



# [ ADMIN PANEL ] USER GUIDE



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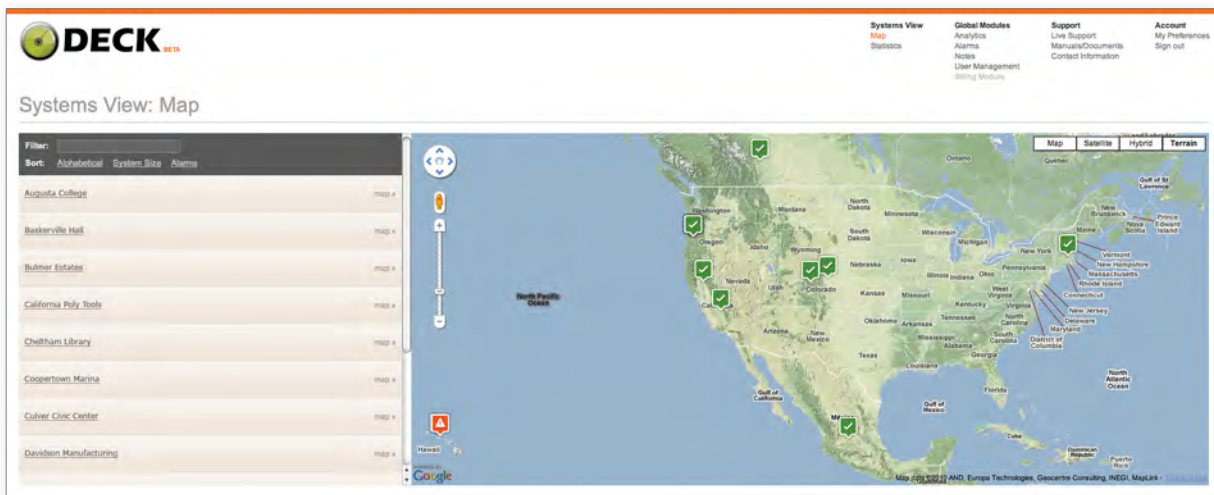
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## Logging In & Systems Overview

Upon opening <http://admin.deckmonitoring.com> you will be greeted by the login screen for the DECK Monitoring Admin Panel. Enter your login credentials supplied to you by DECK Monitoring. (You may also access the Admin Panel by clicking "Client Login" from the home page at [deckmonitoring.com](http://deckmonitoring.com).)



Upon logging in, you will be taken to the **Systems Overview** page. This page shows a list of your systems in the left column, and a map showing the location of your sites in the right panel. The list will arrange your systems in alphabetical order, but note that you can also sort by system size, or quickly find systems with unacknowledged alarms. Type the first few letters of a site name in the **Filter** window to bring that system to the top of the list.



Hovering over one of your jobs listed in the left column will activate the map to 'zoom in' to that location.



⋮ Alternate satellite view map

You can also choose to display your **Systems Overview** with statistics, giving you quick access to data from all your installations in one view.

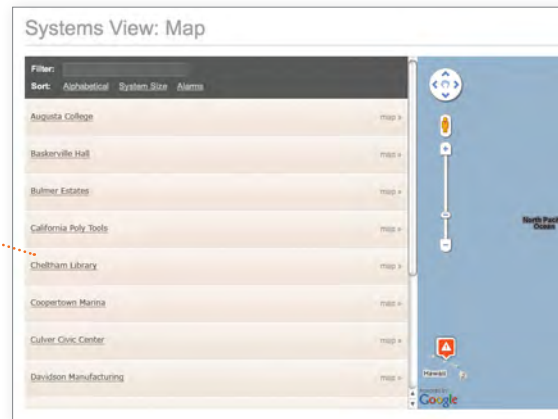
System	Current Power (kW)	Peak Today (kW)	Predicted Power (kW)	Irradiance to kW (Trend %)	DC Nameplate (kW)	Today (kWh)	This Month (kWh)	This Year (kWh)	Lifetime (kWh)
Asquita College	57.95	—	—	—	100.0	76.67	5678.22	139849.27	139849.27
Baskerville Hall	56.75	58.22	61.41	0.20%	76.54	132.66	3733.76	66232.71	66246.86
Bulmer Estates	308.11	304.95	149.82	2.19%	244.8	821.54	29876.59	485696.62	485753.43
California Poly Tools	45.01	45.71	53.29	5.10%	78.43	141.75	3029.63	71099.42	80467.31
Chelham Library	7.99	8.31	—	-34.71%	11.0	2.68	323.28	10571.39	22911.70
CoopersTown Marina	1722.65	1314.50	—	9.17%	1587.0	7311.25	112049.00	2856679.50	2837486.25
Culver Civic Center	1.40	8.53	—	—	8.7	23.11	440.65	1941.00	1941.23
Davidson Manufacturing	239.50	—	502.97	-7.35%	983.43	2794.62	32158.12	409491.48	492084.75
DECK Monitoring	59.93	21.71	—	27.78%	736.53	89.51	26416.50	630178.69	1483092.89
Evergreen State Heritage Society	12.74	—	—	—	0.0	137.00	798.00	798.00	20060.00
Friendship House	0.11	—	—	—	5.155	0.22	84.03	3380.90	4286.48
Garfield Manor	18.57	18.67	—	6.26%	33.0	45.26	989.69	33114.70	93345.89
Gotham Building Supplies	23.73	1.16	—	—	44.0	—	32707.03	—	37923.78
<b>Totals:</b>					<b>3,968.19</b>	<b>11,376.17</b>	<b>215,877.47</b>	<b>4,760,730.91</b>	<b>5,945,459.84</b>

Notice the four columns of stacked type in the upper right corner... these are the primary navigation links for the DECK Admin Panel interface.

<b>Systems View</b> Map Statistics	<b>Global Modules</b> Analytics Alarms Notes User Management Billing Module	<b>Support</b> Live Support Manuals/Documents Contact Information	<b>Account</b> My Preferences Sign out
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These “Global Navigation Links” appear on every page in the DECK Admin Panel interface. When you use the tools in this area (Analytics, Alarms, Notes, etc.), you will be able to access information from every project listed in your **Systems Overview**.

To see information specific to *just one* system, click on that project name in the left column of your Systems Overview page...



## System Details

Clicking on a specific project name in your **Systems Overview** page navigates you to that site's **System Details** page. Here you can review the latest data from each device site. This page also shows a map of every hardware device in the system, with last reported data from all reporting nodes.

**DECK Monitoring**

Location Photo:

**At a Glance**

DC Nameplate Rating	11.0 kW
Current AC kW / DC Size	34%
Generation today	2.68 kWh
Generation this month	323.28 kWh
Generation this year	10571.39 kWh
Last Power Measurement	3.74 kW

Dashboard Links: [deck\\_es\\_demo\\_spl\\_test](#)

**System Notes**

- (48) Sharp 224 Watt Modules
- (2) SMA 5000 Watt Inverters
- (4) Strings of (12) Modules

**Device Reporting Hierarchy**

Device	Latest Data	Last Reported
DECK Monitoring	3.74 kW power	Oct 13, 2010 at 11:00:00
Environmental Sensors		
Weather Meter (irradiance, Temp, Humidity)	533.30 W/m2 irradiance	Oct 13, 2010 at 11:15:00
Temperature C	533.30 W/m2 irradiance	Oct 13, 2010 at 11:15:00
Temperature F	56.82 °F temperature	Oct 13, 2010 at 11:15:00
Wind Meter	145.00 degrees wind direction	Oct 13, 2010 at 11:15:00
Wireless Devices		
Mod Hopper		
Mod Hopper		
Load Meter (Shark 100)	3.58 kW power	Apr 03, 2010 at 13:15:00
Generation Meter (Vertis H8036-0100-2)	23444.80 kWh generation	Oct 13, 2010 at 11:15:00

Navigation: **Overview** Analytics Alarms Downloads Notes Settings

Notice the row of type that now appears under the Global Links area. These navigation links are site-specific to the system shown on the current **System Details** page.

These “System Navigation Links” appear only on pages that are specific to one system. When you use the tools in this area (Analytics, Alarms, Notes, etc.), you will see information from that project only.

**\*Note:** The Analytic Tools found in **Global Links** and **System Links** areas look and work the same, the only difference is that the tools on Global pages show information for all your systems, while tools on System pages show information from just one project.

Now let's explore features of the **Analytic Tools** of the DECK Admin Panel...

# Analytics

The Analytic Tools in the DECK Admin Panel offer the best opportunity to dig into your system data. See your system statistics in graph or table form, with many customizable features to help you get the most useful display of the exact numbers you want to see.

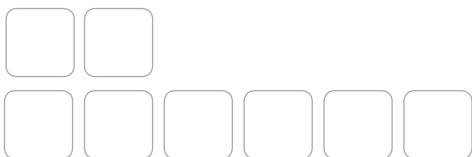
The basic interface shown below is the default Analytic display for a single system, shown in both graph and table format. The thick gray bar under the System Navigation Links contains quick links to generate several commonly requested data sets that are appropriate to your system.

The screenshot displays the DECK Monitoring interface. At the top, there are navigation links for Overview, Analytics, Alarms, Downloads, Notes, and Settings. Below this is a thick gray bar with several data set options: Generation, Yield & Amps, Cost vs. Baseline, Generation vs. Baseline, KVAR and Power Factor, and Peak MW vs. Average. The main content area is split into two views: a bar chart on the left and a table on the right. The table shows data for various time periods from 2010-10-07 to 2010-10-13. Below the table is a line graph showing data trends over time. On the left side of the interface, there are two tabs labeled 'Graph' and 'Table' with icons representing each view. A text box next to these tabs says 'Use the Graph/Table tabs to customize your data display.' At the bottom right, there is a navigation bar with links for Overview, Analytics, Alarms, Downloads, Notes, and Settings, and an 'Advanced' button with a gear icon.

Time	generation (MW)
2010-10-13	2.68
2010-10-12	42.38
2010-10-11	45.72
2010-10-10	6.82
2010-10-09	5.57
2010-10-08	38.32
2010-10-07	27.32

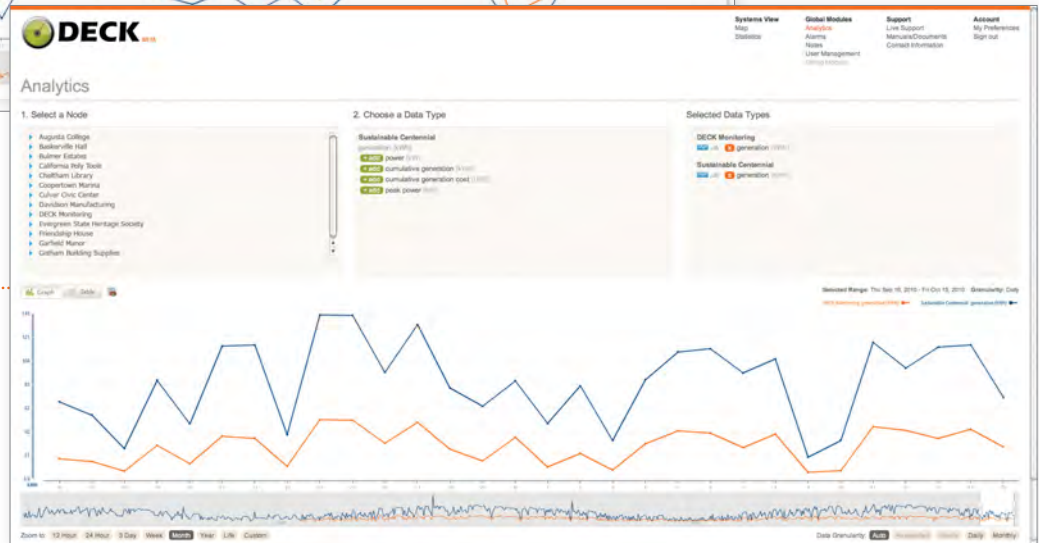
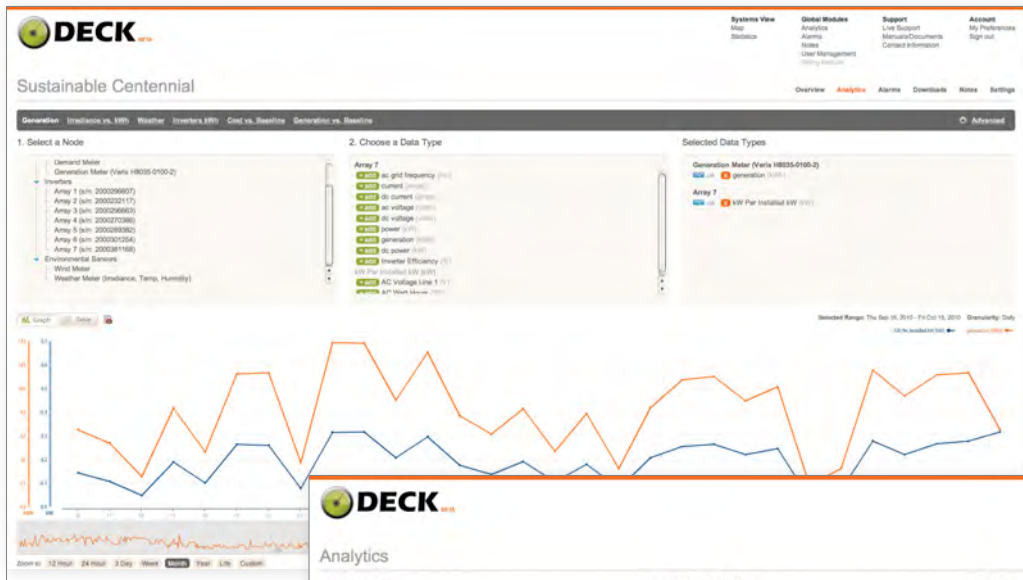
To dig further into your numbers, click on the “Advanced” option found at the far right side of the gray bar. This feature will expand your interface to include options for customizable data fields, and comparison of data from multiple nodes within a single system.

This image shows a close-up of the navigation bar at the bottom right of the interface. It contains several tabs: Overview, Analytics, Alarms, Downloads, Notes, and Settings. Below these tabs is a thick gray bar with an 'Advanced' button, which is highlighted with a gear icon.



The **Advanced Analytics** interface opens new fields where you can select specific system nodes and data types that you wish to examine. This interface is also the default display of the Analytics page accessed from the Global Navigation Links (note that the first example below shows the row of System Navigation links found on site-specific pages, while the second example below only shows the Global Navigation links).

This interface allows you to compare numbers from multiple nodes in a single system, as in the top example, or you can compare data from different systems, as in the example below. You could even chart a specific node in one system against a specific node in another system.



Generation   Volts + Amps   Cost vs. Baseline

Graph   Table

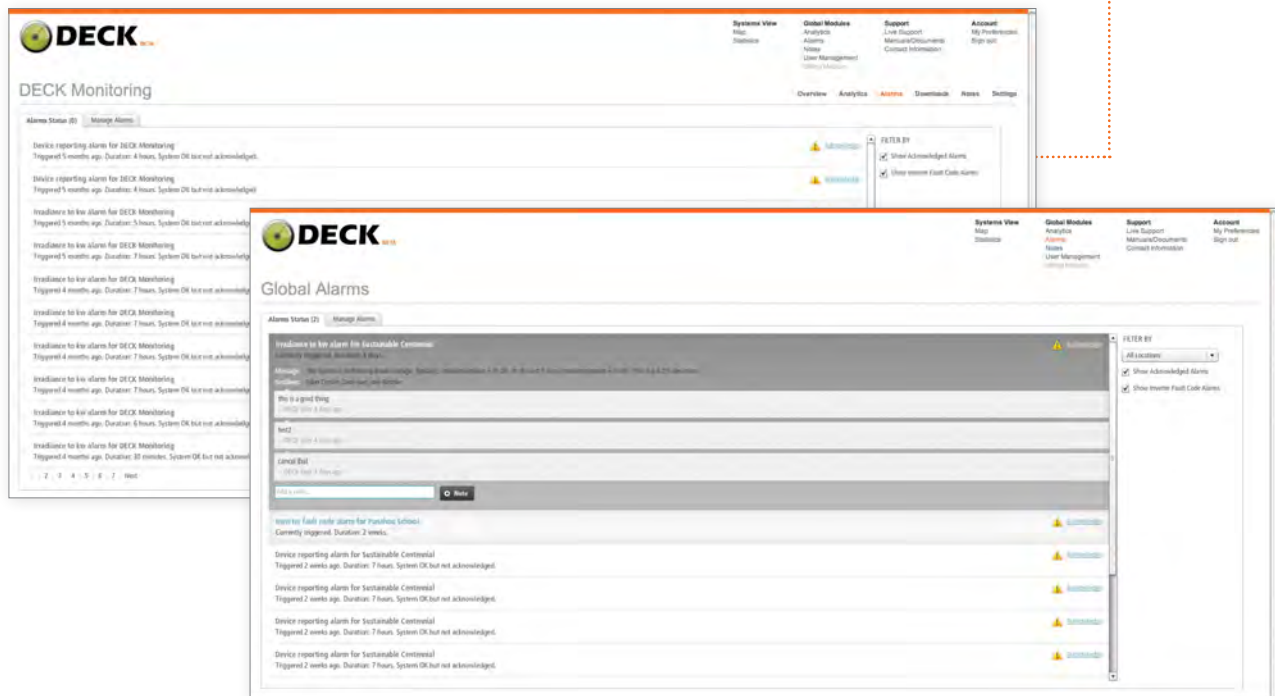
Download CSV

All **Analytics** pages provide a quick one-click option to download raw system data. Clicking this icon will generate a .csv spreadsheet file that you can save on your local computer (for more data download options, see manual page 17).

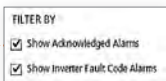
## View Alarms

DECK Alarms are a powerful tool to help you stay on top of your system performance, whether you are monitoring one system only, or a multitude of projects. You can choose from a wide range of performance-based alarms that will notify you if any node in a system is performing under the guidelines you establish. You can also set your own custom alarms for tasks such as regularly scheduled hardware maintenance.

As with **Analytics**, you can choose either a Global or a System interface. Access alarms for just one system from your System Navigation Links (*shown in top example below*), or you can see alarms from all systems by following the Global Navigation Links (*bottom example below*).



The examples above both show a full list of alarms under the “Alarm Status” tab. Clicking on an alarm in the list will expand a highlighted area showing alarm details, including why the alarm was tripped and who was notified (*shown in bottom example above*). You can also make notes on actions taken to rectify the situation. Finally, you may click to “Acknowledge” the alarm, which will remove it from the outstanding (not yet acknowledged) list.



Note that these examples both show the full unfiltered list of alarms. To the right on each screen you will find options to filter your Alarm list. If “**Show Acknowledged Alarms**” is *unchecked*, you will see only outstanding alarms in the list. If you have an inverter direct service through DECK Monitoring, select “**Show Inverter Fault Code Alarms**” to show or remove these alarms from the display list.



Note also that the Global Alarm page offers an additional filtering option: this drop-down window allows you to access site-specific alarm information for every system you are monitoring, all from the same Global Alarms page.



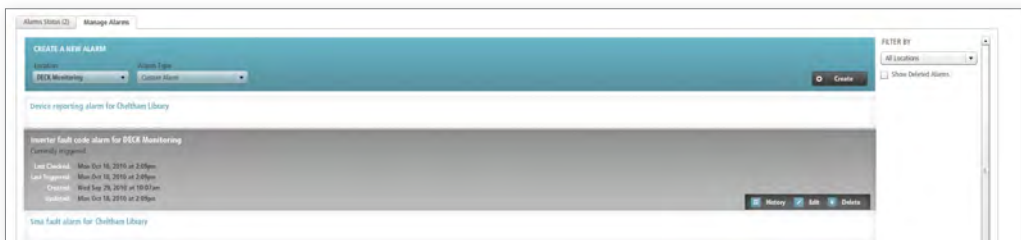
## Manage Alarms

From your Alarm pages, click on the “Manage Alarms” tab to modify existing alarms for your installation(s), or to create new alarms.

You will see the “Create a New Alarm” feature in blue at the top of the page, with a list of every existing master alarm directly below.



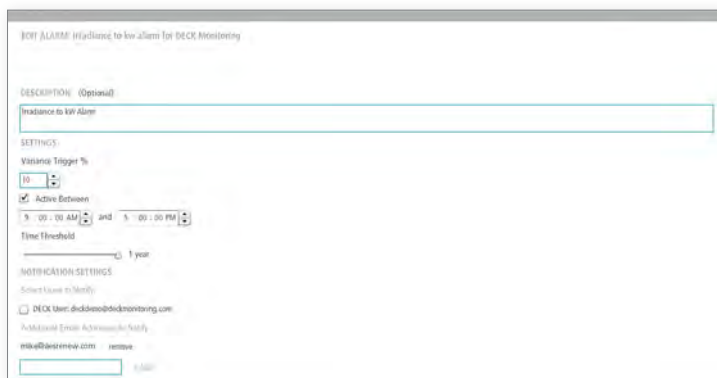
To modify an existing alarm, click on a specific alarm name. This will open an expanded window with further details about that alarm. The expanded window shows the following details: the last time the alarm was checked, when the alarm was last tripped, alarm creation date, and the last time the alarm was edited. In the lower right corner are **History**, **Edit**, and **Delete**, your controls to modify the alarm.



**History** Pulls up a window displaying an entry for each time that particular alarm has been triggered since its creation.

**Edit** Brings up a dialogue which allows you to edit the settings for the alarm, including changing the list of who gets notified.

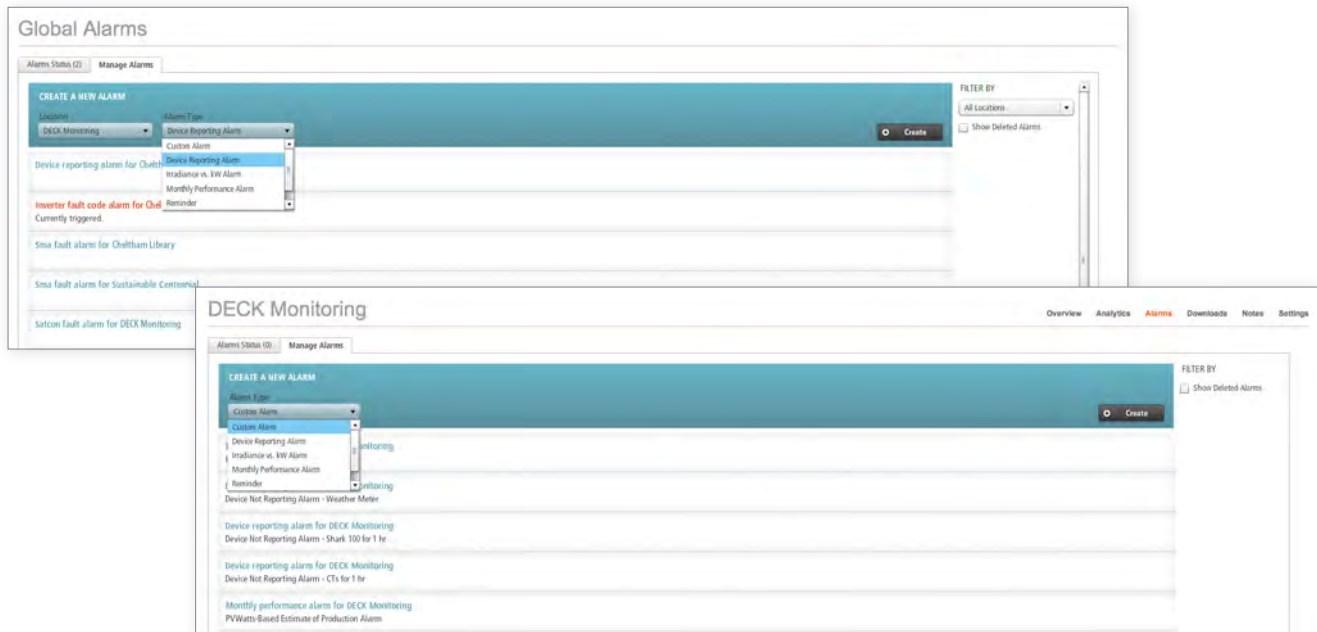
**Delete** Allows you to delete the alarm if it is not meeting your organization’s monitoring needs.



The **Edit** dialogue window, shown at left, will display the existing parameters for your alarm. You can change all alarm settings in this window... this example gives us options to change “**Variance Trigger %**,” “**Active Between**” hours (generally used to avoid false alarms during night hours), and “**Time Threshold**” (length of interval in which system will look for variance).

## Create Alarms

The first step is to choose the **Alarm Type** that you wish to create. If you are working from the **Global Alarms** page, you will first need to select a system from your **Location** drop down menu... this will populate the Alarm Type menu with alarms appropriate to that location. Note that this option is only present on the Global Alarms page (*shown in top example below*)... when you are creating a new alarm on a site-specific alarms page (*bottom example below*), the Alarm Type menu will automatically populate with alarms appropriate to that site.



All installations feature the following alarms: **Device Reporting**, **Monthly Performance**, and **Reminder**, as well as **Custom Alarm** capabilities. Other alarms are available if you have chosen to purchase additional hardware through DECK Monitoring or DECK software services.

### Device Reporting Alarm

Is tripped when a device does not report for a user-specified amount of time.

### Monthly Performance Alarm

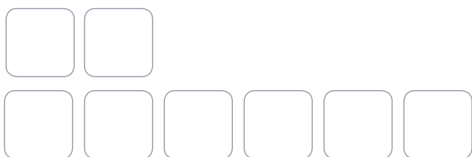
Is tripped when your monthly production varies by a user-specified percentage from the target production.

### Reminder

Sends a reminder to selected users. This can be used in conjunction with the **Notes** feature (*covered later in this manual*).

### Custom Alarm

Is DECK's most powerful alarm tool, allowing users to create custom alarms to meet their specific needs.



## Device Reporting Alarm

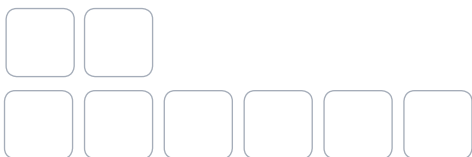
This is one of the most widely used alarms. It alerts you whenever a specific device stops reporting. First, choose any device that you would like to monitor. Next, choose the time interval to trigger the alarm (sustained non-reporting during this interval will generate an alarm notice).

### \*Note:

When thinking about your *time interval threshold* there are a few things to take into consideration. If you are using one or more SMA inverters with a WebBox, you need to take into account the '*Reporting Window*' of the WebBox. If your WebBox is only set to report between 5 am and 9pm (not reporting at night, when there is no generation), then any threshold 8 hours or less will trigger the alarm on a daily basis, even though the inverter is acting exactly as it should.

As a good baseline we suggest 10-12 hours. If your system is highly sensitive, you can set the threshold much lower. If this causes your inbox to be spammed by too many false positives, then slowly step up the time threshold until you find an interval that strikes the balance between sensitivity and reliability.

**ABOVE:** Device Reporting Alarm interface as seen on a site-specific Alarms page. **BELOW:** Device Reporting Alarm as seen on a Global Alarms page, with additional **Location** filter, and showing **Device** drop-down menu deployed.



## Monthly Performance Alarm

The monthly performance alarm triggers when production deviates from an expected value in kW by a set percentage. This deviation is typically measured against data taken from previous years. This data can be taken directly from your DECK dashboard. If your site is less than a year old, you can go to: <http://rredic.nrel.gov/solar/calculators/PVWATTS/versions1/>. Use the available calculator here to create expected production values based on past meteorological data.

The data will give the alarm a rough idea of what to expect for production. This alarm can be used to discover cases where systems are under producing (indicating a problem with the hardware itself, such as dirty or disconnected panels).

**\*Note:**

DECK suggests starting with a variance of 10% (the default). If this triggers too many false positives, then slowly increase the variance to an appropriate level to trigger alarms only when there is a true problem in the system.

## Reminder Alarm

Reminder sends a general reminder to users at a specific date and time. This can be used in conjunction with **Notes** (see page 16) to coordinate routine maintenance of your system hardware or other activities.

CREATE A NEW ALARM

Alarm Type  
Monthly Performance Alarm

DESCRIPTION (Optional)

SETTINGS

JAN	FEB	MAR	APR
0	0	0	0
MAY	JUN	JUL	AUG
0	0	0	0
SEP	OCT	NOV	DEC
0	0	0	0

Variance Trigger %  
10  Allow over  Allow under  Allow both

NOTIFICATION SETTINGS

Select Users to Notify

DECK User: deckdemo@deckmonitoring.com

Additional Email Addresses to Notify

+ Add

PV Walls AC ENERGY & COST SAVINGS

Station Identification		Results			
City:	Region:	Month	Solar Radiation (kWh/m <sup>2</sup> /day)	AC Energy (kWh)	Energy Value (\$)
State:	Oregon	1	1.89	170	12.24
Latitude:	44.12° N	2	2.58	213	15.34
Longitude:	123.22° W	3	3.99	358	25.78
Elevation:	109 m	4	4.48	394	28.37
PV System Specifications		5	5.31	474	34.13
DC Rating:	4.0 kW	6	5.50	461	33.19
DC to AC Derate Factor:	0.770	7	6.29	539	38.81
AC Rating:	3.1 kW	8	6.25	537	38.66
Array Type:	Fixed Tilt	9	5.56	465	33.48
Array Tilt:	44.1°	10	4.03	352	25.34
Array Azimuth:	180.0°	11	1.92	165	11.88
Energy Specifications		12	1.66	144	10.37
Cost of Electricity:	7.2 ¢/kWh	Year	4.13	4272	307.58

CREATE A NEW ALARM

Alarm Type  
Reminder

DESCRIPTION (Optional)

SETTINGS

Occurs At

10/13/2010 1 : 06 PM

NOTIFICATION SETTINGS

Select Users to Notify

DECK User: deckdemo@deckmonitoring.com

Additional Email Addresses to Notify

+ Add

## Custom Alarms

Custom Alarms are the most powerful and versatile alarms available. The **Custom Alarm** tool allows you to create an alarm from the ground up, delivering the information you need in the format most useful to you.

The settings here are flexible enough to configure most alarm types that are useful in the daily operation of a site. After choosing a time threshold and activity window, you can then decide which devices, and what type of data, you wish to monitor. You then have the choice between using a deviation percentage or a range of valid values to trigger the alarm.

## Other Alarms

Additional alarms become available as the amount of data being passed to DECK Monitoring increases. Other alarms available are **String Performance**, **Inverter Fault Code**, **Weather**, and **Irradiance vs. kW** alarms.

### String Performance Alarm

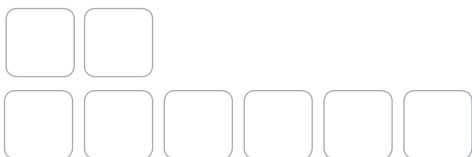
This feature is available to customers who have purchased string monitoring through DECK. This feature notifies the user on the health and performance of individual strings.

### Inverter Fault Code Alarm

Available with inverter direct monitoring.

### Weather and Irradiance vs. kW Alarms

Take advantage of data available through the DECK weather station to create useful system performance alarms.



## String Performance Alarm

This is analogous to the Monthly Performance Alarm. It may be tailored specifically to sites that have chosen to utilize string monitoring through DECK. This alarm works by looking at each string or group of strings, then sending an alert if one group's production varies from the others by a specified percentage. This is extremely helpful for diagnosing issues with individual strings.

*The customizable settings for **time threshold**, **active time** and **variance** allow you to target your alarm in the following manner:*

If a string's performance varies from the norm by a set percentage, between specified times of day, for longer than a set number of hours, then an alarm will be sent. The depth of the customization allows you to create alarms that are robust enough to ignore variance from shading or other partial irradiance blockers, while giving you the power to automatically monitor your string production.



**CREATE A NEW ALARM**

Location: Shoal School | Alarm Type: String Performance Alarm

DESCRIPTION (Optional)

---

**SETTINGS**

Time Threshold:  1 day

Active Between: 9 : 00 : 00 AM and 5 : 00 : 00 PM

Variance Trigger %: 10

**NOTIFICATION SETTINGS**

Select Users to Notify

DECK User: deckdemo@deckmonitoring.com

Additional Email Addresses to Notify

[+ Add](#)

## Inverter Fault Code Alarm

An **Inverter Fault Code Alarm** is available if you have chosen to purchase inverter direct monitoring through DECK. It automatically emails you the correct inverter fault code and explanation of the alarm.

You can create a text description of the alarm and define the users who should be notified when the inverter relays a fault code. By default you can select any user who also has access to your admin panel. You can manually add more users as needed.



**CREATE A NEW ALARM**

Location: Shoal School | Alarm Type: PVP Fault Code Alarm

DESCRIPTION (Optional)

---

**NOTIFICATION SETTINGS**

Select Users to Notify

DECK User: deckdemo@deckmonitoring.com

Additional Email Addresses to Notify

[+ Add](#)

## Weather Alarm

Weather alarms take local weather station data and create alarms based on expected maximum and minimum values for wind speed (anemometer required), irradiance, solar panel temperature, ambient temperature and humidity.

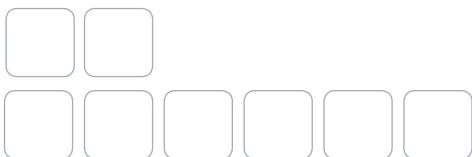


## Irradiance vs. kW Alarm

This alarm measures your system kW production against the sun's irradiance, and notifies you if your production slips below anticipated performance levels. It uses the previous week's data to establish a baseline number for the ratio of kW production to irradiance.



The **Variance Trigger** enables you to select a deviation percentage between Irradiance and kW. When the two deviate outside of the set percentage, an alarm will be triggered. The **Active Between** setting allows you to specify a time when the alarm is active, which helps to avoid false alarms. *(In the early morning and evening, the power and irradiance will be very low—small deviations in the numbers will cause large deviations in their ratio, resulting in false positives.)*



## Notes

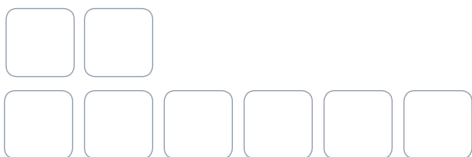
The **Notes** feature is an important tool for team communication to manage your energy systems. Like other features, Notes can be accessed either from your System Navigation Links (*shown in top example below*), or from your Global Navigation Links (*bottom example below*).

The top screenshot shows the 'Sustainable Centennial' system view. The navigation bar includes 'Systems View', 'Global Modules', 'Support', and 'Account'. The 'Notes' link is highlighted in the navigation bar. The main content area shows a table of notes with columns for Date, Message, User, and Location. The table contains 12 rows of notes, with the most recent note at the top.

The bottom screenshot shows the 'Global Notes' view. The navigation bar includes 'Systems View', 'Global Modules', 'Support', and 'Account'. The 'Notes' link is highlighted in the navigation bar. The main content area shows a table of notes with columns for Date, Message, User, and Location. The table contains 12 rows of notes, with the most recent note at the top.

By default your notes will be shown in chronological order, with the most recent note first. However, by clicking on the other three categories — “Message,” “User,” and “Location” — you can change the order of your notes for quick searching and sorting.

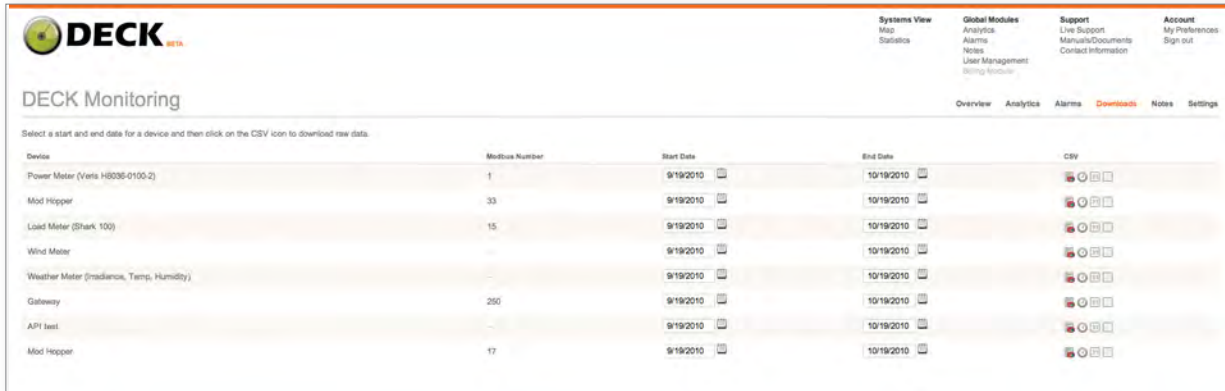
In the left panel you can choose whether to see all notes, notes created by you, or notes created in response to triggered alarms. Clicking on **New Note** brings up the note creation screen, where you can create and post a message for your site.



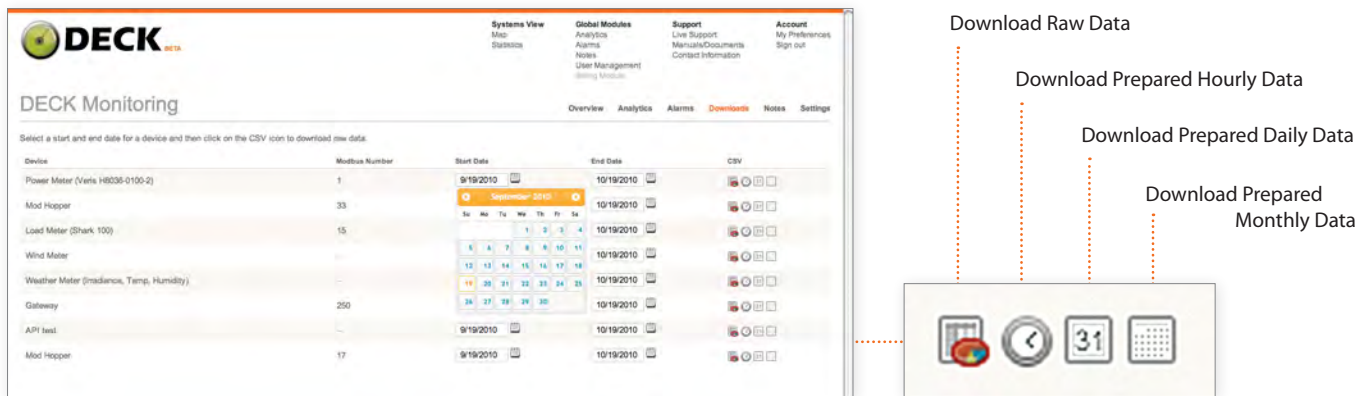


## Download Pages

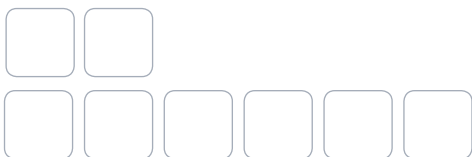
Each specific project has its own **Download** page, found in the site-specific navigation links. These pages allow you to create customized sets of data to download to your computer desktop. These downloads generate .csv spreadsheet files of the actual data that DECK Monitoring uses to populate the dashboard with graphs.



These pages show a full list of all available devices in that monitoring system. Depending on your level of monitoring, this list may include generation meters, inverters, a weather station, or individual string data. Select the device for which you want data, then specify the time period you want to examine.

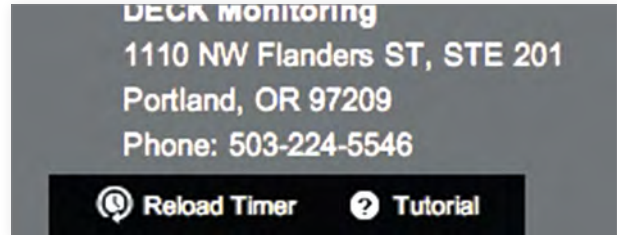


First, use the pop-up calendars to choose start and end dates for the period you wish to examine. Then choose an icon at the right to select your data type and frequency: you may choose to download raw data, or you can prepare hourly, daily, or monthly reporting with one click. Clicking an icon will automatically start your download, and you can then save it to your local computer.



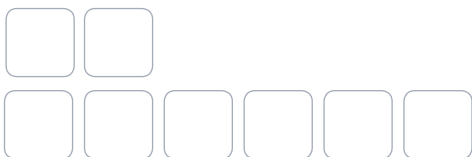
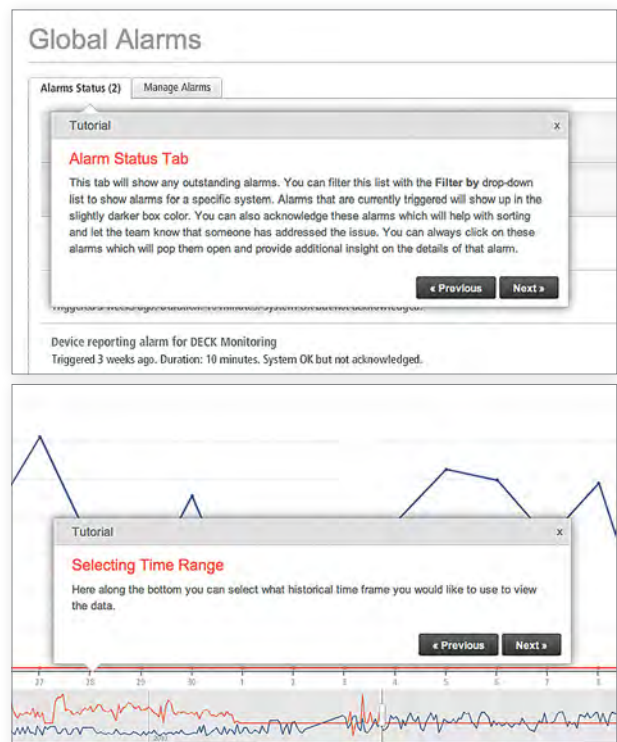
## Reload Timer and Tutorial Features

These tools are found in the lower right corner of every screen in the Admin Panel.



The **Reload Timer** tool works like a “refresh” button for your systems data. Clicking on this tool triggers the program to retrieve the latest data from all reporting devices in your systems. Within moments the Admin Panel will populate all pages with your most current numbers.

The **Tutorial** feature is an interactive tool to help you through every page of the Admin Panel interface. Clicking on this button from any page will pull up the Tutorial dialogue window... here you will find explanations for every tool on your current page, as well as tips for how to use those features. Most pages are loaded with multiple help topics... click through the “Next” button in the tutorial window to see all topics for that page.



# Appendix 1: DECK Terms and Conditions of Sale for Hardware Products and Software Services

The following terms and conditions (“Terms”) shall be the only terms that apply to and govern any purchase order accepted by DECK Monitoring LLC (herein referred to as DECK), despite any different or additional terms or conditions contained in Customer’s purchase order form or otherwise specified by Customer, unless Customer has another valid agreement with DECK.

## 1. Definitions

- a. “Hardware” means meters, communication gateway, communications devices and equipment, related documentation, accessories, and parts.
- b. “Product” means the Hardware and/or software listed in the attached quotation.
- c. “Specifications” means technical information about Products, including user manuals, user documentation and technical data sheets.
- d. “DECK Monitoring Site Survey Form” means a web form available at [http://www.deckmonitoring.com/deployments/site\\_survey.php](http://www.deckmonitoring.com/deployments/site_survey.php).

## 2. Prices

DECK’s quotation constitutes an offer to sell Product upon these Terms. Prices are valid for the period set forth in the attached quotation. Prices are exclusive of, and Customer will pay, all taxes, duties, levies or fees, or other similar charges imposed on the Customer by any taxing authority.

## 3. Orders

Orders will be governed by these Terms and are subject to acceptance by DECK. Orders must be in writing, stating the quantities and descriptions of Product required, applicable purchase prices, and billing/shipping instructions.

## 4. Delivery

DECK will make reasonable efforts to ship the hardware set forth in the attached quotation so that it arrives within the time period specified on the quote. If no time period is specified 4 weeks from the latter of the date a Purchase Order is submitted or a DECK Monitoring Site Survey Form is completed will apply. If DECK is unable to meet the delivery date, Customer’s sole remedy is to cancel the order.

## 5. Shipment, risk of loss or damage, and title

DECK, or an associated 3rd party, will pack all Products for shipping in accordance with standard commercial practices. Unless Customer has specified a carrier in its purchase order, DECK will select the carrier with the express understanding that the carrier is not the agent of DECK.

## 6. Acceptance

All Products sold by DECK shall be deemed accepted by Customer at the time of delivery. Notwithstanding the foregoing, if Customer notifies DECK in writing within ten (10) days of receipt of a Product that such Product is damaged, defective or cannot be made operational, and if Customer complies with the procedures governing the return of the goods set forth in these Terms, DECK shall either repair or replace such nonconforming Product, at its election, within a reasonable period of time after return of the Product to DECK. Any claims for shortage or incorrect Products must be made to DECK in writing within ten (10) days of receipt of Products.

## 7. Payment

Customer shall pay in accordance with the terms stated on the relevant DECK invoice. DECK standard payment terms are 50% prior to shipment and 50% net 15 from shipment. Invoices not paid when due under the terms of the DECK invoice shall be considered overdue and may, at DECK’s sole discretion, be subject to a late charge assessed at a rate equal to the lower of 2% of the unpaid balance per month or the maximum rate allowed by applicable law. DECK may discontinue performance if Customer fails to pay any sum due, if, after ten (10) days written notice, payment in full has not been made.

## 8. Warranty Provisions; Disclaimer

DECK does not provide any warranty on the hardware it provides to Customer. Customer is subject to the warranty and return policies of the hardware's original vendor/manufacturer. DECK will facilitate the customer and may act as an intermediary for arranging the return/replacement of product from vendor/manufacturer at DECK's sole discretion. DECK provides a warranty on the software for the term of the contract as stated in customer's purchase order. During the term of the contract DECK will display a sub-set of data and make available for download in CSV format all data on DECK Monitoring provided hardware that is successfully uploaded to DECK Monitoring databases. So long as the data is successfully uploaded DECK Monitoring guarantees, subject to this terms and conditions document, the customer's dashboard and administration panel will remain active.

DECK DISCLAIMS, ALL OTHER WARRANTIES, EXPRESSED, IMPLIED OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. DECK DOES NOT WARRANT THE OPERATION OF PRODUCTS WILL BE UNINTERRUPTED OR ERROR-FREE.

## 9. Limitation of Liability and Remedies

All DECK's equipment must be installed by a licensed electrician. DECK is not liable for damage, injury, or death which may occur based on equipment which malfunctions, is installed incorrectly, or otherwise causes damage or injury.

DECK uses the best of its abilities and judgment to gather, store, and report data to its customers. However, data reported may contain errors, and data loss may occur, and reports may be inaccurate based on errors made by DECK and associated 3<sup>rd</sup> party companies. DECK is not liable for damages or financial loss which may occur from the errors described above.

DECK does not guarantee the privacy of user's data. Data may be viewed by other parties due to user's error, sharing passwords, or not logging out of the software. Data may also be viewed publically on user's Dashboards that do not have the password protected option enabled via the internet. Data may be compromised by unauthorized access from hackers or others who do not have expressed permission to view the data. DECK may share meta-data with the installers / integrators / developers / utilities who use that data to provide better service, maintenance, and incentives based off the systems performance. DECK will also provide all required information for incentive reporting to third parties if DECK is contracted to provide these services. The Incentive reporting requirements may require DECK to submit information other than the meta-data. Meta-data will not include specific project names, project addresses, or confidential information of DECK's customers. In the event DECK is required by law to provide data on its customers and/or projects DECK's legal obligation will supersede this agreement.

IN NO EVENT WILL DECK'S LIABILITY IN CONNECTION WITH THE PRODUCTS OR OTHERWISE EXCEED THE AMOUNTS ACTUALLY PAID TO DECK FOR THE PRODUCTS GIVING RISE TO SUCH LIABILITY. THESE LIMITATIONS APPLY TO ALL CAUSES OF ACTION IN THE AGGREGATE. DECK SHALL NOT BE LIABLE TO CUSTOMER FOR ANY INDIRECT, EXEMPLARY, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND ARISING IN ANY WAY, EVEN IF DECK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND NOTWITHSTANDING THE FAILURE OF ANY LIMITED REMEDY OF ITS ESSENTIAL PURPOSE. THE REMEDIES IN THESE TERMS ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES.

## 10. General

- a. Neither party shall be liable for delays or failure to meet its obligations pursuant to this Agreement due to causes beyond the party's reasonable control and not caused by the negligence of such party.
- b. Customer may not assign any rights or obligations hereunder without prior written consent from DECK, and any such assignment shall be null and void. If customer sells the solar system DECK agrees to transfer the rights under this contract to the new owner.
- c. DECK is not liable for damages that are a result of data downtime, even if the downtime is due to Product error.
- d. DECK does not guarantee the 3rd party server that hosts the DECK data and software will not experience downtime, resulting in the inability to access DECK web pages, and DECK data. DECK will take all reasonable business measures to rectify such situations.
- e. Customer who exports, re-exports or imports Products, technology or technical data purchased hereunder, assumes responsibility for complying with applicable laws and regulations, and for obtaining required export and import authorizations.
- f. DECK may suspend performance if Customer is in violation of any applicable law or regulation.

- g. The rights and obligations of the parties under this Agreement shall not be governed by the 1980 U.N. Convention on Contracts for the International Sale of Goods; rather such rights and obligations shall be governed by and construed in accordance with the laws of the United States and the State of Oregon as applied to agreements made, entered into and to be performed entirely within Oregon between Oregon residents.
- h. In the event that any dispute or controversy between the parties arises out of or is related to these Terms, whether in contract or tort, such controversy shall be subject to the exclusive jurisdiction in any state or federal court located in Oregon.
- i. If any term or provision herein is determined to be illegal or unenforceable, the validity or enforceability of the remainder of the terms or provisions herein will remain in full force and effect.
- j. These Terms and any related quotation constitute the entire agreement between DECK and Customer, and supersede any previous communications, representations or agreements between the parties, whether oral or written, regarding transactions hereunder.

## 11. Software Support

DECK Monitoring will provide installation and configuration support of equipment and software purchased from DECK Monitoring during the installation period. Configuration includes gathering data from third party devices (such as inverters) as referenced in the sales invoice. DECK Monitoring reserves the right to charge for customer support and configuration beyond the installation period on a per hour basis at a rate of \$50.00 per hour (adjusted for inflation) past the initial installation period. The initial installation period ends once the system has been installed, initially configured for the customer, and is correctly reporting to the database or 6 months from the date of purchase whichever occurs first.

## 12. Hardware Support

DECK Monitoring is a software company who purchases compatible hardware from third party vendors and re-sells this hardware to our customers. All hardware components are warranted and supported exclusively by the hardware companies that manufacture the hardware. DECK Monitoring does not provide a warranty on the hardware components. DECK partners with hardware companies that provide reliable products and good warranty/RMA services.

## 13. Privacy

Customer understands that if they have not elected for a password protected dashboard, the data displayed on the public dashboard is not private. DECK Monitoring agrees not to share any additional customer specific data with any third parties without specific agreement from the customer. Additional customer specific data is defined as data which can be traced back to a specific user or project, or used to identify a specific user or project. In some cases DECK is implicitly expected and required to share customer specific data with third parties in order to fulfill their contract with customer and provide expected service such as PDP reporting. Sometimes we share aggregated information with third parties to help improve, promote our service, or expand our offerings. But we only do so in such a way that no individual user or project can be identified or linked to any specific action or information.