

August 24, 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. 1
File No. 333-135574
Filed August 9, 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.

Prospectus

1. We reissue prior comment 2 which addressed the reliance on defined terms, not merely the style of the definition. Therefore, replacing terms defined in quotation marks with terms defined in phrases like "or X" does not address the concern.

Prospectus Summary, page 1

2. Refer to prior comment 7. It is unclear what revisions were made as stated in your response. We reissue the comment.
3. Refer to prior comment 8 and your response. If true, please revise the summary section to clarify that historically substantially all your sales were made in Germany.

First Solar, page 1

4. We note your response to prior comment 9. If you are referring to your manufacturing costs or margins, please say so directly to remove any implication that you mean that your products retail for the lowest price in the world.
5. Refer to prior comment 11 and your response. In view of your significant reliance upon the "Long-Term Contracts," for the majority of your sales for the next 5-6 years, and your plans to make substantial additional capital investment for production capacity to support these contracts and customers, it is unclear why you consider these ordinary course of business transactions. See, for example, your disclosure at "*Competitive Strength – Pre-sold capacity...*" on page 2, and Regulation S-K Item 601(b)(10)(ii)(B). Please file as exhibits the long-term supply contracts mentioned here.
6. We note your response to the third bullet point of prior comment 12. However, if your significant contracts commit you to ongoing losses or to trends that differ from your disclosed historic results, you should alert investors to these facts in an appropriate section of your document.
7. Please disclose the substance of the last sentence to the second paragraph of your response to prior comment 69.

Use of Proceeds, page 21

8. Please provide the disclosure required by instruction 4 to Regulation S-K Item 504. Please also identify the related-party to be repaid.

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

9. Tell us why you have not provided the fiscal year-end table of contractual obligations required by Regulation S-K Item 303(a)(5).

Financial Operations Overview, Net Sales, page 28

10. Please refer to prior comment 20. If material, revise to disclose your commitment for capital expenditures for building a manufacturing plant in Asia and the increase in your research and development needed to satisfy the terms of the agreements.

Liquidity and Capital Resources, page 42

11. Please clarify whether the \$140 million mentioned in the first paragraph is for the plant in Germany or the plant in Asia.

Debt and Credit Sources, page 44

12. Please refer to prior comment 24. Revise to quantify the debt levels and the debt ratios that you are required to maintain under your credit facilities.
13. Revise to quantify the amounts and balances in terms of U.S. dollars. We will not object if you wish to also quantify these amounts in terms of the Euro. Please apply throughout the document as appropriate.
14. Please file copies of the contracts mentioned in this section:
 - IKB Deutsche Industriebank AG credit facility agreement;
 - InvestitionsBank des Landes Brandenburg incentive approval.
15. Briefly discuss the investment incentive programs under which you qualify for the Brandenburg grants noted, and investment incentives from the Federal Republic of Germany. Discuss what you must do to qualify, including expiration dates of the programs. Will you qualify for and receive other economic development incentives such as wage subsidies and loan guarantees in addition to the non-repayable construction grants mentioned?

Strategies, page 53

16. It is unclear how you addressed each of the issues mentioned in prior comment 32 with regard to the disclosed new customer relationships in Spain and the United States. Therefore, we reissue the comment.
17. Refer to prior comment 33 and your response. As requested, please revise to clarify the disclosure on this point.
18. Refer to prior comment 34 and your response. It is unclear where you responded to the second sentence, which we reissue.

Customers, page 60

19. We reissue prior comment 36. Please identify by name your principal customers as noted in the second paragraph.

Government Subsidies, page 60

20. Refer to prior comment 37 and your response. It is not clear where you have responded to the request to describe how “regulations and policies currently are being modified,” as stated in your risk factor *Existing regulations and policies...* at page 16.

Competition, page 64

21. Refer to prior comment 38 and your response. It is unclear where you responded to the second and fourth sentences. Please revise or advise.

Executive Compensation, page 68

22. We will evaluate your response to prior comment 48 when you provide the noted information.

Option Values, page 69

23. Please reconcile your disclosure in response to prior comment 47 with instruction 1 to Regulation S-K Item 402(d).

Principal and Selling Stockholders, page 72

24. Refer to prior comment 52 and your response. It remains unclear why the number of shares or percentage ownership interest of the former JWMA partners would differ depending upon the public market price, as distinguished from the number of shares sold in the offering. For example, will the dissolution formula adjust the number of shares owned by JWMA to something other than 10,868,045? Please revise to explain.
25. We note your response to prior comment 53. However, you must disclose material relationships with the selling security holders within the past three years. See Regulation S-K Item 507. Therefore, we reissue the comment.
26. We note your response to prior comment 55; however, your disclosure in footnote 1 appears to address the beneficial ownership of the shares held in the name of JCL, not the Estate of John T. Walton. Therefore, we reissue the comment.
27. We reissue prior comment 57. The number of individuals mentioned in the tables appears to continue to differ.

Certain Relationships and Related Party Transactions, page 74

28. We note your response to prior comment 59. Please tell us which exhibit number in the exhibit index reflects each agreement mentioned in this section.
29. Please disclose the interest rate of the May 14, 2003 loan.
30. Please ensure that you have provided all required disclosure for the past three fiscal years. See instruction 2 to Regulation S-K Item 404. We note for example the transactions mentioned in Note 9 to your financial statements.

Registration Rights, page 74

31. Please describe all material terms of the transactions. Avoid using vague descriptors like “customary.” This also applies to similar disclosure at pages 76 and 79.

Other, page 74

32. Please revise to clarify which “credit facility” is backed by Mr. Ahearn’s personal guarantee.

Options with Repurchase Rights, page 77

33. Clarify, if true, that the repurchase obligations will survive the company’s entry into an active public trading market.
34. Tell us why the option agreements have not been filed as exhibits.

Shares Eligible for Future Sale, page 74
Stockholders Agreement, page 75

35. Refer to prior comment 64. It is unclear where you provided a response as indicated. We reissue the comment.

Financial Statements – Page F-1

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

Product warranties, page F-8

36. We note the disclosure on page 29 that customers are entitled to certain remedies in the event of missed deliveries in either total kilowatts or a lower average number of Watts per module. In such case, your customers are entitled to a maximum charge of up to 5% of up to 10 weeks of the delinquent revenue, or ultimately the cancellation of the contract if you fail to provide a cure. Please reconcile this, with the disclosure on page 58 and elsewhere that states, “these power output ratings are based on a normalization to standard test conditions accepted in the photovoltaic industry **and do not represent a warranty of the actual power that will be generated by an end-user’s system.**” Revise the footnotes to clearly disclose all rights granted to customers and all of the companies obligations under the warranty. Also, clearly disclose the methodology

methodology used to estimate the resulting liability.

Note 9. Equity Transactions and Settlement, page F-17

37. Please refer to prior comment 70. We note in your response that the terms of the conversion agreement permitted the conversion earlier than contemplated in the original agreement and set the conversion price at \$84.22. Please explain in detail your accounting for the conversion and confirm that it complies with the guidance in paragraphs 2–4 of SFAS 84.

Note 10. Stock Options, page F-18

38. Please refer to prior comment 71. Please update the option activity to the most recent practical date. We note that you have not disclosed an estimated offering price. Be advised that we are deferring final evaluation until the estimated offering price is specified.

Recent Sales of Unregistered Securities, page II-2

39. Please revise the sixth paragraph to specify the number of common shares and share options issued on February 22, 2006.
40. Please include the information required by Regulation S-K Item 701(d) for the fifth and sixth paragraphs. In addition, the antecedent to “these transactions” in the final paragraph is not clear. Please revise.

Exhibits, page II-2

41. We note that most of your exhibits have not yet been filed and many requested exhibits are not listed. For example, several agreements we noted in prior comment 73 and elsewhere are not listed in the exhibit list. See also additional comments above regarding missing exhibits. Please provide a complete exhibit index. Please also allow adequate time for resolution of any comments after you file all required exhibits.

Item 17 Undertakings, page II-3

Michael J. Ahearn, CEO
First Solar, Inc.
August 24, 2006
Page 8

42. Refer to prior comment 74. It is unclear where you provided the undertaking required by Regulation S-K Items 512(a)(5)(ii). Also, please tell us why you have included part of the undertaking in Regulation S-K Item 512(c).

* * * * *

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