



DIVISION OF
CORPORATION FINANCE

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

July 19, 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
File No. 001-34166

Dear Mr. Arriola:

We have reviewed your response letter dated July 2, 2010 and filings 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 within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

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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 response to prior comments 2. With a view towards enhanced disclosure, please revise future filings to quantify the effects of the inventory charges on your cost of sales. Additionally, when material, please quantify the impact that sales of inventory previously written-down had on your margins.

Index to Consolidated Financial Statements, page 82

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

2. We note your response to prior comment 7. Please reconcile the totals presented in this response for prepaids and other current assets, other long-term assets, accrued liabilities and other long-term liabilities to the amounts presented in the restatement adjustments columns in Note 2 of your December 31, 2009 Form 10-K (relating to the December 31, 2008 balance sheet) and Note 2 of your September 27, 2009 Form 10-Q/A.
3. We note from your September 27, 2009 Form 10-Q/A that you recorded a \$8.5 million adjustment to your additional paid-in capital. However, we do not see where you have described the nature of this adjustment. Please provide us with an explanation of this adjustment.

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

Note 12. Debt and Credit Sources, page 26

4. We note your proposed disclosure in response to prior comment 13. Please revise your future filings to also disclose the valuation model utilized in the determination of the fair value of these derivatives and how you determined the underlying assumptions utilized within each model.

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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