

September 21,

2005

Mail Stop 6010

Thomas H. Werner  
Chief Executive Officer  
SunPower Corporation  
430 Indio Way  
Sunnyvale, California 94085

Re: SunPower Corporation  
Registration Statement on Form S-1  
Filed August 25, 2005  
File No. 333-127845

Dear Mr. Werner:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a bona fide estimate of the public offering within that range. Also note that we may have additional comments after you include this information.

Graphics

2. Please clarify whether you are currently selling the solar panels shown in the graphics on the inside front cover page, or whether those panels will not be shipped until 2006 as disclosed on page 66. Also, please explain to us how you selected the conventional 150 watt solar panel to compare with your company's product.

3. Please revise the artwork so that it places greater emphasis on the products that SunPower actually manufactures and sells, and less emphasis on the application in which those products are used, such as the residential solar system shown in the top half of the inside front cover page and the power plant shown in the top half of your inside back cover page. Although we will not object if the artwork includes references to applications in which your products are used, the artwork should focus primarily upon your products rather than on those applications.

Cover Page

4. Please revise to briefly describe the extent to which you will be controlled by Cypress following the offering. Quantify the number

of shares that Cypress will own and the percentage of total votes that Cypress will control.

Summary, page 1

Our Company, page 1

5. The disclosure in the summary should be a balanced presentation of your business. Revise to indicate your historical losses, your accumulated deficit, and the fact that you have only been selling solar cells since late 2004. Also expand to balance the disclosure of your strengths with a realistic picture of the challenges you face, many of which are identified in your risk factors section.

6. Please provide us independent, objective support for your statements regarding your leadership position and the "superior" performance of your products, including the ability of your solar cells to "generate up to 50% more power per unit" area than conventional solar cells and your "efficient use of silicon." Also revise the filing so that the basis for each statement is clear from the context of your disclosure.

Market Opportunity, page 1

7. With respect to the statistics cited here and throughout your prospectus, please tell us whether the industry sources consented to your use of their data and whether any reports were prepared specifically for your use. Also tell us whether you are aware of or sought any contradictory data.

8. In the last paragraph on page 1 you describe the benefits of solar power systems as an energy source. Please balance the description of the benefits of solar power with equally prominent disclosure of its shortcomings.

Our Strengths, page 2

9. In the third bullet point, where you describe efficient silicon utilization, please quantify your efficiency levels and compare them to the efficiency levels maintained by conventional silicon cells. Provide independent objective support for your quantifications.

Our Strategy, page 2

10. In the second bullet point and throughout the prospectus, please describe what it means to operate certain amount of megawatt per year production lines so that investors who may not be familiar with your industry may understand this term in context.

Our Relationship with Cypress Semiconductor Corporation, page 3

11. Please expand your disclosure of your various agreements with Cypress to discuss the nature of the financial terms of such agreements so that investors can understand the impact of such agreements on your operations. For example, on page 88 you describe such terms to be at cost or alternatively at the rate charged to other Cypress departments.

Use of proceeds, page 4

12. We note that you intend to use the net proceeds from the offering for the expansion of your manufacturing capacity and for general corporate purposes. Here and on page 35, please revise to quantify the portion of the proceeds of the offering to be used for each purpose indicated. Refer to Item 504 of Regulation S-K.

Risk Factors, page 9

As long as Cypress controls us..., page 26

13. Please revise to quantify the percentage of voting control that

Cypress will have following the offering.

Our proposed agreements with Cypress..., page 28

14. Please quantify the limited amount of shares you can sell after this offering before triggering your obligations to indemnify Cypress for tax liabilities and quantify the potential tax liabilities upon such a sale.

Use of Proceeds, page 35

15. Please revise to disclose any proceeds to be paid to affiliates pursuant to the separation agreements or otherwise.

Management's Discussion and Analysis, Page 42

Overview, page 43

16. Here and elsewhere in your filing as appropriate, please expand your discussion of your financing activities with Cypress to explain how Cypress's Class A shares will be converted into Class B Shares. Also, explain how the minority equity interest was "retired" in the November 2004 merger.

Six Months Ended June 30, 2004 and 2005, page 50

17. Where changes in financial statement amounts are attributable to several factors, each factor should be separately quantified and discussed to the extent practicable. As an example, we note your disclosure that cost of revenue increased in the six months ended June 30, 2005 due primarily to higher volumes of production and higher costs and volumes of raw materials, among other reasons. Please revise your results of operations and your discussion of liquidity and capital resources accordingly.

Total Revenue, page 50

18. We see that your revenues increased 654% in the six months ended June 30, 2005, primarily due to strong demand for and commercial introduction of your solar cells. Given the material increase in revenues, please revise your disclosures to include an analysis of the underlying reasons and factors contributing to the increase, as required by SAB Topic 13.B. In addition, where possible quantify the reasons for changes in this and other financial statement line items.

19. We note from your disclosures on page 14 that you entered into material supply agreements with Conergy and Solon. Please revise Management's Discussion and Analysis to quantify and discuss any actual or expected impact of this agreement on your results of operations, liquidity and capital resources.

Year Ended December 31, 2003 and 2004, page 51

20. We see you have presented the sum of the financial data for SunPower Corporation for the period from January 1, 2004 to November 8, 2004, your pre-merger period, and from November 9, 2004 to December 31, 2004, your post-merger period and note you are including these combined amounts to improve the comparative analysis. Notwithstanding your current presentation, please also discuss the nature of and reason for any material trends, events and transactions that occurred within each of the referenced combined periods. For example, discuss why research and development expenses and selling, general and administrative expenses during the November 9, 2004 to December 31, 2004 period decreased significantly as a percentage

of  
sales.

Business, page 59

Our Manufacturing, page 69

21. We note that you have entered into contracts for the supply of polysilicon. Please revise your disclosure to briefly describe the material terms of these agreements. Also file these agreements as exhibits to the registration statement, or tell us why they are not required to be filed. Refer to Item 601(b)(10)(ii)(B) of Regulation S-K.

Facilities, page 73

22. Please revise to indicate whether you expect to finalize the agreement in principle with Cypress extending the lease for your primary production facility in the Philippines prior to completion of the offering. Please also file the agreement as an exhibit to the registration statement.

Management, Page 74

Board of Directors, page 75

23. You state you intend to have five or six directors, three of whom are independent. As you currently have five directors, please explain whether you intend to add new directors prior to the completion of this offering. Also tell us whether you view the directors who are employees of Cypress as independent, and if so, explain why.

Related Party Transactions, page 82

24. We note your disclosure that you retired 14.9 million shares of common stock in exchange for the issuance of 2.5 million shares of Cypress stock to former stockholders and Mr. Rodgers. Please revise to provide this disclosure on an individual basis for each participant in the transaction for whom disclosure pursuant to Item 404 of Regulation S-K is required. Please present the dollar value of this transaction and quantify the amount of each person's interest in the transaction.

25. Please explain how you determined members of the board of directors who approved the 2004 reorganization and the January 18, 2005 transactions were "non-Cypress."

26. Please disclose whether the March 2005 and July 2005 transactions were arms-length transactions. Describe who the members of the board of directors were at that time.

Indemnification for Environmental Matters, page 87

27. Please briefly explain what facilities you have or had other than the Sunnyvale or Philippines facilities subject to this environmental indemnification. Please explain whether the liabilities assumed under the third bullet point are limited by their relation to your facilities.

Tax Sharing Agreement, page 87

28. It would appear that Cypress will receive benefits from including SunPower on its consolidated tax returns, but that SunPower's tax calculations for filing separately would not include such benefit under the terms of this Tax Sharing Agreement. Please disclose whether the treatment under this agreement is beneficial to SunPower in this respect.

Master Transition Services Agreement, page 88

29. You describe the rates at which Cypress will charge you for services under the Master Transition Services Agreement at either

"cost" or at the rate charged by other Cypress departments or subsidiaries using these services. Explain which amount will be used in different circumstances. Explain how appropriate allocations of salary and benefits will be determined for "cost" purposes. Also, explain why other subsidiaries would not be paying "cost" for these services, and whether they would be paying more or less otherwise.

Description of Capital Stock, page 94

30. Please briefly explain the reasons for your reincorporation from California to Delaware.

Underwriting, page 105

31. Please identify any members of the underwriting syndicate that will engage in any electronic offer, sale or distribution of the shares and describe their procedures to us. If you become aware of any additional members of the underwriting syndicate that may engage in electronic offers, sales or distributions after you respond to this comment, promptly supplement your response to identify those members and provide us with a description of their procedures. Briefly describe any electronic distribution in the filing. Also, in your discussion of the procedures, tell us how your procedures ensure that the distribution complies with Section 5 of the Securities Act. In particular:

- \* the communications used;
- \* the availability of the preliminary prospectus;
- \* the manner of conducting the distribution and sale, like the use of indications of interest or conditional offers; and
- \* the funding of an account and payment of the purchase price.

Finally, tell us whether you or the underwriters have any arrangements with a third party to host or access your preliminary prospectus on the Internet. If so, identify the party and the website, describe the material terms of your agreement and provide us with a copy of any written agreement. Provide us also with copies of all information concerning your company or prospectus that has appeared on their website. Again, if you subsequently enter into any arrangements like this, promptly supplement your response.

Financial Statements, page F-1

Consolidated Statements of Operations, page F-5

32. We believe that the portion of deferred stock compensation expense attributable to cost of revenues should be deducted in determining gross profit. Accordingly, please revise this Statement and other sections of your filing to include that portion of the expense in the cost of revenues section of the income statement. Please note that, with regard to the remainder of the stock compensation expense, we do not object to your current presentation.

33. We see disclosures on page 45 that you do not record amortization expense in separate functional categories of your Statement of Operations. Please tell us why it is appropriate to not include any amortization in your cost of revenues during the periods presented. Note the guidance at SAB Topic 11(B). Revise the filing, as necessary, based on our comment.

Consolidated Statements of Shareholders` Equity (Deficit), page F-6

34. We see in 2005 you issued \$4.5 million of warrants in connection with promissory notes. Please tell us why this transaction decreased equity. Revise the filing, as necessary, based on our comment.

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

Revenue Recognition, page F-12

35. Please revise your disclosure to describe your revenue recognition policy with greater specificity. To the extent that policy differs among significant product lines (i.e. solar electric power products and imaging and infrared detectors, etc.), please make your disclosure product line specific. Also, please address your revenue recognition policy as it relates to various marketing venues used by the company (i.e. direct sales representatives and distributors). Also, if the policies and sales practices vary in different parts of the world those differences should be discussed.

Note 2. Cypress Step Acquisition of SunPower, page F-17

36. We see that effective November 9, 2004, SunPower became a wholly owned subsidiary of Cypress when Cypress exchanged Cypress common stock for all outstanding shares of SunPower common stock. We also see the determination of the fair value of SunPower's net assets as of May 24, 2002 and November 8, 2004 resulted in valuation adjustments (intangible assets and related deferred income taxes) aggregating \$3.7 million and \$23.2 million, respectively. Please revise the note to specifically disclose how you valued the May 2002 and November 2004 consideration issued on each of the referenced dates. Tell us how the valuations complied with generally accepted accounting principles. Also, tell us how you concluded the excess of the fair value of the consideration issued over SunPower's net assets on these dates only required the recognition of intangible assets and did not impact the historical carrying value of any other SunPower's assets and liabilities. We may have further comments after reviewing your response.

37. We see that you recorded an \$18.1 million push down adjustment related to purchased technology. Describe to us and revise the filing to disclose the types of technology you recorded, including the various stages of development (if applicable). Discuss the factors you considered pertinent in concluding that the technology should be capitalized.

38. Refer to disclosures in your Consolidated Statements of Shareholders' Equity (Deficit). Please tell us how you allocated the push down effect between additional paid in capital and accumulated deficit, citing any authoritative literature upon which you relied to support the allocations. Also, tell us why you believe the balances in your accumulated deficit account properly reflect changes in your ownership. Specifically, tell us why the pre "purchase" deficit balance was carried forward. We may have further comments after reviewing your response.

Note 4. Balance Sheet Components, page F-20

39. We see that the fair value of your property held for sale was determined by estimated market prices provided by a third party. Please revise the filing to identify the appraisal firm under "Experts" and include their consent in this registration statement. Alternatively, you may state in revised disclosure that management considered a number of factors, including valuations or appraisals, when estimating fair value. Regardless of your decision, your disclosure should clearly indicate that management is responsible

for  
the valuation. Please revise as appropriate.

Note 5. Income Taxes, page F-22

40. Please revise to provide a reconciliation using percentages or dollar amounts of reported income tax expense to income tax expense that would have been reported using statutory rates. Refer to paragraph 47 of SFAS 109.

41. We see you are subject to a tax holiday in the Philippines. Please revise the note to include the dollar and per share effects of the holiday as required by SAB Topic 11(c).

Note 8. Customer Advances, page F-25

42. Please describe to us the significant terms and conditions related to the customer advances received for expansion of your manufacturing facility. Specifically address why these payments are properly classified as an operating cash flow, citing any authoritative literature upon which you relied. Also, disclose the balance subject to repayment and the actual or expected repayment terms.

Note 9. Debt, page F-25

43. We see you indicate that several of your notes were repaid during the periods presented. Please revise your debt footnote disclosure to specifically indicate those debt instruments that were converted to equity and those that were repaid with cash.

Note 10. Redeemable Convertible Preferred Stock and Shareholders' Equity, page F-27

Common Stock, page F-29

44. We see that in March 2005 you issued 35.2 million class A shares to Cypress in exchange for the cancellation of \$58 million of debt held by Cypress. Please tell us and revise the filing to disclose the nature of the 2005 cash inflow of \$19.6 million in your statement of cash flows. It is not clear to us if the inflow is related to the aforementioned exchange transaction.

Stock Option Program, page F-32

45. Please provide us with an itemized chronological schedule detailing each issuance of your ordinary shares, stock options and warrants since June 2004 through the date of your response. Include the following information for each issuance or grant date:

- \* Number of shares issued or issuable in the grant
- \* Purchase price or exercise price per share
- \* Any restriction or vesting terms
- \* Management's fair value per share estimate
- \* How management determined the fair value estimate
- \* Identity of the recipient and relationship to the company
- \* Nature and terms of any concurrent transactions with the recipient
- \* Amount of any recorded compensation element and accounting literature relied upon

In the analysis requested above, highlight any transactions with unrelated parties believed by management to be particularly evident of an objective fair value per share determination. Progressively bridge management's fair value per share determinations to the current estimated IPO price per share. Also, indicate when discussions were initiated with your underwriters. We will delay our

assessment of your response pending inclusion of the estimated IPO price in the filing.

#### Exhibits

46. We note your intention to file a number of exhibits, including your legal opinion, by amendment. Because we may have comments on these exhibits, and on the related disclosure, please file the exhibits allowing adequate time for their review.

\* \* \* \* \*

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment 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 Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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.

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 connection with our review of your filing or in response to our comments on your filing.

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. We will act on the request and, pursuant to delegated authority, grant



acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Eric Atallah at (202) 551-3663 or in his absence, Jay Webb at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3625 with any other questions.

Sincerely,

Mary Beth Breslin  
Attorney-Advisor

cc: Jorge del Calvo, Esq.  
Davina K. Kaile, Esq.  
Stephen M. Wurtzburg, Esq.

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Thomas H. Werner  
SunPower Corporation  
September 21, 2005  
Page 1