Filed by Pacific Ethanol, Inc.
Pursuant to Rule 425 under
the Securities Act of 1933
and deemed filed pursuant to Rule 14a-6 under
the Securities Exchange Act of 1934

Subject Company: Aventine Renewable Energy Holdings, Inc.

(Commission File No. 001-32922)

This filing relates to a proposed business combination involving Pacific Ethanol, Inc. and Aventine Renewable Energy Holdings, Inc. The below presentation was used and made available at the Cowen and Company 43rd Annual Technology, Media & Telecom Conference on May 28, 2015.

Leading Producer and Marketer of Low-Carbon Renewable Fuels

Strong Long-term Demand for Ethanol

Differentiated Business Model & Diversified Revenue Streams

Pacific Ethanol Corporate Overview: May 2015

Cautionary Statements

Statements contained in this communication that refer to Pacific Ethanol's estimated or anticipated future results or other non-historical expressions of fact are forward-looking statements that reflect Pacific Ethanol's current perspective of existing trends and information as of the date of this communication. Forward looking statements generally will be accompanied by words such as "anticipate," "believe," "plan," "could," "should," "estimate," "expect," "forecast," "outlook," "guidance," "intend," "may," "might," "will," "possible," "potential," "predict," "project," or other similar words, phrases or expressions. Such forward-looking statements include, but are not limited to, the ability of Pacific Ethanol to timely and successfully execute on, and the effects of, its initiatives to improve plant efficiencies and increase yields, reduce production costs, diversify feedstock, diversify its revenue streams and generate additional revenue, produce advanced biofuels and lower the carbon intensity of ethanol produced; market conditions, including the supply of and demand for ethanol and co-products, as well as margins, commodity prices, export conditions and increasing blend rates; the timing and effects of corn oil production; statements about the benefits of the Aventine merger, including future financial and operating results, Pacific Ethanol's or Aventine's plans, objectives, expectations and intentions and the expected timing of completion of the transaction. It is important to note that Pacific Ethanol's goals and expectations are not predictions of actual performance. Actual results may differ materially from Pacific Ethanol's current expectations depending upon a number of factors affecting Pacific Ethanol's business, Aventine's business and risks associated with merger transactions. These factors include, among others, adverse economic and market conditions, including for ethanol and its co-products; raw material costs, including ethanol production input costs; changes in governmental regulations and policies; and insufficient capital resources. These factors also include, among others, the inherent uncertainty associated with financial projections; restructuring in connection with, and successful closing of, the Aventine merger; subsequent integration of Aventine and the ability to recognize the anticipated synergies and benefits of the Aventine merger; the ability to obtain required regulatory approvals for the transaction (including the approval of antitrust authorities necessary to complete the acquisition), the timing of obtaining such approvals and the risk that such approvals may result in the imposition of conditions that could adversely affect the combined company or the expected benefits of the transaction; the ability to obtain the requisite Pacific Ethanol and Aventine stockholder approvals; the risk that a condition to closing the Aventine merger may not be satisfied on a timely basis or at all; the failure of the proposed transaction to close for any other reason; risks relating to the value of the Pacific Ethanol shares to be issued in the transaction; the anticipated size of the markets and continued demand for Pacific Ethanol's and Aventine's products; the impact of competitive products and pricing; the risks and uncertainties normally incident to the ethanol production and marketing industries; the difficulty of predicting the timing or outcome of pending or future litigation or government investigations; changes in generally accepted accounting principles; costs and efforts to defend or enforce intellectual property rights; successful compliance with governmental regulations applicable to Pacific Ethanol's and Aventine's facilities, products and/or businesses; changes in the laws and regulations; changes in tax laws or interpretations that could increase Pacific Ethanol's consolidated tax liabilities; the loss of key senior management or staff; and such other risks and uncertainties detailed in Pacific Ethanol's periodic public filings with the Securities and Exchange Commission, including but not limited to Pacific Ethanol's "Risk Factors" section contained in Pacific Ethanol's Form 10-Q filed with the Securities and Exchange Commission on May 11, 2015 and from time to time in Pacific Ethanol's other investor communications. Except as expressly required by law, Pacific Ethanol disclaims any intent or obligation to update or revise these forward-looking statements.

Additional Information

This communication is being made partially in respect of the proposed merger between Pacific Ethanol, Inc. and Aventine Renewable Energy Holdings, Inc. In connection with the proposed merger, Pacific Ethanol has filed with the Securities and Exchange Commission a registration statement on Form S-4 that includes a definitive joint proxy statement of Pacific Ethanol and Aventine that also constitutes a prospectus of Pacific Ethanol. The definitive joint proxy statement/prospectus will be delivered to the stockholders of Pacific Ethanol and Aventine.

INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE DEFINITIVE JOINT PROXY STATEMENT/PROSPECTUS AND OTHER DOCUMENTS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION CAREFULLY AND IN THEIR ENTIRETY BECAUSE THEY CONTAIN IMPORTANT INFORMATION.

This communication does not constitute an offer to sell or the solicitation of an offer to buy any securities or a solicitation of any vote or approval.

Investors and security holders may obtain free copies of the registration statement and the definitive joint proxy statement/prospectus and other documents filed with the Securities and Exchange Commission by Pacific Ethanol through the website maintained by the Securities and Exchange Commission at http://www.sec.gov. Copies of the documents filed with the Securities and Exchange Commission by Pacific Ethanol are also available free of charge on Pacific Ethanol's internet website at www.pacificethanol.com or by contacting Pacific Ethanol's investor relations agency, LHA, at (415) 433-3777.

Pacific Ethanol, Aventine, their respective directors and certain of their executive officers and employees may be considered participants in the solicitation of proxies in connection with the proposed transaction. Information about the directors and executive officers of Pacific Ethanol is set forth in the definitive joint proxy statement/prospectus. Additional information regarding the participants in the proxy solicitations and a description of their direct and indirect interests, by security holdings or otherwise, is contained in the definitive joint proxy statement/prospectus filed with the above-referenced registration statement on Form S-4.

A more complete description is available in the registration statement and the definitive joint proxy statement/prospectus.

Founded in 2003

First pure play public ethanol company – NASDAQ: PEIX

Four strategically located bio-refineries in the Western US with combined operating capacity of 200 MGY

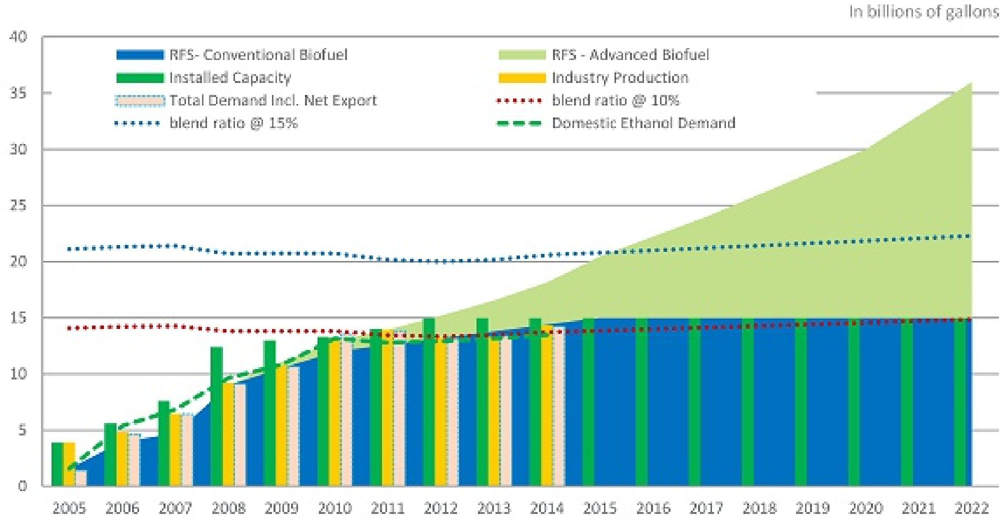
With production and marketing selling over 500 MGY

Current feedstock: corn, sugar, milo & waste beverage products

Developing cellulosic and other advanced biofuel technologies

Renewable Fuel Standard

Renewable Fuel Standard (RFS) vs. Installed Capacity[1]



(1) Source: PEIX

- Breaching the blend wall
- Only Federal fuels policy to reduce greenhouse gas (GHG) emissions
- Need regulatory certainty to secure development of cellulosic ethanol projects

California Low-Carbon Fuel Standard

Pacific Ethanol produces among the lowest carbon intensity ethanol of any commercially available transportation fuel, and receives a premium for its fuel sold in California

The world's first greenhouse gas standard for transportation fuels

- California Air Resources Board (CARB) re-adopting the Low-Carbon Fuel Standard (LCFS) with a final decision expected in the summer of 2015
  - Regulation requires a 10% reduction in carbon intensity by 2020
- CARB evaluating extending the program through 2030 with greater carbon intensity reduction targets for the final 10 years
- Pacific Ethanol has a competitive advantage in meeting the growing demand for low-carbon fuels

Growing Demand: Ethanol & Co-Products

Providing ongoing economic value

- Ethanol remains cheapest form of octane
- Provides consumers with important choice at the pump

Ethanol in Demand in Export Markets

- Year-to-date exports through March totaled 234 million gallons

Favorable co-product values

- Total exports of 11.3 million metric tons of distillers grains in 2014, representing one-third of domestic production
- Late 2014, China eased import restrictions for distillers grain, reopening a very lucrative market
- Corn oil adds $0.05 per gallon of incremental operating income

Aventine Merger Agreement Highlights

On Dec. 31, 2014 Pacific Ethanol, Inc. and Aventine Renewable Energy Holdings, Inc. announced a definitive merger agreement under which Pacific Ethanol is to acquire all of the outstanding shares of Aventine in a stock-for-stock merger.

Aventine® RENEWABLE ENERGY

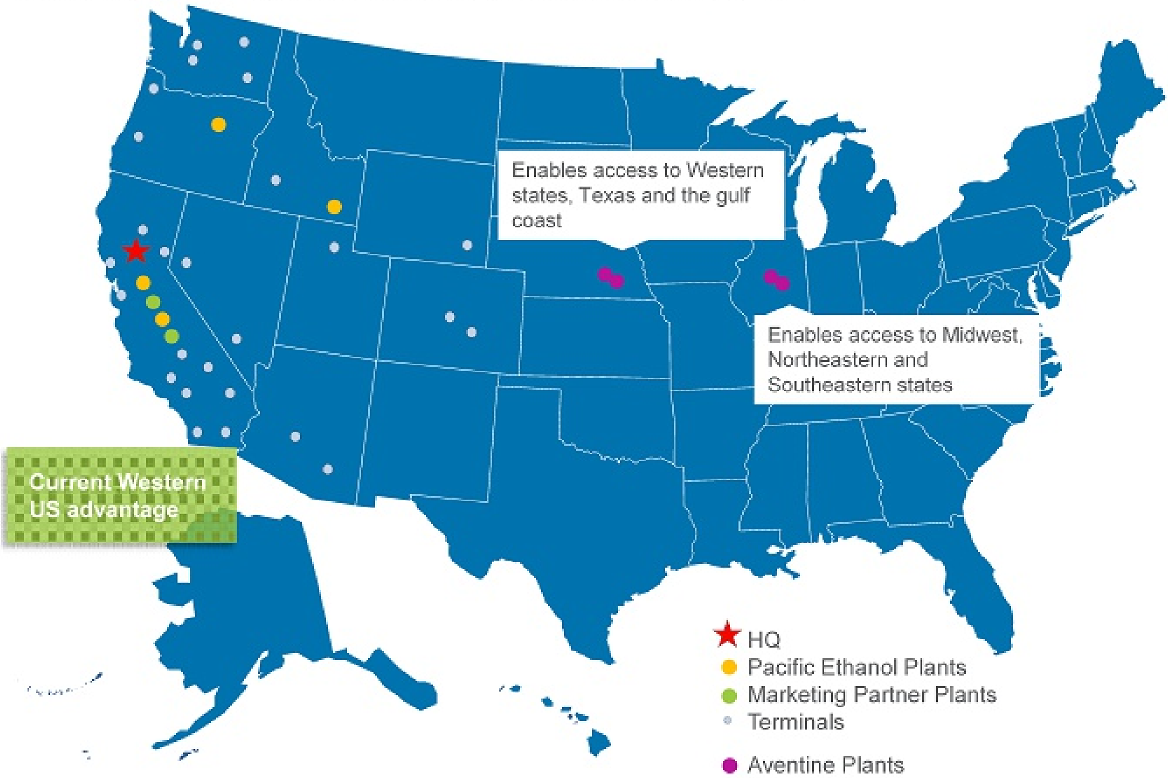
Connects Destination & Origin Market Strategies, Providing Synergies in Production & Marketing

Expands Marketing Reach into New Markets & Extends Co-product Mix

Increases Combined Annual Production Capacity to 515 MGY with Marketing Volume to 800 MGY

Expanding Production & Marketing Advantage

Situated to access markets in 48 states with ethanol production and marketing
Increases marketing volume to over 800 million gallons per year



Adding Strategic Assets

Location	Capacity (MGY)	Production Method	Co-Products
Pacific Ethanol			
Stockton, CA	60	Dry Mill	Wet distillers grain, corn oil
Madera, CA	40	Dry Mill	Wet distillers grain, corn oil
Burley, ID	60	Dry Mill	Wet distillers grain, corn oil
Columbia, OR	40	Dry Mill	Wet distillers grain, corn oil under construction
Aventine			
Pekin, IL	100	Wet Mill	Dry and wet corn gluten feed, CCDS, yeast, corn germ and corn gluten meal
Pekin, IL	60	Dry Mill	Dry distillers grain and corn oil
Aurora, NE	110	Dry Mill	Dry and wet distillers grain and corn oil
Aurora, NE	45	Dry Mill	Dry and wet distillers grain and corn oil
8 Facilities	515		

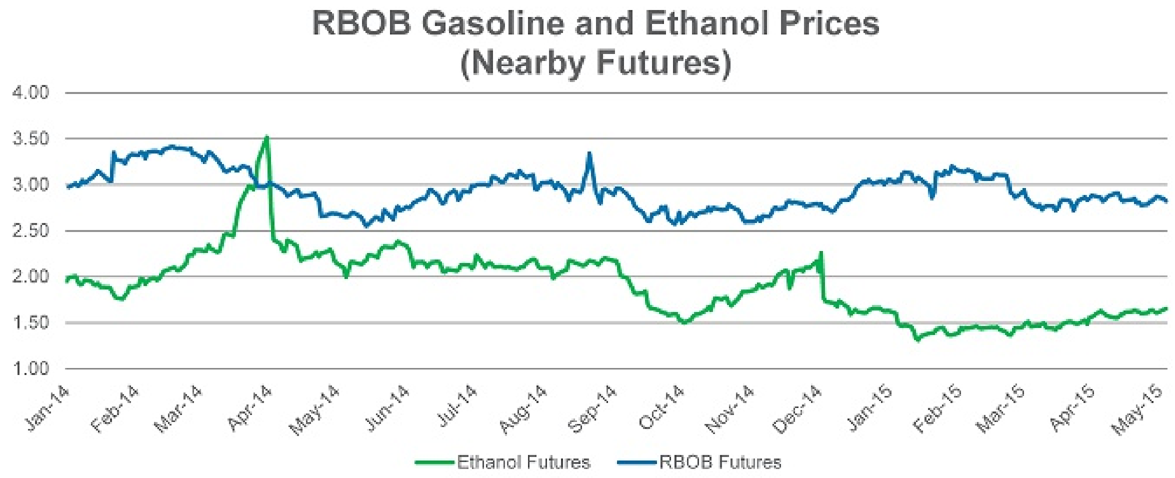
Connecting Destination & Origin Models

Linking destination model & origin model provides several benefits

- Spreads commodity and basis price risks across diverse markets and products enabling optimization of margin management
- Gains deeper market insight and engagement in all major ethanol and feed markets thereby maximizing plant pricing
- Affords new hedging opportunities through a greater exposure to the relatively liquid physical and paper markets in Chicago
- Expands scale, reducing unit costs and increasing market share
- Increases flexibility and optionality in feedstock procurement for Midwest and Western production facilities

Recent Industry Dynamics

- Growing transportation fuel demand
- Improving production margins



Source: CME

Focusing on Long-term Profitability

Diversifying Revenue

- Installing corn oil separation technology
  - Now producing at Madera
  - Expect to begin production in Boardman during Q2

Improving Plant Efficiencies

- Increasing corn yield over time by investing in mechanical technology such as fine grinding & optimizing enzyme & chemical treatments
- Many additional projects in various phases of development aimed at reducing production costs

Strategy for Advanced Biofuels

Moving toward producing next-generation renewable fuels

In development to construct facility to produce cellulosic industrial sugars

Working to convert corn fiber into cellulosic ethanol – qualified by the EPA as a cellulosic feedstock under the RFS

Running pilot program for anaerobic digestion

Evaluating wheat straw production at Magic Valley & implementing cogeneration in Stockton

Financial Overview

Consolidated Statements of Operations

(Figures below in thousands, except per share amounts)

	Q1'14	Q2'14	Q3'14	Q4'14	Q1'15
Net sales	$ 254,543	$321,144	$ 275,573	$ 256,152	$ 206,176
Gross profit (loss)	38,545	33,576	17,986	18,378	(987)
SG&A	3,670	4,315	4,392	4,731	4,905
Operating income (loss)	34,875	29,261	13,594	13,647	(5,892)
Fair value adjustments	(35,844)	485	(4,378)	2,205	(173)
Interest expense, net	(4,351)	(2,886)	(1,133)	(1,068)	(1,015)
Loss on extinguishments of debt	—	(2,363)	—	—	—
Other expense, net	(227)	(335)	(172)	(171)	(129)
Provision (benefit) for income taxes	3,270	7,196	3,163	1,508	(2,700)
Consolidated net loss	(8,817)	16,966	4,748	13,105	(4,509)
Net loss to common stockholders	$ (11,138)	$15,257	$ 3,706	$ 12,199	$ (4,692)
Net loss per share, diluted	$ (0.69)	$ 0.68	$ 0.15	$ 0.50	$ (0.19)
Adjusted Net Earnings (Loss) (1)	$ 24,706	$17,135	$ 8,084	$ 9,994	$ (4,519)
Adjusted Net Earnings (Loss) per share, diluted(1)	$ 1.53	$ 0.77	$ 0.33	$ 0.41	$ (0.19)
Adjusted EBITDA(1)	$ 35,395	$27,823	$ 15,454	$ 16,330	$ (2,694)

(1) Reconciling tables for Adjusted Net Earnings (Loss) and Adjusted EBITDA are available on slide 20 of the presentation

Balance Sheet Highlights

(Figures below in thousands)

	March 31, 2015	December 31, 2014
Cash & cash equivalents	$ 42,274	$ 62,084
Current assets	$110,565	$139,551
Total assets	$275,225	$299,502
Current liabilities	$ 22,839	$ 25,447
Total liabilities	$ 61,328	$ 81,520
Stockholders' equity	$213,897	$217,982
Total liabilities & stockholders' equity	$275,225	$299,502

Growth Opportunities

Close Aventine Renewable Energy merger (expected Q2'2015)

Integrate production & marketing supply chains

Improve efficiencies, lower the carbon intensity of ethanol produced, create new revenue streams & further advanced biofuels initiatives

Appendix

Use of Non-GAAP Measures

Management believes that certain financial measures not in accordance with generally accepted accounting principles ("GAAP") are useful measures of operations.

The company defines Adjusted Net Earnings (Loss) as unaudited earnings (loss) before fair value adjustments and warrant inducements and gain (loss) on extinguishments of debt. The company defines Adjusted EBITDA as unaudited earnings (loss) before interest, provision for income taxes, depreciation and amortization, fair value adjustments and warrant inducements and noncash gain (loss) on extinguishments of debt. Tables are provided at the end of this presentation that provide a reconciliation of Adjusted Net Earnings (Loss) and Adjusted EBITDA to their most directly comparable GAAP measures. Management provides these non-GAAP measures so that investors will have the same financial information that management uses, which may assist investors in properly assessing the company's performance on a period-over-period basis. Adjusted Net Earnings (Loss) and Adjusted EBITDA are not measures of financial performance under GAAP, and should not be considered alternatives to net income (loss) or any other measure of performance under GAAP, or to cash flows from operating, investing or financing activities as an indicator of cash flows or as a measure of liquidity. Adjusted Net Earnings (Loss) and Adjusted EBITDA have limitations as analytical tools and you should not consider these measures in isolation or as a substitute for analysis of the company's results as reported under GAAP.

Non-GAAP Reconciliations

Adjusted Net Earnings (Loss)

(Figures below in thousands, except per share amounts)

	Q1'14	Q2'14	Q3'14	Q4'14	Q1'15
Net income (loss) attributed to common stockholders	$ (11,138)	$ 15,257	$ 3,706	$ 12,199	$ (4,692)
Adjustments: Fair value adjustments & warrant inducements	35,844	(485)	4,378	(2,205)	173
Extinguishments of debt	--	2,363	--	--	--
Adjusted Net Earnings (Loss)	$ 24,706	$ 17,135	$ 8,084	$ 9,994	$ (4,519)
Diluted shares	16,181	22,276	24,307	24,633	24,104
Adjusted Net Earnings (Loss) per share - diluted	$ 1.53	$ 0.77	$ 0.33	$ (0.41)	$ (0.19)

Adjusted EBITDA

	Q1'14	Q2'14	Q3'14	Q4'14	Q1'15
Net Income (Loss) attributed to Pacific Ethanol	$ (10,826)	$ 15,572	$ 4,025	$ 12,518	$ (4,380)
Adjustments: Interest expense*	4,044	2,551	928	967	921
Provision (benefit) for income taxes*	3,270	7,196	3,007	1,637	(2,700)
Extinguishments of debt - noncash	--	--	--	--	--
Fair value adjustments & warrant inducements	35,844	(485)	4,378	(2,205)	173
Depreciation & amortization expense*	3,063	2,989	3,116	3,413	3,292
Total adjustments	46,221	12,251	11,429	3,812	1,686
Adjusted EBITDA	$ 35,395	$ 27,823	$ 15,454	$ 16,330	$ (2,694)

* Adjusted for non-controlling interests