



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

Mail Stop 3030

April 23, 2009

Via Facsimile and U.S. Mail

Mr. Thomas H. Werner
Chief Executive Officer
SunPower Corporation
3939 North First Street
San Jose, CA 95134

Re: SunPower Corporation
Form 10-K for the fiscal year ended December 28, 2008
Filed February 26, 2009
File No. 1-34166

Dear Mr. Werner:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is 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 on 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 Fiscal Year Ended December 28, 2008

Note 1. The Company and Summary of Significant Accounting Policies, page 61

Revenue Recognition, page 64

1. We note that certain of your contracts include system output performance guarantees and that you have concluded that these guarantees qualify as separate units of accounting under EITF 00-21. Please tell us and revise this note in future filings to disclose how you determine the fair value of the system output performance guarantee for purposes of allocating the total revenue to the various elements under EITF 00-21.

Note 9. Commitments and Contingencies, page 81

Product Warranties, page 82

2. We note that you provide product warranties for extended periods, usually 20 years, and that you record an estimated warranty liability based on “historical experience of similar products as well as various other assumptions that are considered reasonable under the circumstances.” Separately, we note your disclosure on page 13 that your solar panels have not and cannot be tested in an environment simulating the 20-year warranty period. Please tell us and revise your disclosures here and in your Summary of Significant Accounting Policies on page 64 in future filings to address the following:
 - In light of the lack of historical experience, explain in greater detail how you estimate the amount of potential warranty liability. In this regard, we note the risk factor on page 13 refers to “accelerated testing of [your] solar cells.” If true, revise here to clearly indicate that your estimate of the warranty liability is based in part on the accelerated testing you perform.
 - Clearly disclose the significant “various other assumptions that are considered reasonable under the circumstances.”
 - If you elect to continue to state that you consider assumptions that are “considered reasonable under the circumstances,” revise to clearly state, if true, that such “reasonable” determination is based on management judgment.

Exhibits 31.1 and 31.2, Certifications

3. We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not to include the individual’s title.

Form 10-Q for the quarterly period ended September 28, 2008

Item 4. Controls and Procedures, page 53

-Changes in Internal Control over Financial Reporting, page 53

4. We note your disclosure in the first paragraph that “there were no material changes in [y]our internal control over financial reporting . . . “. Separately, we note your disclosure in the next paragraph regarding a new system you implemented in the 3rd quarter “which resulted in a material update to [y]our system of internal control over financial reporting”. You state that after the system was implemented, you had to “further revise [y]our internal control processes and procedures in order to correct and supplement [y]our processing capabilities within the new system”. Please clarify whether the outcome of implementing this system resulted in a material change in your internal control over financial reporting.

Proxy Statement on Schedule 14A filed March 23, 2009

Executive Officers, page 19

5. It does not appear that you have described the experience of two of your named executive officers, Thomas L. Dinwoodie and Emmanuel T. Hernandez, as required by Item 401(b) of Regulation S-K. Please provide us with such information and provide such disclosure in your future filings or tell us why you do not believe such information is required for these two executives.

Compensation Discussion and Analysis, page 21

6. We note your disclosure under the caption “Performance Based Cash Bonus Awards,” as incorporated by reference from page 23 of the Schedule 14A Proxy Statement filed March 23, 2009, that bonuses are based upon annual revenue and profits before tax targets and personal milestones. In future filings, please clearly disclose all previously established targets and milestones and discuss how the compensation awarded reflects those targets and milestones. To the extent you believe that disclosure of such information, on a historical basis, would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with a detailed explanation supporting your conclusion. To the extent that it is appropriate to omit specific targets or performance milestones, you are required to provide appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Refer also to Question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available on our website at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>. In discussing how

difficult or likely it will be to achieve the target levels or other factors, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

7. We refer to your disclosure under the caption "Time-Based and Performance-Based Equity Awards" on page 24 of the proxy statement that you have incorporated by reference into your Annual Report on Form 10-K. We note that equity awards were determined based upon several factors including corporate and individual performance targets. In your future filings, as applicable, please include an expanded discussion of how your Compensation Committee made its equity award determinations with respect to each named executive officer. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, please discuss and analyze performance targets and their significance in determining equity awards and how and why those awards varied among the named executive officers.

* * * *

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 with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and 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 and 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.

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In addition, please be advised that the Division of Enforcement has access to all 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 David Burton, Staff Accountant, at (202) 551-3626 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Rean, Staff Attorney, at (202) 551-3269 or Jay Mumford, Legal Reviewer, at (202) 551-3637 if you have questions on other 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