

Mail Stop 6010

February 21, 2007

Photowatt Technologies USA Inc.  
540-A Silver Creek NW  
Albuquerque, New Mexico 87121

**Re: Photowatt Technologies Inc.  
Amendments Nos. 5 and 6 to Registration Statement on Form F-1  
Filed February 2 and 14, 2007  
Registration No. 333-137044**

Ladies and Gentlemen:

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.

Fee Table

1. Please revise the fee table to reflect the current size of the offering.

Prospectus Summary

2. We reissue the portion of comment 4 from our letter dated January 24, 2007 that requested that you describe the assessments that you have conducted with outside parties to date regarding your spherical technology and the conclusions drawn from those assessments.

Our Industry, page 3

3. We note the revised industry data that you have included from Solarbuzz regarding the projected supply of solar cells. Please provide us with support for this data. Clearly mark the relevant sections that support this data.
4. We note the disclosure you have added from Photon Consulting. Please provide us with support for this data. Clearly mark the relevant sections that support this data.

The Offering, page 5

5. Please clarify the nature of the adjustments to the options granted to executives for 103,248 shares mentioned on page 6. We note that you deleted the adjustment disclosure on page 107.

We have Relied on Government Grants, page 18

6. We note your revisions in response to prior comment 6. With a view toward clarified disclosure in an appropriate section of your document, please tell us whether you intend to seek consent. If so, tell us the status of your request, including when you made the request and the nature of all responses to date.

Use of Proceeds, page 34

7. Please provide the disclosure required by Item 3.C.4 of Form 20-F.

Management's Discussion and Analysis

Results of Operations, page 53

8. With a view toward disclosure, please tell us the reasons for and effects of:
  - the change in the disclosure regarding the phases of your expansion plans compared to the disclosure in amendment 4 to your registration statement; and
  - the reduction in the number of employees reflected in your disclosure on page 18.

Liquidity, page 62

9. Please tell us when you will respond to prior comment 7 (regarding developments in potential joint venture to expand Photowatt International capacity) from our comment letter dated December 20, 2006.

Contractual Commitments, page 65

10. We reissue the second bullet point of prior comment 8. Once we have reviewed the disclosure requested by that bullet point in your prospectus, we will then be in a position to evaluate your response to the first bullet point of prior comment 8.

Our Relationship with ATS, page 89

11. Please revise to include appropriate disclosure regarding the demand promissory note contemplated by Section 3 of the Share Transfer Agreement filed as Exhibit 10.16 to your registration statement.

Principal Stockholders, page 113

12. Please revise to indicate how the number of shares beneficially owned by ATS will increase from 341 shares to 16,560,063 shares.

Affiliations, page 126

13. Please expand the disclosure provided in response to prior comment 13 to disclose the compensation paid to the underwriters in connection with the transactions.

Exhibit 5

14. Please file a final, signed, dated opinion with all blanks completed.
15. Refer to the shareholder resolutions mentioned in the penultimate paragraph. Please tell us how those resolutions differ from the disclosure in the prospectus. If they do not differ, please tell us why the condition to the opinion is necessary.

\* \* \* \* \*

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 direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any registration statement 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.

Photowatt Technologies Inc.

February 21, 2007

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You may contact Kevin Vaughn at (202) 551-3643 or Martin James at (202) 551-3671 if you have questions regarding comments on the financial statements and related matters. Please contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso  
Branch Chief

cc (via fax): Christopher J. Cummings, Esq.