



John H. Sellers  
(650) 843-5070  
jsellers@cooley.com

VIA EDGAR AND OVERNIGHT DELIVERY

March 12, 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. 7 to Registration Statement on Form S-1**  
**Filed March 12, 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. 7 (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. 6 to the Registration Statement filed with the U.S. Securities and Exchange Commission (the "**Commission**") on February 23, 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 March 1, 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.

Market Opportunity, page 1

1. *Please provide us your analysis supporting your conclusion that it continues to be appropriate to characterize the market as one that involves rapid growth and the growth rates that you cite. Include in your response the specific recent statements you considered from market participants.*

In response to the Staff's comment, the Company respectfully advises the Staff that it has considered the PV System Demand Q4 2011 Market Tracker published by IHS iSuppli, the World Market for Photovoltaic Inverters—2011 Edition and the Preliminary PV Inverter Quarterly Market Tracker Report published by IMS Research, each of which we supplementally provide to the Staff. As noted on pages 1, 65, 66 and 67 of the Amendment, these reports project continued strong growth in the global and U.S. solar PV markets over the next four years, while noting an expected short-term expected decline in global solar PV installations in 2012. The Company has also considered recent earnings releases by leading market participants such as SMA Solar Technology AG, Suntech Power Holdings Co, Ltd., First Solar Inc., Canadian Solar Inc., several of whom either announced financial results below expectations or made statements about how general economic conditions have presented challenges in achieving financial expectations. These recent announcements demonstrate the challenging environment that some participants in the solar industry are facing.

The Company respectfully notes that one of the leading dynamics in the solar industry today is the falling price of solar panels, which has adversely affected many panel manufacturers. However, the Company does not sell solar panels, and the Company believes that the recent reduction in panel prices actually furthers the long-term growth of the number of solar installations since lower panel prices reduce the overall cost of solar systems. The Company believes this creates potential opportunities for its products.

In response to the Staff's comments, the Company has updated its discussion of the solar industry in the "Prospectus Summary" and "Business" sections of its prospectus to reflect these data, and provided additional disclosure on pages 1 and 66 of the Amendment regarding recent market developments. As noted in the Company's additional disclosure, the Company believes the growth prospects for the global solar PV market and its microinverter systems remain positive, notwithstanding the near-term challenges discussed in the Company's additional disclosure.

#### Management's Discussion and Analysis

##### Inventory Valuation, page 52

2. *Please revise to disclose the reasons for the significant increase in the inventory write-downs from \$0.1 million in fiscal 2010 to \$2.7 million in fiscal 2011.*

In response to the Staff's comment, the Company has revised its disclosure on page 53 of the Amendment.

Product Warranty, page 52

3. *Please revise to disclose the specific reasons for the significant increase in the warranty provision from \$1.9 million in fiscal 2010 to \$7.0 million in fiscal 2011.*

In response to the Staff's comment, the Company has revised its disclosure on page 54 of the Amendment.

Transactions with Affiliate Controlled Companies, page 127

4. *Please expand your response to prior comment 5 to tell us the percentage of your revenues in the current quarter represented by the agreement. Also tell us the effect on your named executive officers' compensation if you did not have the revenue from related-person agreement. In addition, please tell us whether your statement that the related-party paid "the Company's regular authorized distributor price" means that you charged the related-person the same price that you charge distributors or that the related-person paid the same price that distributors charge their customers. It remains unclear why the agreement need not be filed as an exhibit.*

In response to the Staff's comment, the Company respectfully advises the Staff that transactions with affiliate controlled companies represented 4.2% of the Company's revenue for 2011 and 11.2% of revenue for the three months ended December 31, 2011.

The Company further advises the Staff that if the Company had not recognized the revenue from these related-person agreements in 2011, there would have been no effect on the compensation of four of its five named executive officers. Mr. Loebbaka's compensation would have been reduced by \$13,050 for his revenue-based performance bonus and \$5,437 for his non-revenue based sales objectives.

In response to the Staff's comment, the Company has revised its disclosure on page 128 of the Amendment to clarify that the related party paid the same price that our distributors generally charge their customers.

Given that these commercial agreements were entered into the ordinary course of business and, do not fall within one or more of the categories covered by paragraphs (A) through (D) of Regulation S-K, Item 601(b)(10)(ii), as the PV systems development companies that are parties to these contracts are not directors or security holders named in the Registration Statement, and also not material contracts within the meaning of Regulation S-K, Item 601(b)(10)(ii)(B) since they were one time sales contracts, not of the type upon which the registrant's business is substantially



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dependent, 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).

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  
Bruce K. Dallas, Davis Polk & Wardwell LLP  
Marina Remennik, Cooley LLP

FIVE PALO ALTO SQUARE, 3000 EL CAMINO REAL, PALO ALTO, CA 94306-2155 T: (650) 843-5000 F: (650) 849-7400 WWW.COOLEY.COM