UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

ENPHASE ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 1420 N. McDowell Blvd Petaluma, CA 94954 (707) 774-7000 (Address of principal executive offices, including zip code)

20-4645388 (I.R.S. Employer Identification No.)

2011 Equity Incentive Plan 2011 Employee Stock Purchase Plan (Full titles of the plans)

Paul B. Nahi Chief Executive Officer c/o Enphase Energy, Inc. 1420 N. McDowell Blvd. Petaluma, CA 94954 (707) 774-7000 (Name, address, including zip code, and telephone number, including area code, of agent for service)

> Copies to: John H. Sellers Cooley LLP 3175 Hanover Street Palo Alto, California 94304 (650) 843-5000 Facsimile: (650) 849-7400

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated filer

Non-accelerated filer \boxtimes (Do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

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CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	2,168,691 shares	\$4.745	\$10,290,438.80	\$1,403.62

(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's Common Stock that become issuable under the plans set forth herein by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of the Registrant's Common Stock.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) promulgated under the Securities Act. The offering price per share and the aggregate offering price are based upon the average of the high and low prices of the Registrant's Common Stock as reported on the NASDAQ Global Market on March 4, 2013. The chart below details the calculations of the registration fee:

Securities	Number of Shares	Offering Price Per Share	Aggregate Offering Price
Shares reserved for future issuance under the 2011 Equity Incentive Plan	1,838,295	\$4.745	\$8,722,709.78
Shares reserved for future issuance under the 2011 Employee Stock Purchase Plan	330,396	\$4.745	\$1,567,729.02
Proposed Maximum Aggregate Offering Price			\$10,290,438.80
Registration Fee			\$1,403.62

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional (i) 1,838,295 shares of the common stock of Enphase Energy, Inc. (the "Registrant") to be issued pursuant to the Registrant's 2011 Equity Incentive Plan and (ii) 330,396 shares of the Registrant's common stock to be issued pursuant to the Registrant's 2011 Employee Stock Purchase Plan.

INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION STATEMENT ON FORM S-8

The contents of the Registration Statement on Form S-8 previously filed with the Securities and Exchange Commission on May 14, 2012 (File No. 333-181382) are incorporated by reference herein.

EXHIBITS

Number	Exhibit Title
3.1	Amended and Restated Certificate of Incorporation of Enphase Energy, Inc. (1)
3.2	Amended and Restated Bylaws of Enphase Energy, Inc. (2)
4.1	Specimen Common Stock Certificate of Enphase Energy, Inc. (3)
4.2	2010 Amended and Restated Investors' Rights Agreement by and between Enphase Energy, Inc. and the investors listed on Exhibit A thereto, dated March 15, 2010, as amended. (3)
4.3	Common Stock Purchase Warrant, between Enphase Energy, Inc. and MS Solar Solutions Corp., dated March 4, 2010. (3)
4.4	Warrant to Purchase Stock, between Enphase Energy, Inc. and Compass Horizon Funding Company LLC, dated March 11, 2010. (3)
4.5	Warrant to Purchase Stock, between Enphase Energy, Inc. and Horizon Technology Finance Corporation, dated March 25, 2011. (3)
4.6	Warrant Agreement to Purchase Stock between Enphase Energy, Inc. and Horizon Technology Growth Capital, Inc., dated June 13, 2011. (3)

4.7 Form of June 2011 Warrant to Purchase Common Stock of Enphase Energy, Inc. pursuant to that certain Amended and Restated Subordinated Convertible Loan Facility and Security Agreement. (3)

4.8 Form of November 2011 Warrant to Purchase Common Stock of Enphase Energy, Inc. pursuant to that certain Amended and Restated Subordinated Convertible Loan Facility and Security Agreement. (3)

5.1 Opinion of Cooley LLP.

Exhibit

- 23.1 Consent of Cooley LLP (included in Exhibit 5.1).
- 23.2 Consent of Deloitte & Touche LLP, independent registered public accounting firm.
- 24.1 Power of Attorney (reference is made to the signature page of this Form S-8).
- 99.1 2011 Equity Incentive Plan and forms of agreement thereunder. (4)
- 99.2 2011 Employee Stock Purchase Plan. (5)
- (1) Previously filed as Exhibit 3.1 to the Current Report on Form 8-K (001-35480), filed with the Securities and Exchange Commission on April 6, 2012, and incorporated by reference herein.
- (2) Previously filed as Exhibit 3.5 to Amendment No. 7 to the Company's Registration Statement on Form S-1, as amended (333-174925), filed with the Commission on March 12, 2012, and incorporated by reference herein.
- (3) Previously filed as the like numbered exhibit to Amendment No. 7 to the Company's Registration Statement on Form S-1, as amended (333-174925), filed with the Commission on March 12, 2012, and incorporated by reference herein.
- (4) Previously filed as Exhibit 99.2 to the Company's Registration Statement on Form S-8 (333-181382), filed with the Securities and Exchange Commission on May 14, 2012, and incorporated by reference herein.
- (5) Previously filed as Exhibit 99.3 to the Company's Registration Statement on Form S-8 (333-181382), filed with the Securities and Exchange Commission on May 14, 2012, and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Petaluma, State of California, on this 5th day of March, 2013.

ENPHASE ENERGY, INC.

By: /s/ Paul B. Nahi Paul B. Nahi President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints **Paul B. Nahi** and **Kris Sennesael**, jointly and severally, as his true and lawful attorneys-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Paul B. Nahi	President and Chief Executive Officer	March 5, 2013
Paul B. Nahi	(Principal Executive Officer)	
/s/ Kris Sennesael	Vice President and Chief Financial Officer	March 5, 2013
Kris Sennesael	(Principal Financial and Accounting Officer)	
/s/ Raghuveer R. Belur		March 5, 2013
Raghuveer R. Belur	Director	
/s/ Neal Dempsey		March 5, 2013
Neal Dempsey	Director	
/s/ Steven J. Gomo		March 5, 2013
Steven J. Gomo	Director	
/s/ Benjamin Kortlang		March 5, 2013
Benjamin Kortlang	Director	
/s/ James J. McJunkin		March 5, 2013
James J. McJunkin	Director	
/s/ Chong Sup Park		March 5, 2013
Chong Sup Park	Director	
/s/ Robert Schwartz		March 5, 2013
Robert Schwartz	Director	
/s/ Stoddard M. Wilson		March 5, 2013
Stoddard M. Wilson	Director	

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Enphase Energy, Inc. 1420 N. McDowell Blvd. Petaluma, CA 94954

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Enphase Energy, Inc., a Delaware corporation (the "*Company*"), of a Registration Statement on Form S-8 (the "*Registration Statement*") with the Securities and Exchange Commission covering the offering of up to an aggregate of 2,168,691 shares of the Company's Common Stock, par value \$0.0001 per share, consisting of (i) 1,838,295 shares (the "*2011 EIP Shares*") pursuant to the Company's 2011 Equity Incentive Plan (the "*2011 EIP*") and (ii) 330,396 shares (the "*2011 ESPP Shares*") pursuant to the Company's 2011 Employee Stock Purchase Plan (the "*2011 ESPP*," and together with the 2011 EIP, the "*Plans*").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and related prospectuses, (b) the Plans, (c) the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, each as currently in effect, and (d) such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof.

As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought to independently verify such matters. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the 2011 EIP Shares and the 2011 ESPP Shares, when sold and issued in accordance with the 2011 EIP and the 2011 ESPP, respectively, and the Registration Statement and applicable related prospectus, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ John H. Sellers John H. Sellers

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 of our report relating to the consolidated financial statements of Enphase Energy, Inc. and subsidiaries dated March 5, 2013, appearing in this Annual Report on Form 10-K of Enphase Energy, Inc. for the year ended December 31, 2012.

/s/ Deloitte & Touche LLP

San Francisco, California March 5, 2013