



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

July 24, 2006

via U.S. mail and Facsimile

Ronald H. Miller
President & Chief Executive Officer
Aventine Renewable Energy Holdings, Inc.
1300 South 2nd Street
Pekin, IL 61555

**Re: Aventine Renewable Energy Holdings, Inc.
 Form S-1/A filed July 24, 2006
 File No. 333-132861**

Dear Mr. Miller:

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 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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.

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Principal and Selling Stockholders, page 82

We note you have now identified certain selling stockholders as broker-dealers or affiliates of broker-dealers. Please confirm to us supplementally that you have identified all broker-dealers or affiliates of broker-dealers from your list of selling stockholders. Also, please provide the information requested in the second bullet point of comment 37 from our letter dated April 26, 2006. In particular, for each selling stockholder identified as an affiliate of a broker-dealer, please revise the prospectus to make the following representations: (1) the seller purchased in the

ordinary course of business, and (2) at the time of the purchase of the securities to be resold, the seller had no agreements or understandings, directly or indirectly, with any person to distribute the securities. If you are unable to make those representations in the prospectus, state that the seller is an underwriter.

Closing Comments

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.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

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Please direct questions on disclosure issues to Tamara Brightwell, Staff Attorney, at (202) 551-3751 or, in her absence, to Lesli Sheppard, Senior Staff Attorney, at (202) 551-3708, or the undersigned at (202) 551-3760.

Sincerely,

Pamela A. Long
Assistant Director

cc: Richard D. Truesdell, Jr., Esq.
Davis Polk & Wardwell
450 Lexington Avenue
New York, NY 10017