



## Solar PV System Management for On-Site Staff

### Enphase Systems

This resource should be physically available to on-site staff who manage SOMAH Program-incentivized solar PV systems with Enphase inverters.

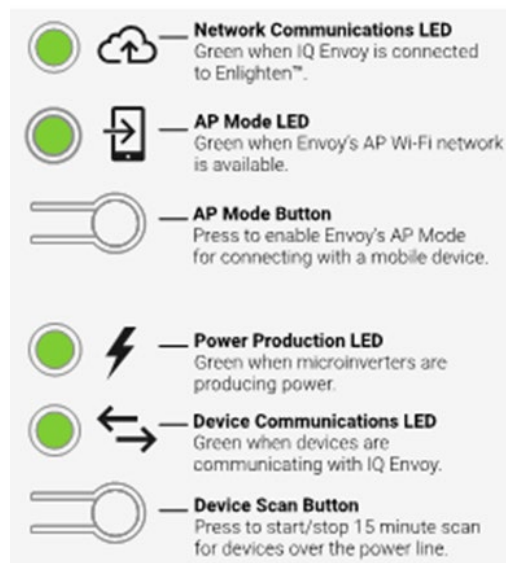
This resource includes information on the following sections:

1. Understanding Inverter LED Indicators
2. Troubleshooting Guide
3. Resources

#### 1. Understanding Inverter LED Indicators

The most important LED indicators to give attention to are:





1. Network Communications LED (Cloud icon): Solid **green** when connected
2. Power Production LED (Lightning icon): Solid **green** when microinverters are producing power
3. Device Communications LED (Back and forth arrow icon): Solid **green** when all devices are communicating with the IQ Envoy



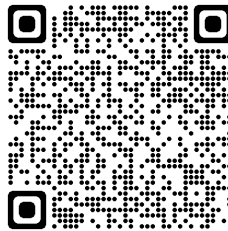
*Note the Enphase combiner box (left). Enphase systems use a specialized combiner box called the "IQ Combiner" instead of a centralized inverter. These combiner boxes, otherwise known as the Enphase Gateway™, also function as the communication center that sends data to the online monitoring platform. All Enphase multiple Gateway models have the same LED indicator lights.*



If any LEDs are found to be different than what’s described above, refer to the figure below for a description of each LED indicator.

LED	State	Description
All	Flashing amber in unison	The Envoy-S is booting up
	Flashing green sequentially	Software upgrade in progress
Network Communications 	Solid green	Communicating with Enlighten
	Flashing green	WPS connection in progress or the Envoy-S is attempting to connect to Enlighten
	Solid amber	Local network connection only
	Off	No network connection
AP mode 	Solid green	AP mode enabled: Envoy Wi-Fi network available
	Off	AP mode disabled: Envoy Wi-Fi network unavailable
Power production 	Solid green	All communicating microinverters are producing
	Flashing green	Microinverter upgrade in progress
	Solid Amber	At least one microinverter is not producing
	Off	Microinverters are not communicating (low light or night time)
Microinverter Communications 	Solid Green	All microinverters are communicating
	Flashing Green	Device scan in progress
	Solid Amber	At least one microinverter is not communicating
	Off	Microinverters are not communicating (low light or night time)

For more information on LED indicators, refer to Enphase’s guide by using the QR code:



### Finding Your Gateway Model

The Enphase Gateway is a communications gateway that collects information about how the solar PV system is performing and transmits that information over the internet to the Enphase monitoring platform.

There are several different versions of the Gateway model as pictured:



*IQ Gateway*



*Envoy S Metered*



*Envoy S Standard*



*Envoy R*



*EMU*

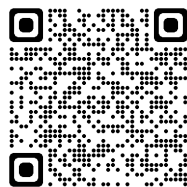


*IQ Combiner*

Your Gateway model may be tucked away in a utility room or found in the garage or outside in a water-tight enclosure near the electrical circuit breaker panel or near an electrical subpanel for the system arrays. Below is a picture of an IQ Combiner that is wall-mounted on the exterior.



For more information on locating your Enphase Gateway model, scan the QR code:



**Finding The Enphase Gateway**



## 2. Troubleshooting Guide

*Disclaimer: **Do not** attempt to repair the IQ Envoy or the microinverters without an Enphase-certified installer or electrician. While Enphase systems comply with all safety regulations, handling electrical equipment and components requires a certified installer or electrician.*

### What if the Power Production LED is solid **amber**?

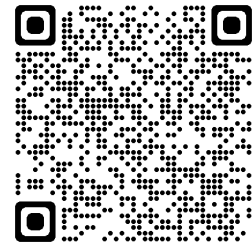
A solid amber on the Power Production LED indicator means that at least one microinverter is not producing. To investigate further, check the Enphase Enlighten app to find which microinverter(s) are having production issues. If you find that the solar PV system is having production issues, contact your solar installer to best address the problem.

*Note: Having only one microinverter out may trigger an amber LED. However, it may not call for immediate action by your solar installer.*

### What if the Network Communications LED is **off**?

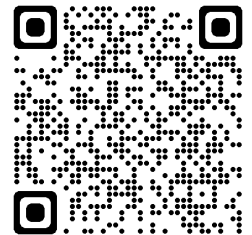
If the Network Communications LED (Cloud icon) is off, you may need to reconnect your IQ Combiner. To do so, you will first need to know the internet connection type it uses to communicate with the Enphase Cloud. For further directions, follow Enphase's guide by scanning the QR code.

*Note: You may need access to the Enphase Enlighten app.*

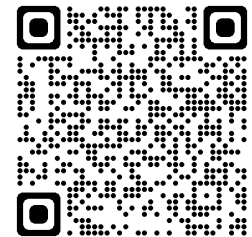


### What if I don't have the Enphase Enlighten app?

If you find your Gateway model is offline and you don't have the Enphase Enlighten app, you can get your Gateway back online *manually* by connecting to its unique wireless network, which you can join with your phone or laptop. To do so, take the steps provided by Enphase by scanning the QR code.



For further support on solar PV systems with Enphase inverters, you can find many quick and easy-to-use guides on Enphase's online support portal by scanning the QR code.

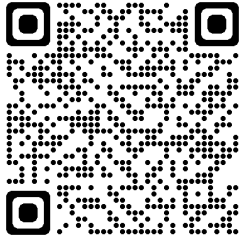




### 3. Resources

If additional support is needed to navigate the monitoring platform or troubleshoot your system, please use the resources below to request SOMAH's Technical Assistance and Support Services.

- [calsomah.org/TA-request](https://calsomah.org/TA-request)
- QR code:



**SOMAH TA and Support Services Request Form**