



DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

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

March 4, 2010

Timothy Young
Chief Executive Officer
HyperSolar, Inc.
93-B Castilian Drive
Santa Barbara, California 93117

Re: HyperSolar, Inc.
Registration Statement on Form S-1
Filed on February 5, 2010
File No. 333-164708

Dear Mr. Young:

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.

Overview, page 6

1. Please expand to describe the current status of your research and development activities. For example, it appears that you have not yet developed a working prototype that supports your statements regarding the technology, including that it “allows solar cells to product multiple times more power” and will allow “solar manufacturers [to] use significantly fewer solar cells in the production of solar panels....” Please revise the disclosure here and on pages 18 and 21 accordingly.

Organizational History, page 6

2. Reconcile the disclosure here regarding the total number of shares currently outstanding with the combined total of (1) the number of shares outstanding at December 31, 2009, as reflected in your financials, and (2) the number issued in January 2010, as noted on page 14.

The Offering, page 7

3. Expand to state the per share purchase price for the common stock that is currently outstanding.

Risk Factors, page 8

4. Please include a separate risk factor to highlight and quantify the total percentage of voting control that is held by your officers, directors, and affiliates.
5. Please disclose in a risk factor caption that the audit report prepared by your independent auditor regarding your financial condition includes a statement that raises serious doubt about your ability to continue as a going concern.
6. Please add a risk factor to describe the potential dilutive and anti-takeover effects that exist in view of the large amount of authorized but unissued common stock and blank check preferred stock.
7. We note that certain risk factors present a broad risk that could be applicable to any issuer or offering. For example, the second risk factor on page 9 states generally that your revenues are dependent on market acceptance of your product without specifying how or why you may face particular difficulty in this regard. Please revise the generic risks to explain what the specific risks are to you.

Risks Related to our Business and Industry, page 8

We will need additional financing to execute our business plan page 8

8. Please expand to include the dollar amount of additional capital that you believe you will need in order to fund your projected operations over the next twelve months. Also expand to describe the current status of the capital markets related to the renewable energy industry and how it may affect your ability to obtain financing.

The reduction or elimination of government subsidies and economic incentives..., page 9

9. Please expand to specify whether you currently receive any government subsidies and economic incentives. If you are aware of specific reductions in or eliminations of programs that may affect you now or in the future, please expand to discuss.

Technological changes in the solar power industry..., page 9

10. Since you currently have no products, market share, or revenues, please revise the caption and risk factor accordingly.

The loss of strategic relationships used in the development of our products..., page 12

11. Please revise to specify what “strategic relationships with technology development partners” you currently rely on to provide technology.

Risks Relating to our Common Stock, page 12

Should our stock become listed on the OTC Bulletin Board..., page 12

12. Please remove references to becoming “listed” on the OTC Bulletin Board, which is not an issuer listing service.
13. Please tell us whether and when you plan to register a class of your securities under the Exchange Act.

Our common stock may be subject to “penny stock” rules..., page 13

14. Given the price at which your selling shareholders will offer their shares, it appears evident that you will be subject to the penny stock rules. Please revise the caption and disclosure to so state.

Use of Proceeds, page 14

15. It is unclear whether the form agreement that you have filed as exhibit 10.1 is the same form of subscription agreement used for all transactions disclosed in this section. Please advise, or file as exhibits any other subscription agreements.
16. Please file all agreements that you have with the consultant to whom you issued 1,367,800 shares in January 2010. Please also tell us whether the consultant has rendered all invoiced services. Expand the disclosure to describe the nature of the services rendered.

Transaction Being Registered in this Prospectus, page 14

17. For each transaction, state the number of investors who participated in the private placement. Please also clarify the exemption from registration on which you relied for each transaction disclosed. We note in this regard your disclosure that you relied upon "Section 4(2) of the Act and/or Regulation D." Please also disclose the facts that you relied upon to make the determination that the selling shareholders acquired their shares in each transactions that was exempt from registration.

Liquidity and Capital Resources, page 19

18. Please expand to provide a discussion of liquidity and capital resources that addresses (i) the dollar of amount of financing you believe is required to continue your business for the next twelve months; (ii) the expected uses of that financing; and (iii) the expected sources of that financing. The disclosure should fully describe your specific plan to continue your business as a going concern and the potential consequences if you are not successful. For guidance, refer to Item 303 of Regulation S-K and Securities Act Release 33-8350 "Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations."

Plan of Operation and Financing Needs, page 20

19. We note from your disclosure on page F-3 that you incurred approximately \$20,000 in selling and marketing expenses in the three months ended December 31, 2009. Please expand your disclosure in this section to address what selling and marketing you have undertaken thus far.
20. In effort to achieve clarity, please expand the description of your plan of operation to include a summary of your product research and development over the next twelve months. For example, explain whether you will be developing one, several, or all of the different photonic innovations described on page 22 for your demonstration prototype. Describe any expected purchase or sale of plant or significant equipment and any expected significant changes in the number of employees necessary to achieve development.
21. Additionally, we note from your disclosure on page 22 that Nadir Dagli and Ronald Petkie are listed on the patent application as the inventors and the Company is listed as the assignee. In this regard, please explain to us and disclose in your filing what type of agreement was entered into between Dr. Dagli and Dr. Petkie (the "Inventors") and the Company, which assigned the technology, as describe on page 21 and 22, to the Company. Please disclose and provide us with a description of the nature and terms of this agreement, including

a list of all the types of consideration, which has been paid or could potentially be paid by the Company to the Inventors. Also, please describe the timing and/or the triggering events of such payments

22. Furthermore, we note from your disclosure on page 25 that Dr. Dagli is your Chief Scientific Advisor. In this regard, please explain to us the types of compensation arrangements you have with Dr. Dagli. As part of your response, please describe for us each type of compensation that has been paid or can potentially be paid to Mr. Dagli. Also, please describe the timing and/or the triggering events of such payments.

Market Opportunity, page 21

23. Clarify in the second paragraph that because your product is still being developed, there is no assurance that you can reduce manufacturing costs.

Intellectual Property, page 22

24. Please file as an exhibit any agreement entered into with the inventors with regard to the technology, and discuss the material terms here.

Competition, page 22

25. Please expand your disclosure to address your competition in the micro-photonics market. Explain how your technology compares with that being developed by other companies to achieve the results you are seeing to achieve, including cost reduction and the concentration of sunlight onto solar cells to increase solar energy production. Identify the major competitors in this area and your relative competitive position.

Directors, Executive Officers, Promoters and Control Persons, page 24

26. Please explain the reason for the bracketed language at the top of page 24.
27. Please provide more specific disclosure with regard to Mr. Petkie's employment experience over the past five years. See Item 401(e) of Regulation S-K.

Code of Ethics, page 26

28. Revise to remove the reference to Regulation S-B and to cite the correct regulation.

Executive Compensation, page 26

29. Expand the footnote to explain how Mr. Young's compensation was determined. Disclose the date that the employment agreement was signed and when it became effective.
30. Please file as an exhibit the employment agreement with Mr. Young that is referenced in footnote (2) to the summary compensation table.
31. Please tell us why you have not included Dr. Petkie in the summary compensation table. We note in this regard your disclosure at the bottom of page 26 that Dr. Petkie receives an annual salary of \$120,000. Refer to Regulation S-K Item 402(m)(2).

Certain Relationships and Related Transactions, page 27

32. Please reconcile your disclosure in this section with your disclosure on page F-8 that you issued a promissory note to an investor that totaled \$154,533. Please also file the promissory note as an exhibit.

Plan of Distribution, page 28

33. Please reconcile the second sentence under this section with your prospectus cover page, which states that selling stockholders will offer their shares at \$0.10 per share until such time as your common stock may be quoted on the OTC Bulletin Board, at which time the shares may be sold at prevailing market prices or privately negotiated prices.

Financial Statements, page F-1

34. Please update the financial statements when required by Rule 8-08 of Regulation S-X. An updated accountant's consent should also be included with any amendment to the filing.
35. Please disclose in the notes to your audited financial statements the company's fiscal year end.

Report of Independent Registered Public Accounting Firm, page F-9

36. In future filings, please have your auditors refer to the company in their report as a Development Stage Company and more clearly refer to the statements of operations, shareholders' equity (deficit), and cash flows for the period from inception February 18, 2009 through fiscal year end June 30, 2009.

Item 15. Recent Sales of Unregistered Securities, page II-1

37. We note from your disclosure on page II-2 that you determined that all of the offerings and sales described in this section were exempt from Securities Act registration pursuant to Rule 506 of Regulation D and Section 4(2) of the Securities Act. We note further that you have filed only one Form D on January 27, 2010, which appears to reference only the January 2010 private placement. Please advise.

Item 16. Exhibits, page II-2

38. Please expand the table to identify the dates when the “form of subscription agreement” was used.

* * *

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

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- 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 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 Dennis Hult at (202) 551-3618 or Jeffrey Jaramillo, Accounting Branch Chief, at (202) 551-3212 if you have questions regarding comments on the financial statements and related matters. Please contact Celia Soehner at (202) 551-3463 or me at (202) 551-3800 with any other questions.

Sincerely,

Peggy Fisher
Assistant Director

cc (via facsimile): Marcelle S. Balcombe, Esq. — Sichenzia Ross Friedman Ference LLP