



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 8, 2011

Via E-mail

Paul B. Nahi
Chief Executive Officer and President
Enphase Energy, Inc.
201 1st Street, Suite 100
Petaluma, CA 94952

**Re: Enphase Energy, Inc.
Registration Statement on Form S-1
Amendment No. 1 filed July 25, 2011
File No. 333-174925**

Dear Mr. Nahi:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Inside Front Prospectus Cover

1. From your revisions in response to prior comment 1, it is unclear what your products are and why the graphics would not lead investors to believe that you produce a solar version of the handheld PDA device that you depict or a solar adaptor for the device. Please revise or advise. Also tell us why you believe that your inside back cover addresses the concern in the first bullet point of prior comment 1.

Prospectus Summary, page 1

2. Please tell us where you provide the disclosure mentioned in the last sentence of the first paragraph of your response to prior comment 33.

Enphase Energy, Inc., page 1

3. We note your response to the first sentence of prior comment 4. If you believe it is your version of microinverter technology – not microinverter technology itself – that is “fundamentally new,” please revise to remove any implication that microinverters are new technology.
4. Please expand your response to prior comment 6 to tell us clearly how you derived the 3-month moving average data presented in the chart on page 1 from the information available on the California Solar Statistics website.
5. Your response to prior comment 6 that the chart represents your typical market share appears to be inconsistent with your response to prior comment 4 regarding a 10.6% share of North America inverter revenue. Also, it remains unclear whether the growth rate represented by the chart is typical. Therefore, it continues to be unclear why you believe it is appropriate to highlight such data in your prospectus summary and why you do not move the information to a later section of your document where you can provide sufficient context so that investors can evaluate the extent to which it presents data that is typical for your business.

Our Solution, page 3

6. We note your response to prior comment 7; however, it is unclear from your existing disclosure how investors can determine the relative contribution to your business of each of the products in the first two bullet points in this section and the extent to which you sell the microinverter without the products mentioned in the last two bullet points. Please revise or advise.

Competitive Strengths, page 4

7. Your response to the fourth bullet point of prior comment 4 suggests that other companies have marketed microinverters. Even if those companies or their subsidiaries subsequently discontinued the product, it is unclear how those companies’ activities are consistent with your disclosure that you were first to market and created the product category. Please revise or advise.
8. Please expand your response to prior comment 5 to explain how the data you provided supports your claims that you have established industry-leading reliability, microinverters are 45 times more reliable than central inverters, and your microinverters offer greater system uptime, given the data provided does not clearly address what years are represented nor does it appear to include all sellers of inverters.

Challenges, page 5

9. Please tell us how you addressed the last two sentences of prior comment 3 regarding any limited market due to wattage, lower conversion efficiencies, or known significant new market participants.

Initial Capital Investments, page 5

10. Please tell us the reason for the uncertainty represented by the term “may.”

The reduction, page 11

11. Please expand your disclosure added in response to prior comment 30 to address the phase-out or termination of incentives in the jurisdictions – federal, state or otherwise – from which you derive material portions of your revenue. Include the phase-out or termination date, not merely the length of the program.

Use of Proceeds, page 32

12. We note your response to prior comments 13 and 15; however, Regulation S-K Item 504 requires that you disclose the approximate amount that you currently intend to use for each disclosed purpose. In this regard, please tell us the cost of the expansion into China. Also, if a significant portion of the offering proceeds is not allocated to a specific plan, please disclose the principal reasons for the offering, and tell us, with a view toward disclosure, why you determined to conduct an offering of this size.

Convertible Facility, page 50

13. Please disclose the substance of the last two sentences of your response to prior comment 15. Also tell us whether (1) the footnotes beginning on page 126 regarding shares underlying debt refer to this facility and (2) why you refer to September 30, 2011 in those footnotes.

Product Warranty, page 54

14. We reference your response to comment 25 that indicates that your product warranty accrual is determined on a per unit basis. Please revise to explain why the warranty provision as a percentage of the microinverter units sold varied significantly each period. Clarify whether certain units have a different warranty provision and discuss how the sale of specific units impacted the provision each period.

Stock-Based Compensation, page 54

15. We note your response to prior comment 26. We also note that you disclose in the prospectus valuations determined by the third-party; therefore, please provide your analysis of why you have not filed that party's consent per Rule 436.

Industry Overview, page 62

16. Please reconcile your response to prior comment 33 that the data you cite is publicly available with the handwritten note in tab B and the first line of tab H of the material you provided to us.
17. Please tell us why you do not believe that you should balance your disclosure with information like that presented in the short-term outlook under tab H of the material you provided us.

LCOE Case Studies, page 68

18. Regarding your response to prior comment 29:
- Please disclose and describe the assumptions and estimates that underlie the figures presented and the date of the data presented.
 - Please disclose the meaning of the term, *energy harvest*.
 - Please tell us how you determined that the data presented in the tables is fairly representative of all installations, not just of installations "its size." It remains unclear whether the tables are an objectively balanced presentation of your products.
 - Refer to your statement in your response that no alternatives to traditional central inverters and microinverters were available at the time of the study. If alternatives are available now, please tell us why you do not believe you need to disclose the effect of those alternatives of your case studies.
 - Please tell us the basis for your statement that other currently available microinverter products have lower average power conversion efficiencies.
 - It is unclear from your response how you conclude that your disclosed "installer estimates" do not represent a report or opinion of the installer as contemplated by Rule 436. Please provide us your analysis of any authority on which you rely.
 - It appears that your analysis in this section uses Westinghouse data for your system uptime. Please tell us why you do not also use the Westinghouse data for central inverter uptime.

Rapidly Expanding Distribution Channel, page 72

19. Please address the first sentence of prior comment 34 as it applies to Siemens. Also disclose the last sentence of your response to prior comment 39 and the statement in your response to prior comment 39 that the Siemens agreement has yet to generate any meaningful revenue.

Customers and Sales, page 78

20. Please clarify which distributors represent the percentage of revenues mentioned in the second sentence of the second risk factor on page 19.
21. Please clarify your disclosure that you “have” over 2,200 installers to reflect your response to prior comment 40 that you have no contractual relationship with most of them. Also, if not all 2,200 installers are managing installations currently, please revise to clarify.

Intellectual Property, page 81

22. Please tell us why your revisions in response to prior comment 42 do not appear to address your licenses set forth in the license agreements filed as exhibits 10.20 and 10.21.

Competition, page 81

23. With a view toward clarified disclosure, please tell us the basis for your statement that your product “offers greater productivity and competitive differentiation” relative to alternatives to traditional central inverters such as DC to DC optimizers.

Base Salary, page 94

24. Regarding your disclosure in response to prior comment 46:
 - Please replace vague phrases like “significant contributions,” “evaluation of his performance,” “leadership” and “execution of business strategy” with specific disclosure regarding what the executive officer achieved that you intended to compensate. If the determination was subjective and not based on specific factors, please say so directly. Likewise, please revise your reference to “successful performance” at the bottom of page 97.
 - Please clarify what you mean by your statement regarding “the competitive market...reflected in the market survey data and [y]our peer group.” For example, did you find that your salaries were below the average salary? Did your adjustment

raise your salary above the average? If so, to what extent above the average to you adjust the salary?

Cash Bonuses, page 95

25. Refer to prior comment 47. Please provide us a complete analysis of the authority supporting your conclusion that you need to disclose the specific “certain revenue based sales performance targets” and the “certain non-revenue based key sales objectives” and the extent to which such targets and objectives were achieved.
26. From your statement, “such as,” in your disclosure in response to prior comment 48, it appears that you have omitted reasons for the bonus. Please tell us the authority on which you omitted the reasons.

Equity Compensation, page 96

27. Please expand your disclosure added in response to prior comment 50 to address the option grant to Mr. Belur mentioned in page 101.

Compensation Risk Assessment, page 117

28. We will continue to evaluate your response to prior comment 58 after you provide the updated disclosure mentioned in that response.

Voting Agreement, page 123

29. Please reconcile your response to prior comment 61 with the statement in the first sentence of Regulation S-K Item 601(b)(10) regarding agreements to be performed in whole or in part at or after the filing of the registration statement or entered into not more than two years before the filing.

Principal Stockholders, page 125

30. We note that you do not provide a table to identify the greater than five percent owners of each class of your voting preferred stock per Regulation S-K Item 403(a). Please tell us:
 - why you believe omission of this disclosure is appropriate, and
 - whether you omitted disclosure of any related-person transactions that would be required per Instruction 1.b of Regulation S-K Item 404(a) due to omission of the 403(a) disclosure.

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31. Please tell us whether the shares mentioned in the penultimate sentence of footnote (4) are in the table. If so, please tell us the authority on which you rely to omit the names of the individuals with voting and/or investment power over those shares.

Description of Capital Stock, page 128

Warrants, page 129

32. Please tell us which exhibits represent the warrants mentioned in the third and fourth paragraphs on page 130.

Material U.S. Federal Income and Estate Tax Consequences..., page 136

33. We reissue prior comment 68 because your statement that the disclosure “is for general information only” appears to continue to attempt to disclaim responsibility for your disclosure.

Underwriters, page 140

34. Please disclose the substance of your response to the second sentence of prior comment 69. Also, please expand your response to the last sentence of prior comment 69 to address Regulation S-K Item 601(b)(10)(ii)(A); it remains unclear why you believe a contract with an affiliate of an underwriter of your IPO would be immaterial to the investors in the IPO.

Financial Statements

Stock Compensation, page F-57

35. We reference your response to comment 27. Please disclose the specific voting, conversion, dividend, liquidation and other rights of the preferred stock issuances and the basis for the significant differences between the price of the preferred stock and the estimated fair value of the common shares of \$.45 per share in January 2011. Please clarify how you considered the different features of the preferred stock when estimating the value of the common stock.

Exhibits and Financial Statement Schedules, page II-4

36. We note that exhibits 10.12 and 10.22 filed by you continue to omit schedules and exhibits; therefore, we reissue our prior comment 74.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in

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possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Jeanne Bennett, Staff Accountant, at (202) 551-3606 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan, Staff Attorney, at (202) 551-3269 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via e-mail): John H. Sellers
Cooley LLP