

December 15, 2006

Mail Stop 6010

Jeffrey R. Mistarz
Chief Financial Officer and Treasurer
Lime Energy Co.
1280 Landmeier Road
Elk Grove Village, Illinois 60007

**Re: Lime Energy Co.
Amendment No. 1 to Registration Statement on Form S-1
Filed November 20, 2006
File No. 333-137236**

Dear Mr. Mistarz:

We have limited our review of your filing to those issues we have addressed in our 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Exhibits

1. We reissue prior comment 4, which requested that you file an opinion of counsel regarding whether the rights are legal, binding obligations under the state contract law that governs those rights.

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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 supplemental 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.

Please contact Donald C. Hunt at (202) 551-3647 or me at (202) 551-3617 with any questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via fax): Andrew H. Connor, Esq. – Schwartz Cooper Greenberger & Krauss, Chtd.