

October 23, 2006

Michael J. Ahearn, CEO
First Solar, Inc.
4050 East Cotton Center Boulevard
Building 6, Suite 68
Phoenix, Arizona 85040

**Re: First Solar, Inc.
Form S-1, Amendment No. 3
File No. 333-135574
Filed October 10, 2006**

Dear Mr. Ahearn:

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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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.

Unless otherwise noted, prior comment refers to our letter dated September 29, 2006.

Summary, page 1

1. We note your response to prior comment 1; however, the forepart of your prospectus should use concrete, everyday words – not created proper nouns. Therefore, we reissue the last sentence of prior comment 1.
2. It is unclear how you addressed the concerns in the Staff Legal Bulletin comments

cited in prior comment 2. For example, it is unclear why details like the specific cost per watt and the specific wattage of the California agreement are necessary and appropriate for a prospectus summary. Also, although the Staff Legal Bulletin contemplates that, in some circumstances, it might be appropriate to include strengths and strategies in the prospectus summary, it also suggests one-sentence bullet lists to minimize unnecessary detail. Therefore, we reissue the comment.

Use of Proceeds, page 21

3. While addressing prior comment 5, you removed the disclosure that the creditor is a related party. Please include that disclosure, briefly indicating the nature of the creditor's relationship to you.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 27

Debt and Credit Sources, page 46

4. Revise to define, in greater detail, the financial and other covenants that you are required to maintain under your credit facility. Our concern is that the reader is unable to determine the degree to which you were not in compliance with these covenants.

Executive Compensation, page 70

5. When you provide the noted information, we will evaluate your response to prior comment 8 as well as your responses to prior comments 16 and 18.

Fiscal Year-End Option Values, page 71

6. We note your revisions in response to prior comment 9. Please
 - tell us the authority you relied on to determine that your method of calculating the value was appropriate for this purpose;
 - tell us what consideration you gave to the related guidance in paragraph J.17 of the Division of Corporation Finance's *Manual of Publicly Available Telephone Interpretations*; and
 - with a view toward disclosure, show us your calculations supporting the disclosed amounts, including all assumptions.

Principal and Selling Stockholders, page 74

7. We note your revisions in response to prior comment 11. However:
- The beneficial ownership table should include a separate row for each executive officer named in your summary compensation table – including prior executive officers named in your summary compensation table. See Regulation S-K Item 403(b).
 - Your disclosure of aggregate ownership – the last row in your table – does not include individuals who are not currently directors or executive officers.

Certain Relationships and Related Party Transactions, page 76

Related Party Equity Contributions, page 76

8. Refer to prior comment 15 and your response. Disclose the number of shares issued or attributed to JWMA for each transaction discussed in the second and third sentences.

Note 2. Summary of Significant Accounting Policies, page F-7

Revenue recognition, page F-9

9. Please refer to prior comment 19. Revise to quantify the effect on net sales for the period as a result of the change in terms of your sales contracts.

Note 10. Stock Options, page F-18

10. Please refer to prior comment 21. We note that you have not disclosed an estimated offering price. We are deferring final evaluation until the estimated offering price is specified.

Exhibits

11. We note your reference to Appendix E in response 24. However, that appendix does not appear to govern the return of the deposited amounts and the stated interest mentioned in the last paragraph of Note 5 on page F-14. Please reconcile.

Michael J. Ahearn, CEO
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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.

You may contact Kevin Kuhar at (202) 551-3662 or Angela Crane at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Morris at (202) 551-3601 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief

cc. John T. Gaffney (Cravath Swaine)
VIA TELEFAX (212) 474-3700