



[ADMIN PANEL] USER GUIDE

Section 1 v13.11.01

Section 1

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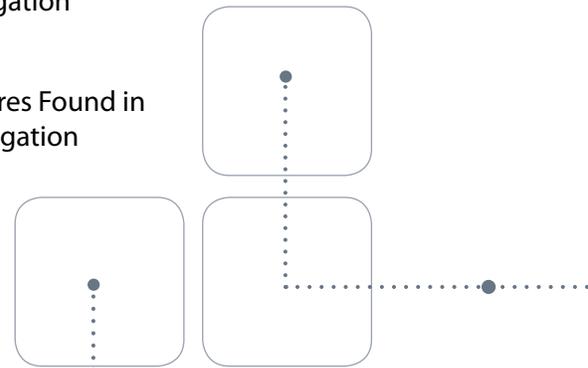
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Getting Started: Global Views for Fleet Management

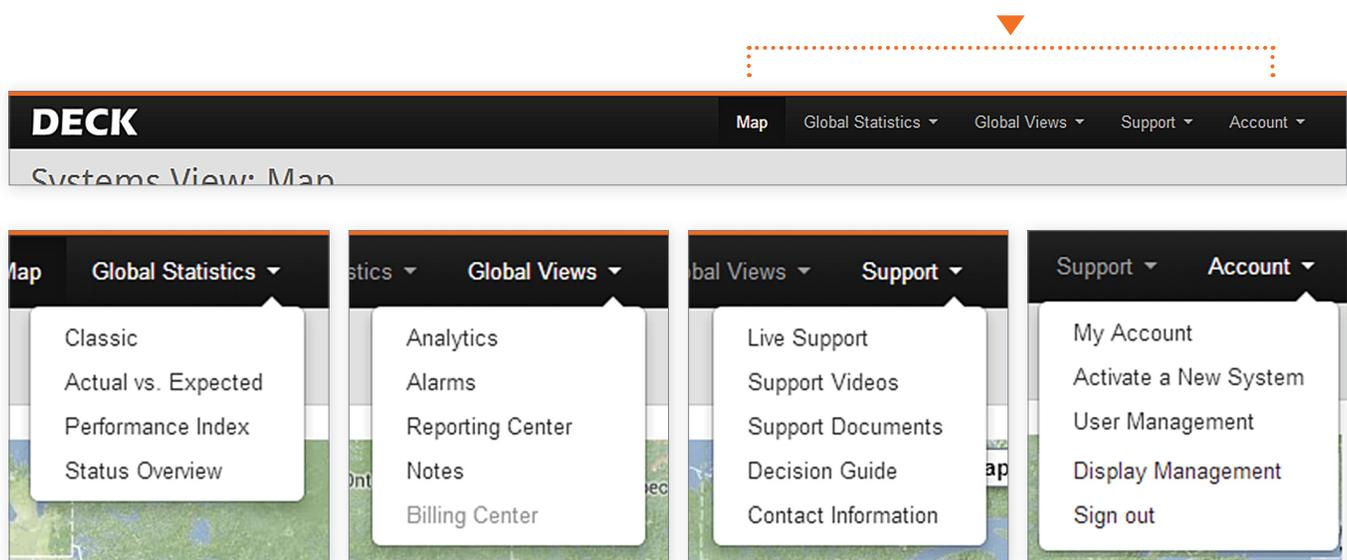
DECK

Logging In

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.)

Global Navigation

Every page in your Admin Panel has a black stripe across the top of the page, as shown below. You will find Global Navigation tabs on the right side of this stripe.



Global Navigation tabs provide access to top-level portfolio management tools such as:

- **Account Information**
- **User Management Settings**
- **Display Management Settings**
- **Reporting Center** (create and edit portfolio-wide reports for export as PDF or spreadsheet)
- **Support Resources** (installation guides, software user manuals, video tutorials and more)

Global Navigation also provides access to data displays that encompass all systems in your project portfolio:

- **Systems View: Map**
- **Global Statistics** (classic solar statistics plus 3 sortable fleet management tables)
- **Global Analytics** (graphing tool to compare data from multiple systems)
- **Global Alarms** (view alarm status for all systems in one page view)
- **Global Notes** (create, edit, and review notes for all systems in your portfolio)

(You may also access Analytics, Alarms, and Notes for individual systems within your portfolio... see **System Navigation**, Section 2 page 21.)

Systems View: Map

This page shows a list of all systems in your portfolio in the left column, along with a map showing the location of your sites in the right panel.

The list will arrange your systems in alphabetical order. Type the first few letters of a site name in the **Filter** window to bring that system to the top of the list.

Key to Map Pin Icons



Healthy System Operations

No alarms currently raised at this location



Alarm State

One or more alarms for this system are currently raised. Consult your DECK Alarms Center for details.



Monthly Performance Alarm Raised

Reporting data for the *previous* month fell outside the user-defined acceptable performance range.



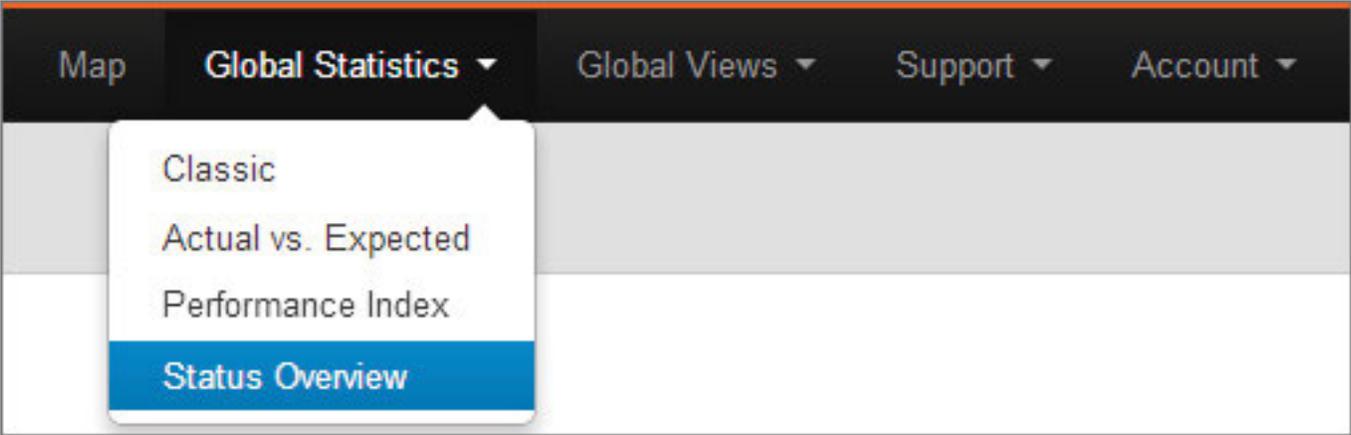
Deployment In Progress

This system has not yet been deployed. Materials have shipped (if applicable), but system data is not yet reporting.

You can dig into specific data displays for any system either by clicking the system name in the left column, or by clicking on the pin icon in the map graphic. Both actions take you to the **System Details** page view for that project (for more on System Details page view features, see Section 2, page 17).

Global Statistics

For statistics-based overviews of your full portfolio, click on **“Global Statistics”** in the Global Navigation tabs. This drop-down menu includes the classic DECK Solar Statistics page view (**“Classic”**), along with 3 sortable fleet management tables (*Actual vs Expected*, *Performance Ratio*, and *Status Overview*).



These 4 statistics tables provide powerful fleet management insights for your project portfolio.

“Classic” Solar Statistics offers an extensive range of tables, graphs, and other data visualization metrics for a comprehensive overview of performance across your entire portfolio.

The other 3 page views available here are the DECK Monitoring Fleet Management Tables. These tables (**Actual vs Expected**, **Performance Ratio**, and **Status Overview**) all offer the ability to filter using system tags. This system allows you to sort your data by grouping systems with matching system “tag” labels. *For more on filtering using system tags, see page 8.*



Global Statistics: "Classic" Solar Statistics

The first option under **Global Statistics** is the "Classic" DECK Solar Statistics page view. You may also access *Solar Statistics page views for each individual system in your portfolio; see Section 2, page 22).*

The global Solar Statistics page view shows all systems in your portfolio arranged in table format. You can compare side-by-side statistics for all systems including performance indicators such as *Peak kW vs. Installed kW*, and *Actual kW vs. Predicted kW*.

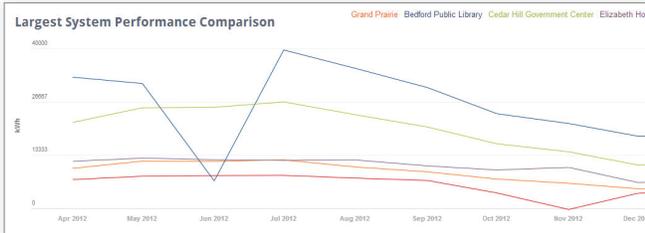
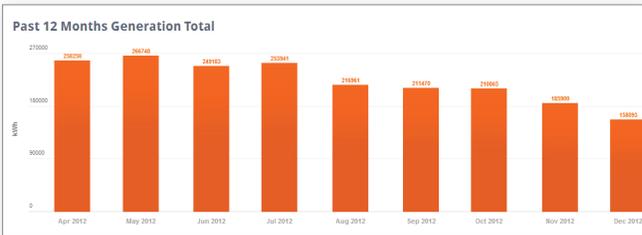
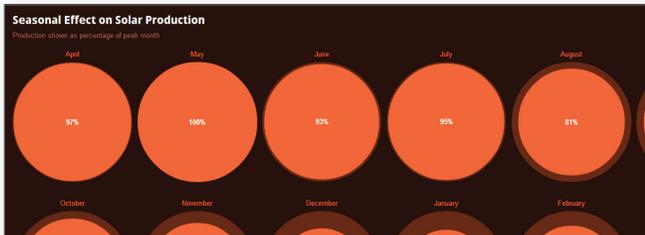
Please note that *Classic Solar Statistics does not support filtering using tags.*

Portfolio at a Glance

7,100 estimated kWh today 492,106 estimated kWh this year

System	Peak kW Yesterday / Installed kW	Actual / Predicted kW	Latest kWh / Installed kW	Today (kWh)	This Month (kWh)	This Year (kWh)	Lifetime
AMSI Center	1 / 251	20 / 6	21%	942	20,963	63,859	822,886
Anderson Packaging	132 / 170	NA	19%	572	13,974	42,464	360,824
Best Foods Supermarket	125 / 153	NA	24%	602	13,348	39,970	385,856
Borstelmann Building	77 / 81	NA	24%	412	8,089	23,935	286,640
Campbell Business School	43 / 52	NA	16%	195	4,668	15,023	111,491
Carson Township Community Center	81 / 102	8 / 9	26%	401	9,030	27,748	390,666
Chapparel Winery	56 / 74	NA	24%	264	6,017	18,299	134,740
Custer Country Club	18 / 23	NA	23%	90	1,971	6,130	32,267
Driver Building	613 / 684	120 / 120	33%	2,903	71,518	193,945	1,089,203
Goudy Public Library	31 / 43	3 / 4	23%	143	2,987	8,154	16,489
Howell Manor	15 / 19	NA	21%	73	1,634	5,146	38,786
Indiana Panel and Siding	No data / 74	NA	0%	No data	3,768	12,404	117,477
Jackson Station	105 / 129	NA	16%	499	11,053	35,025	265,154
TOTAL	1,297 / 1,854	151 / 139	25%	7,095	169,020	492,101	4,052,479

Scrolling down the Solar Statistics page view reveals a series of tables and graphs showing helpful system management metrics such as *Portfolio Peak kW vs DC Nameplate Ratings* and *Seasonal Effect on Solar Production*. You can also see portfolio-wide metrics such as *Systems with Most Triggered Alarms*, *Portfolio-wide Equivalency Values*, and *How Many kWh you are Producing for Every installed kW*.



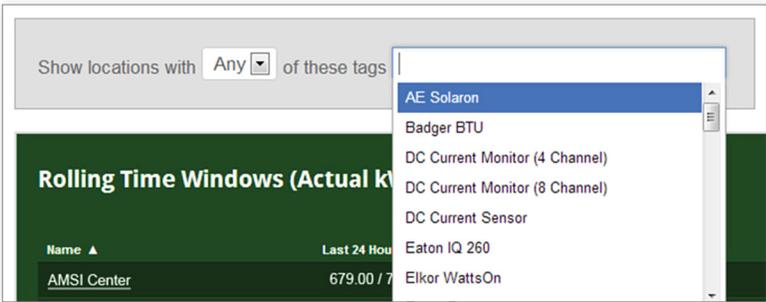
Global Statistics: Filtering Using Tags

There are 3 page views in Global Statistics that allow you to sort your table results using tags:

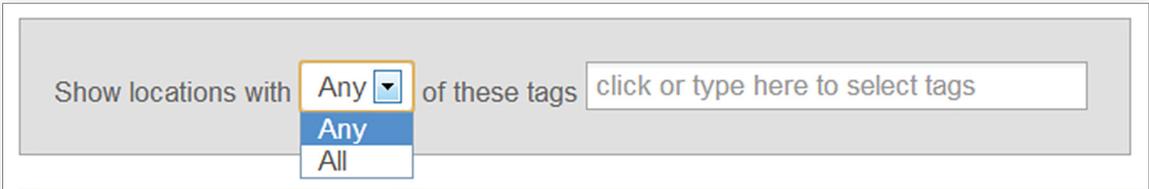
- Actual vs. Expected
- Performance Index
- Status Overview

These 3 tables allow you to filter the list of systems in each table down to only systems which possess certain tags. For instance, you could show only locations that have a certain type of device and are in a specific zip code. Or you could choose only locations over a certain size threshold, and all developed before 2011.

The filtering section will load at the top of each table. As shown below, activating the cursor in the tag window triggers a drop-down menu with all existing tags in your portfolio.



When you select more than one tag, you will have the option to choose to view either systems matching *any* of the selected tags, or systems matching *all* of the selected tags.



Notes for Fleet Management Tables

- By default, systems will be arranged in these tables by alphabetical order. But you can also sort the systems to rank from highest to lowest in any of the column values (just click on the column names at the top of the table).
- You can find the tag interface for any individual system in your portfolio by going to the System Overview page view for that system (see Section 2, page 17). Here you can edit automatically generated system tags, or add your own original tag labels.

Global Statistics: Actual vs Expected

The Actual vs. Expected table in Global Statistics displays actual reported generation values alongside “expected” generation values for each system in your portfolio. These values are shown for a series of historical periods ranging from *today* and *yesterday* to *calendar year to date* and *the past 365 days*.

Immediately above your Actual vs Expected table you will find the additional filtering feature “Select a Table to View.” This feature lets you choose between seeing data values as kWh, or calculated as dollars (“\$”).

Actual vs. Expected tables do include the Fleet Management filtering tool (seen below at the top of the image).

Show locations with: Any of these tags:

Select a Table to View: Actual vs. Expected kWh | Actual vs. Expected \$

Name	Today	Yesterday	Week To Date	Week	Month To Date	Month	Quarter To Date	Quarter	Year To Date	Year
AMSI Center	679.00 / 780.00 (85%)	689.00 / 701.00 (95%)	4463.00 / 4755.00 (84%)	4597.00 / 4659.00 (86%)	22345.00 / 22621.00 (91%)	22388.00 / 22639.00 (86%)	64103.00 / 64696.00 (92%)	64166.00 / 64743.00 (86%)	240964.00 / 241301.00 (86%)	240940.00 / 241255.00 (86%)
Anderson Packaging	1001.00 / 1125.00 (79%)	1022.00 / 1054.00 (75%)	9987.00 / 10088.00 (82%)	10054.00 / 10320.00 (75%)	40268.00 / 50114.00 (77%)	40254.00 / 50120.00 (79%)	100674.00 / 101082.00 (84%)	100762.00 / 101094.00 (81%)	401814.00 / 403002.00 (83%)	401762.00 / 402094.00 (81%)
Best Foods Supermarket	349.00 / 356.00 (95%)	346.00 / 357.00 (93%)	2250.00 / 2375.00 (95%)	2293.00 / 2314.00 (95%)	8201.00 / 8257.00 (96%)	8174.00 / 8228.00 (95%)	24301.00 / 24715.00 (83%)	24225.00 / 24873.00 (94%)	48709.00 / 49102.00 (95%)	48778.00 / 48996.00 (94%)
Borelmann Building	139.00 / 154.00 (77%)	135.00 / 152.00 (79%)	1218.00 / 1233.00 (85%)	1203.00 / 1235.00 (79%)	3219.00 / 3272.00 (86%)	3203.00 / 3275.00 (79%)	6512.00 / 68633.00 (88%)	6487.00 / 68614.00 (83%)	402276.00 / 406512.00 (82%)	402244.00 / 406327.00 (83%)
Campbell Business School	564.00 / 580.00 (92%)	566.00 / 578.00 (82%)	3471.00 / 3459.00 (92%)	3450.00 / 3483.00 (92%)	4768.00 / 4911.00 (89%)	4801.00 / 4934.00 (92%)	12456.00 / 12669.00 (95%)	12403.00 / 12778.00 (92%)	121658.00 / 122790.00 (89%)	121703.00 / 122778.00 (82%)
Carson Township Community Center	470.00 / 498.00 (93%)	477.00 / 489.00 (89%)	4611.00 / 4656.00 (93%)	4533.00 / 4559.00 (83%)	8012.00 / 8255.00 (84%)	8045.00 / 8247.00 (83%)	24124.00 / 24788.00 (90%)	24042.00 / 24847.00 (83%)	48080.00 / 50321.00 (80%)	48042.00 / 50847.00 (83%)
Logan Fire and Emergency Services	461.00 / 474.00 (94%)	480.00 / 489.00 (95%)	4629.00 / 4849.00 (83%)	4667.00 / 4895.00 (83%)	8287.00 / 8502.00 (76%)	8226.00 / 8491.00 (83%)	24918.00 / 25472.00 (85%)	24992.00 / 25847.00 (83%)	50117.00 / 51599.00 (83%)	50042.00 / 51847.00 (81%)
Massey Carpets	1035.00 / 1048.00 (88%)	999.00 / 1012.00 (89%)	9003.00 / 9288.00 (89%)	8967.00 / 9334.00 (88%)	12840.00 / 12998.00 (86%)	12967.00 / 13094.00 (88%)	36001.00 / 36515.00 (83%)	36067.00 / 36411.00 (88%)	145107.00 / 146338.00 (90%)	145067.00 / 146411.00 (88%)
Silver Falls Solar Farm	2340.00 / 2349.00 (96%)	2344.00 / 2378.00 (91%)	12574.00 / 12618.00 (86%)	12508.00 / 12621.00 (86%)	36846.00 / 36970.00 (97%)	36874.00 / 36996.00 (86%)	100358.00 / 100753.00 (97%)	100493.00 / 100983.00 (88%)	412399.00 / 412801.00 (87%)	412393.00 / 412983.00 (88%)
Testeverde Manufacturing	798.00 / 813.00 (86%)	781.00 / 790.00 (89%)	5668.00 / 6113.00 (83%)	5623.00 / 6268.00 (86%)	8457.00 / 8684.00 (90%)	8495.00 / 8701.00 (85%)	24499.00 / 25319.00 (92%)	24485.00 / 25849.00 (86%)	48906.00 / 49699.00 (90%)	48945.00 / 49849.00 (86%)

Note that the historical periods in this table include values from fixed time windows, as well as values from rolling time windows. So “month to date” columns will show cumulative generation numbers reflecting the number of days passed in the current calendar month, while the “month” column will look at the past 30 days (regardless of current progress through calendar month).

Calculating Expected Generation Values

If you have purchased **SolarAnywhere SystemCheck** for any of your systems (satellite irradiance data service), the modeling calculator in this tool will automatically populate “expected” generation values for that system into your Actual vs. Expected table.

If you have not purchased **SolarAnywhere SystemCheck**, you can manually upload expected generation values using one of two methods.

Systems that do not have expected values in the DECK application will display “NA” instead of an expected value. Click on the question mark icon (“?”) next to the “NA” to open the upload shortcut tool seen below:



Your options here are “enter a baseline” or “upload a CSV.” Clicking on either option will take you to the designated upload interface.

Enter a Baseline

Clicking on “enter a baseline” opens the pop-up window seen below:

Name	Today	Yesterday
1200 California	803.38 / NA	NA
Audio Visual	340.33 / NA	NA
BUCRA	1741.75 / NA	1295.00 / NA
Basalt Library	132.40 / NA	231.84 / NA
ClayTest	NA / NA	NA / NA
College of the Sequoias	200.60 / NA	222.87 / NA
Cowardale Farms	449.46 / NA	452.59 / NA
DECK Portland Office Test Site	NA / 0.04	NA / 1.07
Denver International Airport PHASE 3	NA / NA	NA / NA
DevDizmar	NA / NA	NA / NA
Eugene Deckster	NA / NA	NA / NA
ELIND - Teterboro Airport Hangar 109	1074.00 / NA	725.00 / NA

This interface allows you to enter unique expected generation values for each month. *Note that the baseline feature does not support data set granularity beyond monthly values.*

If you enter your expected generation values using the baseline interface, note that the DECK application will automatically calculate daily and weekly values by evenly dividing your monthly value by the days in that calendar month (so, daily value for January would be $x/31$; daily value for February would be $x/28$, etc).

Upload a CSV

Clicking on “enter a baseline” navigates the user to the “virtual device” upload interface. Here you can upload data sets in .csv spreadsheet format.

Note that Virtual Device data sets can accommodate data granularity to match your reported values (15 minute intervals, typically). However, you may also upload data sets with less granular values (one value per hour, day, etc) and the DECK application will automatically calculate appropriate values for daily, weekly, monthly, and annual columns in your Actual vs. Expected table.

For a complete explanation of the Virtual Device upload feature, see manual Section 2, page 20.

Setting Expected Dollar Values

Expected dollar values for your Actual vs. Expected table are calculated utilizing a user-defined cost-per-kWh value:

- “Actual” dollar values multiply your user-defined cost value with actual reported generation values.
- “Expected” dollar values multiply your user-defined cost value with the expected generation value seen in your **kWh** Actual vs. Expected table. Note that you must enter *both* an expected generation baseline *and* a cost-per-kWh value in order to see expected dollar values in your **\$** Actual vs. Expected table.

Systems that do not have an entered cost-per-kWh value in the DECK application will show the following message in your Actual vs. Expected table:

This location does not have a cost allocation per kWh set. [Set the location's price per kWh](#) to view this row.

Clicking on the link here navigates the user to the Settings page view for the designated system. Here you will find the “Cost Allocation” field, where you can enter a dollar value per kWh for energy in the local market.

Note that the Cost Allocation upload feature cannot accommodate multiple price points based on time of use.

Global Statistics: Performance Index

Your Performance Index table shows the performance index by month for all systems that have both generation data and weather data (irradiance and cell temp). System size must be set accurately in order for the data to be meaningful.

Performance Index tables do include the Fleet Management filtering tool.

Name ▲	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Today
AMSI Center	0.93	0.85	0.39	0.20	0.48	0.75	0.72	0.72	0.71	0.73	0.77	0.84	0.82
Anderson Packaging	0.54	0.55	0.74	0.75	0.73	0.80	1.02	0.97	0.72	0.74	0.71	0.80	0.77
Best Foods Supermarket	N/A	N/A	29.01	1.20	0.32	0.68	0.67	0.56	0.73	0.80	0.81	0.79	0.87
Borstelmann Building	0.99	1.05	0.81	1.05	1.03	0.88	0.99	0.90	0.90	0.89	0.92	0.98	1.01
Campbell Business School	1.07	1.01	0.67	0.49	0.56	0.90	1.03	0.96	1.19	0.92	1.37	1.91	0.70
Carson Township Community Center	0.78	0.81	0.80	0.80	0.83	0.86	0.84	0.73	0.42	0.66	0.65	0.75	1.14
Logan Fire and Emergency Services	N/A	N/A	N/A	N/A	N/A	N/A	0.77	0.98	1.08	1.04	0.96	0.79	0.70
Massey Carports	N/A	N/A	N/A	1.47	0.52	0.68	0.79	0.82	0.83	0.85	0.81	0.77	0.78
Silver Falls Solar Farm	1.19	1.05	0.96	1.19	0.92	0.94	0.99	0.97	0.86	0.94	1.01	1.06	1.03
Testeverde Manufacturing	N/A	N/A	N/A	0.84	0.76	0.79	0.70	0.66	0.59	0.49	0.43	0.72	0.67

Note that the Performance Index may be considered as an alternative calculation of actual vs expected, but this metric accounts for available sunlight because the “expected” value in this case is calculated using irradiance and cell temp data from your on-site weather station. *You will not see values in this table for systems that do not have an on-site weather station with a working irradiance sensor.*

Cells of the table are color coded to indicate high and low performance index values, so it’s possible to spot at a glance which systems likely need attention. The color scheme spans from primary green (for systems with high performance index values) to primary red (for systems with low performance index values).

Performance Index Calculations

In addition to the weather station and generation meter, our Performance Index also utilizes 2 user input values that can be changed on the settings page: the DC Nameplate system size, and the “Temperature Coefficient of Power.” The calculation can be visualized this way:

$$\text{Performance Index} = \frac{\text{Actual generation}}{\text{System size} * \text{Insolation} * \text{Temperature Adjustment}}$$

Our Performance Index is a way to summarize all of the system inefficiencies in a single value. A perfect system with absolutely no losses would have a performance index of 1.0. After factoring in typical losses due to inverter inefficiencies, wiring resistance and other imperfections, a new system performing very well should yield a performance index near 0.85.

Why does my performance index look inaccurate? You may see inaccurate Performance Index values, such as a ratio of 1.0 or above. The leading cause of inaccurate Performance Index calculations is an error in the customer-defined system size value for your site. Please check the settings page to verify that the DC Nameplate size is correct.

Global Statistics: Status Overview

As you can see from the image below, the Status Overview table is a close approximation to the “Classic” Solar Statistics table... except that the Status Overview table includes the ability to filter using system tags.

Portfolio Status at a Glance

Name ▲	Peak kW Yesterday / Installed kW	Actual / Predicted kW	Latest kWh / Installed kW	# Raised Alarms	Current Irradiance	Performance Ratio (Prev. 7 days)	Last Report
Anderson Packaging	56 / 60 (94%)	17 / 19	92%	0	413.1	0.91	Sep. 27, 2013 at 8:30 AM
Best Foods Supermarket	78 / 100 (78%)	26 / 31	79%	0	588.2	0.87	Sep. 27, 2013 at 5:45 AM
Borstelmann Building	245 / 245 (100%)	58 / 58	100%	0	227.4	0.99	Sep. 27, 2013 at 8:45 AM
Campbell Business School	60 / 76 (79%)	8 / 10	80%	1	125	0.87	Sep. 27, 2013 at 9:30 AM
Carson Township Community Center	572 / 737 (78%)	191 / 216	76%	0	543	0.79	Sep. 27, 2013 at 5:30 AM
Chapparel Winery	50 / 78 (64%)	14 / 23	69%	0	273.2	0.81	Sep. 27, 2013 at 8:45 AM
Custer Country Club	85 / 108 (79%)	20 / 83	41%	0	786.1	0.89	Sep. 27, 2013 at 11:30 AM
Driver Building	202 / 309 (65%)	98 / 110	82%	0	662.7	0.84	Sep. 27, 2013 at 5:45 AM
Goudy Public Library	42 / 51 (82%)	12 / 16	75%	0	311	0.89	Sep. 27, 2013 at 8:30 AM
Howell Manor	290 / 345 (84%)	67 / 70	96%	0	602	0.95	Sep. 27, 2013 at 11:45 AM
Indiana Panel and Siding	121 / 160 (75%)	43 / 41	73%	0	250.5	0.91	Sep. 27, 2013 at 8:45 AM
Jackson Station	257 / 341 (75%)	197 / 217	89%	0	646.8	0.93	Sep. 27, 2013 at 11:30 AM

Statistic categories that also appear in Classic Solar Statistics include:

- Peak kW Yesterday / Installed kW
- Actual / Predicted kW
- Latest kWh / Installed kW

Statistic categories that do not appear in Classic Solar Statistics include:

- # Raised Alarms
- Current Irradiance
- Performance Ratio (Previous 7 Days)
- Last Report (time of last reported data)