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

Revision History

Version 1.0, August 2024: Initial Version

Contents

SolarEdge ONE for C&I

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 Overview

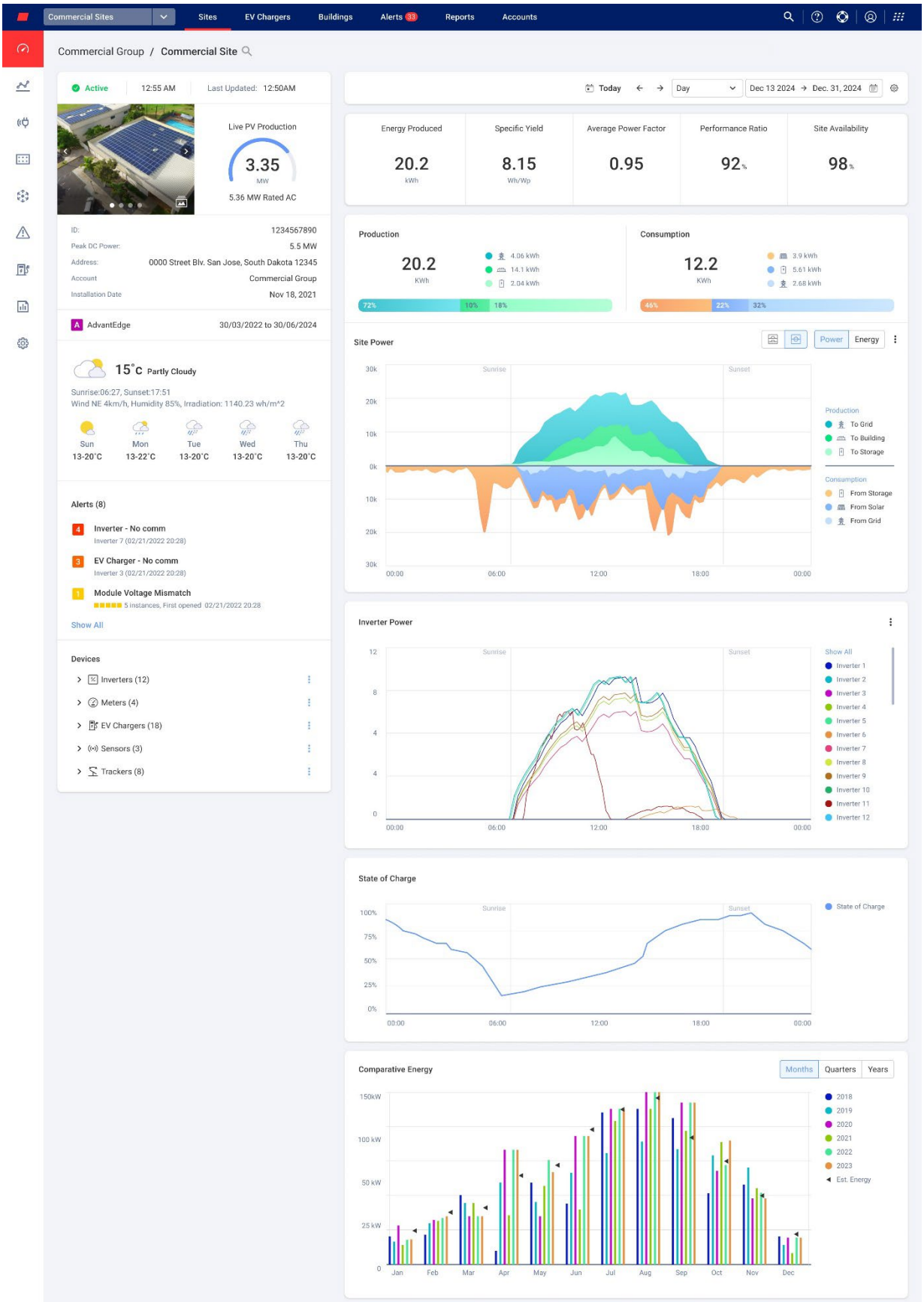
Site Overview offers a comprehensive view of your site's performance, making it easy to monitor, analyze, and optimize your system for maximum efficiency and profitability.

NOTE

Site Overview is for installer use only.

To open Site Overview:

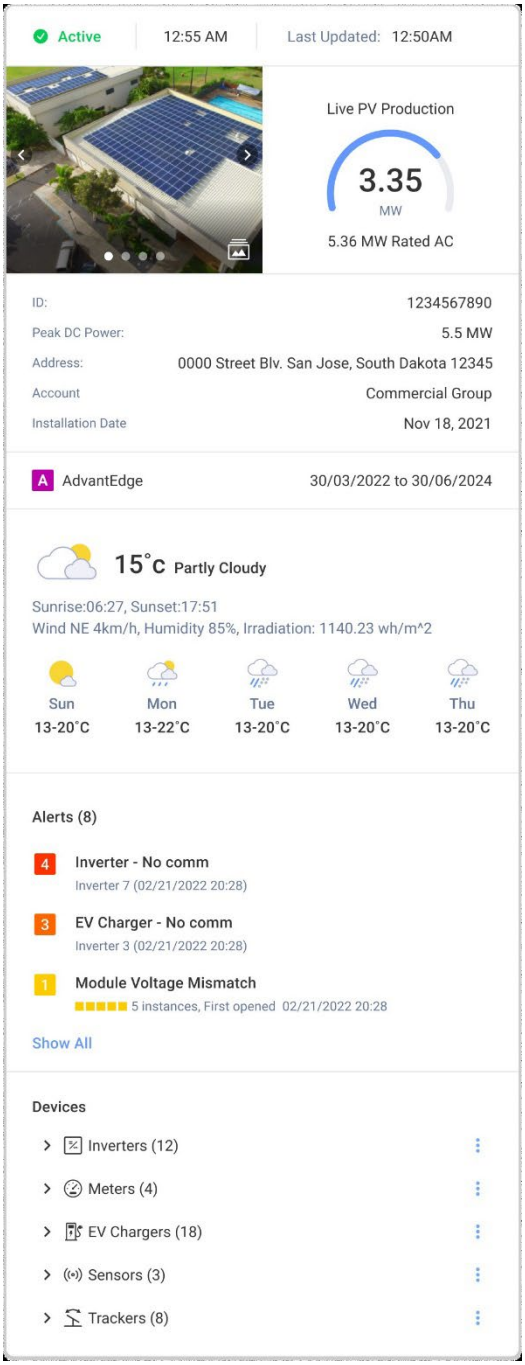
1. Log in to the Monitoring platform.
2. To access your site, click the **SITE NAME**.
   Site Overview is displayed.


Commercial Sites
Sites
EV Chargers
Buildings
Alerts 33
Reports
Accounts
Commercial Group / Commercial Site
Active
12:55 AM
Last Updated: 12:50AM
Live PV Production
3.35
MW
5.36 MW Rated AC
ID: 1234567890
Peak DC Power: 5.5 MW
Address: 0000 Street Blv. San Jose, South Dakota 12345
Account Commercial Group
Installation Date Nov 18, 2021
AdvantEdge 30/03/2022 to 30/06/2024
15˚C Partly Cloudy
Sunrise:06:27, Sunset:17:51
Wind NE 4km/h, Humidity 85%, Irradiation: 1140.23 wh/m^2
Sun 13-20˚C
Mon 13-22˚C
Tue 13-20˚C
Wed 13-20˚C
Thu 13-20˚C
Alerts (8)
Inverter - No comm
Inverter 7 (02/21/2022 20:28)
EV Charger - No comm
Inverter 3 (02/21/2022 20:28)
Module Voltage Mismatch
5 instances, First opened 02/21/2022 20:28
Show All
Devices
Inverters (12)
Meters (4)
EV Chargers (18)
Sensors (3)
Trackers (8)
Today
Day
Dec 13 2024 → Dec. 31, 2024
Energy Produced
20.2
kWh
Specific Yield
8.15
Wh/Wp
Average Power Factor
0.95
Performance Ratio
92%
Site Availability
98%
Production
20.2
KWh
4.06 kWh
14.1 kWh
2.04 kWh
72%
10%
18%
Consumption
12.2
KWh
3.9 kWh
5.61 kWh
2.68 kWh
46%
22%
32%
Site Power
Power
Energy
Sunrise
Sunset
30k
20k
10k
0k
10k
20k
30k
00:00
06:00
12:00
18:00
00:00
Production
To Grid
To Building
To Storage
Consumption
From Storage
From Solar
From Grid
Inverter Power
12
8
4
4
0
Show All
Inverter 1
Inverter 2
Inverter 3
Inverter 4
Inverter 5
Inverter 6
Inverter 7
Inverter 8
Inverter 9
Inverter 10
Inverter 11
Inverter 12
State of Charge
100%
75%
50%
25%
0%
State of Charge
Comparative Energy
Months
Quarters
Years
150kW
100 kW
50 kW
25 kW
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2018
2019
2020
2021
2022
2023
Est. Energy

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.

Site information



This section of the dashboard displays the following:

- The time and status of the site.

- An image of the site. You can upload this image to **Site Admin** > **Site Details** > **Details**.
- Current daily weather, wind direction and speed, and irradiance on-site.

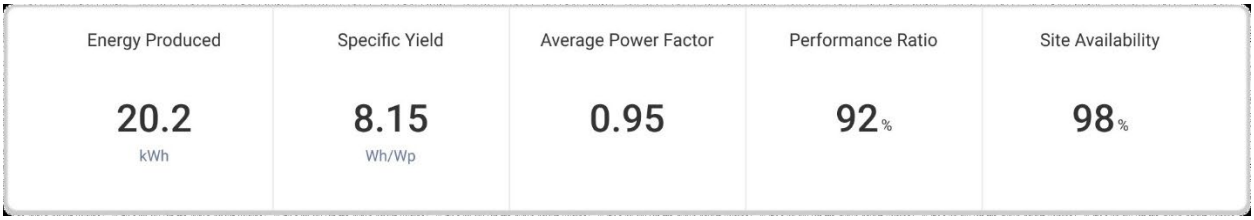
NOTE
Irradiance is only displayed if the site has irradiance sensors.

- **Live PV Production**: Power output in kW/MW and the site's kWp.
- **Site ID, Address, Account** and **Installation Date**
- **Weather on site**
- **AdvantEdge** program's start and end date.

NOTE
This is only displayed if the site is part of the AdvantEdge program.

- **Site Alerts**: Displays the number of open alerts on site, with a maximum of 3 alerts displayed. Each alert will display the alert impact, from 1-9, the module, and the date the alert was opened.
- **Devices**: Displays all the devices on site. Click the arrow next to a device to view the list of grouped devices, then click the device's serial number to view more information about that device.

Site Overview key performance indicators (KPIs)



This section of the dashboard provides a comprehensive view of KPIs for your site. KPIs enable you to assess and track the efficiency, reliability, and productivity of the site operations. Based on this information you make informed decisions and identify areas for improvement. Hover your cursor over the KPI to view a tooltip on the KPI, as described in the following table:

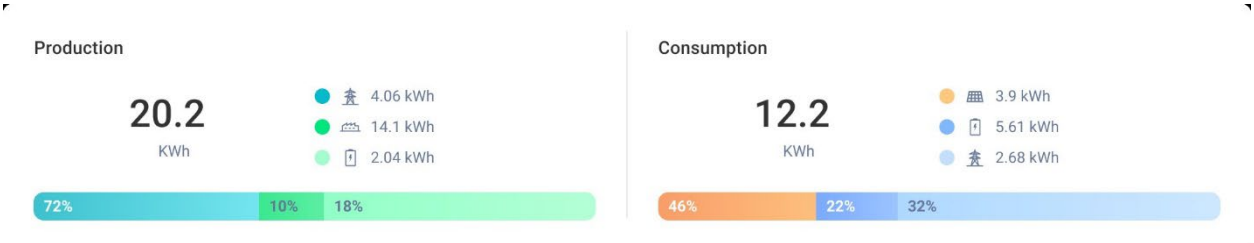
NOTE
The Performance Ratio KPI is only displayed if local sensors are installed on site.

KPIs

KPI	Description
Energy Produced	The amount of electrical energy produced by the PV system over a given period of time.
Specific Yield (Wh/Wp)	Measures the total amount of energy produced by a solar PV system in kWh/kWp and provides a standardized way to compare the performance of different systems.
Average Power Factor	This is an average of the ratio of real power (kW) and apparent power (Kv), across a selected time. This average indicates how effectively the site

KPI	Description
	utilizes electrical power, with 1 representing perfect efficiency.
Performance Ratio	Measures the efficiency of a solar PV system by comparing the actual energy output to its potential energy output under standard test conditions. For further information on calculating performance ratios refer to the Performance Ratio Calculation and Activation in the Monitoring Platform Application Note.
Site Availability	Measures the percentage of time that the solar PV system is operational and producing energy. It is calculated as the ratio of total time the system is operational to the total time it is expected to be operational over a given period of time.

Production Versus Consumption



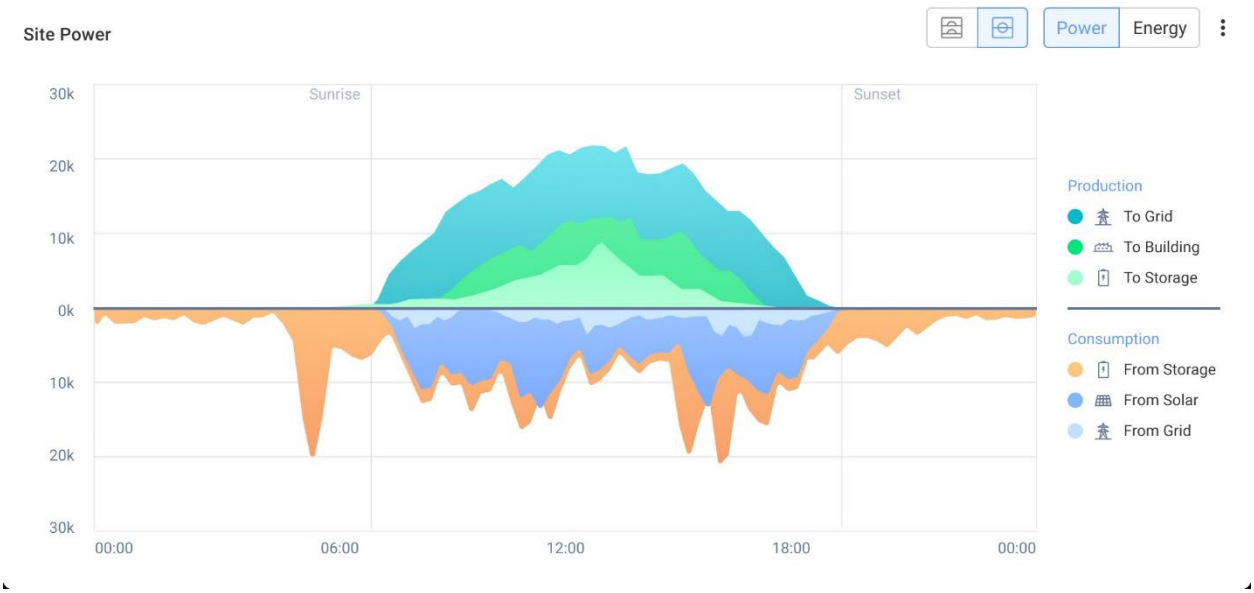
This section of the dashboard displays the distribution of energy between production and consumption:

- Production displays the destination of the energy produced, for example, if the produced energy has been directed to a building, storage, or the grid.
- Consumption displays the energy source, for example, from PV, storage, or the grid.

NOTE

Production and consumption data is only displayed if building meters are installed on site.

Site Power chart



The Site Power chart displays a visual representation of the distributed energy within a site. It offers a comprehensive overview of various energy sources and system utilization.
On the chart, to view the latest data received from the inverter, select the **Power** or **Energy** button. The chart displays Energy in a bar chart, and Power in an area chart.

Move your cursor along the chart to view the following additional information:

- System production
- Meter data for energy exported and imported
- Storage charging and dispatch
- Date and time
- kWh or MWh

You have the option to do the following:

To deselect destinations and sources of energy on the chart:

Click the options under Production and Consumption on the chart legend.

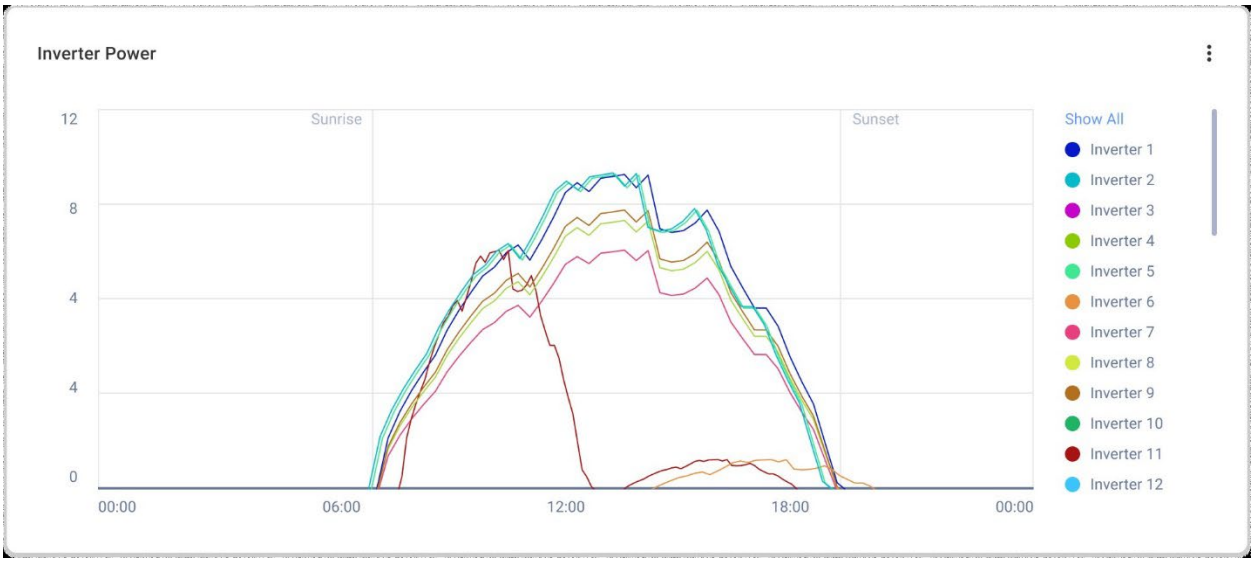
To change the period of time:

From the time field, select your period of time: Day/Week/Month/Year.

NOTE

Changing the date affects the KPIs and graphs. It does not affect the Site Information data.

Inverter Power chart



This chart displays the power curve of each inverter on site. You can compare all inverters on site against each other to spot outliers or trends. The chart has an option to normalize the values, calculated by the kWh/kWp of each inverter, over a selected period.
You have the option to do the following:

To deselect an inverter:

Click the inverter on the chart legend, click again to reselect.

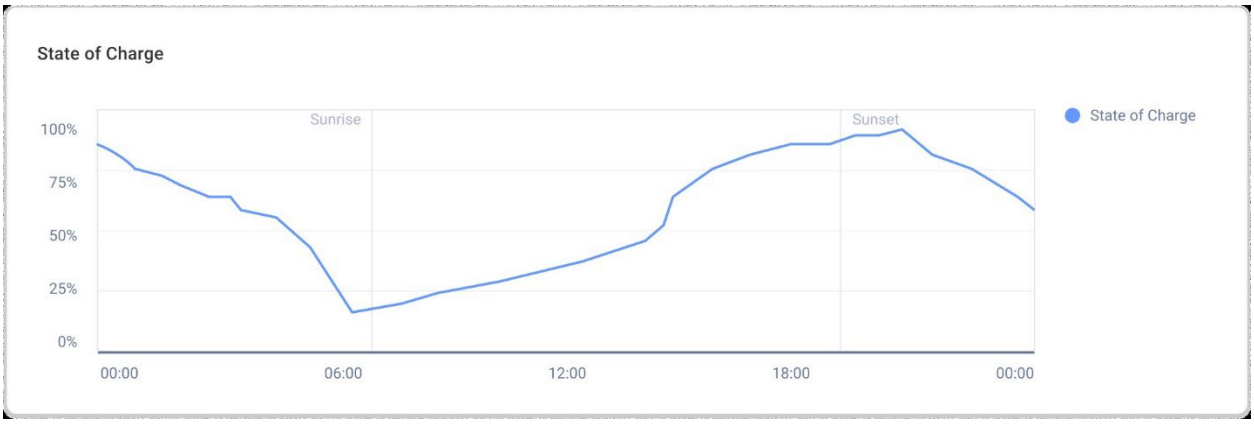
To change the period of time:

From the time field, select your period of time: Day/Week/Month/Year.

To view additional information:

Move your cursor along the chart to view more information.

State of Charge chart



This chart displays a combined view of the average state of charge of all your site's storage units, displayed between 0% and 100%.
You have the option to do the following:

To view additional information:

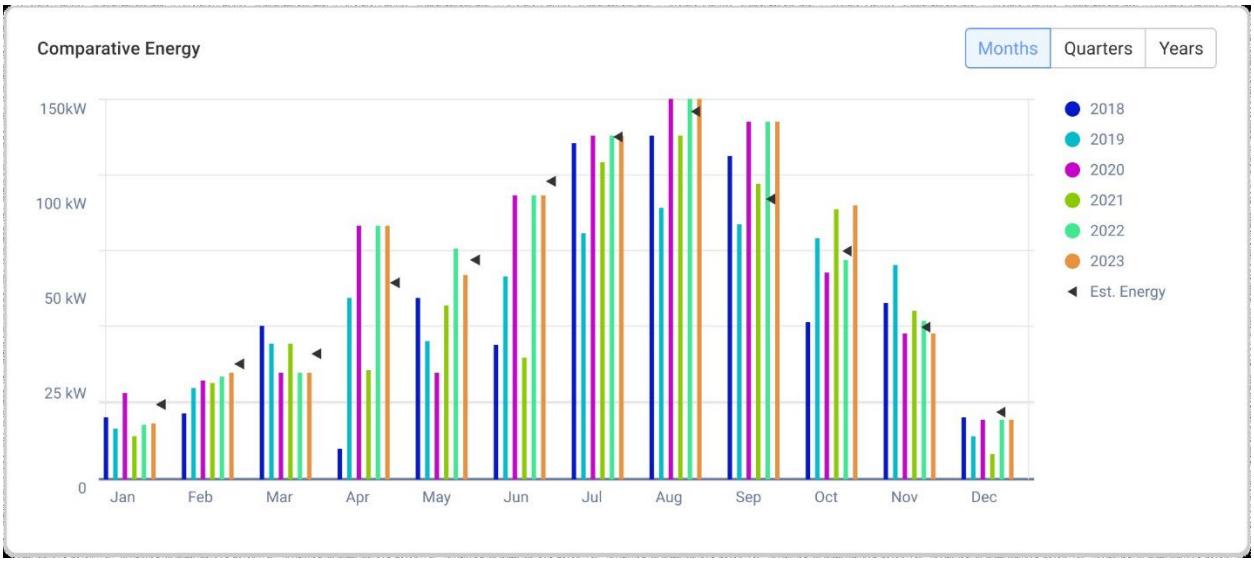
Move your cursor along the chart.

To change the period of time:

From the time field, select your period of time: Day/Week/Month/Year.

NOTE
This chart is displayed if the site has a storage system installed.

Comparative Energy chart



This chart displays the total energy produced by each inverter on site, over their lifespan. You can compare different time periods to see how each month, quarter, or year compares to the others.
You also have the option to do the following on the chart:

To deselect a month, quarter, or year:

Click the time on the chart legend.

To change the time period:

Select the Months, Quarters or Years buttons.

To view additional information:

Move your cursor along the chart.