

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-3561

Mail Stop 3561

December 17, 2009

Mr. Bruce Nelson Chief Financial Officer Global Clean Energy Holdings, Inc. 6033 W. Century Blvd, Suite 895 Los Angeles, California 90045

> Re: Global Clean Energy Holdings, Inc. Form 10-K for Fiscal Year Ended December 31, 2008 Filed April 15, 2009 Form 10-K/A for Fiscal Year Ended December 31, 2008 Filed December 2, 2009 File No. 000-12627

Dear Mr. Nelson:

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 comments are 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.

Form 10-K/A filed December 2, 2009

Exhibits

1. You do not appear to have included all of the exhibits to the GCE Mexico I, LLC Agreement or to the Lodemo Service Agreement, filed as exhibits 10.17 and 10.18 to your Form 10-K/A filed December 2, 2009. Please refile the agreements in their entirety. To the extent you wish to obtain confidential treatment of information contained in a document filed under the Exchange Act of 1934, you must follow the procedures contained in Rule 24b-2 under the Exchange Act. Please note that you must indicate at the appropriate place within the publicly filed document that any confidential portion has been omitted and filed separately with the Mr. Nelson Global Clean Energy Holdings, Inc. December 17, 2009 Page 2

Commission. Refer to Section II.D.5 of Staff Legal Bulletin No. 1, available at <u>www.sec.gov</u>.

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As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. Please understand that we may have additional comments after reviewing your 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 Exchange Act of 1934 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.

Please contact Louis Rambo at (202) 551-3289 with any questions.

Sincerely,

John Reynolds Assistant Director