



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

February 11, 2016

Via E-mail

Dr. Ashok K. Sood
President and Chief Executive Officer
Magnolia Solar Corporation
54 Cummings Park
Suite 316
Woburn, MA 01801

**Re: Magnolia Solar Corporation
Preliminary Proxy Statement on Schedule 14A
Filed January 29, 2016
File No. 000-53361**

Dear Dr. Sood:

We have limited our review of your filing to the issues we have addressed in our comments. Please respond to this letter within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this comment, we may have further comments.

1. Please refer to Note A of Schedule 14A which states that "where a solicitation of security holders is for the purpose of approving the authorization of additional securities which are to be used to acquire another specified company, and the registrant's security holders will not have a separate opportunity to vote upon the transaction, the solicitation to authorize the securities is also a solicitation with respect to the acquisition." Here, it appears the solicitation of stockholders is for approving the reverse stock split and the authorization of additional securities which are to be used for the acquisition of EcoArk, Inc. Please revise your proxy statement so that you have provided the information required by Items 11, 13, and 14 of Schedule 14A. Specifically, please include audited and interim financial statements of EcoArk, Inc. and pro forma financial information meeting the requirements of Rule 3-05 and Article 11 of Regulation S-X or Rules 8-04 and 8-05 of Regulation S-X, as applicable.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

Ashok K. Sood
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In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact David Burton at (202) 551-3626 or Kevin Kuhar, Accounting Branch Chief, at (202) 551-3662 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 with any other questions.

Sincerely,

/s/ Tom Jones for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Peter DiChiara