



DIVISION OF
CORPORATION FINANCE

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

January 4, 2011

VIA U.S. Mail and Facsimile

Charles Michel
Chief Financial Officer
Entech Solar, Inc.
13301 Park Vista Blvd. Suite 100
Ft. Worth, Texas 76177

Re: Entech Solar, Inc.
Form 10-K for the fiscal year ended December 31, 2009
Filed March 31, 2010
File No. 001-34592

Dear Mr. Michel:

We have reviewed your response dated December 17, 2010 and related filings and have the following 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 by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Charles Michel
Chief Financial Officer
Entech Solar, Inc.
January 4, 2011
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Form 10-K for the fiscal year ended December 31, 2009

Consolidated Financial Statements

Consolidated Statements of Operations, page 27

1. We reference your response to prior comment 7. We note that the current presentation includes cost of revenues and gross profit allocated to “contract” and “Equipment and Services” excluding impairment charges. Please clarify why you should not allocate the related impairment charges to the other costs of revenues and gross margin from that product or service. Please explain how these charges are not related to contract and equipment & services revenues and why you believe that gross profit (loss) of contract and equipment & services is fairly stated by excluding impairment charges.

Note 3. Summary of Significant Accounting Policies

Inventory, page 33

2. Please refer to your response to prior comment 9. We see that you released \$1,119,000 of inventory “reserves” due to impaired items being subsequently sold. In future filings please include disclosure within MD&A that quantifies the impact on cost of sales of recoveries of previously impaired inventory.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. If you have other questions, please contact Celia Soehner at (202) 551-3463 or Tim Buchmiller at (202) 551-3635

Sincerely,

Brian Cascio
Accounting Branch Chief