

# The Enphase Microinverter System - Grid Tie

## The Enphase Microinverter System

The Enphase Microinverter System consists of three components:

- The Microinverter that attaches to the racking beneath each solar module and converts DC power to grid-compliant AC power.
- The Envoy Communications Gateway (EMU) that collects and transmits performance information from each solar module to a proprietary website for use by the customer.
- The Enlighten website where Enphase customers can monitor and manage their solar power systems 24 hours a day.

## The Traditional Approach

An inverter is a power converter that converts direct current (DC) into alternating current (AC). In a solar module installation, the inverter performs two key functions: it performs the DC to AC conversion, and it optimizes the modules' Maximum Power Point Tracking (MPPT). Traditional solar energy installations deploy a single centralized inverter to convert the DC output from multiple solar modules into AC power.

## The Enphase Approach

The Enphase Microinverter System is a fully integrated device that converts the DC output of a single solar module into grid-compliant AC power. This integrated system maximizes energy harvest, increases system reliability, and simplifies design, installation and management.

### Productive

- Per-module Maximum Power Point Tracking (MPPT) contributes to energy harvest gains of 5 – 25%.
- With Enphase Microinverters, the modules are resilient to dust, debris, and shading.
- Enphase Burst Mode technology provides greater production in low-light conditions.

### Reliable

- No single point of failure.
- The Microinverter provides continuous monitoring of the performance of each PV module.
- Soft switching reduces component stress.

### Smart

- Quick and simple installation.
- No central or string inverter to install or design.
- The system provides 24/7 monitoring and management for each module.

### Safe

- Low voltage DC.
- Reduced fire risk.

The Enphase Microinverter system is the first commercially-available microinverter system for residential and commercial solar PV applications.

If you are looking for a Grid Tie Solar System, this is the only way to go!

## Call today for details and pricing!



Enphase Energy products dramatically improve the performance of solar power systems. Using Enphase Microinverters, owners and operators can increase the productivity and reliability of each solar module, have complete visibility of each module's performance, and reduce the operational expenses associated with large, centralized inverters.

The Enphase Microinverter System consists of the following three components:

### Enphase Microinverter



The Enphase Microinverter is a compact unit that attaches directly to solar power modules, converting DC to AC power at the source, and sending valuable performance information about each module to the Enphase Envoy (EMU) communications gateway.

### Envoy Communications Gateway



The Enphase Envoy (EMU) is a communications gateway that collects performance information of each solar module in a user's system and transmits this data to the Enlighten™ website, where users can view and manage the performance of their solar power system.

### Enlighten



The Enphase Enlighten website is a monitoring and analytics system where solar power system operators can view and manage the performance of their solar power system at all times. The system can detect irregularities in module performance and send alerts to users when it suspects an issue needs attention.