

Site Analysis in SolarEdge ONE for C&I – Application Note

Revision History

Version 1.0, August 2024: Initial Version

Contents

SolarEdge ONE for C&I overview.....	1
Site Analysis overview.....	1
Standard charts.....	2
Standard chart site options.....	3
Standard chart <device> options.....	5
Custom Charts.....	7
Custom chart site options.....	7
Custom chart <device> options.....	10
Standard and Custom charts.....	12

SolarEdge ONE for C&I overview

SolarEdge ONE for C&I is an orchestrated platform for monitoring and managing PV fleets, storage, EV-charging stations, and load optimization. You can optimize all your energy assets using live data analytics to save costs.

Site Analysis overview

Site Analysis displays, creates, and generates charts that provide information at a site or device level, on all discoverable devices. The charts allow you to troubleshoot, spot trends, and recognize patterns. It improves the efficiency and performance of the equipment on-site and identifies ways to reduce current and future issues. You can utilize standard charts or customize your charts.

To open the Site Analysis dashboard:

1. Log in to the [Monitoring platform](#).
2. To access your site name, click the **SITE NAME**.
The **ONE for C&I** dashboard is displayed.
3. On the **Main Menu**, click .
The **Analysis** dashboard is displayed.

Commercial Group / Commercial Site

Active Peak: 0W Local time: 09:11 Last update: Jun 12, 2024 16:16

Standard Custom

Today Week Dec 13, 2020 Dec 31, 2020

Site Inverter String Irradiance Sensor Meter Temperature Sensor Custom Saved (3)

Select from the left pane which site or device you want to analyze and its measurements.

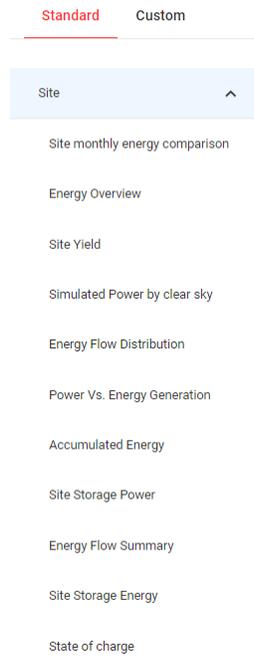
To change your portfolio or site name:

From the **Search**  dropdown lists, select from the options available, or type in the names of the portfolio and site you are searching for.

Standard charts

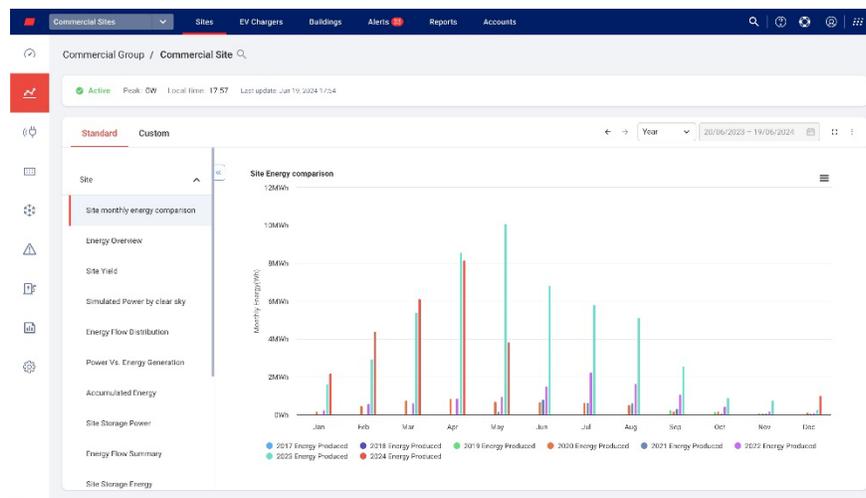
Standard charts are default charts you select, to create charts at the site level, or for a device or multiple devices of the same type, such as an inverter, or a meter, within a site. They are automatically generated once you've chosen which site, or device information to view. You can select from the following options:

Standard chart site options



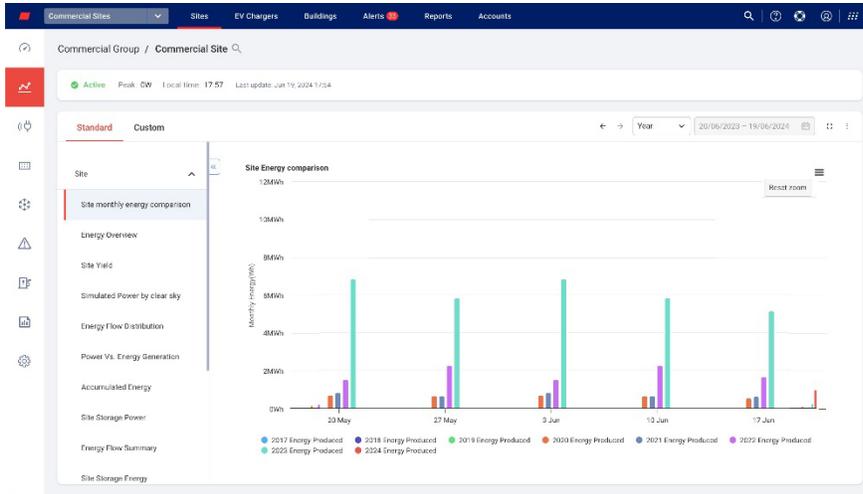
To generate a standard site chart:

1. Click **Standard**.
2. From the **Chart options** menu, click the **Site** dropdown list.
All chart options for the site are displayed.
3. Click the chart you want to generate.
The chart is generated.



To zoom into the chart:

Click and drag your cursor along a selected section of the chart.
The selected section is displayed.



To reset the chart:

Click **Reset zoom**.

To select a time period:

1. In the Time field, select the period to display.
2. Use the arrows next to the Time field to view an earlier or later period on the chart.



NOTE

One or more options in the **Time** field may not be available for some charts.

To enlarge the chart:

Click .

To download the chart:

Click .

To view additional information:

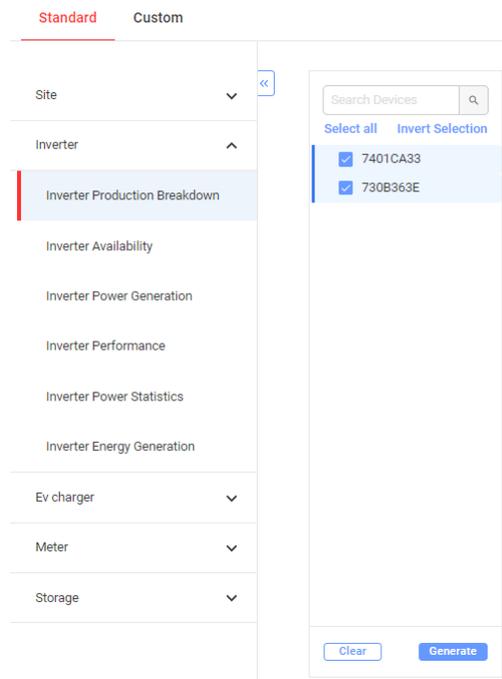
Move your cursor along the chart.



NOTE

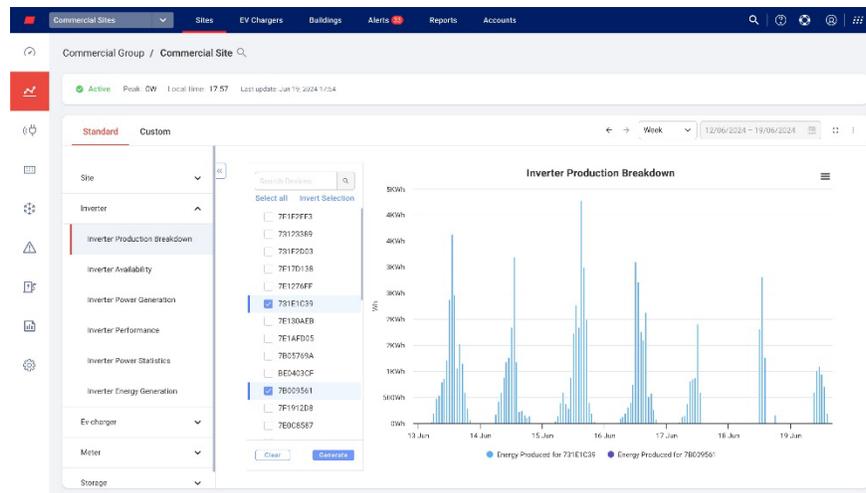
Standard charts do not get a choice of chart visualization.

Standard chart <device> options



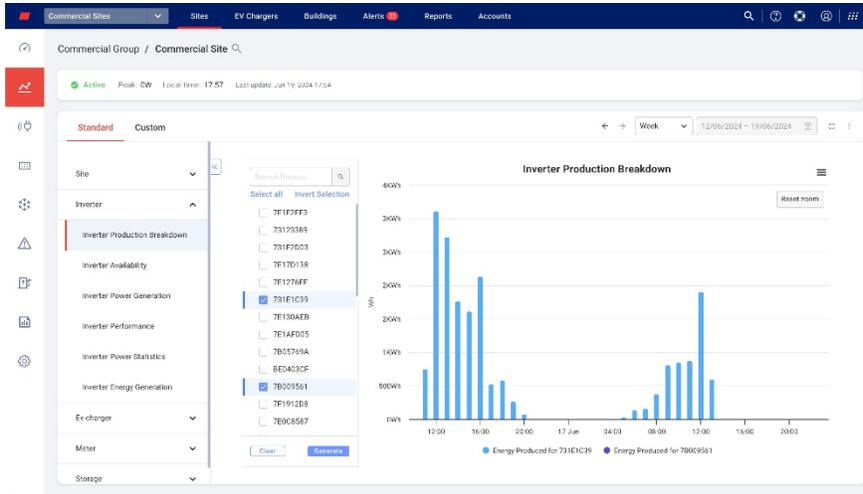
To generate a standard device chart:

1. Select **Standard**.
2. From the **Chart options** menu, click the **device** dropdown list. All available chart options for the device are displayed.
3. From the chart options list, select the chart you want to generate.
4. From the **Devices** list, select the checkbox of the device you want to view on the chart, or type the device or serial number in the **Search Devices** search box.
5. To invert the selection, click the **Invert Selection** button.
6. Click **Generate**. The chart is generated.



To zoom into the chart:

Click and drag your cursor along a selected section of the chart.
The selected section is displayed.



To reset the chart:

Click **Reset zoom**.

To select a time period:

1. In the **Time** field, select the period to display.
2. Use the arrows next to the **Time** field to view an earlier or later period on the chart.

NOTE

One or more options in the **Time** field may not be available for some charts.

To enlarge the chart:

Click .

To download the chart:

Click .

To view additional information:

Move your cursor along the chart.

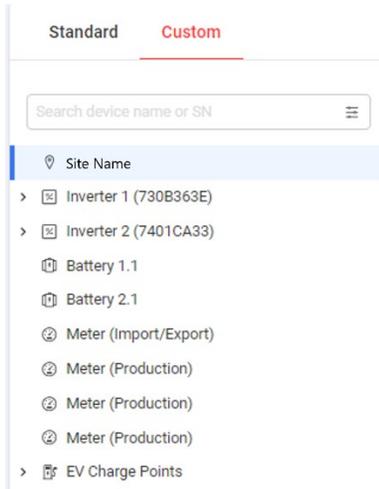
NOTE

Standard charts do not get a choice of chart visualization.

Custom Charts

Custom charts are charts you customize where you plot available data points, to create charts at the site level, or on a device or multiple devices within a site, such as an inverter, or a temperature sensor. You can select from the following options:

Custom chart site options



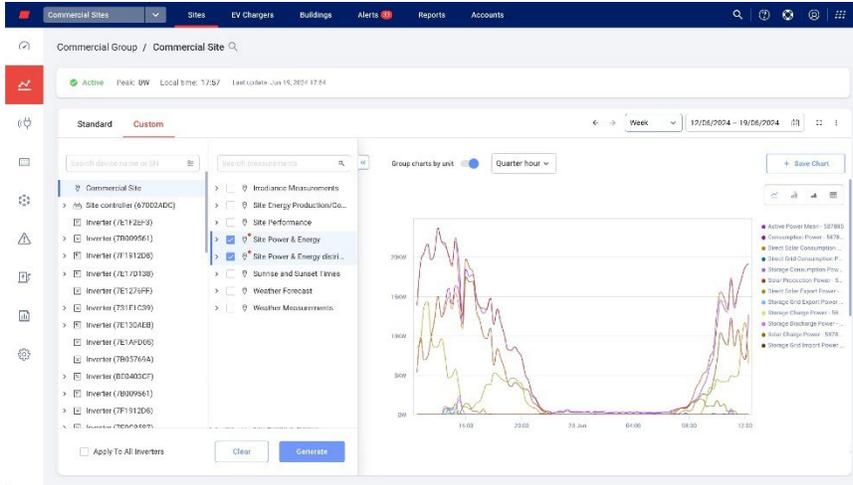
To generate a custom site chart:

1. Select **Custom**.
2. From the chart options menu, click the site name, or select the Apply to all inverters checkbox.
3. In the **Search device name or SN** field, type a device name, or filter the type of device you want to generate charts for.
The available chart measurements are displayed.
4. To deselect a device, click the device.
5. From the measurements list, select the checkboxes of the measurements you want included in your chart, or in the Search measurements field, type the measurement you are searching for. For example, if you type power all power chart options are displayed.
6. From the dropdown for each chart measurement, select further measurement options.
7. Select the checkboxes of the charts you want to create.
8. Click Generate.
The charts are generated.



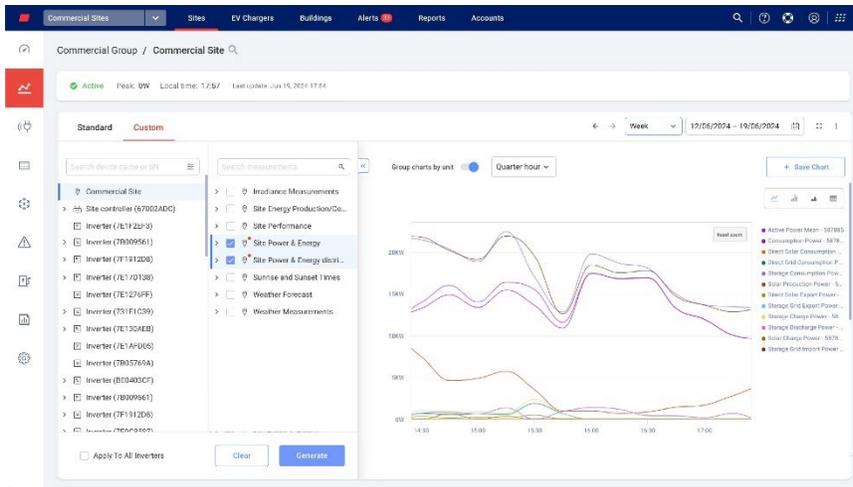
NOTE

To view all generated charts scroll down the screen.



To zoom into the chart:

Click and drag your cursor along a selected section of the chart. The selected section is displayed.



To reset the chart:

Click **Reset zoom**.

To combine charts:

Toggle **Group charts by unit** to **OFF**. By default Group charts by unit is **ON**.

To select measurements:

In the Measurement field, select **Quarter hour** or **Hour**.

To select the time period:

1. In the **Time** field select the period to display.

 **NOTE**

One or more options in the **Time** field may not be available for some charts.

2. Use the arrows next to the **Time** field to view an earlier or later period on the chart, or click the date calendar for a specific period.

To enlarge the chart:

Click .

To download the chart:

Click .

To change the type of chart displayed:

Select a chart type . The default chart is a **Line** chart.

To view a full screen:

Click .

To view additional information:

Move your cursor along the chart.

To save your chart:

1. Click **+ Save Chart**.
A **Save Chart** pop-up window opens.
2. In the fields provided, enter the **Chart Name** and **Description**.
3. Click **Submit**.

Your chart is renamed and saved.

 **NOTE**

Only devices installed on-site are displayed on your dashboard.

Custom chart <device> options

The screenshot shows the 'Custom' tab selected. The left panel contains a search bar and a list of devices. The right panel contains a search bar and a list of measurement options. The 'Apply To All Inverters' checkbox is unchecked. The 'Clear' and 'Generate' buttons are visible at the bottom.

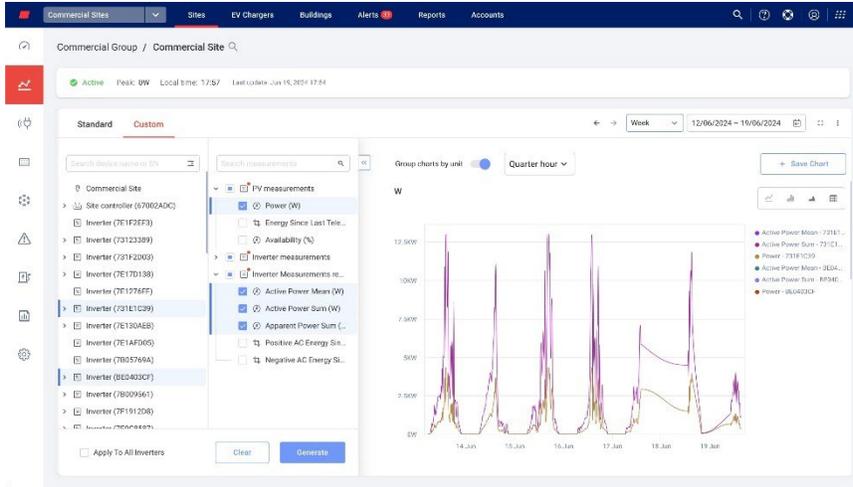
To generate a custom device chart:

1. Select **Custom**.
2. From the chart options menu, click a device, or select the **Apply to all inverters** checkbox. The available chart measurements are displayed.
3. In the **Search device name or SN** search field you can type a device name, or filter the type of device you want to generate charts for. The available chart measurements are displayed.
4. To deselect a device, click the device.
5. From the measurements list, select the checkbox of the measurement you want to view on the chart, or in the **Search measurements** search field, type the name of the chart you want to create, such as a power chart.
6. From the dropdown for each chart measurement, you can select further measurement options.
7. Click **Generate**.
The charts are generated.



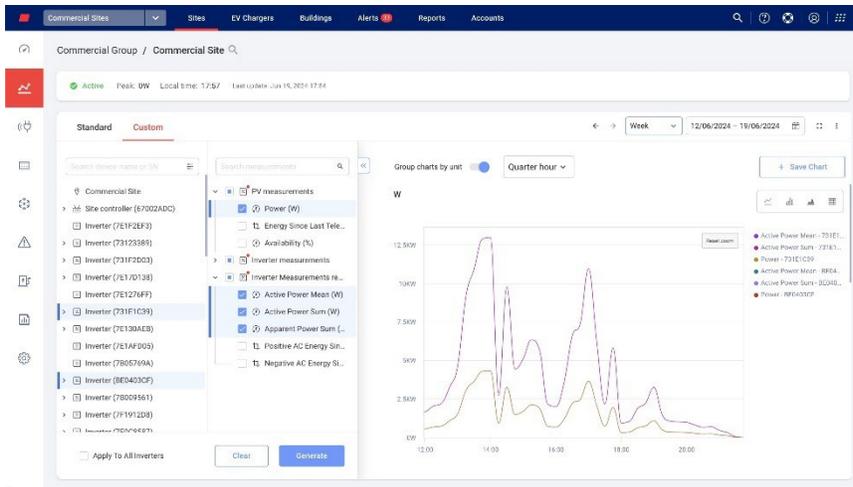
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Toggle **Group charts by unit** to **OFF**. By default Group charts by unit is **ON**.

To select measurements:

In the Measurement field, select **Quarter hour** or **Hour**.

To select the time period:

1. In the **Time** field select the period to display.

 **NOTE**

One or more options in the **Time** field may not be available for some charts.

2. Use the arrows next to the **Time** field to view an earlier or later period on the chart, or click the date calendar for a specific period.

To enlarge the chart:

Click  .

To download the chart:

Click  .

To change the type of chart displayed:

Select the chart type  . The default chart is a **Line** chart.

To view a full screen:

Click  .

To view additional information:

Move your cursor along the chart.

To save your chart:

1. Click **+ Save Chart**.
A **Save Chart** pop-up window opens.
2. In the fields provided, enter the **Chart Name** and **Description**.
3. Click **Submit**.
Your chart is renamed and saved.

Standard and Custom charts

Refer to the following tables for descriptions of Standard and Custom charts:

Site Standard Charts	Chart Description
Site Accumulated Energy vs Accumulated Irradiance	This chart displays the link between the total energy produced by your PV panels and the total amount of sunlight they receive. It explains how much electricity the PV panels generate compared to the amount of sunlight they are exposed to.
Energy Flow Distribution	This chart displays the flow and distribution of energy within a PV system.
Energy Flow Summary	This chart displays the solar PV and energy management system, and illustrates the energy's journey from when the PV panels generate energy to when it is consumed or used in various applications.

Site Standard Charts	Chart Description
Energy Overview	The chart displays the energy distribution within a PV system, and how much energy is consumed. It allows users to identify potential areas for improvement to optimize their system, to reduce energy wastage, and enhance overall efficiency.
Simulated Power by Clear Sky	This chart displays the Expected Power, Active Power, and Irradiance.
Power vs Energy Generation	This chart compares the amount of energy versus power the site produces, from its PV system.
Site Monthly Energy Comparison	This chart summarizes the total amount of energy the site produces from PV panels per month, over a year.
Site Yield	This chart compares the Performance Ratio (PR) with the Energy Yield of a solar PV system.
Site Storage Energy (Wh)	This chart displays storage system charge and discharge vs. remaining energy.
Site Storage Power (W)	This chart displays storage system charge and discharge.

Site Custom Charts	Chart Description
Site Performance	This measurement displays site performance, PR yield, and availability. Select this option to view all available telemetries. *PR measurements are only available when there are irradiance sensors on site.
Site Energy Production/Consumption	This measurement displays exported and imported energy measured by the site meter. Select this option to view all available telemetries.
Weather Measurements	This measurement displays temperature (c), humidity (%), Wind speed (m/s), and wind direction. Select this option to view all available telemetries
Site Availability HOUR	This measurement displays the site equipment availability in %. Select this option to view all available telemetries.
Site Power and Energy	This measurement displays the site level aggregation for active power mean (W), positive AC energy (Wh), and negative AC energy (Wh). Select this option to view all available telemetries.
Irradiance Measurements	This measurement displays the site-level summary for Active Power (W) and Energy Delta (Wh). *This data is only available when using a satellite irradiance service. Select this option to view all available telemetries.

Inverter Standard Charts	Chart Description
Inverter Energy Generation	This chart displays the energy generation per inverter (Wh) and compares irradiance.
Inverter Performance	This chart displays the normalized energy per inverter.
Inverter power generation	This chart displays the power production of individual inverters over a specified period.

Inverter Standard Charts	Chart Description
Inverter Production Breakdown	This chart displays the production of the inverter (Wh).
Inverter Production Time	This chart displays the working hours of the inverter per selected time frame.
Inverter Power Statistics	This chart displays the minimum and maximum effective power range of inverters.
Synergy Unit Average Power Breakdown	This chart displays the average power (W) per synergy unit.

Inverter Custom Charts	Chart Description
PV Measurements	These measurements display the PV-generated DC power (W) and PV-generated DC energy since the last telemetry. Select this option to view all available telemetries.
Inverter Measurements	These measurements display, temperature, three phase AC voltage, three phase AC current, and three phase AC frequency, and so on. Select this option to view all available telemetries.
Inverter Measurements Resampling	These measurements aggregate data, such as Active power and active power sum. Select this option to view all available telemetries.

EV Charger Standard Charts	Chart Description
EV-Charger Energy	This chart displays the total energy (Wh) generated by all EV chargers for a selected time frame.
EV-Charger Power	This chart displays the total power (W) generated by all EV chargers, for a selected time frame.

EV Charger Custom Charts	Chart Description
EV Charger Measurements	These measurements display the inverter's lifetime energy (Wh), Energy Delta, and Active Power (W). Select this option to view all available telemetries.
EV Charger Measurements Resampling	These measurements display the inverter's Energy Delta summary (Wh), and Active power mean (W). Select this option to view all available telemetries.

Irradiance Sensor Custom Charts	Chart Description
Irradiance Sensor Measurements	This chart displays irradiance (W/M ²). Select this option to view all available telemetries.

Meter Standard Charts	Chart Description
Meter Energy Import/Export	This chart displays the exported and imported energy of the entire site.
Meter Power	This chart displays the power output of the entire site. Select

	this option to view all available telemetries.
Meter Energy (Wh)	This chart displays the energy output of the entire site measured.

Meter Custom Charts	Chart Description
Meter Measurements	This chart displays the power output of the entire site. Select this option to view all available telemetries.
Meter Measurements Resampling	Select this option to view all available telemetries.

Storage Standard Charts	Chart Description
Site Storage Energy	This chart displays the storage charge and discharge (Wh).

Storage Custom Charts	Chart Description
Storage Metrics	Select this option to view all available telemetries.
Storage Measurements Resampling	Select this option to view all available telemetries.