SolarEdge Monitoring Platform

As with any software, the SolarEdge website is continually being updated to improve the user experience. This guide is intended as an overview of how you can interact with and interpret your system's production data; it may not match up with the current formatting, but the underlying data will be the same. You can always refer to SolarEdge's "Learning Lab" on Youtube for helpful videos (like this one) that will give you a more in depth, and hopefully up to date, walkthrough of the monitoring platform.
Please note that SolarEdge's published materials may also refer to system components that are not part of your specific installation, such as battery storage or consumption monitoring.

Things that can impact your monitoring data:

Connectivity - The connection to your SolarEdge monitoring platform is dependent on active communications to your inverter. These communications are **not constant**, your system may send data only periodically throughout the day or even just once a day depending on signal strength and connection quality. Using the monitoring platform for instantaneous system performance will yield inaccurate results and generally only leads to unnecessary concern. If you are not seeing data on your monitoring platform, please wait at least 24 hours to see if it resolves on its own before contacting our service team - and then we would be more than happy to help you troubleshoot.

Weather - In winter, snow on your array (yes even just a little bit) can prevent your system from producing power and/or impact the accuracy of data going from your inverter to the monitoring platform. If you see anything odd on the monitoring site, or receive an alert message from SolarEdge during the winter months, please check to see if the array for snow or ice. If the error or issue persists once the snow/ice is completely cleared, please reach out to our service team for support.

Time of Day - It may seem silly to remind folks of this, but we get the question quite a lot! When the sun goes down, your inverter will go to sleep until morning, and there will be no data to see on the monitoring site (though sometimes it will transmit additional data through the night). The array requires a minimum level of irradiance (sunlight) in the morning to start up again, so when the weather is bad you might notice more lag in your system "waking up" which is completely normal.

Getting Access:

Your username for your system will be your email address. You can access the SolarEdge monitoring platform online here: https://monitoring.solaredge.com/ or through the MySolaredge mobile app. You can reset your password from the login page, if your username is not recognized please let us know and we can update your profile and/or resend your invitation.

We have included screenshots from the desktop version, as the app layout changes much more frequently, and SolarEdge has provided some great guided videos on using the app which you can access here: https://www.solaredge.com/us/mysolaredge

Basic Navigation:

At the top of the page, you will be able to navigate between the Dashboard and Layout views. The Dashboard shows overall system data and history, the Layout view will show you a panel-by-panel view of the system.
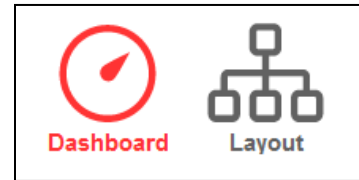
Dashboard View:

The first section will show you an overview of the system performance. Keep in mind, there may be some lag in data transfer throughout the day.

**Lifetime Energy** is calculated from when the system was first turned on.

Lifetime Revenue is calculated at a base $0.20/kWh rate, which is likely much lower than your actual rate given changing utility rates and additional production-based incentives.

Current Power	Energy today	Energy this month	Lifetime energy	Lifetime revenue
5.42 kW	8.64 kWh	526.44 kWh	56.1 MWh	$10,055.37

Next, you will see a Power and Energy graphic that you can toggle between different time periods. The CSV page icon in the top right will download a .csv file at the current granularity level.

Viewing previous days' hourly data is an interesting way to see how weather patterns affect your system production.

Systems with an oversized DC-to-AC ratio may see some clipping at certain times of year where the output is capped by the inverter capacity. This is completely normal.
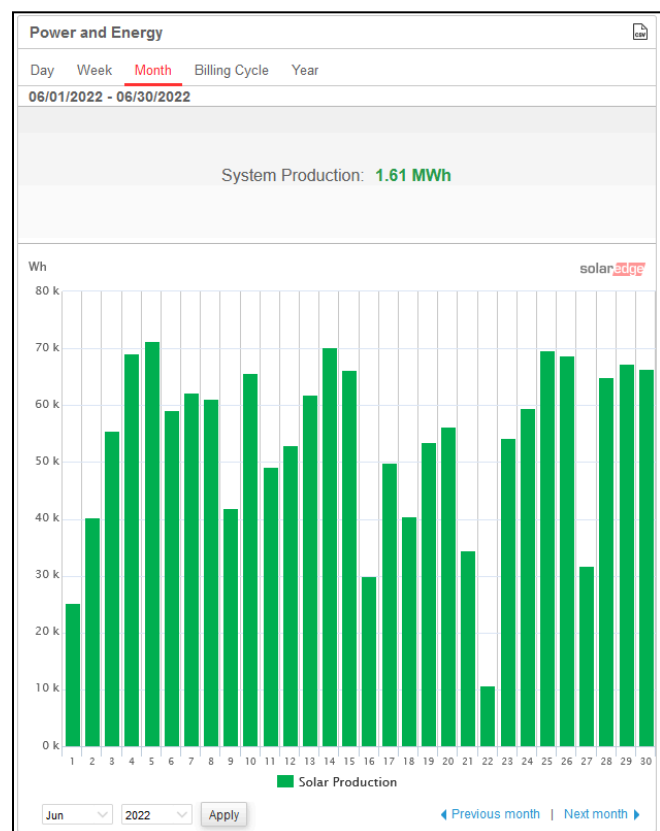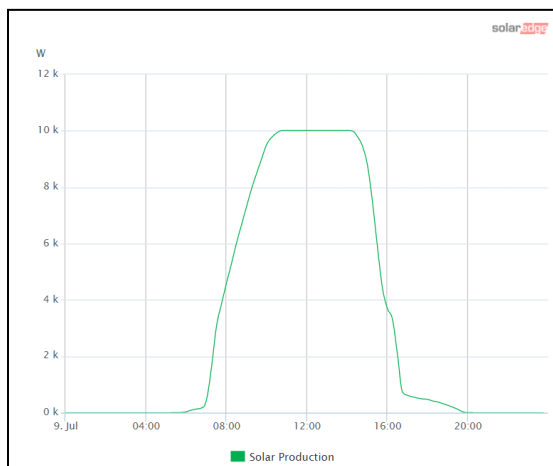
The Comparative Energy table at the bottom of the page will show all production data since the system was first energized, as well as the Estimated kWh totals for each period (indicated by the green arrow icons). Gaps in historic data may indicate a previous communication issue.
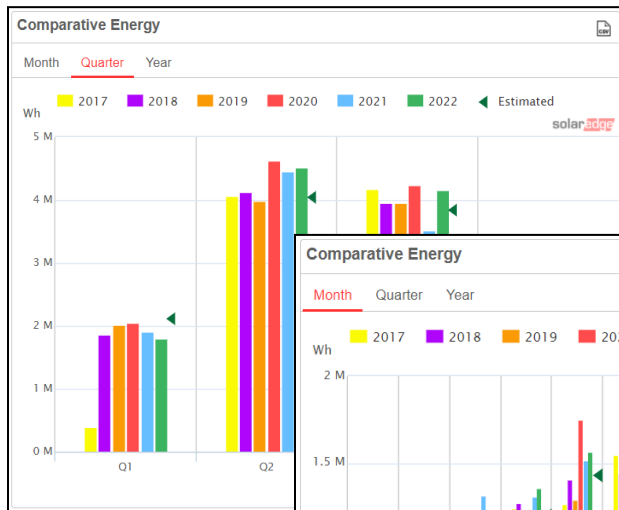
It is fairly common for our estimates to be a bit high compared to winter production, and a bit low compared to summer production, but your overall annual production should be within 10% of the estimated annual output.
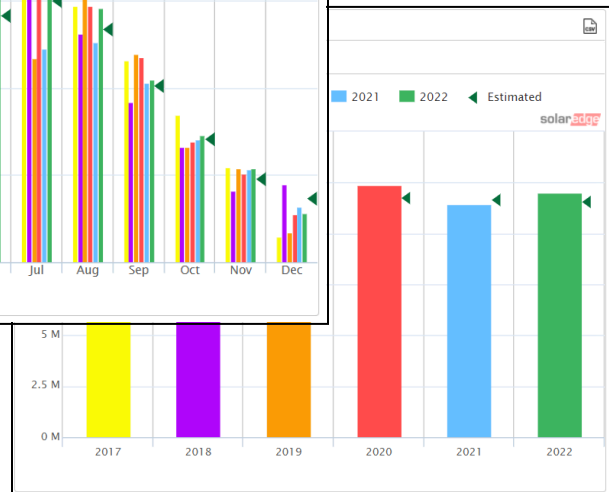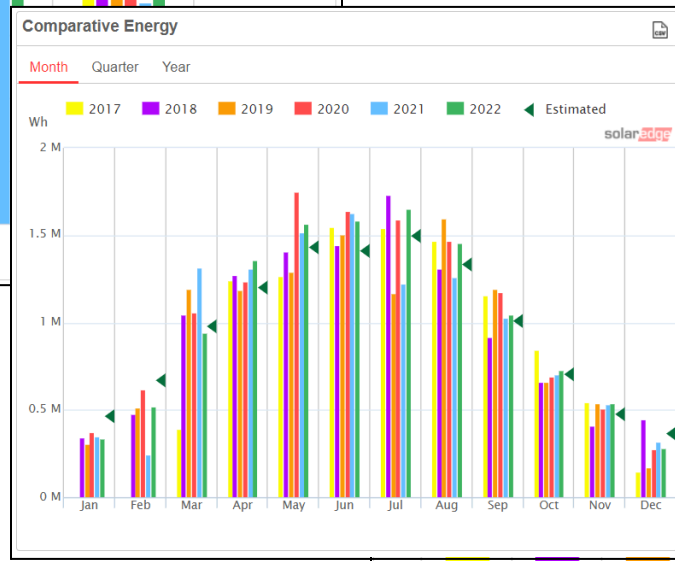
The right hand column shows some basic system information. If your system is enrolled in the SREC program, and your inverter includes an RGM (Revenue Grade Meter) for automatic production reporting, you should see your SREC reporting data here as well.

This is a good thing to keep an eye on long term, to ensure that you are able to report and receive all of your potential SREC income. You can also do this by logging into the MassCEC PTS website here: https://www.masscec-pts.com/

**Automatic Energy Reporting**

PTS System ID:	
Report status:	Success
Last reported:	12/27/2022 7:00 PM
Energy measured at:	12/27/2022 7:02 PM
Lifetime Energy (kWh):	56,082
Energy reported (kWh):	56,082

Dashboard View with Consumption Monitoring:

If your system included consumption monitoring, this data should be visible on the Dashboard. The overall flow of energy should be shown in the graphic at the top.

Please note, that just like the rest of the monitoring platform, your consumption data may not be up to date at a given point in the day, and should not be used to determine instantaneous changes in production or consumption. Reviewing previous days/weeks/months is the best way to utilize this data.
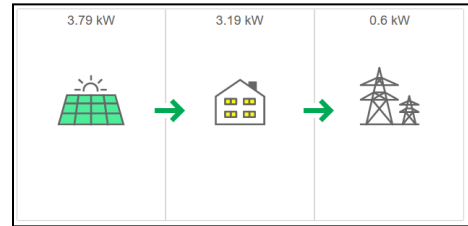
The Power and Energy section will give you the same ability to toggle between different levels of granularity as with the non-consumption version, except that now there are now additional data points being tracked.

Consumption is the total amount of energy being consumed by your home, regardless of where that energy comes from.

Solar Production is the total amount of energy produced by your array, regardless of where that energy is going.

Self Consumption is the amount of energy that is used directly by your home, and not exported to the grid, during the time period.

Export Is the total amount of energy being sent out to the grid.

Import Is the total amount of energy being pulled in from the grid.
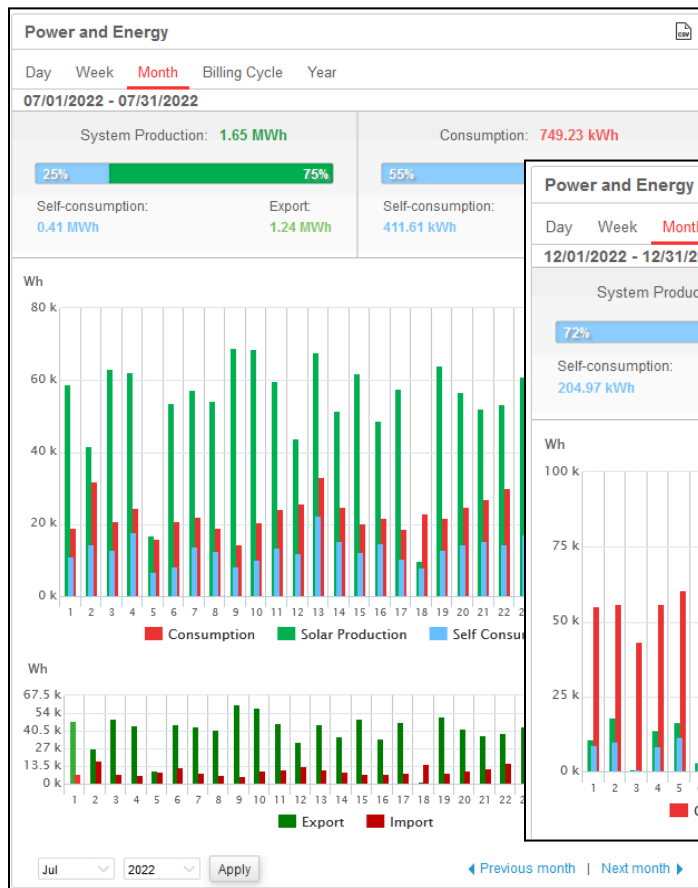
The balance between all of these data points will typically change quite a bit from season to season.

Layout View:

This page will show you a full view of your system, with all optimizers/modules laid out as they appear on site, along with all inverters if you have multiple.

The top of the page has a navigation bar that will allow you to toggle between different time periods, just like the dashboard view. If something looks odd on an individual day, we recommend changing the view to weekly or monthly to see if the data is just changing based on time of day and/or shade across the array.

Generally speaking, modules that have the same tilt and azimuth (compass orientation) should produce similar amounts of aggregate energy over the course of a day/week/month. Production is indicated by the color of the panel icon (the brighter the blue, the higher the production).

Things that can impact your layout appearance:

Shading patterns will definitely impact production in affected sections of an array. If you are consistently seeing lower production in one corner for instance, there is likely a shadow passing over the corner of the array throughout the day. Chimneys and other hard objects casting shadows on solar panels have an even bigger impact.
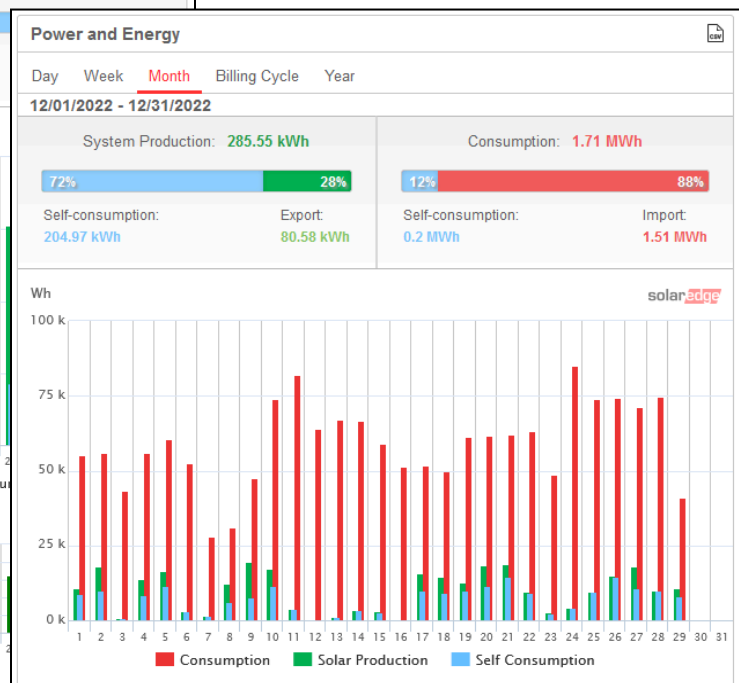
Time of Day is of course a big factor as well, and even a south-facing array will see some variance from east to west as the sun moves through the sky. An east/west facing array will show an even starker difference.

In the morning, this system has almost no production on the western facing sub-array, whereas the east and south facing sections are doing quite well.

The same installation viewed at the weekly level shows how the east and west arrays are actually producing consistently, though less than the southern section.

Snow coverage will change the appearance of your layout quite a bit, and may also trigger error messages from SolarEdge. Even just just a bit of snow and/or ice will lead to inconsistencies across the array, or strings that are not able to power on at all.

These two arrays are both working correctly, given that they both had partial snow coverage when checked.
Once the snow melts, your array should go back to producing at its full potential.
If after the snow is cleared the data does not go back to "normal" after a few days, reach out to our team for additional support.

92.75 Wh (1.1.4)	109.75 Wh (1.1.1)	101.5 Wh (1.1.11)	106 Wh (1.1.2)	119.5 Wh (1.1.7)
84 Wh (1.1.10)	65 Wh (1.1.8)	54.5 Wh (1.1.6)	52 Wh (1.1.5)	73.75 Wh (1.1.9)
85.5 Wh (1.1.3)	51.75 Wh (1.2.12)	49.5 Wh (1.2.8)	50.25 Wh (1.2.7)	72.75 Wh (1.2.11)
80 Wh (1.2.2)	49.25 Wh (1.2.9)	46.25 Wh (1.2.10)	49 Wh (1.2.6)	79.5 Wh (1.2.1)
92.25 Wh (…4)	43.5 Wh (1.2.5)	38.75 Wh (1.2.3)	55.5 Wh (1.3.7)	171.25 Wh (1.3.8)
177 Wh (…10)	44.25 Wh (1.3.9)	27.5 Wh (1.3.1)	52.5 Wh (1.3.12)	
	167 Wh (1.3.6)	41.75 Wh (1.3.3)	44.25 Wh (1.3.2)	
		159.5 Wh (1.3.11)	62.5 Wh (1.3.5)	
			132.25 Wh (1.3.4)	

20 Wh (1.0.29)	8.25 Wh (1.0.24)	6.75 Wh (1.0.17)	7.5 Wh (1.0.33)	5 Wh (1.0.37)	9 Wh (1.0.2)	12.5 Wh (1.0.31)
20.75 Wh (1.0.6)	8.5 Wh (1.0.26)	8.25 Wh (1.0.30)	10 Wh (1.0.25)	9.5 Wh (1.0.36)	7 Wh (1.0.14)	17.75 Wh (1.0.23)
12 Wh (1.0.12)	0 Wh (1.0.1)	0 Wh (1.0.35)	0 Wh (1.0.9)	0 Wh (1.0.27)	0 Wh (1.0.20)	0.25 Wh (1.0.19)
11.75 Wh (1.0.38)	4 Wh (1.0.21)	4.25 Wh (1.0.22)	4 Wh (1.0.10)	1.25 Wh (1.0.32)	2.25 Wh (1.0.3)	1.25 Wh (1.0.34)

Optimizer issues can arise over time as well. If you see one lone black square on your otherwise blue layout, and there is not an external cause (such as weather), you may have an optimizer that has stopped working. This is a good time to reach out to our team for additional troubleshooting.

565 Wh (1.1.1)	943.25 Wh (1.1.2)	994 Wh (1.1.3)	987.25 Wh (1.1.4)	1.01 kWh (1.1.5)	976.75 Wh (1.1.6)	1.01 kWh (1.1.7)	1.01 kWh (1.1.8)	121 Wh (1.1.9)	1 kWh (1.1.10)
836 Wh (1.2.10)	925.25 Wh (1.2.11)	946.25 Wh (1.2.8)	949.25 Wh (1.2.7)	955.25 Wh (1.2.6)	983 Wh (1.2.5)	997.25 Wh (1.2.4)	1 kWh (1.2.3)	986.5 Wh (1.2.2)	999.75 Wh (1.2.1)

956.5 Wh (1.1.1)	956.5 Wh (1.1.2)	991.25 Wh (1.1.3)	976.25 Wh (1.1.4)	993.5 Wh (1.1.5)	1.03 kWh (1.1.12)	1.01 kWh (1.1.7)	1 kWh (1.1.8)	1 kWh (1.1.9)
901 Wh (1.1.11)	984.25 Wh (1.1.10)	0 Wh (1.2.7)	969.25 Wh (1.2.6)	982.5 Wh (1.2.5)	984.5 Wh (1.2.4)	1.02 kWh (1.2.3)	991 Wh (1.2.2)	1 kWh (1.2.1)
924 Wh (1.2.8)	974.25 Wh (1.2.9)	967.75 Wh (1.2.10)	1 kWh (1.2.11)					

The PV Squared Service Team is always happy to hear from you with any questions, and hope this guide gets you started on the right track! Please reach out to us for additional support.
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413-772-8788