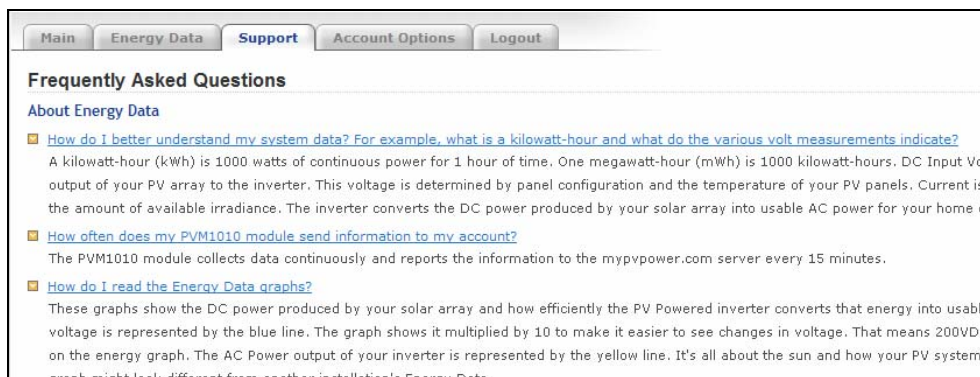
Click **Support** on the left menu bar to display the Support page.

### 6.1 Frequently Asked Questions (FAQs)

The Support page displays a list of FAQs organized into categories.

Simply click the question to view the answer. The answer stays open/expanded until you click the question a second time.

Use the scroll bar to see more FAQs.



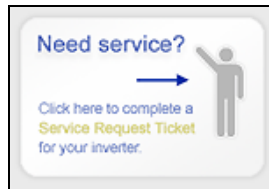
## 6.2 Request Service or Submit Feedback

PV Powered provides easy and automated ways for you to ask for help and to submit your suggestions and comments.

### 6.2.1 Online Service Request Form

To request technical support or service for your inverter or PVM1010 Module:

1. Click the **Need service?** link on the side menu bar.



The online service request form displays. Your account information automatically populates the form.

Main Energy Data **Support** Account Options Logout

### Submit A Service Request

If you have a a fault condition with an inverter or another technical issue specific to your installation, you may complete a Service Request ticket with us. We do ask that before submitting a Service Request that you check the [Frequently Asked Questions](#) pages first for an answer to your problem.

**Service Request Ticket**

Your Name: Guest User

Best telephone number to reach you...  
Telephone: 541-312-3832

Installation Location  
Street: 150 SW Scalehouse Loop  
City: Bend  
State: OR Zip: 97702

Indicate which inverters are affected:  
 PV25240041107066 (Inverter #1 Gen2)  
 PV250G3041106999 (inverter #2 Gen3)

Describe the problem you are experiencing...

Fault Code (if known)

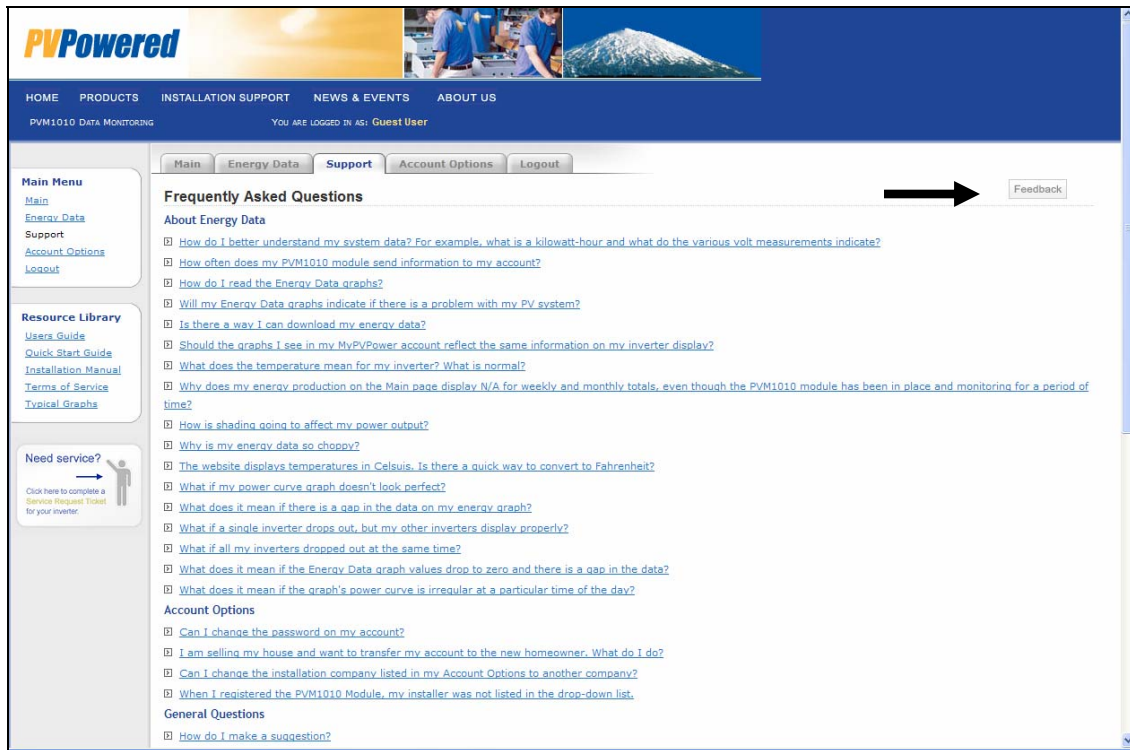
2. Click the appropriate checkbox to select the inverter that needs servicing.
3. In the free form text box, type the issue you're having with the inverter.
4. Enter the **Fault Code**, if you or your installer identified one on the inverter or the PVM1010 device.

NOTE: Your installer should refer to the Troubleshooting sections of the Installation Manual for your particular inverter and/or the *PVM1010 Data Monitoring Module Installation Manual*.

5. Click **Submit Service Request** to send your online service request to PV Powered.

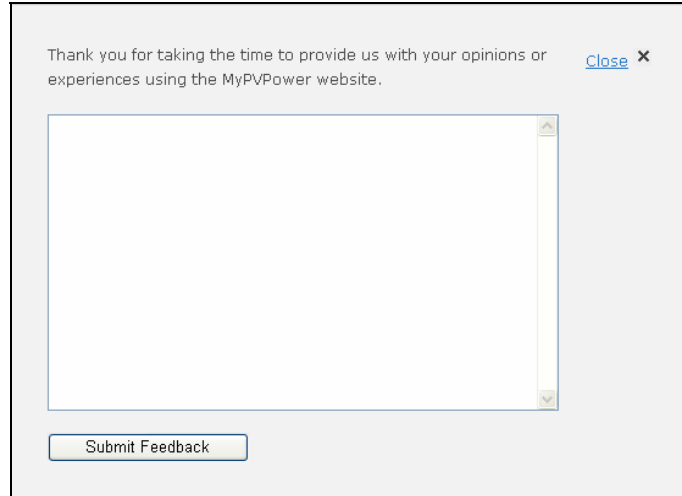
### 6.2.2 Feedback Button

A **Feedback** button displays in the upper right-hand corner of every page on the mypvpower.com website.



To offer suggestions or share your experiences with the mypvpower.com performance monitoring website:

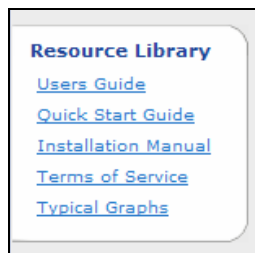
1. Click **Feedback**. The Feedback text window displays.



2. Enter your suggestions or comments in the free form text box.
3. Click **Submit Feedback** to send PV Powered your message, or click **Close** to cancel your message and return to the original web page.

### 6.3 Access Online Documentation

The Support page provides quick access to helpful documentation for the PVM1010 Module.



To display a pdf version of a particular document, click the link listed under the **Resource Library** on the left menu bar:

- ◆ *PVM1010 Data Monitoring Module Quick Start Guide*: A summary of how to install and hook up the PVM1010 Data Monitoring device. This is provided as a job for installers.
- ◆ *PVM1010 Data Monitoring Module Installation Manual*: A more detailed description of how to install and troubleshoot the PVM1010 device. This is provided for installers.
- ◆ *Terms of Service*
- ◆ *Typical Graphs*: Shows sample Energy Data graphs and explains how to interpret them. It is also available from a link on the Energy Data page.

NOTE: This *User's Guide* is also available online in the Resource Library.

## 7 TROUBLESHOOTING

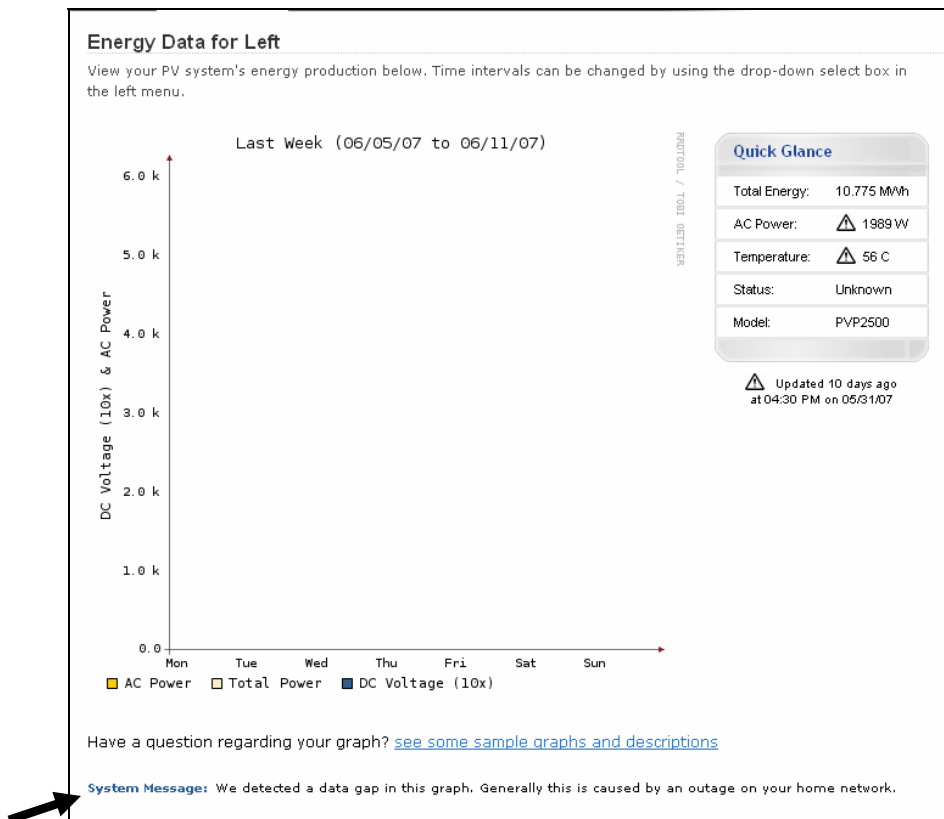
If connected properly, the PVM1010 Data Monitoring Module works well in most situations. However, you might encounter some issues with the network.

One or more of the following indicators might communicate a problem with the PVM1010 Data Monitoring Module system:

- ◆ The Blue LED Light on the PVM1010 device is blinking.
- ◆ The Amber light on the PVM1010 is NOT continuously ON.
- ◆ The Green light on the PVM1010 is continuously ON for an extended period of time (instead of flickering intermittently during transmissions).
- ◆ The *mypvpower.com* website does not display inverter data, or it displays an alert or system message.

### 7.1 System Messages

The mypvpower website displays a message if it receives gaps in the data transmissions.



## 7.2 PVM1010 Blue LED Blink Codes

The PVM1010 device displays a Blue LED light that is used exclusively for installation troubleshooting. This is your primary troubleshooting tool.

The Blue LED blink codes are designed to help you track down the problem, or point of failure, and correct it. If the Blue LED is not ON continuously (solid on), something is wrong and the Blue LED light issues “blink codes”:

1. When there’s a problem, the LED initially displays three blinks in a row, followed by a long pause.
2. Start interpreting the Blink Codes after the pause (when the blue LED is OFF).
  - ◆ The exception is the Router Connection Fault blink code, which does not pause. It continues to blink rapidly until the device re-establishes communication with the router.

**WARNING: Only qualified installers should open the inverter cover and look for blink codes.**

## 7.3 Possible Issues

The following table displays symptoms and their possible causes and solutions. Though many of the symptoms and causes overlap, this will provide a helpful starting place for identifying and resolving problems.

1. Symptoms	Possible Causes and Conditions
All lights are normal, but there are no posts to the server.	Account Registration problem. The serial number on the inverter doesn't match the serial number entered during user/account registration.
<b>Possible Solutions:</b> <ul style="list-style-type: none"> <li>◆ Download hot fix and reset the PVM1010 device.</li> <li>◆ Check the account serial number (on the Account Options tab on the mypvpower.com website) and make sure it matches the inverter’s serial number.</li> </ul>	
2. Symptoms	Possible Causes and Conditions
Inverter stops reporting data. (There is no data for several days.)	Internet connection problem. No power to the inverter. Bad connection between the PVM1010 and the nearest hub/router.
<b>Possible Solutions:</b> <ul style="list-style-type: none"> <li>◆ Verify that the internet connection works – is it up and running?</li> <li>◆ Verify that the inverter power is ON. A red or green light is on next to the display.</li> <li>◆ If the internet connection is okay, see if anything changed when data stopped reporting.</li> <li>◆ Open the cover to the inverter – are any lights illuminated next to the Ethernet port on the PVM1010?</li> <li>◆ If the Amber light is not ON, the connection or cable between the PVM1010 and the nearest hub/router is bad.</li> <li>◆ Check for Blink Codes and use them to track down potential issues.</li> </ul>	

3. Symptoms	Possible Causes and Conditions
Data display issue on website: <ul style="list-style-type: none"> <li>◆ No data displays on the website.</li> <li>◆ The data is older than 15 minutes.</li> <li>◆ Spotty data or breaks in the energy graphs.</li> </ul>	The network is not standard. It's a wireless bridge or BPL. The connection to the ISP is not consistent. The PVM1010 device was unable to communicate with the website at the time the post was supposed to occur.
<b>Possible Solutions:</b> <ul style="list-style-type: none"> <li>◆ Make sure the network is powered ON.</li> <li>◆ Change the network over to a more reliable, wired setup.</li> <li>◆ Try swapping components to test internet connectivity; use a different laptop or other portable device.</li> <li>◆ Replace the networking equipment if the router or cable/DSL modem is bad.</li> </ul>	
4. Symptoms	Possible Causes and Conditions
Data issues on website: <ul style="list-style-type: none"> <li>◆ Flat line or "0" for the data.</li> <li>◆ Data packets are being sent and the time is updating, but the data displays network drop-outs.</li> <li>◆ BLINK CODES: Short, Long, Short</li> </ul>	Serial connection between the PVM1010 and the inverter is bad or not seated properly. NOTE: It is rare for the serial connection to be bad.
<b>Possible Solutions:</b> <ul style="list-style-type: none"> <li>◆ Check the serial port connection in the PVM1010. Make sure the communication harness J13 connector is properly seated into the power board.</li> </ul>	
5. Symptoms	Possible Causes and Conditions
Can't log into mypvpower.com.	Incorrect login and password.
<b>Possible Solutions:</b> <ul style="list-style-type: none"> <li>◆ Verify that you're using the correct login and password.</li> <li>◆ Close all web browser windows and try again.</li> <li>◆ Click <b>Forgot Password</b> and use a temporary Password to login (sent to your email/Login address).</li> </ul>	

## 7.4 PV Powered Support

For networking issues, please contact customer support for your specific router vendor (Netgear, Linksys, etc.) or internet provider.

If you can't locate or fix the issue, please contact PV Powered Customer Support at **541-312-3832**.