Enphase Energy Unveils New IQ Bidirectional EV Charger Architecture for Home Backup and Grid Services

FREMONT, Calif., Sept. 09, 2025 (GLOBE NEWSWIRE) -- Enphase Energy, Inc. (NASDAQ: ENPH), a global energy technology company and the world's leading supplier of microinverter-based solar and battery systems, today unveiled its new IQ® Bidirectional EV Charger architecture for vehicle-to-home (V2H) and vehicle-to-grid (V2G) capability. The charger connects to the direct current (DC) port of the electric vehicle (EV) and lets homeowners charge their EV, power their home seamlessly during outages, and share energy with the grid – all managed through the Enphase® App.

The IQ Bidirectional EV Charger only needs to be paired with the IQ® Meter Collar for a simple, powerful configuration that delivers home backup and grid services. The system is designed to be cost-effective, easy to install, and compatible with most home electrical setups. Homeowners can start with just the charger and meter collar for the basic configuration and then expand over time by adding Enphase solar and batteries to build a complete energy system. Watch an overview video of the charger in action and read the white paper to learn more. Here are some of the key features of the charger:

- **Bidirectional power with innovative technology:** Targeted to support 400 V and 800 V EVs, and deliver up to 11.5 kW of bidirectional power, leveraging GaN-based grid-forming microinverters.
- **Black start for total resilience:** Designed to power up a de-energized home during an outage by simply plugging in the EV, providing critical backup power when homeowners need it most.
- **AI-powered energy management:** Designed to maximize savings by optimizing charging and discharging using real-time electricity rates, solar production forecasts, and grid conditions.
- **Standards support:** Expected to comply with global standards including UL 9741, UL 3141, UL 1741 SB, ISO 15118-20, OCPP 2.1, and IEEE 1547, to allow broad compatibility with current and future vehicles and utility programs worldwide.

“The IQ Bidirectional EV Charger brings the family car into the home energy system,” said Jayant Somani, senior vice president of the digital business unit at Enphase Energy. “It’s simple to install, easy to control, and designed to deliver backup power and the ability to share energy with the grid for homeowners.”

Bidirectional EV chargers come in two types: alternating current (AC), which connect through the home’s wiring and rely on the vehicle’s onboard charger, and DC, which connect directly to the vehicle’s port for faster power transfer and smarter energy control. Enphase expects to offer both, with the IQ Bidirectional EV Charger using the DC design, with the inverter built into the charger rather than the car.

The IQ Bidirectional EV Charger is being designed for global markets and is expected to be available in the second half of 2026. For more information, watch a technical video of the product and visit the Enphase website.

About Enphase Energy, Inc.

Enphase Energy, a global energy technology company based in Fremont, CA, is the world's leading supplier of microinverter-based solar and battery systems that enable people to harness the sun to make, use, save, and sell their own power—and control it all with a smart mobile app. The company revolutionized the solar industry with its microinverter-based technology and builds all-in-one solar, battery, and software solutions. Enphase has shipped approximately 83.1 million microinverters, and approximately 4.9 million Enphase-based systems have been deployed in over 160 countries. For more information, visit https://investor.enphase.com.

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Forward-Looking Statements

This press release may contain forward-looking statements, including statements related to the expected capabilities and performance of Enphase Energy's IQ Bidirectional EV Charger, including safety, quality, and reliability; expectations regarding compliance and compatibility; and statements regarding the timing and availability the IQ Bidirectional EV Charger in the United States. These forward-looking statements are based on Enphase Energy's current expectations and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those contemplated by these forward-looking statements as a result of such risks and uncertainties including those risks described in more detail in Enphase Energy's most recently filed Quarterly Report on Form 10-Q, Annual Report on Form 10-K, and other documents filed by Enphase Energy from time to time with the SEC. Enphase Energy undertakes no duty or obligation to update any forward-looking statements contained in this release as a result of new information, future events or changes in its expectations, except as required by law.

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