



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 7010

April 26, 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 filed March 30, 2006
 File No. 333-132860**

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.

Form S-1 filed March 30, 2006

General

1. Please note that we will issue comments concerning your Form S-4 filed on April 3, 2006 and Form S-1 filed on March 31, 2006 by letter under separate cover. To the extent that the following comments are applicable to those filings, please make revisions to those registration statements accordingly.

2. Please include all information that is not subject to Rule 430A in the next amendment, including a bona fide estimate of the range of the maximum offering price for the shares and the maximum number of shares offered. This information must be included on the prospectus cover page, as well as in the body of the prospectus. See instruction 1(A) to Item 501(b)(3) of Regulation S-K. We may have further comments after reviewing this information.
3. Please file all exhibits with your next amendment, or as soon as possible. Understand that we will need adequate time to review these materials before accelerating effectiveness. In this regard, we note that you intend to seek confidential treatment for portions of exhibit 10.9 but have not yet filed the request.
4. Please provide us with copies of any artwork or other graphics you intend to use in your prospectus. Please be advised that we may have comments and you may want to consider waiting for our comments before printing and circulating these materials.
5. Please revise to explain industry jargon, such as greenfield, brownfield and saccharification.
6. If material, please update your document with any recent developments. For example, we note your news release dated April 24, 2006 on your website concerning your agreement with the Aurora Cooperative.

Prospectus Cover Page

7. Disclose the name of the lead or managing underwriter(s) as required by Item 501(b)(8) of Regulation S-K.
8. Please tell us the purpose of the last sentence of the second paragraph concerning the market price for your shares after the offering. Alternatively, please delete this sentence.

Industry and Market Data, page i

9. We note the statements that “Independent industry publications and surveys generally state that they have obtained information from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information[.]” and “[you] believe that each of these studies and publications is reliable...and [you] do not make any representation as to the accuracy of such information.” While you may state that you have not independently verified the data, you may not disclaim responsibility for the information you elect to include in your prospectus. Please revise.
10. Delete the statement that you “do not know what assumptions regarding general economic growth are used in preparing the forecasts included in this prospectus” as it implies that you are not responsible for the information you disclose in your prospectus.

11. Provide us supplementally with copies of the third party reports and other data you refer to in the summary that support your statements about the historical growth for your industry. In addition, you should make revisions throughout the prospectus to clearly state whether the statements regarding the industry are attributable to the company or are based upon information from the third party reports.

Forward Looking Statements, page ii

12. Please delete the reference to Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The Private Securities Litigation Reform Act safe harbor is not available for statements made by Aventine as it is not a reporting issuer.

Summary, page 1

13. In your Summary and throughout the prospectus you refer to your company as being a “leading producer and marketer” and other similar comments. Please revise these disclosures to specify the measure upon which you base these statements.
14. We note that you hold a 78.4% interest in the Nebraska facility. Please briefly explain in your summary what you mean by that statement. For example, identify the other entity that owns the Nebraska facility and disclose the percentage of the revenues you receive and the percentage of the expenses that you incur in operating the facility. We note your disclosure on page 18.

Summary, page 1

15. The disclosure set forth in this section is very detailed and lengthy and provides too much information for summary disclosure. In this regard, we note that your disclosure includes detailed descriptions of your business, competitive strengths and growth strategy that are substantially similar to disclosures included in your Business section. This detailed information is better suited for the body of your prospectus. Your summary section should provide a brief overview of the most important aspects of your business and this offering. Please revise accordingly.

Competitive Strengths, page 3

16. Please revise this section to include a more balanced description of your business. For example, to the extent that you discuss your competitive strengths and growth strategy in the summary, please balance it by briefly discussing the risks of implementing the strategy. In the alternative, consider deleting the discussion of your competitive strengths and growth strategy given that it is discussed in the business section of the prospectus. In addition, please disclose your indebtedness.

Summary, page 1

Business and Growth Strategy, page 5

17. We note your disclosure that you have been providing funding for the research into cellulosic ethanol. In your amended filing, please disclose the amount that you have provided, if material.

Summary, page 1

Metalmark Capital LLC, page 6

18. Please clarify how Metalmark Capital LLC is related to your company. For example, state whether Metalmark is an affiliate of Morgan Stanley Investment Management Inc. and manages the MSCP funds or whether an affiliate of Metalmark manages the MSCP funds. If an affiliate of Metalmark manages the MSCP funds, thereby beneficially owning approximately 39.6% of your outstanding common stock, please revise your disclosure to state the name of such affiliate. Please revise similar disclosures throughout your prospectus. We note your disclosure in the first risk factor on page 18.

The Offering, page 7

19. Please delete the statement that the summary is provided “solely” for investors’ convenience, as it may suggest to investors that they cannot rely on this disclosure in making their investment decisions.
20. Disclose the number of shares underlying outstanding options.

Risk Factors, page 11

We operate in a competitive industry, page 11

21. We note your discussion of your relationships with marketing alliance partners. You should consider including a risk factor disclosing the percentage of your revenues generated from your marketing alliance contracts as compared to the percentage of revenues generated from your ethanol production. Discuss the impact that a decline in your marketing alliance partnerships would have on your revenues.
22. In addition, please discuss in your section on Marketing Alliances on page 60 the material terms of your contracts with these partners and file any material contracts as exhibits to the registration statement.

Our level of indebtedness could adversely affect our ability to react to changes..., page 20

23. Please disclose the amount of your annual debt service payment obligations. In addition, if the interest rate on your variable rate debt could materially affect the obligations, please disclose how much it will increase with a 1% increase.

Use of Proceeds, page 23

24. We note that you intend to use the proceeds for “general corporate purposes.” Please clarify these purposes by adding a brief narrative providing examples of those uses.

Dilution, page 25

25. We note that your dilution calculation excludes shares issuable upon the exercise of outstanding stock options; however, pursuant to Item 506 of Regulation S-K common shares which officers, directors, promoters or affiliated persons have the right to acquire should be included in the calculation. Please revise accordingly.

Selected Historical Consolidated Financial Data, page 27

26. We note you have not included the full five years of data in your selected historical consolidated financial data, specifically balance sheet data, per share data, and other financial data in accordance with Item 301 of Regulation S-K. Please include this information in your amended filing.

Management’s Discussion and Analysis of Financial Condition
and Results of Operations, page 29
Executive Overview, Revenues, page 29

27. We note the disclosure that the general ledger system does not track or report the gallons of ethanol you sell. Given the materiality of your inventory balance at December 31, 2005 and the significant increase in this balance year over year, please tell us if a physical count was performed at December 31, 2005 and describe for us your procedures performed to verify the inventory quantity included in the \$50,145 ethanol balance on page F-21. In addition, please tell us the number of gallons in this amount.
28. We note your discussion on page 31 regarding your marketing alliance agreement with VeraSun Energy Corporation and that VeraSun has notified the company that it has elected not to permit automatic renewal of the agreement. We also note the statement that you are in the process of negotiating a new arrangement with VeraSun. On March 31, 2006, VeraSun filed a registration statement on Form S-1 for an initial public offering of its common stock. VeraSun’s registration statement discloses that it notified you that it will terminate its agreements with you on March 31, 2007 and that it intends to market and sell its ethanol directly to its end users. Please revise to clarify your relationship with VeraSun going forward and consider including risk factor disclosure discussing the impact of the termination of these agreements.

Gross Margin, page 32

29. Please expand your discussion of how natural gas and ethanol act as a partial natural hedge against each other.

Liquidity and Capital Resources, page 42

30. We note your net cash provided by operating activities decreased from \$49,573 for the year ended December 31, 2004 to \$28,827 for the year ended December 31, 2005. Please expand your liquidity and capital resources disclosure to explain the underlying reasons for this 42% decrease in your operating cash flow. Specifically, explain why your inventory balance increased 120% and your accounts receivable increased 43% from December 31, 2004 to December 31, 2005 in consideration that your sales increased 9% year over year. Given the materiality of these accounts to your liquidity and financial position, please disclose your inventory and accounts receivable turnover ratios for each period and explain any significant variances. Refer to section IV. Liquidity and Capital Resources of Release No. 33-8350: *Interpretation - Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*.

Liquidity and Capital Resources, page 42

Revolving Credit Facility, page 43

31. Disclose here, and in the "Description of Certain Indebtedness" section, the interest rate on the revolving credit facility as of the most recent date practicable. We note the disclosure in note 13 to your financial statements.

Liquidity and Capital Resources, page 42

Senior Secured Notes, page 43

32. Disclose the interest rate of the notes and the approximate amount of quarterly interest payments.

Business, page 47

Industry Overview, page 51

33. We note the paragraph discussing ethanol as an octane enhancer. A number of the sentences in this paragraph are repetitive, and therefore, confusing. Please revise.

Management, page 65

Board Committees, page 67

34. We note that you plan to establish several board committees prior to the closing of this offering. To the extent that these committees are established prior to the registration statement becoming effective, please update this section accordingly.

Executive Compensation, page 70

35. We note your disclosure in footnote 1 to the Summary Compensation Table. Please explain to us why Mr. Brennan and Mr. Sabherwal were not included in the table. It

appears that these individuals served as named executive officers as of the end of the last completed fiscal year.

Executive Compensation, page 70

Aggregated Option and SAR Exercises in Last Fiscal Year, page 72

Cancellation of Awards, page 73

36. Revise to state whether this initial public offering constitutes a public offering which will terminate the right of the compensation committee to cancel an award granted under the stock plan in consideration of a cash payment.

Principal and Selling Stockholders, page 74

37. With respect to the ownership tables on pages 74 and 75, please provide the following information:

- Please revise your disclosures to identify the person or persons who have voting or investment control over the company's securities owned by each non-reporting beneficial owner. See Interpretation 4S. of Regulation S-K Item 507 in the March 1999 supplement of the manual of publicly available CF telephone interpretations.
- Please tell us whether any of the selling stockholders are broker-dealers or affiliates of broker-dealers. With respect to any affiliates of registered broker dealers, expand the prospectus to indicate whether they acquired the securities to be resold in the ordinary course of business. Also indicate whether at the time of the acquisition they had any agreements, understandings or arrangements with any other persons, either directly or indirectly, to dispose of the securities. We may have further comments upon review of your response.

38. Please describe, in reasonable detail, how the selling shareholders obtained the shares registered for resale.

Certain Relationships and Related Party Transactions, page 76

39. Please state whether you believe each transaction discussed in this section is on terms at least as favorable to your company as you would expect to negotiate with unrelated third parties

Description of Certain Indebtedness, page 78

Senior Secured Floating Rate Notes, page 78

40. Please revise to disclose the material terms of the Security and Escrow Agreement, including identifying the escrow agent.

Shares Eligible for Future Sale, page 79

41. Revise this section to reflect the fact that a Form S-1 was filed to register the resale of the shares issued in the December 2005 private placement.

Registration Rights, page 80

42. Delete the statement that the description of the registration rights agreement is “qualified in its entirety by reference” to the agreement. Qualification of information within the prospectus by reference to information outside the prospectus is only appropriate where a summary or outline of a document is required or where provided in the appropriate form. See Rule 411(a) of Regulation C. Make similar revisions elsewhere in the document as necessary, including pages 82 in the first paragraph of “Description of Capital Stock,” and page 87 in the last paragraph of “Stockholder Rights Plan”.
43. In addition, we note your statement that your description “is not complete.” This statement suggests that you may not have outlined the material provisions of this agreement. Please revise accordingly. Please make corresponding changes where you use similar qualifiers on pages 7, 82, and 87.

Description of Capital Stock, page 82

Stockholder Rights Plan, page 85

44. Based upon your disclosure, it appears that for each share of common stock issued in this initial public offering, an accompanying preferred share purchase right will be issued as well. Please confirm our understanding. In addition, you should register these rights as separate securities.

Underwriting, page 91

Lock-up Agreements, page 93

45. We note that you have agreed not to file a registration statement for common stock without prior written consent of the underwriters during 180 days from the date of this prospectus. Revise to disclose whether the filing of the Form S-1 pertaining to the resale of shares by the selling shareholders violates the lock-up agreement or whether you obtained written consent with respect to filing the resale registration statement.

IPO Pricing, page 93

46. We note your disclosure in the paragraph that precedes the bullet points “among the factors to be considered. . . ,” and the last bullet point of this section on page 93, “other factors deemed relevant.” Please revise your disclosure to identify all material factors considered in determining the offering price and to eliminate the suggestion that you have only included some of the factors. See Item 505(a) of Regulation S-K.

Legal Matters, page 94

47. Revise this section to state the “certain” legal matters upon which each law firm will opine.

Consolidated Financial Statements

5. Income Taxes, page F-15

48. We note that your deferred tax liability exceeds your deferred tax asset by \$943 at December 31, 2005. So, it appears that your deferred tax asset of \$7,945 may be recoverable based on the \$8,888 deferred tax liability. In light of the above and in consideration that you have had positive income in the past two years and the period from May 31 to December 31, 2003, please expand in detail your income tax critical accounting policy to explain how you determined that your valuation allowance of \$5,703 is appropriate. Refer to paragraph 21 of SFAS No. 109. In addition, disclose in the filing the potential limitations that you believe will cause these deferred tax assets not be realized due to Section 382 of the Internal Revenue Code.

10. Stock-Based Compensation, page F-22

49. We note on page 6, that on December 30, 2005, you completed a private offering of 21,179,025 shares of your common stock for \$13.00 per share. We also note on page F-23 that you granted 1,269 stock options at a weighted average exercise price of \$3.80 during 2005. Please provide to us your calculations supporting the compensation cost of \$1,931 for the year ended December 31, 2005. If these calculations assume a market price that differs materially from \$13/share, then please explain how the market price assumption was determined.

19. Guarantor/Non-guarantor Combining Financial Statements (Unaudited), page F-29

50. We note that you have presented the unaudited Guarantor/Non-guarantor Combining Financial Statements. However, it appears that these financial statements should be audited for the same periods that the parent company financial statements are required to be audited. Refer to Rule 3-10(i)(2) of Regulation S-X. Please revise or clarify for us the basis for your presentation.
51. If true, please revise to clarify that the guarantor subsidiaries are “100% owned” by the parent as required by Rule 3-10(f) of Regulation S-X. We note your use of the term “wholly-owned;” however, that term is not the same as the term “100% owned” in Rule 3-10(h) of Regulation S-X.
52. We note that your total stockholders’ equity (deficit) in the Issuer and Consolidated columns at December 31, 2005 on page F-30 are not equal as they should be considering that the issuer column presents investments in all subsidiaries under the equity method. Please revise accordingly. Refer to Rule 3-10(i)(3) of Regulation S-X.

Part II

Item 15. Recent Sales of Unregistered Securities, page II-2

53. Revise to disclose the exemption relied upon and the facts to support the exemption for each issuance of securities. See Item 701(d) of Regulation S-K.

Item 16. Exhibits and Financial Statement Schedules, page II-2

Exhibit 23.1 – Consent of Independent Registered Public Accounting Firm

54. We note that the consent contained at Exhibit 23.1 does not include the signature of your independent registered public accounting firm. In your amended filing, include an updated consent that includes the firm's signature.

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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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.

Please direct accounting comments to Ryan Rohn, Staff Accountant, at (202) 551-3739 or, in his absence, to Al Pavot, Senior Staff Accountant, at (202) 551-3738. 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