



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

May 28, 2010

Via Facsimile and U.S. Mail

Mr. Dennis V. Arriola
Chief Financial Officer
Sunpower Corporation
3939 North First Street
San Jose, California 95134

Re: Sunpower Corporation
Form 10-K for the Year Ended January 3, 2010
Filed March 19, 2010
Form 10-Q for the Quarter Ended April 4, 2010
Form 8-K filed on May 11, 2010
File No. 001-34166

Dear Mr. Arriola:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended January 3, 2010

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 41

-Critical Accounting Policies and Estimates, page 44

Valuation of Inventories, page 46

1. We note your disclosure here on how you evaluate your inventory for a decline in net realizable value. Please revise future filings to discuss in more detail how you develop certain of your assumptions such as "expected demand" for purposes of your inventory valuation analysis. For example, discuss how you arrived at your estimates for future demands, how accurate your estimates of future demand have been in the past and how much the estimates of future demand have changed in the past. Please provide us with a sample of your proposed revised disclosure
2. We note your disclosures on page 50 regarding declining prices for polysilicon. We further note your disclosure on page 42 regarding declining average selling prices. Please quantify the amount of inventory write-downs that you recognized during fiscal 2009. Please also provide us with additional detail regarding how you evaluated your inventory for recoverability as of January 3, 2010. Specifically discuss how your analysis considered the declining polysilicon prices, declining average selling prices and your existing firm, non-cancelable and unconditional purchase commitments.

Index to Consolidated Financial Statements, page 82

Note 1. The Company and Summary of Significant Accounting Policies, page 89

-Product Warranties, page 92

3. It appears that you have increased the length of some of your solar panels from up to 20 years (as disclosed in the 2008 Form 10-K) to up to 25 years (as disclosed here). Please explain to us how this impacted your warranty reserves analysis as of January 3, 2010.
4. Further to the above, we note from page 19 that you discovered a potentially systematic defect in a third party supplier's solar panels during late fiscal 2009. Please explain to us how this impacted your warranty reserve for the fiscal year ended January 3, 2010.

-Revenue Recognition, page 92

5. We note your disclosure on page 18 that under your power purchase business model, you often execute power purchase agreements (PPAs) directly with the end-user customer with the expectation that you will later assign the PPA to a financier. You further state

that you attempt to mitigate the risk that a financier will not be available for the project by allowing for termination of the PPA without penalty. However, you state that you are not always successful in negotiating the penalty-free termination rights. Please address the following:

- Aside from those described on page 117 relating to the sale-leaseback transaction with Wells Fargo, clarify for us if you currently have any PPA agreements for which you are at risk in the event you are not able to locate a financier. Explain to us how you account for such agreements.
- To the extent you begin construction of any systems prior to locating a financier, tell us how you account for such costs.
- Tell us whether you are currently operating any systems under a PPA for which you have not transferred all of the associated risks and responsibilities to a financier. Discuss your accounting for any such agreements.

-Recently Adopted Accounting Guidance, page 95

6. We note here and on pages 100-103 that you issued 1.25% debentures and 0.75% debentures during fiscal 2007 that contain partial cash settlement features. We further note that you adopted the new accounting guidance for these convertible debt instruments that may be settled in cash upon conversion during fiscal 2009 and that you retrospectively adjusted your fiscal 2007 and 2008 financial statements. We finally note that you recorded \$18.4 million of additional interest expense and \$25.4 million of tax benefits related to the adoption of this new accounting guidance during fiscal 2008. Please explain to us why you recorded a tax benefit of \$25.4 million during fiscal 2008 related to the retrospective application of this new guidance.

Note 2. Restatement of Previously Issued Consolidated Financial Statements, page 98

7. With respect to the errors identified, we note where you have divided them into three categories – investigation-related adjustments, errors identified during the course of the investigation and out-of-period adjustments. We further note that you provide a general description of the three categories. Please explain to us in more detail the nature of each error and please separately quantify the impact of each individual error upon your consolidated financial statements for all of the impacted periods. In providing these additional details, please consider the following:
 - We note that you use the word “generally” or “primarily” to describe some of the errors. Please provide us with a sufficiently detailed analysis that clarifies your use of these terms.
 - Please tell us how you determined that the errors that you restated for only relate to fiscal 2008 and fiscal 2009 within your Philippines operations.

Refer to the guidance in 250-10-50 of the FASB Accounting Standards Codification.

Note 6. Balance Sheet Components, page 111

8. We note from page 99 and 144 that you have consigned inventory. If material, please revise your future filings to explain the nature of the consigned inventory, your accounting policies relating to consigned inventory. In this regard, please also revise future filings to separately present your consigned inventory. Refer to Question 2 of SAB Topic 13(A)(2). Please provide us with a sample of your proposed disclosure.

Note 12. Commitments and Contingencies, page 117

9. We note your disclosure here regarding your sale and subsequent leaseback of two solar system projects in December 2009. Please provide us with your analysis of the leases that supports your conclusion that such leases should be classified as operating leases. Refer to paragraphs 840-10-25-29 through 840-10-25-30 of the FASB Accounting Standards Codification.
10. We note your disclosure here regarding long-term supply agreements. We further note that a portion of the purchase commitments arising from these agreements are firm, non-cancelable and unconditional commitments. Please revise your disclosures to discuss how you evaluate the recoverability of amounts due under these firm, non-cancelable and unconditional commitments.

Note 13. Joint Ventures, page 120

11. We note that you recognized \$9.8 million of income related to your equity investment in Woongjin Energy Co., Ltd. during fiscal 2009. Please provide us with your significance tests for fiscal 2009 as set forth under Rule 1-02(w) of Regulation S-X related to your investment in Woongjin Energy Co., Ltd. Refer to the guidance in Rule 3-09 of Regulation S-X.

Form 10-Q for the Quarter Ended April 4, 2010

Note 12. Debt and Credit Sources, page 26

12. We note on page 27 that you fair valued the embedded conversion option and the over-allotment option derivative associated with the \$220 million of 4.50% senior cash convertible debentures issued in April 2010. We further note that you utilized Level 2 inputs consisting of the exercise price of the instruments, your class A common stock price, the risk free interest rate, the contractual term, and the your class A volatility. We finally note on pages 28 and 32 similar disclosures related to the determination of the fair value of your bond hedge, warrants, and interest rate swaps. Please provide to us the

methodology utilized in determining the fair value of these derivatives. Within your discussion, please explain why you have classified these as Level 2 inputs.

13. Further to the above, please revise your future filings to quantify the significant assumptions utilized in the determination of the fair value of these derivatives. Please provide us with a sample of your proposed disclosure.

Form 8-K Filed on May 11, 2010

14. We note that you have provided forward-looking non-GAAP financial measures such as non-GAAP revenue, non-GAAP tax rate, and non-GAAP net income per diluted share for fiscal 2010 and for the second quarter of fiscal 2010. However, we do not see where you have provided a reconciliation of these forward-looking non-GAAP financial measures with the corresponding forward-looking GAAP financial measure as required by Regulation G or otherwise provided the disclosures required by Regulation G for forward-looking non-GAAP financial measures. Please revise future filings to comply by providing reconciling information that is available without unreasonable effort. As applicable, include clear disclosure of why any forward-looking GAAP information is not accessible. Identify such information that is unavailable and disclose its probable significance. Refer to the guidance in Regulation G.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all

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information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief