



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

February 23, 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
Amendment No. 1 to Preliminary Proxy Statement on Schedule 14A
Filed February 16, 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. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

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 comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our February 11, 2016 letter.

EcoArk, Inc. Consolidated Financial Statements, Annex D-1

1. We note the losses reported by both Magnolia Solar and EcoArk, Inc. in both of the prior years. Please revise the filing to include updated financial information as of December 31, 2015. Refer to Rule 8-08 of Regulation S-X.

Pro Forma Unaudited Consolidated Financial Statement, Annex F-1

2. We note that the pro forma balance sheet assumes the effects of the transaction as if it had occurred as of January 1, 2014. Please note that Rule 11-02(b)(6) of Regulation S-X requires you to present a pro forma balance sheet that assumes the transaction was consummated at the end of the most recent period for which a balance sheet is required. Please revise your presentation to comply.

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.

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