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VIA EDGAR AND OVERNIGHT DELIVERY

February 23, 2012

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20249

Attn: Russell Mancuso
Ruairi Regan

**RE: Enphase Energy, Inc.
Amendment No. 6 to Registration Statement on Form S-1
Filed February 23, 2012
File No. 333-174925**

Ladies and Gentlemen:

On behalf of Enphase Energy, Inc. (the "**Company**" or "**Enphase**"), we are transmitting for filing Amendment No. 6 (the "**Amendment**") to the Registration Statement on Form S-1, File No. 333-174925 (the "**Registration Statement**"). We are also sending a courtesy package containing a copy of this letter and the Amendment, including a version of the Amendment that is marked to show changes to Amendment No. 5 to the Registration Statement filed with the U.S. Securities and Exchange Commission (the "**Commission**") on February 1, 2012, for the staff of the Commission (the "**Staff**"), in care of Mr. Ruairi Regan.

The Amendment is being filed in response to comments received from the Staff, by letter dated February 13, 2012, with respect to the Registration Statement (the "**Comments**"). The numbering of the paragraphs below corresponds to the numbering of the Comments, which, for the Staff's convenience, have been incorporated into this response letter. Page references in the text of this response letter correspond to the page numbers of the Amendment.

Energy Harvest, page 71

1. *Please tell us why you deleted the disclosure about actual energy production trending at or higher than that predicted in the case studies. If actual results are no longer consistent with the case studies, please tell us why you believe it is appropriate to include the case studies in your prospectus.*

In response to the Staff's comment, the Company has reinserted the applicable disclosure on page 71 of the Amendment. The Company supplementally advises the Staff that it had deleted the disclosure in Amendment No. 5 because at that time the residential installation was covered in snow and not operating; however, recently, the installation has returned to full functionality

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and is again achieving higher energy production than predicted in the case studies. The Company's re-inserted disclosure has been revised to take this development into account.

Compensation Discussion and Analysis, page 96

2. *Please clarify how the base salary paid to Mr. Hollenbeck reflected "market compensation levels."*

In response to the Staff's comment, the Company has revised its disclosure on page 98 of the Amendment.

Cash Bonuses, page 98

3. *Please disclose the revenue and gross margin targets, or, if you are relying on Instruction 4 to Regulation S-K Item 402(b), please provide us your analysis supporting the omission and tell us where you provided the disclosure required by the last sentence of that instruction.*

In response to the Staff's comment, the Company has disclosed the revenue and gross margin targets for its 2011 executive bonus program on page 99 of the Amendment.

4. *Please provide us your calculations showing how the disclosed formula results in \$158,775 in revenue-based bonus for Mr. Loebbaka.*

In response to the Staff's comment, the Company advises the Staff that Mr. Loebbaka participates in a quarterly sales objective bonus plan instead of the executive annual bonus program. For 2011, his annualized target bonus is 62% of his base salary, or \$145,000. Mr. Loebbaka's quarterly bonus was based on achievement of quarterly revenue-based sales performance targets, weighted at 75% of his aggregate sales objective bonus, and specified non-revenue-based objectives weighted at 25% of his aggregate sales objective bonus. Mr. Loebbaka's revenue-based sales target for 2011 was \$130.6 million and his non-revenue-based key sales objectives were set by the Chief Executive Officer periodically and consisted of management and development of key customer accounts, both developing new client relationships and maintaining and increasing existing client relationships, overseeing expansion of sales into new regions and similar client and business development goals. Mr. Loebbaka's revenue-based bonus is earned on a straight-line basis up to 100% achievement of target and is then subject to accelerators (pre-determined multipliers ranged from 2.0x to 4.0x) for performance above target. For each quarter of fiscal 2011, Mr. Loebbaka achieved between 116% -126% of his revenue targets and the multipliers used in calculating his quarterly revenue-based bonus ranged from 2.1x to 2.8x. The application of Mr. Loebbaka's bonus program described above resulted in \$158,775 in revenue-based bonus for Mr. Loebbaka and \$51,656 with respect to his performance against his non-revenue based sales objectives as determined by the Chief Executive Officer, or \$210,431 in total.

In response to the Staff's comment, the Company has provided additional disclosure related to calculation of Mr. Loebbaka's bonus on page 100 of the Amendment.

Transactions with Affiliate Controlled Companies, page 127

5. *Please clarify the duration of the contract and the duration over which you will recognize the \$20 million revenue. Also, please provide us your analysis supporting why you believe the agreements need not be filed, citing with specificity the applicable provisions of Regulation S-K Item 601(b) and any guidance on which you are relying.*

In response to the Staff's comment, the Company has clarified the duration of the contract and related revenue recognition on page 127 of the Amendment.

The Company respectfully advises the Staff that it believes that the agreements with the two PV systems development companies majority owned by KPCB Holdings, Inc., as nominee ("**KPCB**"), are not required to be filed as exhibits to the Registration Statement pursuant to Regulation S-K, Item 601. The agreements relate to the one-time sale by the Company of its microinverters and related services at the Company's regular authorized distributor price. As such, the Company believes these agreements do not qualify as material contracts under Regulation S-K, Item 610(b)(10)(i).

The Company believes that these commercial agreements fall into the category of ordinary course contracts described in Regulation S-K, Item 601(b)(10)(ii), which provides, in relevant part, that "if the contract is such as ordinarily accompanies the kind of business conducted by the registrant and its subsidiaries, it will be deemed to have been made in the ordinary course of business and need not be filed" unless the contract falls within one or more of the categories covered by paragraphs (A) through (D) thereof, in which case it should be filed except where immaterial in amount or significance. As noted above, the Company's commercial agreements with the two PV systems development companies majority-owned by KPCB are agreements that ordinarily accompany the kind of business conducted by the Company. Moreover, the Company believes that these commercial agreements are not material contracts within the meaning of Regulation S-K, Item 601(b)(10)(ii)(A) thereof, which requires the filing of "contract[s] to which... *directors*, ... [or] *security holders named in the registration statement*... are parties" unless such contracts "involve only the purchase or sale of current assets having a determinable market price, at such market price" or are "immaterial in amount or significance." Neither Ben Kortlang, a director, nor KPCB, a security holder named in the Registration Statement, is a party to these contracts, and the PV systems development companies that are parties to these contracts are not directors or security holders named in the Registration Statement. Item 601(b)(10)(ii)(A) refers only to contracts to which "directors" and "security holders" are parties, and, in contrast to Regulation S-K, Item 404, does not refer to entities in which such directors and security holders may have a direct or indirect material interest. The relationship between KPCB and Mr. Kortlang, on the one hand, and the contracting entities, on the other, is disclosed on page 127 of the Amendment.

In addition, the Company believes that its commercial agreements with the PV systems development companies are not material contracts within the meaning of Regulation S-K, Item 601(b)(10)(ii)(B) thereof, which requires the filing of "contract[s] upon which the registrant's business is substantially dependent." As noted above, these commercial agreements were one-time sale contracts rather than continuing

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contracts for the purchase of the Company's products and services. Moreover, revenues attributable to these commercial agreements accounted for only 4.3% of the Company's total net revenues in 2011, and are not expected to account for the major part of the Company's revenues in 2012.

Given that these commercial agreements are ordinary course, the related parties' relationship with the contracting entities is appropriately disclosed, and the Company's business is not substantially dependent upon them, the Company believes the agreements with the PV systems development companies are not the type of contracts that are required to be filed pursuant to Regulation S-K, Item 601(b).

Pursuant to a telephone conversation with Mr. Regan of the Staff on February 22, 2012, the Company supplementally advises the Staff that the Company has reviewed again the industry background and industry trends disclosure in the Registration Statement and believes such disclosure remains current and up to date. In this regard, the Company respectfully advises the Staff that it has added additional disclosure on pages 11 and 47-48 of the Registration Statement to describe the impact of the expiration of a government incentive program on the Company.

Please do not hesitate to contact me at (650) 843-5070 if you have any questions or would like any additional information regarding these responses.

Sincerely,

/s/ John H. Sellers

John H. Sellers

cc: Paul B. Nahi, President and Chief Executive Officer, Enphase Energy, Inc.
Sanjeev Kumar, Chief Financial Officer, Enphase Energy, Inc.
Gary Caine, Deloitte & Touche LLP
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